2015 Program Directory for the National Institute on Disability, Independent Living and Rehabilitation Research (NIDILRR)

The mission of the National Institute on Disability, Independent Living, and Rehabilitation Research is to generate new knowledge and promote its effective use to improve the abilities of people with disabilities to perform activities of their choice in the community, and also to expand society’s capacity to provide full opportunities and accommodations for its citizens with disabilities.

The NIDILRR Program Directory is produced by the National Rehabilitation Information Center
Landover, MD

Mark X. Odum
Director

Jessica H. Chaiken
Media and Information Services Manager

Catherine E. Graves
Media Specialist
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NARIC
8400 Corporate Drive, Suite 500
Landover, MD 20785
800/346-2742 or 301/459-5900 (Voice)
or 301/459-5984 (TTY).
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The mission of the National Institute on Disability, Independent Living, and Rehabilitation Research (NIDILRR) is to generate new knowledge and promote its effective use to improve the abilities of people with disabilities to participate in community activities of their choice, and also to enhance society’s capacity to provide full opportunities and accommodations for its citizens with disabilities. NIDILRR conducts comprehensive and coordinated programs of research and related activities to assist in the achievement of the full inclusion, social integration, employment, and independent living of individuals of all ages with all types and degrees of disability, including low-incidence disability.

In October 2014, President Barack Obama signed the Workforce Innovation and Opportunity Act (WIOA). As part of the Act, the Institute was renamed from the National Institute on Disability and Rehabilitation Research (NIDRR) to NIDILRR and moved from the Department of Education to the Administration for Community Living (ACL) at the Department of Health and Human Services (HHS).

This edition of the NIDILRR Program Directory lists all projects funded by NIDILRR during the 2015 fiscal year. Grants awarded prior to October 2014 will include previous grant numbers assigned by the Department of Education as well as current grant numbers assigned by ACL. Grants awarded after October 2014 will only include the ACL-assigned grant numbers.

**NIDILRR’s Research Program**

NIDILRR is committed to maintaining its focus on practical application of knowledge and products from research and development through knowledge translation, capacity building, technical assistance, and information dissemination/utilization to improve the lives of individuals with disabilities and their families. Under the 2013-2017 Long Range Plan (https://federalregister.gov/a/2013-07879), NIDILRR supports a wide range of research, development, and other related activities designed to assist individuals with disabilities to achieve long-term outcomes such as independence, community participation, employment, and good health and well-being.

NIDILRR makes awards through several program mechanisms including the Americans with Disability Act (ADA) National Network Projects, Advanced Rehabilitation Research Training Projects, Disability and Rehabilitation Research Projects, Mary E. Switzer Research Fellowships, Model System Centers Programs, NIDILRR Contracts, Rehabilitation Engineering Research Centers, Rehabilitation Research and Training Centers, and Small Business Innovation Research. Program descriptions are provided below.

**ADA National Network Projects**

NIDILRR funds the ADA National Network to provide ADA-related information, training, and technical assistance to businesses, agencies, and the public, as well as conducting ADA-related research. Presently, ten ADA regional centers and one ADA collaborative research center are funded under this program. Beginning in 2011, NIDILRR funded an ADA National Network Knowledge Translation Center (ADA KT) to support knowledge translation activities of all ADA National Network centers.

**Advanced Rehabilitation Research Training Projects**

The Advanced Rehabilitation Research Training (ARRT) Program provides research training and to qualified persons with doctoral or similar advanced degrees with clinical, management, basic science, or engineering research experience and prepare them to conduct independent research on problems related
to disability and rehabilitation. The program is designed to give postdoctoral trainees the skills needed to become independent rehabilitation/disability researchers (e.g., provide advanced education and training in rehabilitation research to engineers and clinicians), and thereby, to build capacity in the field. Grants are made to institutions to recruit qualified persons, and to provide a training program that includes didactic and classroom instruction in an interdisciplinary environment, emphasizing scientific research methodology. The training may involve collaboration among institutions.

**Disability and Rehabilitation Research Projects**

The Disability and Rehabilitation Research Projects (DRRP) program funds projects that include a range of activities including research, development, demonstration, training, knowledge translation, technical assistance, dissemination, and utilization. These projects may develop methods, procedures, and rehabilitation technology to assist in achieving the full inclusion and integration into society, employment, independent living, family support, and economic and social self-sufficiency of individuals with disabilities, especially individuals with the most significant disabilities, or to improve the effectiveness of services authorized under the Rehabilitation Act.

**Mary E. Switzer Research Fellowships**

The Research Fellowships, named for the late Mary E. Switzer, give individual researchers the opportunity to develop new ideas and gain research experience. There are two levels of fellowships: Distinguished Fellowships and Merit Fellowships. Distinguished Fellowships go to individuals who have seven or more years of research experience in subject areas, methods, or techniques relevant to rehabilitation research and must have a doctorate, other terminal degree, or comparable academic qualifications. Merit Fellowships are given to individuals who have either advanced professional training or independent study experience in an area directly pertinent to disability and rehabilitation but who do not meet the qualifications for Distinguished, usually because they are in earlier stages of their careers. Both fellowship levels support one year of independent research activities.

**Model System Centers Programs**

NIDILRR administers programs that have become world-renowned model system of care for persons with burn injuries, spinal cord injuries, and traumatic brain injuries. The Model System Centers Programs establish innovative projects for the delivery, demonstration, and evaluation of comprehensive medical, vocational, and other rehabilitation services. The work of the Model System Centers begins at the point of injury and ends with successful re-entry into full community life. These projects collect and contribute data on patient characteristics, diagnoses, causes of injury, interventions, outcomes, and costs to a uniform national database; conduct research, both independently and collaboratively with other Model System Centers; and coordinate research efforts with other related grant recipients. Since 2006, NIDILRR has funded a Model Systems Knowledge Translation Center (MSKTC) to support knowledge translation activities of all three Model System Centers Programs.

**NIDILRR Contracts**

Through its contracts, NIDILRR seeks improved methods, systems, products, and practices to enhance its work. The contracts are for specific activities related to management, research, and information dissemination.
Rehabilitation Engineering Research Centers

Rehabilitation Engineering Research Centers (RERCs) conduct programs of advanced research of an engineering or technical nature designed to apply advanced technology, scientific achievement, and psychological and social knowledge to solve rehabilitation problems and remove environmental barriers. Each center is affiliated with one or more institutions of higher education or nonprofit organizations. Involved at both the individual and systems levels, RERCs seek to find and evaluate the newest technologies, products, and methods that ultimately can benefit the independence of persons with disabilities and the universal design of environments for all people of all ages. The centers also exchange technical and engineering information worldwide and engage in technology transfer activities to maximize the use of new technology in producing end-user products, both commercialized and non-commercialized, that are readily available for public consumption. Since 2008, NIDILRR has funded the Knowledge Translation for Technology Transfer (KT4TT) Center to assist RERC grantees in their technology transfer efforts.

Rehabilitation Research and Training Centers

NIDILRR’s Rehabilitation Research and Training Centers (RRTCs) conduct coordinated and integrated advanced programs of research targeted toward the production of new knowledge, which may improve rehabilitation methodology and service delivery systems, alleviate or stabilize disabling conditions, or promote maximum social and economic independence for persons with disabilities. Operated in collaboration with institutions of higher education or providers of rehabilitation or other appropriate services, RRTCs serve as centers of national excellence in rehabilitation research. Also, they are national or regional resources for research information for individuals with disabilities and the parents, family members, guardians, advocates, or authorized representatives of the individuals. These centers also conduct related training programs, including graduate, pre-service and in-service training. The centers also disseminate and promote the utilization of research findings.

Small Business Innovation Research

The purpose of the Small Business Innovation Research (SBIR) program is to stimulate technological innovation in the private sector, strengthen the role of small business in meeting Federal research or research and development needs, increase the commercial application of Federally-supported research results, and improve the return on investment from Federally-funded research for economic and social benefits to the Nation. SBIR grants at NIDILRR help support the production of new assistive and rehabilitation technology. NIDILRR supports Phase I and Phase II SBIR projects. Phase I grants support research that will contribute to proving the scientific or technical feasibility of the approach, concept, or product identified in the proposal. Phase II grants expand on the results of Phase I projects, allowing these businesses to pursue further development and to begin to explore the potential for commercialization.

NARIC and the NIDILRR Program Directory

The Program Directory is compiled by the National Rehabilitation Information Center (NARIC). NARIC functions as a specialized library, providing the public with disability- and rehabilitation-related information and services to help locate those materials and resources. Since 1977, NARIC has been the primary source of rehabilitation and disability information about, and information generated by, NIDILRR-funded projects.
NARIC also produces REHABDATA, a collection of disability and rehabilitation literature produced by NIDILRR grantees as well as commercial publishers. Grantees submit copies of NIDILRR-supported research products to NARIC and they are added to the physical reference collection and online REHABDATA database. Information about holdings is available online at http://www.naric.com.

Neither NARIC nor NIDILRR assumes liability for the Directory’s contents or the use thereof. NARIC does not evaluate or certify the programs or products of the organizations listed in the Directory.

This Directory is not intended for use as a fiscal document to show how NIDILRR funds are allocated; its purpose is to display the range of programs that NIDILRR supports. This listing is current as of December 15, 2015. This directory may include projects that have passed the indicated extension date.

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Employment

As stated in NIDILRR’s Long-Range Plan for 2013-2017, employment and earnings are essential to independence, self-determination, and contribution to society. NIDILRR’s employment research focuses on the lifelong challenges to and opportunities presented by transitions in employment experienced by people with disabilities. Employment research addresses methods to integrate the unique needs of employers and disability populations to improve employment outcomes across the life span. NIDILRR supports centers and projects that address unemployment, underemployment, and unnecessary dependence on public benefits. The research and development activities in this domain examine employment policies and practices, vocational rehabilitation services, and technologies and accommodations that contribute to improved employment and career outcomes for individuals with disabilities.

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Rehabilitation Research and Training Centers (RRTCs)  
Maryland

RRTC on VR Practices for Youth and Young Adults

TransCen, Inc.  
401 North Washington Street  
Rockville, MD 20850  
lowens@transcen.org  
vrpracticesandyouth.org

Principal Investigator: Laura Owens, PhD; Ellen Fabian, PhD (University of Maryland); Todd Honeycutt, PhD (Mathematica Policy Research); 301/424-2002; 301/405-2872; 609/945-3397  
Public Contact: 301/424-2002; Fax: 301/251-3762

Project Number: 90RT5034 (formerly H133B140043)  
Start Date: October 01, 2014  
Length: 60 months  
NIDILRR Officer: Hugh Berry, EdD  
NIDILRR Funding: FY 14 $875,000; FY 15 $875,000; FY 16 $875,000; FY 17 $875,000; FY 18 $875,000

Abstract: The RRTC on Vocational Rehabilitation (VR) Practices for Youth and Young Adults provides a comprehensive, balanced, and rigorous view of the strategies, methodologies, and models of VR service for youth and young adults (Y&YA) with disabilities in the United States. The Center’s activities provide knowledge for ongoing academic analysis, policy development, and in-the-field practice by: (1) analyzing the association between individual and agency level factors and outcomes of transition-age youth seeking VR services; (2) designing, implementing, and testing a data analytic system to support VR agency learning and continuous improvement of service delivery to transitioning youth; (3) evaluating the efficacy and utility of a comprehensive VR-led transition program; (4) identifying characteristics and strategies used by highly effective VR staff in order to develop and test a training resource for promoting highly effective performance; (5) analyzing the role and impact of VR services in inclusive higher education for students with significant disabilities; (6) producing robust and extensive publications of research findings; (7) compiling, creating, and disseminating information on the Center’s research that is accessible and useful to interested stakeholders; and (8) providing training and technical assistance in order to address gaps in knowledge and practice. The Center is a partnership of TransCen, Inc.; University of Maryland-College Park; Mathematica Policy Research, Inc.; and the Institute for Community Inclusion at the University of Massachusetts-Boston, as well as the Council of State Administrators of Vocational Rehabilitation (CSAVR) and other relevant stakeholders to provide a deeper understanding of the knowledge, policies, and practices that enable Y&YA to transition to successful employment and productive careers.
Rehabilitation Research and Training Centers (RRTCs)
Massachusetts

Vocational Rehabilitation and Developing Strategies to Meet Employer Needs in Changing Economic Environments

University of Massachusetts Boston
The Institute for Community Inclusion
100 Morrissey Boulevard
Boston, MA 02125-3393
susan.foley@umb.edu
vr-rrtc.org/demandside

Principal Investigator: Susan Foley, PhD
Public Contact: 617/287-4317

Project Number: 90RT5016 (formerly H133B120002)
Start Date: October 01, 2012
Length: 60 months

NIDILRR Officer: Hugh Berry, EdD
NIDILRR Funding: FY 12 $650,000; FY 13 $650,000; FY 14 $650,000; FY 15 $650,000; FY 16 $650,000

Abstract: This center produces strategies for assessing employer needs and expectations; develops strategic planning models that support state vocational rehabilitation (VR) agency efforts to anticipate and prepare for changing employer and labor market needs; identifies existing programs that may be useful to VR agencies; and produces methods for tracking, analyzing, and reacting to changing employer needs. Research, training, technical assistance, and dissemination activities build upon current knowledge of demand-side strategies and fill a knowledge gap on agency-level practices to address three main themes in improving VR responsiveness to employer needs: (1) integrating labor market and business relations data into business intelligence and strategic planning efforts in Alabama, (2) aligning just-in-time job training with industry needs to ameliorate middle skill labor shortages in Nebraska, and (3) testing an emerging and piloted model in four state VR agencies of “no-risk, low risk” dual customer job placement services created in Vermont. This project is a partnership with the Institute for Community Inclusion at the University of Massachusetts Boston, the Alabama Department of Rehabilitation Services, the Nebraska Vocational Rehabilitation, the Vermont Division of Vocational Rehabilitation, and the New England Council.
Rehabilitation Research and Training Centers (RRTCs)
Massachusetts

Rehabilitation Research and Training Center on Advancing Employment for Individuals with Intellectual and Developmental Disabilities

University of Massachusetts Boston
Institute for Community Inclusion
100 Morrissey Boulevard
Boston, MA 02125
john.butterworth@umb.edu
thinkwork.org/rrtc

Principal Investigator: John Butterworth, PhD; Allison Hall, PhD; 617/287-4357 (Butterworth); 480/264-7215 (Hall)
Public Contact: 617/287-4357; Fax: 617/287-4352

Project Number: 90RT5028 (formerly H133B140026)
Start Date: October 01, 2014
Length: 60 months
NIDILRR Officer: Pimjai Sudsawad, ScD
NIDILRR Funding: FY 14 $875,000; FY 15 $875,000; FY 16 $875,000; FY 17 $874,999; FY 18 $874,999

Abstract: The goal of this RRTC is to address the elements needed to bring integrated employment to scale for all adults with intellectual and developmental disabilities (I/DD). Research suggests that bringing individual and local successes in employment to scale requires an integrated approach that engages all stakeholders in addressing: individual and family expectations and knowledge; employment consultants’ ability to provide high quality individual employment services and supports; community rehabilitation providers’ effectiveness to rebalance resources and transform their organizations to a focus on integrated employment; and states’ effectiveness at implementing policies and practices that establish employment as the first priority across all service systems including vocational rehabilitation, education, and I/DD. The Center (1) develops and tests a comprehensive information, outreach, and support framework for individuals and families; (2) assesses a cost-effective strategy for improving the implementation of employment support practices by integrating online training, data-based performance feedback, and facilitated peer supports; (3) develops and tests an evidence-based intervention to support organizational transformation and rebalancing across networks of community rehabilitation providers; and (4) analyzes state employment systems policies and practices and their relationship to individual outcomes at a multi-agency level and defines policies and practices of high-performing state employment systems. This project includes a cross-stakeholder network of advisors and seven organizational dissemination partners to extend the effectiveness and utilization of project findings and resources. Project partners include The Arc of the United States, the University of Minnesota, the National Association of State Directors of Developmental Disabilities Services, SABE, and APSE. Participation of a cross-stakeholder network of advisors and eight organizational dissemination partners extend the effectiveness and use of project findings and resources.
Rehabilitation Research and Training Centers (RRTCs)
Massachusetts

Rehabilitation Research and Training Center on Improving Employment Outcomes for Individuals with Psychiatric Disabilities

Trustees of Boston University
Center for Psychiatric Rehabilitation
940 Commonwealth Avenue West
Boston, MA 02215-1203
erogers@bu.edu
mfarkas@bu.edu
cpr.bu.edu/research/current-research/rrtc-2014-2019

Principal Investigator: E. Sally Rogers, ScD; Marianne Farkas, ScD
Public Contact: 617/353-3549; Fax: 617/353-7700

Project Number: 90RT5029 (formerly H133B140028)
Start Date: October 01, 2014
Length: 60 months
NIDILRR Officer: Leslie J. Caplan, PhD
NIDILRR Funding: FY 14 $499,596; FY 15 $574,991; FY 16 $574,956; FY 17 $574,959; FY 18 $574,965

Other Funding: FY 14 $375,400 (Substance Abuse and Mental Health Services Administration (SAMHSA)); FY 15 $375,400 (SAMHSA); FY 16 $375,400 (SAMHSA); FY 17 $375,400 (SAMHSA); FY 18 $375,400 (SAMHSA)

Abstract: The goal of this project is to improve employment outcomes through the development of technology; examination of individual and work environment factors associated with improved employment outcomes; and by investigating the effects of government practices, policies, and programs on employment outcomes for individuals with psychiatric disabilities, including those from traditionally underserved groups. To achieve this goal, this project develops a National Resource Center (NRC) on Employment and Vocational Recovery to conduct training, provide technical assistance, and conduct dissemination activities to increase the utilization of research findings targeted to states seeking to implement evidence-based supported employment; to organizations delivering or planning to deliver employment services; and to individuals with psychiatric disabilities, families, employers, providers, administrators, and other key stakeholders. This project is a collaboration between the Center for Psychiatric Rehabilitation, Dartmouth Medical School Psychiatric Research Center, and other organizations from around the nation.
Rehabilitation Research and Training Centers (RRTCs)  
Massachusetts

The Learning and Working During the Transition to Adulthood  
Rehabilitation Research and Training Center

University of Massachusetts Medical School  
SPARC/Department of Psychiatry  
UMMS 55 Lake Avenue  
Worcester, MA 01655  
maryann.davis@umassmed.edu  
labs.umassmed.edu/transitionsRTC  
www.facebook.com/TransitionsRTC  
voices4hope.tumblr.com  
www.youtube.com/user/TransitionsRTC  
twitter.com/transitionsrtc

Principal Investigator: Maryann Davis, PhD  
Public Contact: 508/856-8718; Fax: 508/856-8700

Project Number: 90RT5031 (formerly H133B140040)  
Start Date: October 01, 2014  
Length: 60 months  
NIDILRR Officer: Leslie J. Caplan, PhD  
NIDILRR Funding: FY 14 $874,996; FY 15 $874,993; FY 16 $874,995; FY 17 $874,993; FY 18 $874,993

Abstract: This project focuses on school-to-work transitions with an integrated research program examining this developmental stage for transition-age youth and young adults (Y&YAs) with serious mental health conditions (SMHCs). The Center develops and translates knowledge from state-of-the-art rigorous research on education and work in 14-30 year olds with SMHCs. Research is conducted in real-world settings in partnership with Y&YAs with lived experience and informed by family input to address three critical areas: (1) identifying the range of paths in the transition to employment and the factors that contribute to the variability in educational and working success of Y&YAs with SMHCs; (2) continuing to develop and test interventions with preliminary evidence of efficacy; and (3) continuing to examine the ways in which state vocational rehabilitation, child mental health, and adult mental health agencies can improve employment success within subpopulations of those vulnerable to poor transitions to employment (i.e., young parents and individuals with justice-system involvement). This fundamental research increases capacity-building for service providers, and the movement of findings into practice and policy. The Learning and Working During the Transition to Adulthood Rehabilitation Research and Training Center provides national leadership in this area and shares developing knowledge with key stakeholders including youth and young adults, their families, researchers, policymakers, and practitioners.
Employment for Individuals with Blindness or Other Visual Impairments

Mississippi State University
The National Research and Training Center on Blindness and Low Vision (NRTC)
PO Box 6189
108 Herbert South, Room 150
IED Building
Mississippi State, MS 39762
m.mcdonnall@msstate.edu
www.blind.msstate.edu
www.facebook.com/msu.nrtc
twitter.com/MSU_NRTC
www.ntac.blind.msstate.edu

Principal Investigator: Michele Capella McDonnall, PhD 662/325-2001
Public Contact: 662/325-2001

Project Number: 90RT5040
Start Date: September 30, 2015
Length: 60 months
NIDILRR Officer: Hugh Berry, EdD
NIDILRR Funding: FY 15 $874,947; FY 16 $874,807; FY 17 $874,881; FY 18 $875,853; FY 19 $874,801

Abstract: This project conducts research that generates new knowledge about the efficacy of rehabilitation services and technology used to support employment outcomes for individuals who are blind or visually impaired (B/VI), utilizing multiple stages of research. Research and related training, technical assistance, and dissemination activities contribute to improving competitive employment outcomes for individuals who are B/VI, including subpopulations such as youth, persons who are deaf-blind (DB), and persons with combined traumatic brain injury (TBI) and B/VI. Project 1 is an intervention development project to create an app for parents of youth who are B/VI or DB and youth who are B/VI that will help them focus on the steps they need to take, starting early in the youth’s life, to obtain employment upon completion of their education, including a checklist of age-appropriate activities that should be accomplished to aid in the transition process. Project 2 is an intervention efficacy project that involves adding a guided job search component to an existing summer work experience program conducted by a vocational rehabilitation (VR) agency with youth in their local community. This modification is supported by research that indicates finding a job independently is associated with better employment outcomes later, whereas sponsored work activities are not beneficial. Project 3 evaluates the effectiveness of different approaches to a first meeting between a VR representative and an employer. This intervention efficacy project evaluates the ability of four different approaches to change attitudes and intent to hire. Project 4 implements and evaluates the effectiveness of an evidence-based approach to VR counselor training on working with businesses. Project 5 is an exploratory study, surveying with individuals with B/VI to identify factors that helped them retain their jobs and a survey with VR agencies to explore policies for job retention cases. Analyses with RSA-911 and survey data explores job retention cases nationally and evaluates the impact of agency policies on consumer employment outcomes. Case studies provide more in-depth information. Project 6 is an exploratory study utilizing two large secondary databases to increase our knowledge about subpopulations (youth and adults who are DB, persons with combined TBI and B/VI) and the impacts on employment outcomes of changes associated with WIOA legislation.

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Rehabilitation Research and Training Centers (RRTCs)  
New Hampshire

Rehabilitation Research and Training Center on Employment Policy and Measurement

University of New Hampshire  
Institute on Disability  
10 West Edge Drive, Suite 101  
Durham, NH 03824  
andrew.houtenville@unh.edu  
researchondisability.org/epm-rrtc

Principal Investigator: Andrew J. Houtenville, PhD 603/862-4004  
Public Contact: Matthew Gianino 603/862-2300; Fax: 603/862-0555

Project Number: 90RT5037  
Start Date: September 30, 2015  
Length: 60 months

NIDILRR Officer: Hugh Berry, EdD  
NIDILRR Funding: FY 15 $875,000; FY 16 $875,000; FY 17 $875,000; FY 18 $875,000; FY 19 $875,000

Abstract: The Rehabilitation Research and Training Center on Employment Policy and Measurement (EPM-RRTC) supports the disability and policy communities as they take on important policy issues, generating and translating new knowledge about disability employment policy and ways to measure the labor market experiences of people with disabilities. The Center conducts 11 research projects and 12 knowledge translation projects that involve a range of dissemination, training, and technical assistance activities. These research projects support the disability and policy communities in three priority areas by generating new knowledge about the interactions of public programs, assessing the potential impact of SSDI policy reform options, and developing and disseminating innovative, valid, and reliable methods of measuring employment outcomes. Dissemination projects promote access to timely and relevant information through monthly reports that track employment trends in a timely manner, a compendium of state-level policy variables, policy briefs, a journal volume compiling research findings around a unified theme, publications in peer-reviewed journals, and the Center website. Training projects improve the utilization of evidence-based information by increasing the capacity of end users to effectively utilize disability employment policy research and data through monthly webcasts designed to facilitate knowledge translation to practitioners, policy makers, and people with disabilities; a State-of-the-Science conference; presentations at scientific conferences; and a junior researcher training program. Lastly, technical assistance projects further build and cement the utilization of evidence-based information by providing technical assistance to policy and program stakeholders and information/referral services.
Rehabilitation Research and Training Center: Individual-Level Characteristics Related to Employment Among Individuals with Disabilities

Kessler Foundation
Kessler Foundation Research Center
300 Executive Drive, Suite 70
West Orange, NJ 07052
joneil@kesslerfoundation.org
www.researchondisability.org/ic-rrtc

Principal Investigator: John O’Neill, PhD; Purvi Sevak, PhD
Public Contact: 973/324-8387; Fax: 973/324-8373

Project Number: 90RT5017 (formerly H133B120005)
Start Date: October 01, 2012
Length: 36 months
NIDILRR Officer: Hugh Berry, EdD
NIDILRR Funding: FY 12 $850,000; FY 13 $850,000; FY 14 $850,000; FY 15 (No-cost extension through 09/20/2016)

Abstract: This RRTC generates new knowledge regarding the economic disparities of individuals with disabilities and the role of individual characteristics, building upon evidence-based research that improves strategies and interventions for attaining better employment outcomes for the various subpopulations of people with disabilities. This project blends the social model of disability with labor economic theory, adopting the framework of the International Classification of Functioning, Disability and Health focusing on three research domains: health conditions, personal characteristics, and environmental characteristics. The first domain, health conditions, researches the physical and mental characteristics that underlie disability. The second domain researches personal characteristics including demographic characteristics, human capital (education and training), and social capital (an individual’s family, community, and employment relationships). The third domain researches environmental characteristics including accessibility, transportation, the local economy, public policies, and geography. This project conducts research in three phases: Phase 1 - reviewing existing literature and providing comprehensive review of the vocational rehabilitation and social science literature on facilitators and barriers to employment for persons with disabilities; Phase 2 - utilizing existing data from Phase 1 and data from disability-related public programs and national and international surveys to examine the geographic and individual variation within the data supporting identification of individual, social, economic, and environmental barriers and facilitators to employment; and Phase 3 - applying new data to design, implement, and analyze the National Survey on Disability and Employment.
Cornell RRTC on Employer Practices Related to Employment Outcomes Among Individuals with Disabilities

Cornell University
Employment and Disability Institute
School of Industrial and Labor Relations
201 ILR Extension Building
Ithaca, NY 14853-3901
smb23@cornell.edu
www.employerpracticesrrtc.org

Principal Investigator: Susanne M. Bruyère, PhD
Public Contact: 607/255-9536 (V); 607/255-2891 (TTY); Fax: 607/255-2763

Project Number: 90RT5010 (formerly H133B100017)
Start Date: October 01, 2010
Length: 60 months
NIDILRR Officer: Leslie J. Caplan, PhD
NIDILRR Funding: FY 10 $800,000; FY 11 $800,000; FY 12 $800,000; FY 13 $800,000; FY 14 $800,000; FY 15 (No-cost extension through 9/30/2016)

Abstract: This RRTC creates new knowledge of specific employer practices most strongly associated with desired employment outcomes for individuals with disabilities and the prevalence of these practices; increases knowledge about how these practices relate to employer success in hiring, retention, and promotion of individuals with disabilities; and increases the incorporation of these findings into practice and policy by collaborating with employer groups to develop, evaluate, or implement strategies to promote utilization of positive practices as identified by the project. Project goals are reached through a series of 13 research and 14 outreach projects. Specifically, rigorous research is conducted (1) using national survey and administrative data sets with employer variables; (2) focus groups and network-wide surveys with partner employer member organizations; (3) in-depth employer case studies in at least one private and one public employer workplace to identify barriers to best practices implementation, as well as practices that cultivate inclusive climates for people with disabilities; and finally, (4) designing and testing an online employer best practices benchmarking tool based on research results. Through research and outreach projects, this project expands the availability and accessibility of useful information on how employer practices are related to employer success in hiring, retaining, and advancing people with disabilities.
Rehabilitation Research and Training Center on Employment of Individuals with Physical Disabilities

Virginia Commonwealth University
1314 West Main Street
Box 842011
Richmond, VA 23284-2011
kinge@vcu.edu
www.vcurrtc.org

Principal Investigator: Paul Wehman, PhD
Public Contact: Katherine Inge, PhD, OTR 804/828-1851; Fax: 804/828-2193

Project Number: 90RT5035 (formerly H133B130011)
Start Date: October 01, 2013
Length: 60 months
NIDILRR Officer: Hugh Berry, EdD
NIDILRR Funding: FY 13 $873,811; FY 14 $862,741; FY 15 $871,087; FY 16 $874,918; FY 17 $871,129

Abstract: This project is developing and implementing five research studies that directly impact the employment outcomes of individuals with physical disabilities. These studies focus on: (1) technology that improves employment outcomes for individuals with physical disabilities; (2) individual and environmental factors associated with improved employment outcomes; (3) interventions that contribute to improved employment outcomes; (4) effects of government practices, policies, and programs on employment outcomes; and (5) practices and policies that contribute to the improved outcomes for transition-aged youth and young adults with physical disabilities. The activities of this project include: (1) conducting a mixed-method, quasi-experimental study to identify the barriers and facilitators of employment for individuals with physical disabilities and testing the effectiveness of specific knowledge translation strategies used by individuals with physical disabilities to promote the use of employment disability research findings; (2) conducting research on customized employment to identify evidence-based practices that will facilitate the employment of transition-age youth with physical disabilities; (3) conducting research on the employment of veterans with amputation conditions; (4) conducting research to evaluate demand-side employment and a toolkit for use by rehabilitation professionals; 5) studying successful employment and quality of work life after severe disability for individuals with multiple sclerosis and spinal cord injury; and (6) establishing and maintaining a National Resource Center for individuals with physical disabilities and their families that is guided by Rehabilitation Research and Training Center research. This project is a collaboration of Virginia Commonwealth University, the Medical University of South Carolina, and the University of Wisconsin-Madison.
Rehabilitation Research and Training Centers (RRTCs)
Wisconsin

Creating Evidence-Based Vocational Rehabilitation Service Delivery Practices

The Board of Regents of the University of Wisconsin System
Rehabilitation Psychology and Special Education
1000 Bascom Mall, Room 403
Madison, WI 53706
chan@education.wisc.edu
research2vrpractice.org
www.facebook.com/Research2VRpractice
twitter.com/research2vrprac
www.linkedin.com/groups/5155033/profile
research2vrpractice.org/feed
www.youtube.com/user/research2vrpractice

Principal Investigator: Fong Chan, PhD; John Lui, PhD
Public Contact: 608/262-2137

Project Number: 90RT5014 (formerly H133B100034)
Start Date: October 01, 2010
Length: 60 months

NIDILRR Officer: Leslie J. Caplan, PhD

NIDILRR Funding: FY 10 $942,082; FY 11 $918,828; FY 12 $935,201; FY 13 $929,632; FY 14 $939,710; FY 15 (No-cost extension through 9/29/2016)

Abstract: This rehabilitation research and training center for evidence based practice in vocational rehabilitation (RRTC-EBP VR) generates new knowledge related to theory-driven, evidence-based vocational rehabilitation (VR) practice to improve the effectiveness of VR service delivery practice generally, and to improve employment outcomes of subpopulations of VR customers with the lowest outcomes. The project includes three research phases. During the first phase, RSA-911 and related data are analyzed to examine organizational level variables (e.g., state unemployment rates) and individual level data (e.g., race and disability type) to determine personal and environmental interactions and their associations with quality of employment outcomes using multi-level analysis. The second phase includes in-depth case study of two exemplary VR agencies, comparing them with other VR agencies to identify promising practices. In the third phase, the collection of new data fills gaps identified in Phase 1 and 2. Major Phase 3 projects include validating the International Classification of Functioning, Disability, and Health as a VR model; testing a motivational enhancement model for VR; evaluating the effectiveness of a motivational interviewing intervention; and conducting a controlled study on a counselors’ toolkit for incorporating evidence-based VR practices. In addition, Phase 3 includes a national survey to determine readiness of state VR to incorporate evidence-based interventions in service delivery practice.
Disability and Rehabilitation Research Projects (DRRPs)
Georgia

DRRP on Universal Design Practices to Enhance Work Outcomes

Georgia Institute of Technology
Center for Assistive Technology and Environmental Access (CATEA)
490 Tenth Street, NW
Atlanta, GA 30318
jon.sanford@coa.gatech.edu
uddrrp.gatech.edu

Principal Investigator: Jon Sanford
Public Contact: 404/894-1413; Fax: 404/894-9320

Project Number: 90DP0049 (formerly H133A120120)
Start Date: October 01, 2012
Length: 60 months

NIDILRR Officer: Hugh Berry, EdD
NIDILRR Funding: FY 12 $499,962; FY 13 $499,875; FY 14 $499,928; FY 15 $499,972; FY 16 $499,954

Abstract: The goal of this project is to increase knowledge about, availability of, and access to universal design (UD) accommodations to enable employees with disabilities to participate fully in the workplace, enjoy enhanced employment outcomes, and have equal opportunities for advancement. To accomplish this goal, the specific aims of the research activities are to develop new tools to measure UD accommodation practices and workplace participation; utilize these tools to establish an evidence base for UD accommodations to improve work outcomes; and translate that evidence into practice. To accomplish these aims, the project: (1) develops and validates the Workplace Accommodation Rating System and Standards (WARSS), a set of standards and a new rating system for UD accommodations based on the Commercial Building Standards developed by IDEA Center for the Global Universal Design; (2) expands the scope of the Work RERC Workplace Participation Survey, originally developed and validated for workers who use wheelchairs in an office setting, to include workers with all types of limitations, including vision, hearing, mobility, dexterity, speech, and cognition in multiple work settings; (3) describes the relationship between employer accommodation practices and work outcomes; (4) identifies the salient UD accommodation practices that are associated with positive work outcomes for employees with disabilities; and (5) identifies needs and opportunities to develop and disseminate materials about accommodation policies and practices. The DRRP produces new tools for employers and rehabilitation professionals to measure UD and participation in a workplace, including standards for measuring UD in the workplace; an evidence base for UD accommodation practices; and educational and outreach materials in formats that are useful to and usable by employers, industry organizations, rehabilitation professionals, policymakers, and organizations that influence policy including employer practice guidelines, articles in industry trade journals, and evidence-based policy recommendations for policymakers.
Evaluating the Impact of a School-to-Work Collaborative on the Employment Outcomes of Transition-Aged Youth

The Trustees of Indiana University
Indiana Institute on Disability and Community
Indiana University Center for Excellence
Indiana University
1905 North Range Road
Bloomington, IN 47408-9801
tgrossi@indiana.edu
www.iidc.indiana.edu/cclc

Principal Investigator: Teresa Grossi, PhD 812/855-4070
Public Contact: 812/855-6508; Fax: 812/855-9630

Project Number: 90DP0057 (formerly H133A130028)
Start Date: October 01, 2013
Length: 60 months
NIDILRR Officer: Shelley Reeves

NIDILRR Funding: FY 13 $471,327; FY 14 $474,403; FY 15 $474,678; FY 16 $474,314; FY 17 $474,729

Abstract: This project collaborates with state and local partners and the Indiana University’s Center on Community Living and Careers at the Indiana Institute on Disability and Community to evaluate the effects of a school-to-work collaborative on the employment outcomes of transition-age youth with disabilities. The goal of the Collaborative is to provide employment opportunities for transition-age youth by embedding employment resources into the school to focus on employment outcomes and reduce or eliminate duplication of services; specifically, a provider employment specialist who serves as a single point-of-contact representing a coalition of providers serving the Collaborative while overlapping supports with schools to ensure a coordinated and seamless system of transition. Five sites for the study are selected to implement the local collaborative and five additional sites are selected as the control group. Key elements of the local Collaborative include: a single point of contact, development of student personal profiles, self-determination/soft skill training, immersed internship, family training, and benefits counseling with asset development/financial literacy training. Each local Collaborative includes key stakeholders: local vocational rehabilitation counselors or supervisors, community employment/rehabilitation providers, school districts representatives, INSOURCE parent representative, and other representatives that are locally determined. Results from this study provide data for a replicable model both within Indiana and across the country enhancing the employment outcomes for transition-age youth.
Center on Transition to Employment for Youth with Disabilities

TransCen, Inc.
401 North Washington Street, Suite 450
Rockville, MD 20850
lowens@transcen.org
transitiontoemployment.org/index.php

**Principal Investigator:** Laura Owens, PhD; Paul Wehman, PhD  
**Public Contact:** 301/424-2002, ext. 230

**Project Number:** 90DP0007 (formerly H133A100007)  
**Start Date:** October 01, 2010  
**Length:** 60 months  
**NIDILRR Officer:** Leslie J. Caplan, PhD  
**NIDILRR Funding:** FY 10 $649,999; FY 11 $649,999; FY 12 $649,999; FY 13 $649,999; FY 14 $649,999; FY 15 (No-cost extension through 9/29/2016)

**Abstract:** This center provides a comprehensive, balanced, and rigorous view of the strategies, methodologies, and models of transition to employment for youth with disabilities contributing to ongoing analysis, policy development, and in-the-field practice for transition-to-employment services. Project activities include: (1) conducting a systematic review of promising practices for transitioning students with disabilities to employment; (2) conducting a risk modeling of the National Longitudinal Transition Study and developing a prediction model for successful transition to employment; (3) analyzing data from a standardized transition-to-employment program serving primarily minority urban youth to identify factors explaining work outcomes, and to identify demographic and service characteristics that predict employment success; (4) identifying characteristics and perceptions of staff of a standardized national program serving primarily minority youth with disabilities that explain employment outcomes; (5) identifying factors that enable schools to effectively serve youth with intellectual and developmental disabilities preparing for and transitioning to ongoing supported employment service; (6) implementing and studying a transition service model and applying this model across school districts and across categories of youth that features paid work, early vocational rehabilitation case initiation, and multi-party collaboration prior to school exit; (7) producing publications of research findings; and (8) compiling, creating, and disseminating training and technical assistance materials based on the center’s research in order to address gaps in knowledge and practice.
TEST - Translating Evidence to Support Transitions: Improving Outcomes of Youth in Transition with Psychiatric Disabilities by Use and Adoption of Best Practice Transition Planning

University of Massachusetts Medical School
55 Lake Avenue North
Worcester, MA 01655-0002
marsha.ellison@umassmed.edu

Principal Investigator: Kathleen Biebel, PhD; Marsha Ellison, PhD
Public Contact: 508/856-2816

Project Number: 90DP0080
Start Date: September 30, 2015
Length: 60 months
NIDILRR Officer: Pimjai Sudsawad, ScD
NIDILRR Funding: FY 15 $149,707; FY 16 $149,248; FY 17 $149,789; FY 18 $149,936; FY 19 $149,877

Abstract: The goal of this project is to increase use and adoption of best practices in planning the transition of high school students to postsecondary employment and/or school enrollment; specifically, students with emotional behavioral disturbance (EBD) receiving special education services. This includes transition planning with the ultimate goal to improve postsecondary outcomes for this population through knowledge translation, testing, and dissemination of NIDILRR-funded research findings. The project develops materials, procedures, and guides for implementing three research-informed best practices in high school transition planning: (1) written goals for a concentration of career and technical coursework during high school, (2) student-led transition planning efforts, and (3) representation of adult-serving disability agencies and colleges on transition teams. The TEST project is guided by the National Implementation Research Network Stage-based Implementation Framework and has five project objectives that correspond to this framework: (1) Developing research-informed materials and procedures for use by transition planning teams that are tailored to youth with EBD in close coordination with end-users and a stakeholder team; (2) pilot-testing resulting TEST procedures and materials in one school district with an implementation stakeholder team, finalizing TEST procedures and materials; (3) providing TEST implementation support and technical assistance to transition teams in one state and developing a TEST implementation guide; (4) presenting TEST best practices and the implementation guide at a national capacity building institute for high school special education transition planning teams; and (5) widely disseminating TEST materials. Project outcomes include the development of guides and curricula for practicing and implementing best practices in transition planning for students with EBD and the wide-scale adoption and use of TEST practices, improving employment and education outcomes for students with EBD. This project is led by the University of Massachusetts Medical School’s Transitions Research and Training Center and the Systems and Psychosocial Advances Research Center. This project also benefits from assemblage of prominent organizations and individuals with expertise in adoption and use of best practices for transition support for students with disabilities, knowledge translation, research on transition, and local transition efforts.
Development Center to Enhance Evidence-Based Supportive Employment with a Technology-Based Management System

Trustees of Dartmouth College
Dartmouth Psychiatric Research Center
Rivermill Commercial Center, Suite B4-1
Lebanon, NH 03766
sarah.e.lord@dartmouth.edu

Principal Investigator: Sarah E. Lord, PhD
Public Contact: 603/448-0263

Project Number: 90DP0052 (formerly H133A120164)
Start Date: October 01, 2012
Length: 60 months
NIDILRR Officer: Hugh Berry, EdD
NIDILRR Funding: FY 12 $496,422; FY 13 $499,576; FY 14 $499,107; FY 15 $499,412; FY 16 $498,886

Abstract: This project develops a range of technology-based products as part of an overall platform, called the Individual Placement and Support (IPS) Management System, to enhance the availability, consumer-centeredness, service quality, expansion, effectiveness, and efficiency of vocational services for people with serious mental illness on a national scale. The IPS model of supported employment is firmly established as the most effective practice to help people with serious mental illness become employed and succeed as steady workers. The IPS Management System builds on existing technology and evidence-based components that are not yet computerized. It includes a variety of tools to help consumers, families, vocational rehabilitation counselors, employers, employment specialists, mental health teams, supervisors, and administrators. The tools are iteratively developed and tested for acceptability and usability using methods that have been empirically proven in the development of treatment technology. Examples of these tools include: consumer-empowering software to enable consumers to build their own career profiles and job plans, information on disability benefits and employment for families, IPS training for vocational rehabilitation counselors, information for employers on the advantages of hiring IPS participants, job development tracking systems for employment specialists, IPS training for mental health teams, and management systems for supervisors and administrators.
Manual and Training Program to Promote Career Development Among Transition Age Youth and Young Adults with Psychiatric Conditions

Rutgers, The State University of New Jersey
Department of Psychiatric Rehabilitation and Counseling Professions
1776 Raritan Road, Room 313
Scotch Plains, NJ 07076
mullenmi@shrp.rutgers.edu

Principal Investigator: Michelle G. Mullen-Gonzalez
Public Contact: 908/889-2513; Fax: 908/889-2701

Project Number: 90DP0063 (formerly H133A130092)
Start Date: December 23, 2013
Length: 48 months
NIDILRR Officer: Leslie J. Caplan, PhD
NIDILRR Funding: FY 13 $499,954; FY 14 $499,145; FY 15 $499,951; FY 16 $499,998

Abstract: This project develops, evaluates, and implements an innovative career development intervention, Helping Youth on the Path to Employment (HYPE), a manual and training program to integrate Supported Education (SEd) with Supported Employment (SE) and other vocational services in order to adequately support transition-age youth and young adults (TAYYA) with psychiatric conditions in achieving self-sufficient lives. HYPE is a comprehensive, integrated career development intervention for TAYYA with psychiatric conditions that can be implemented across a variety of settings. A manualized model that is guided by a National Advisory Council (NAC) and Participatory Action Committee (PAC) consisting of young adults and youth with lived experiences is informed by the findings of four activities of the development program: (1) a scoping literature review; (2) an innovative practices survey; (3) qualitative interviews with TAYYA to learn about the practices that promote career development, obstacles commonly faced, and critical times for service delivery; and (4) activity synthesis and consensus conference where all activity findings are integrated and vetted through the NAC and PAC in order to reach consensus agreement regarding the critical features of career development for TAYYA. The manual addresses strategies for meeting common challenges such as cognitive deficits, substance abuse, and legal involvement, as well as how to integrate SE and SEd interventions that specifically target TAYYA. The manual also features a training materials section to prepare staff in providing career development services for young adults and youth. This project is a collaboration of the University of Medicine and Dentistry of New Jersey (UMDNJ) Department of Psychiatric Rehabilitation and Counseling Professions and the University of Massachusetts Medical School Transitions Research and Training Center.
The Diversity Partners Intervention: Moving the Disability Employment Needle Through Value Added Relationships Between Talent Acquisition Providers and the Business Community

Cornell University
201 Dolgen Hall
Ithaca, NY 14853-3901
ws283@cornell.edu

Principal Investigator: Wendy Strobel Gower
Public Contact: 607/255-6751; Fax: 607/255-2763

Project Number: 90DP0065 (formerly H133A140011)
Start Date: October 01, 2014
Length: 60 months
NIDILRR Officer: Shelley Reeves
NIDILRR Funding: FY 14 $499,999; FY 15 $499,999; FY 16 $499,999; FY 17 $499,999; FY 18 $499,999

Abstract: This project develops and evaluates the Diversity Partners Intervention (DPI) to augment the knowledge, skills, and behaviors of general placement professionals (GPPs) and disability placement professionals (DPPs) for the purpose of improving employment outcomes for people with disabilities. DPI prepares GPP and DPP provider organizations in the development of organizational practices and policies which support meaningful relationships with employers and aids in the development and testing of intervention tools designed to provide on-going support to placement professionals in their daily practice. The DPI enables placement professionals to build relationships with employers by adding value to employers’ efforts to hire and fully include employees with disabilities. Placement professionals improve their knowledge of best practice around all aspects of employing people with disabilities; strengthening their ability to engage employers around hiring and retaining employees with disabilities; and helping employers to build disability-inclusive organizational cultures and practices that support their on-going recruitment, hiring, retention, and career advancement of people with disabilities. The project also creates systems and tools to support national dissemination and broad adoption of these tools in provider organizations within the context of their work and their local communities.
Translate and Adapt VR Assessment Tools into ASL

Wright State University
Boonshoft School of Medicine
PO Box 927
Dayton, OH 45410-0927
josephine.wilson@wright.edu

Principal Investigator: Josephine F. Wilson, DDS, PhD
Public Contact: 937/775-1484

Project Number: 90DP0067 (formerly H133A140053)
Start Date: October 01, 2014
Length: 60 months
NIDILRR Officer: Shelley Reeves
NIDILRR Funding: FY 14 $489,988; FY 15 $489,999; FY 16 $489,998; FY 17 $489,995; FY 18 $489,956

Abstract: This goal of this project is to improve vocational rehabilitation (VR) services and enhance employment outcomes for individuals who are Deaf. The project: (1) translates and adapts widely used VR instruments into American Sign Language (ASL) and validates these assessment tools for use with VR consumers who are Deaf; (2) develops a vocational assessment instrument in ASL designed specifically for use with Deaf VR consumers; (3) develops online access to these ASL-based VR assessment instruments for Deaf consumers; (4) evaluates the feasibility, usability, and adoption of online assessment resources by VR counselors and consumers who are Deaf and hard-of-hearing; and (5) promotes utilization of DRRP-developed ASL resources to state and territorial VR agencies with a targeted knowledge translation strategy.
Project CAREER: Development of an Interprofessional Demonstration to Support the Transition of Students with Traumatic Brain Injuries from Postsecondary Education to Employment

Kent State University
Center for Disability Studies
414 White Hall
PO Box 5190
Kent, OH 44242
prumrill@kent.edu

Principal Investigator: Phillip D. Rumrill, Jr., PhD, CRC
Public Contact: 330/672-2294

Project Number: 90DP0062 (formerly H133A130066)
Start Date: October 01, 2013
Length: 60 months
NIDILRR Officer: Leslie J. Caplan, PhD

NIDILRR Funding: FY 13 $474,945; FY 14 $474,917; FY 15 $474,968; FY 16 $474,947; FY 17 $474,945

Abstract: Project Career is an inter-professional development project to improve the employment success of undergraduate college and university students with traumatic brain injury (TBI). This project develops, tests, and implements a technology-driven, long-term, and resource-rich individualized support program by merging assistive technology (AT) for cognition (e.g., Cognitive Support Technology [CST]) and a collection of vocational rehabilitation (VR) services and supports to improve career readiness and employment outcomes of civilian and veteran students with TBI participating in and graduating from postsecondary two- and four-year colleges and universities. In a collaborative venture, Kent State University, JBS International, Inc., West Virginia University, and Boston University implement this project, providing services and supports to a minimum of 150 civilian and veteran students with TBI at all stages of postsecondary education. iPads, provided to each participating student, are used as a CST device and as a virtual platform to provide coaching, education, counseling, and career mentoring services. Additional services include field-based internship placements, and support for post-graduation job placement. Guided by stakeholders including people with TBI, those in the allied health and rehabilitation professions, employers, and CST experts, the following full range of services and supports are included: (1) Comprehensive assessment and planning of (a) students’ needs, readiness, and preferences for CSTs to compensate for cognitive limitations, and (b) students’ vocational goals and preferences; (2) individualized CSTs targeted toward the needs and capabilities of each student; (3) training in the use of the iPad and the specific CSTs; (4) an electronic-mentoring (e-mentoring) program based on a peer support model; (5) individualized vocational case management services provided by Certified Rehabilitation Counselors; (6) assistance in securing field-based internships; (7) a resource-directed job placement and accommodation planning seminar focused on technology transfer, self-advocacy, and professional networking; and (8) post-graduation follow-along employment support provided by Certified Rehabilitation Counselors.
Successful Employment and Quality Work Life After Severe Disability Due to Spinal Cord Injury

Medical University of South Carolina
College of Health Professions
Department of Health Science and Research
77 President Street, Suite C101
MSC 700
Charleston, SC 29425
swayngim@musc.edu
academicdepartments.musc.edu/chp/Health_Employment_Longevity_Project/
Beyond90Days/funded_projects/successful_employment/index.htm
www.sciandbiresearch.blogspot.com
www.facebook.com/longevityafterinjuryproject
www.linkedin.com/groups/MUSC-Longevity-after-Injury-Project-5043886?trk=myg_ugrp_ovr

Principal Investigator: James S. Krause, PhD 843/792-1337
Public Contact: Karla Swayngim Reed 843/792-7051; Fax: 843/792-5649

Project Number: 90DP0050 (formerly H133A120122)
Start Date: October 01, 2012
Length: 60 months

NIDILRR Officer: Hugh Berry, EdD
NIDILRR Funding: FY 12 $499,805; FY 13 $499,412; FY 14 $498,646; FY 15 $499,195; FY 16 $499,790

Abstract: The purpose of this project is to perform a state-of-the-art study of employment after spinal cord injury (SCI) to identify factors related to successful employment throughout the life cycle. Research and service delivery models of employment after disability typically focus heavily on transition or return to work, rather than a focus on maintaining employment, advancing in career, and maximizing earning potential. This is a two-stage research study beginning with a qualitative component that elicits factors related to successful employment from the perspective of stakeholders with SCI, including those who have had highly successful careers. A large-scale, quantitative study, incorporating the qualitative findings and input from advisory panels is used to develop econometric models of participation in employment and quality employment outcomes throughout the work life cycle. The project includes an integrated program of dissemination, training, and technical assistance to ensure the new knowledge generated may be translated into policy and practice.
Facilitating Employment for Youth with Autism: A Replication Study of an Internship Model to Identify Evidence Based Practices

Virginia Commonwealth University
VCU ASD Career Links
PO Box 842011
Richmond, VA 23284-2011
pwehman@vcu.org

Principal Investigator: Paul Wehman, PhD
Public Contact: 804/828-1852

Project Number: 90DP0051 (formerly H133A120140)
Start Date: October 01, 2012
Length: 60 months

NIDILRR Officer: Leslie J. Caplan, PhD

NIDILRR Funding: FY 12 $499,995; FY 13 $489,085; FY 14 $499,466; FY 15 $497,639; FY 16 $497,639

Abstract: This project is designed to determine the efficacy of a nine-month hospital-based internship intervention for transitioning young adults with autism spectrum disorders (ASD). This internship program, based on the Project SEARCH model, is currently being tested and evaluated in a randomized clinical trial at two Bon Secours Hospitals in Richmond, Virginia. This project replicates this intervention in two new Virginia hospitals: one in Northern Virginia and one in the Norfolk area. The intervention consists of two components: (1) 900 hours of onsite training over 9 consecutive months at the host hospital site, and (2) training and support provided by employment specialists with expertise in autism, applied behavior analysis, supported employment, and business networking. Data collection focuses on a number of key measures when comparing the outcomes of the youth participating in the randomized clinical trials. First, did the young adults with ASD obtain and retain competitive employment? Second, did they earn a commensurate wage (at least minimum wages) and benefits? Third, how many hours per week were they employed? This project is a collaboration of Virginia Commonwealth University’s Department of Physical Medicine and Rehabilitation and the Virginia Department of Aging and Rehabilitative Services.
VR-ROI Project: Estimating Return on Investment in State Vocational Rehabilitation Programs

University of Richmond
Robins School of Business
28 Westhampton Way
Richmond, VA 23173
rschmidt@richmond.edu
vrroi.org

Principal Investigator: Robert Schmidt, PhD; Joseph M. Ashley, RhD, CRC; 804/289-8569 (Schmidt); 804/662-7624 (Ashley)
Public Contact: 804/289-8569

Project Number: 90DP0070 (formerly H133A140095)
Start Date: October 01, 2014
Length: 60 months
NIDILRR Officer: Hugh Berry, EdD
NIDILRR Funding: FY 14 $499,856; FY 15 $499,902; FY 16 $499,530; FY 17 $499,819; FY 18 $499,771

Abstract: This project examines of the return on investment (ROI) in eight state vocational rehabilitation (VR) programs. ROI information for the state-federal VR program is increasingly seen as a way to demonstrate the effectiveness of VR. Recent years have seen substantial growth in the numbers of ROI studies of state VR programs. However, the analytic methods, time periods covered, and data used in existing VR ROI studies have varied widely. Most recent analyses have serious shortcomings that limit the credibility and utility of their results. This project refines and tests existing ROI models using a more heterogeneous set of state agencies and a more recent cohort of applicants for VR services. The project also tests a "turnkey" approach to ROI analysis that can generate rigorous and credible estimates for any size agency, for individuals with virtually any type of disability, and for different types of VR services. The project includes development of a user-friendly, web-based “ROI Estimator” to allow state agencies to simulate the impact of different VR services on the employment outcomes of VR clients, and to develop ROI estimates for the entire state program. Project activities include VR ROI estimates for specific populations, including youth in transition, individuals with several low-incidence disabilities and individuals with disabilities from minority backgrounds; development and dissemination of training materials for state VR agencies interested in conducting ROI analyses; and training in effective use of both the project’s methodological framework and the agency-specific results produced by the ROI Estimator. This project is a collaboration of the University of Richmond, the Virginia Department for Aging and Rehabilitative Services, the George Washington University, and the University of Arkansas CURRENTS.
Integrated Program to Improve Competitive Employment in Dually Diagnosed Clients

Howard University
Department of Psychiatry
2041 Georgia Avenue, NW
Washington, DC 20060
talim@howard.edu

Principal Investigator: Tanya Alim, MD
Public Contact: 202/865-6611; Fax: 202/865-3068

Project Number: 90IF0085 (formerly H133G140261)
Start Date: October 01, 2014
Length: 36 months
NIDILRR Officer: Shelley Reeves
NIDILRR Funding: FY 14 $200,000; FY 15 $200,000; FY 16 $200,000

Abstract: This study extends the research on the Individual Placement and Support (IPS) model, a well-established evidence-based supported employment model for people with severe mental illness, to people with a dual diagnosis of severe mental illness and opioid use. Individuals who are dually diagnosed with severe mental illness and substance use face multiple barriers to recovery. This group also faces lower employment levels, which is even more pronounced for African Americans in urban areas. The project integrates the IPS model with a highly successful treatment program employing medication-assisted therapy to reduce opioid use, combined with a tailored cognitive behavior therapy approach. Using a randomized controlled design, this study evaluates whether IPS improves employment outcomes over a 12-month period. The project’s secondary goal is to assess whether employment lessens substance use and psychiatric symptoms, and improves quality of life and healthy friendships. A qualitative sub-study examines staff and client experiences with this innovative employment program. This study is being conducted by senior clinician-researchers from the Department of Psychiatry at Howard University in collaboration with Dartmouth University.
Assessing Family Employment Awareness Training (FEAT)

University of Kansas
Beach Center on Disability
1200 Sunnyside Avenue
Haworth Hall, Room 3134
Lawrence, KS 66045
jgross@ku.edu
www.beachcenter.org/families/family_employment_awareness_training/default.aspx

Principal Investigator: Judith M.S. Gross, PhD
Public Contact: 785/864-7601

Project Number: 90IF0058 (formerly H133G130261)
Start Date: October 01, 2013
Length: 36 months
NIDILRR Officer: Hugh Berry, EdD
NIDILRR Funding: FY 13 $199,995; FY 14 $199,997; FY 15 $199,997

Abstract: This project conducts a comparative study to assess the efficacy of the Family Employment Awareness Training (FEAT) knowledge-based intervention in impacting competitive employment outcomes for individuals with significant support needs aged 16-22 years. The aims of this research are to assess the efficacy of this intervention on impacting knowledge/attitude changes (short-term) and behavioral changes (intermediate) over time. Methods include pre- and post-training surveys of attendees and interviews with families regarding employment experiences, including barriers families encounter when seeking competitive employment for their member with significant support needs. Objectives of this project are: To explore how families describe their employment knowledge and expectations, and any influencing factors; to understand the experiences of families as they attempt to obtain and/or maintain employment for their family member with a disability; to identify the barriers families perceive as affecting employment outcomes of their child; and to understand how families overcome barriers to competitive employment.
Project Work Opportunity Through Resource and Capacity Building (WORC): Transition Age African American Youth with Emotional, Intellectual, and Behavioral Disabilities

Southern University and A&M College
Department of Rehabilitation and Disability Studies
230 Blanks Hall
Baton Rouge, LA 70813
kundusubr@aol.com

Principal Investigator: Alo Dutta, PhD, CRC; Ebonee Johnson, PhD, CRC; Madan M. Kundu, PhD, CRC, NCC, LRC

Public Contact: 225/771-2325; 225/771-2335; Fax: 225/771-2293

Project Number: 90IF0062 (formerly H133G130301)
Start Date: October 01, 2013
Length: 36 months

Abstract: This project develops methods and procedures that maximize the full inclusion and integration into society, employment, independent living, family support, and economic and social self-sufficiency of African Americans with emotional, intellectual, and behavioral (EIB) disabilities. The goal of the project, collaboratively designed with Louisiana Rehabilitation Services (LRS), is to construct and validate Project Work Opportunity through Resource and Capacity Building (Project WORC), a service delivery model that has the potential to enable African American transition-age youth with EIB disabilities to achieve five guideposts that can steer families, service systems, and youth through the transition processes: (1) school-based preparatory experiences, (2) career preparation and work-based learning experiences, (3) youth development and leadership, (4) connecting activities and supports such tutoring and mentoring, and (5) family or caring adult involvement. The project evaluates the effect of Project WORC on self-determination to work, stages of change work participation, job-seeking self-efficacy outcome expectation, actual job seeking behaviors, and summer employment outcomes of 220 African American high school students with EIB disabilities who are LRS clients. Special attention focuses on issues such as the importance of exposure to employment, development of independent living skills, and absolute necessity to provide culturally appropriate services. Project objectives are to: (1) offer community-based and self-determined career planning and implementation, (2) provide transition services to move youth from financial dependency to self-sufficiency, and (3) identify modes of integrating needs of employers and youth with disabilities so that quality employment can be achieved.
Treating Hidden Barriers to Employment: Integrated Treatment for PTSD in Supported Employment

Rutgers, The State University of New Jersey
Psychiatric Rehabilitation & Counseling Professions
1776 Raritan Road, Room 312
Scotch Plains, NJ 07076
luwe1@shrp.rutgers.edu

 Principal Investigator: Weili Lu, PhD; William Waynor, PhD
 Public Contact: 908/889-2453

Project Number: 90IF0074 (formerly H133G140147)
Start Date: October 01, 2014
Length: 36 months
NIDILRR Officer: Joseph A. DePhillips
NIDILRR Funding: FY 14 $199,914; FY 15 $199,978; FY 16 $199,986

Abstract: This project evaluates the feasibility and effectiveness of integrated cognitive behavioral treatment (I-CBT), an intervention aimed at enhancing employment among people with psychiatric disabilities and co-morbid post-traumatic stress disorder (PTSD) who are receiving supported employment services. The project adapts an existing evidence-based CBT intervention proven to reduce PTSD symptoms in individuals with psychiatric disabilities, and integrates it into a supported employment program. The goal is to develop an evidence-based program to support individuals with co-occurring psychiatric disabilities and PTSD seeking employment, and address PTSD as a hidden barrier to their success.
Evaluating the Impact of Employment Services in Supportive Housing

Rutgers, The State University of New Jersey
School of Health Related Professions
Department of Psychiatric Rehabilitation and Counseling Professions
40 East Laurel Road
UEC 2136
Stratford, NJ 08084
gaoni@shrp.rutgers.edu

Principal Investigator: Ni Gao, PhD, LCSW
Public Contact: 856/566-2770; Fax: 856/566-6820

Project Number: 90IF0088 (formerly H133G130310)
Start Date: October 01, 2013
Length: 36 months
NIDILRR Officer: Shelley Reeves
NIDILRR Funding: FY 13 $199,826; FY 14 $198,594; FY 15 $197,030

Abstract: This project examines the impact of adding employment services to the supportive housing environment on employment outcomes for people with psychiatric disabilities. Supportive housing has been identified as a complementary program to which supported employment can effectively be added. These services share an overall philosophy and service approach that uses community-based services, supports community inclusion, and provides highly individualized services. Supportive housing also provides a safe and stable environment for individuals with psychiatric disabilities, creating a good foundation on which to build the pursuit of meaningful activities, such as employment. For this project, ten supportive housing program sites participate via cluster randomization to one of two conditions (five programs in each condition): (1) Experimental – with staff trained to provide employment services via an in-vivo coaching method, or (2) Active Control – with staff exposed to basic information regarding the positive impact of work on recovery and the availability of existing community resources. Two hundred individuals with psychiatric disabilities from the enrolled supportive housing programs participate. Research data is collected from participants over a period of 12 months with major data collection at enrollment, 6 months, and 12 months; and brief employment tracking forms completed monthly.
Getting and Keeping People with Disabilities in the Workforce: Negotiating Work, Life, and Disability

Cornell University
ILR School
Employment and Disability Institute
303A Dolgen Hall
Ithaca, NY 14853-3901
lhc62@cornell.edu

Principal Investigator: LaWanda H. Cook, PhD
Public Contact: 607/255-2928; Fax: 607/255-2763

Project Number: 90IF0051 (formerly H133G130136)
Start Date: October 01, 2013
Length: 36 months
NIDILRR Officer: Shelley Reeves
NIDILRR Funding: FY 13 $200,000; FY 14 $200,000; FY 15 $200,000

Abstract: This project examines the strategies and resources used by individuals with disabilities who are successfully employed to negotiate the work and non-work domains leading to longer, more satisfying work lives, and the role of employers and disability service professionals in supporting this. Balance between work and the rest of life is vital to individuals’ employment success and overall well-being. Employees who lack work-life balance (WLB) may experience reduced productivity, decreased job satisfaction, and opt to leave their jobs or exit the workforce altogether rather than struggle to meet competing demands. The project aims to: (1) understand how individuals with disabilities perceive WLB, and its relationship with Quality of Work-Life (QWL); (2) categorize the strategies and resources these individuals utilize to manage their work-life needs; (3) identify the individual and work context factors which facilitate positive WLB for employees with disabilities; and (4) inform and support individuals with disabilities, employers, and service professionals about how to improve the QWL for employees with disabilities. The project utilizes surveys and focus groups with individuals with disabilities in various job sectors, as well as targeted outreach to employers and disability service professionals.
Evaluating the Effectiveness of Online, Portal-Based Vocational Rehabilitation Services

Wright State University
Boonshoft School of Medicine
PO Box 927
Dayton, OH 45410-0927
josephine.wilson@wright.edu
www.med.wright.edu/citar/sardi

Principal Investigator: Josephine F. Wilson, DDS, PhD
Public Contact: 937/775-1484; Fax: 937/775-1495

Project Number: 90IF0081 (formerly H133G140194)
Start Date: October 01, 2014
Length: 36 months

NIDILRR Officer: Hugh Berry, EdD
NIDILRR Funding: FY 14 $199,999; FY 15 $199,988; FY 16 $199,990

Abstract: This project evaluates the effectiveness of online, portal-based vocational rehabilitation (VR) services by comparing the outcomes and cost effectiveness of online VR services with the outcomes and cost effectiveness of traditional VR services offered in Ohio, Illinois, and Kentucky. Many individuals with significant disabilities have limited access to VR services because of physical, cultural, and social barriers, such as mobility issues and communication difficulties. The goal of this portal project is to improve access to VR services and enhance employment outcomes for these individuals with disabilities. Specific aims are to: (1) implement online VR services that are delivered through personal portals that are optimized for use on cell phones, tablets, and computers; (2) compare employment outcomes and cost effectiveness of online and traditional VR services in a randomized controlled trial; and (3) evaluate the feasibility, usability, and adoption of online services by VR counselors and consumers. The long-term goal is to train and encourage VR counselors across the nation to use online technology to provide services to VR consumers when time, distance, and/or disability constrain the delivery of traditional VR services.
Mobile Accommodation Tool: Development, Implementation, and Evaluation

West Virginia University Research Corporation
International Center for Disability Information
886 Chestnut Ridge Road
Morgantown, WV 26506
hendricks@jan.wvu.edu

Principal Investigator: D.J. Hendricks, PhD
Public Contact: 304/293-7186, ext. 160

Project Number: 90IF0097
Start Date: September 30, 2015
Length: 36 months
NIDILRR Officer: Hugh Berry, EdD
NIDILRR Funding: FY 15 $199,897; FY 16 $199,737; FY 17 $199,942

Abstract: The goal of this project is the successful development and deployment of a cloud-based Mobile Accommodation Tool (MAT) for use in the disability field to provide individualized accommodation support. The MAT supports the user by guiding and documenting the good faith efforts made during the interactive accommodation process. Intended users include employers, hiring managers, disability management staff, return-to-work specialists, rehabilitation professionals, and service providers as well as people with disabilities who are seeking work, candidates for employment, or current employees. The MAT contains a downloadable database for storing and exporting individualized accommodation case records, how-to resources for making an accommodation, forms for generating communication between the individual with a disability and the employer representative, and various other tools such as an accommodation checklist to manage the accommodation process. The MAT enables those responsible for accommodating applicants, candidates, and employees with disabilities and aims to demystify the process and minimize common mistakes made during the interactive process. This project is a partnership with the International Center for Disability Information at West Virginia University, the Job Accommodation Network (JAN), and IBM.
Community Living and Participation

NIDILRR is committed to improving the opportunities and abilities of individuals with disabilities to live as integrated members of their communities and to participate in community activities of their choice. NIDILRR supports centers and projects to increase community living and participation through improvements in policy, services and support delivery, assistive technologies, environmental modifications, and person-centered planning and therapeutic interventions. Activities funded in this area are consistent with the underlying principles of the independent living programs authorized under the Rehabilitation Act and the ADA.

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Rehabilitation Research and Training Centers (RRTCs)  
California

Rehabilitation Research and Training Center on Community Living Policy

University of California, San Francisco  
Institute for Health and Aging  
3333 California Street, Suite 340  
San Francisco, CA 94118-0612  
steve.kaye@ucsf.edu  
www.communitylivingpolicy.org

Principal Investigator: H. Stephen Kaye, PhD  
Public Contact: Mel Neri 415/476-5164

Project Number: 90RT5026 (formerly H133B130034)  
Start Date: October 01, 2013  
Length: 60 months

NIDILRR Officer: Phillip Beatty, PhD  
NIDILRR Funding: FY 13 $875,000; FY 14 $875,000; FY 15 $875,000; FY 16 $875,000; FY 17 $875,000

Abstract: This project identifies methods of improving the long-term services and support (LTSS) system in the US, improves data collection on community living policy, and develops a strategic plan for community living research through six broad research studies, knowledge translation (KT), training, technical assistance, and dissemination. Study objectives are to (1) develop a strategic plan for community living research, which involves convening an expert panel to identify and prioritize research questions, and then identifying research strategies that could address these questions; (2) identify promising practices in state LTSS systems, using workgroups to nominate candidate practices, followed by collection and synthesis of research findings on the practices, and then selection of promising practices by an expert panel; (3) conduct an inventory of state LTSS policies, practices, programs, and future plans, which includes surveys of state officials on policies related to access to home- and community-based services (HCBS) and collection of data on participants and expenditures in different HCBS programs in the states; (4) conduct evaluations and case studies, involving (a) the transition to managed LTSS in California; (b) comparisons across local managed LTSS implementations in California; (c) comparisons across managed LTSS and care coordination models implemented in Illinois; and (d) comparisons across model states in worker training standards; (5) conduct basic research on selected topics in community living, involving analysis of national survey datasets to obtain information on (a) trends in family caregiving and the impact of policy on caregiving; (b) supply of and demand for accessible, affordable housing; and (c) state variation in community participation among people with disabilities; and (6) develop methods for improved monitoring of progress in state LTSS systems, which involves needed data elements and strategizing ways of collecting those data and making them available for analysis. A KT effort provides stakeholder input into all phases of the research activities, identifies topics of interest for and approaches to dissemination, and helps create dissemination products. The project’s training activities are centered on developing an online curriculum for personal assistants and caregivers, while a technical assistance network will serve as a conduit between the project’s research and systems at the state level.
Rehabilitation Research and Training Centers (RRTCs)
Illinois

Rehabilitation Research and Training Center (RRTC) on Family Support

The Board of Trustees of the University of Illinois
Institute on Disability and Human Development
1640 West Roosevelt Road
Disability, Health, and Social Policy Building (MC 626)
Chicago, IL 60608
maganas@uic.edu
fsrtc.ahslabs.uic.edu

Principal Investigator: Sandra M. Magaña, PhD; Tamar Heller, PhD; Joe Caldwell, PhD (National Council on Aging)
Public Contact: 312/355-4537

Project Number: 90RT5032 (formerly H133B140046)
Start Date: October 01, 2014
Length: 60 months
NIDILRR Officer: Hugh Berry, EdD
NIDILRR Funding: FY 14 $874,999; FY 15 $874,999; FY 16 $874,995; FY 17 $874,983; FY 18 $874,989

Abstract: The goal of the RRTC on Family Support is to bridge aging and disability research, practice, and policies to generate new knowledge in family supports which contributes to improvements in community living, participation, health and function, and other outcomes for individuals with disabilities from different racial and ethnic backgrounds who are supported by family members. The Center conducts six research projects: (1) Development of a Strategic Plan for Family Support uses a participatory approach to generate and prioritize research topics and questions, an expert panel design to research strategies, and secondary analysis of national data to answer identified questions; (2) Identifying Promising Practices in Family Support Services uses a participatory approach with stakeholders to nominate, investigate, and synthesize promising local and state family support practices that can be disseminated and used more widely; (3) Family Member Roles and Well-Being in Self-Directed Waiver Programs examines the relationship between self-directed waiver program components, family environment, and caregiver well-being; (4) Understanding Experiences, Trends, and Needs in Self-Directed Support Programs uses mixed methods to investigate national trends in self-directed support, and the experience and satisfaction of caregivers in self-directed support programs; (5) Family Support in Managed Care investigates the impact of transitioning from fee-for-service to managed care on families and individuals who receive services; and (6) Parents Taking Action: A Parent Training Program for Latino Families of Children with Autism Spectrum Disorders (ASD) tests the efficacy of an intervention that engages parents of children with ASD in providing education and training to other parents. The Center partners with the Lurie Institute for Disability Policy at Brandeis University, the National Resource Center for Participant-Directed Services at Boston College, the RTC on Community Living at the University of Minnesota, and the National Council on Aging as well as various organizational partners.
Rehabilitation Research and Training Centers (RRTCs)
Kansas

Rehabilitation Research and Training Center on Community Living

The University of Kansas
Schiefelbush Institute for Life Span Studies
Research & Training Center on Independent Living
1000 Sunnyside Avenue, Room 4089
Lawrence, KS 66045-7555
glen@ku.edu
www.rtcil.org

Principal Investigator: Glen W. White, PhD
Public Contact: 785/864-4095 (V); 785/864-0706 (TTY); Fax: 785/864-5063

Project Number: 90RT5015 (formerly H133B110006)
Start Date: October 01, 2011
Length: 60 months
NIDILRR Officer: Pimjai Sudsawad, ScD
NIDILRR Funding: FY 11 $849,810; FY 12 $849,659; FY 13 $849,921; FY 14 $849,941; FY 15 $849,752

Abstract: The goal of the Rehabilitation Research and Training Center on Community Living (RRTC/CL) is to increase the continuity of community living and full community participation of people with disabilities through the development and implementation of scientifically sound, theoretically driven, and evidence-based data analysis and interventions. The RRTC’s 13 core projects represent a comprehensive, integrated, and robust array of activities promoting community participation among people with disabilities. These projects recognize “disability” as an interaction between the characteristics of an individual and his/her environment. Six research projects conduct secondary data analyses to provide a knowledge foundation about how the barriers to and experiences of community living may differ across socio-demographic and geographic groups within the diverse population of individuals with disabilities. Five intervention projects evaluate the efficacy of programs, policies, and practices to improve services and supports that provide community participation opportunities for individuals with disabilities. These interventions address consumer participation needs in the areas of housing, health, recreation, and community and civic involvement. Several of these address the services and supports needed to transition from institutions, nursing homes, and other health and community institutions to the community and to maintain continuity of community living. Project investigators and staff regularly work with consumers with disabilities to incorporate their input on individual projects, as they are planned and implemented. The Center employs and adds to the latest knowledge translation approaches to disseminate research results that target multiple audiences, including advocates, policymakers, and program planners. The goal of the dissemination plan is to translate knowledge to allow scientists, policymakers, consumers, and consumer advocates in the area of disability and independent living to create and maintain greater opportunities for community living and participation of people with disabilities.
Rehabilitation Research and Training Centers (RRTCs)
Minnesota

Research and Training Center on Community Living for People with Intellectual Disabilities

University of Minnesota
The Institute on Community Integration
204 Pattee Hall
150 Pillsbury Drive, SE
Minneapolis, MN 55455-0223
rtc@umn.edu
rtc.umn.edu

Principal Investigator: Amy Hewitt, PhD
Public Contact: 612/624-6328; Fax: 612/625-6619

Project Number: 90RT5019 (formerly H133B130006)
Start Date: October 01, 2013
Length: 60 months
NIDILRR Officer: Dawn Carlson, PhD, MPH
NIDILRR Funding: FY 13 $875,000; FY 14 $875,000; FY 15 $875,000; FY 16 $875,000; FY 17 $875,000

Abstract: The University of Minnesota’s Research and Training Center on Community Living (RTC/CL) conducts research, training/technical assistance, and dissemination activities focused on community living and participation of individuals with intellectual and developmental disabilities (I/DD). Research studies within the RTC/CL include policy and outcome analyses using the largest, most comprehensive data set of individual outcomes for a random sample of adults with ID/DD from 36 geographically representative states; intervention studies related to participation through self-determination, social inclusion, employment, and the direct support workforce in a variety of community living service settings including family and individual homes. The RTC/CL provides a comprehensive training program that has and will continue to develop new generations of competent and skilled disability researchers and professionals. Outreach programs provide training and technical assistance to agencies and individuals across the U.S. The RTC/CL training programs include: (a) the annual Reinventing Quality Conference, (b) presentations at national, regional, and state conferences, (c) a state of the science conference, (d) training and technical assistance with national, state, and local community organizations. The RTC/CL’s College of Direct Support, an acclaimed national interactive internet-based training program, trains over 390,000 direct support personnel each day. The RTC/CL disseminates practical information to targeted varied audiences through nationally recognized video/film productions and publications, including IMPACT, Policy Research Brief, and Frontline Initiative. RTC/CL websites provide access to its various publications and products.
Rehabilitation Research and Training Centers (RRTCs)
Minnesota

Rehabilitation Research and Training Center on Home and Community Based Services Outcomes Measurement

Regents of the University of Minnesota
The Institute for Community Inclusion
111 Pattee Hall
150 Pillsbury Drive, SE
Minneapolis, MN MN 55455-0223
abery001@umn.edu

Principal Investigator: Brian Abery, PhD
Public Contact: 612/624-5592; Fax: 612/624-9344

Project Number: 90RT5039
Start Date: September 30, 2015
Length: 60 months
NIDILRR Officer: A. Cate Miller, PhD
NIDILRR Funding: FY 15 $875,000; FY 16 $875,000; FY 17 $875,000; FY 18 $875,000; FY 19 $875,000

Abstract: The Rehabilitation Research and Training Center on Home and Community Based Services Outcomes Measurement (RRTC/OM) conducts research, training, and technical assistance activities to promote quality outcome measurement in home and community based services (HCBS), working in close alignment with the National Quality Forum (NQF), the Administration for Community Living, and other stakeholders. Research activities identify and prioritize HCBS outcome domains, identify measure gaps and evolve new measures, catalog existing measures and evaluate these for validity and appropriateness, select the best measures for each outcome domain/topic area, test measures for reliability and validity, and assess measures using prioritized risk adjusters. Focus is on cross-disability measures at the individual HCBS recipient, organization, and systems levels gathered directly from people with disabilities or through program administrative and encounter data. Each measure will be prepared and submitted for approval by the NQF. In addition to identifying and testing measures, the RRTC/OM investigates methodological issues with regard to outcome measurement by working with numerous outcome measurement programs to identify existing data collection/reporting methods, evaluate their rigor, and evolve recommendations for preferred data collection and reporting. The RRTC/OM also provides training and technical assistance to federal agencies, states, organizations, and other stakeholders on HCBS quality outcome measurement and systems. These activities include but are not limited to: training on how to use an online searchable database of HCBS measures by domain area, development and implementation of webinars regarding HCBS measurement, and participation in conferences and other coordinated dissemination activities.
Rehabilitation Research and Training Center on Disability in Rural Communities

University of Montana
The University of Montana Rural Institute: A Center for Excellence in Disability Research, Education, and Services
52 Corbin Hall
Missoula, MT 59812-7056
rural@ruralinstitute.umt.edu
rtc.ruralinstitute.umt.edu

Principal Investigator: Tom Seekins, PhD 406/243-2654
Public Contact: Tracy Boehm 888/268-2743 (V); 406/243-5467 (V); 406/243-4200; Fax: 406/243-2349

Project Number: 90RT5025 (formerly H133B130028)
Start Date: October 01, 2013
Length: 60 months
NIDILRR Officer: Joyce Y. Caldwell
NIDILRR Funding: FY 13 $875,000; FY 14 $875,000; FY 15 $875,000; FY 16 $875,000; FY 17 $875,000

Abstract: The Research and Training Center on Disability in Rural Communities (RTC:Rural) at the University of Montana advances the science of rural disability and rehabilitation by finding solutions to rural issues experienced by people with disabilities (PWD) in the areas of health, employment, and community living. Current research and development projects include: Geography of Rural Disability, which uses GIS and national data sources (i.e. American Community Survey and Public Use Microdata Samples) to examine the distribution of PWDs and availability of services in rural communities; Ecology of Rural Disability, which uses longitudinal data to examine how personal and environmental factors impact community participation; Resilience in Community Participation, which studies factors that contribute to active community participation among PWDs; Person-Environment Fit in Rural Communities, which uses real-time assessment data to predict community participation; Measuring Opportunity in Rural Events, which creates a validated measure for assessing the accessibility of rural community events; Rural Contracted Employment Services, which develops recommendations for increasing employment support providers in rural communities by examining variations in provider payments structures; Social Media for Employment, which aims to improve use of online job search and social media strategies to improve rural employment opportunities; Rural Self-Employment Opportunities, which evaluates a process for increasing the skills of vocational rehabilitation counselors in the area of self-employment; Community Accessibility of Rural Environments, which demonstrates how community accessibility data can be used to advocate for community improvement; and Rural Mobile Health Promotion Intervention, which develops a mobile device application to addresses common secondary health conditions. The RTC: Rural Knowledge Translation activities communicate research findings to a broad audience through dissemination, training, and technical Assistance (TA). Dissemination includes publications, conference presentations, print and electronic mailings, websites, and social media. Specific training efforts include a state of the science conference series, development of a rural rehabilitation and disability curricula, mentoring student researchers, a rural policy series, and continued training on established projects. TA includes rapid research response to stakeholder requests and supporting the Association of Programs for Rural Independent Living National Training and TA in rural policy issues.
Rehabilitation Research and Training Centers (RRTCs)
Oregon

Research and Training Center for Pathways to Positive Futures:
Building Self-Determination and Community Living and Participation

Portland State University
Regional Research Institute for Human Services
PO Box 751
Portland, OR 97207-0751
rtcpubs@pdx.edu
www.pathwaysrtc.pdx.edu
twitter.com/pathwaysrtc
www.facebook.com/pathwaysrtc

Principal Investigator: Janet Walker, PhD 503/725-8236
Public Contact: Donna Fleming 503/725-8313; Fax: 503/725-4180

Project Number: 90RT5030 (formerly H133B140039)
Start Date: October 01, 2014
Length: 60 months
NIDILRR Officer: Hugh Berry, EdD
NIDILRR Funding: FY 14 $499,600; FY 15 $499,600; FY 16 $499,600; FY 17 $499,600; FY 18 $499,600
Other Funding: FY 14 $375,400 (Substance Abuse and Mental Health Services Administration (SAMHSA)); FY 15 $375,400 (SAMHSA); FY 16 $375,400 (SAMHSA); FY 17 $375,400 (SAMHSA); FY 18 $375,400 (SAMHSA)

Abstract: This Center conducts research, training, and dissemination activities focused on building self-determination and enhancing community living and participation outcomes in young people with serious mental health conditions (SMHCs). The Center conducts six intervention-based projects: FUTURES tests an approach to improving college retention and success, as well as community participation and self-determination, among first-year college students with SMHCs who are, or have been, in foster care. EASA Connections tests a web-based psychoeducation and decision-aid intervention designed to increase the extent to which young people who are experiencing a first episode of psychosis are engaged and self-determined with regard to their treatment. A third project, Mentee-Nominated Mentoring, is a developmental investigation of a cutting-edge approach to helping young people who have been living in psychiatric inpatient facilities transition back to the community and build social and cultural capital. Two additional projects develop and evaluate interventions designed to increase providers’ skill in working with youth and young adults with SMHCs to increase their self-determination and enhance their community living and participation: Technology-Enhanced Coaching for Positive Development focuses on professional providers and their supervisors, while AMP+: Developing the Young Adult Peer Support Workforce works with young adult peer support providers and their supervisors and agency administrators. Both of these projects employ new technology to improve training, coaching, and supervision. Finally, System/Policy Analysis and Change is focused on understanding key system issues and policy challenges that impede or support accessible and effective services for young adults with SMHCs. This project also examines examples of young adult-led policy change and the challenges young adult advo-
cacy organizations face when they enter the policy arena. Additionally, this RRTC assesses the utilization of Promoting Positive Pathways to Adulthood, a series of online training modules designed for service providers who work with youth and young adults with SMHCs. Collaborations with young people and other stakeholders, including providers, researchers and family members, ensure that interventions are practical and feasible, and that training and dissemination are relevant and useful. This project is also supported by the Substance Abuse and Mental Health Services Administration (SAMHSA).
Rehabilitation Research and Training Centers (RRTCs)
Pennsylvania

Temple University Rehabilitation Research and Training Center on Community Living and Participation of Individuals with Psychiatric Disabilities

Temple University
Department of Rehabilitation Sciences
1700 North Broad Street, Suite 313
Philadelphia, PA 19122
mark.salzer@temple.edu
www.tucollaborative.org
twitter.com/TUCollab
www.youtube.com/channel/UCt3kzmXsMzeaJ5HYhzSdpHA

Principal Investigator: Mark Salzer, PhD
Public Contact: 215/204-7879; Fax: 215/204-3700

Project Number: 90RT5021 (formerly H133B130014)
Start Date: October 01, 2013
Length: 60 months
NIDILRR Officer: Leslie J. Caplan, PhD
NIDILRR Funding: FY 13 $875,000; FY 14 $875,000; FY 15 $875,000; FY 16 $875,000; FY 17 $875,000

Abstract: This project advances the development of interventions that maximize community living and participation of individuals with psychiatric disabilities through research and knowledge translation activities in partnership with consumers and other key stakeholders. This project conducts seven research studies in the areas of technology, individual and environmental factors, and interventions, and includes transition-aged youth. The research includes randomized, controlled designs; cross-sectional studies where structural equation modeling and geographic information systems technology are utilized; and epidemiological methods. This project also conducts three technical assistance, three training, and two dissemination projects.


Rehabilitation Research and Training Centers (RRTCs)
Texas

Developing Strategies to Foster Community Integration and Participation (CIP) for Individuals with Traumatic Brain Injury

The Institute for Rehabilitation and Research (TIRR)
Brain Injury Research Center
2323 South Shepherd, Suite 907
Houston, TX 77030
angelle.sander@memorialhermann.org
www.tbicommunity.org
www.facebook.com/birc.tbicommunity
twitter.com/TBICommunity

Principal Investigator: Angelle M. Sander, PhD
Public Contact: 713/630-0516; Fax: 713/630-0529

Project Number: 90RT5007 (formerly H133B090023)
Start Date: October 01, 2009
Length: 60 months
NIDILRR Officer: Kenneth D. Wood, PhD
NIDILRR Funding: FY 09 $849,956; FY 10 $849,968; FY 11 $849,955; FY 12 $849,966; FY 13 $849,980; FY 14 (No-cost extension through 9/30/2015); FY 15 (No-cost extension through 9/29/2016)

Abstract: This rehabilitation research and training center conducts three research projects and five training projects, providing a comprehensive approach to improving participation in all areas of community integration for all persons with traumatic brain injury (TBI), including minorities. Research Project 1 is a randomized controlled trial of a community-based contextualized intervention to improve memory and memory-related participation activities. This trial compares the effectiveness of a contextualized memory intervention provided in the participant’s home to standard instruction in use of a memory notebook for improving functional memory and community participation. Research Project 2 is a randomized controlled trial of an extended case coordination service to maximize access to and benefit from state vocational rehabilitation services. This trial compares employment outcomes for persons receiving a case coordination intervention to those only receiving a referral for state vocational rehabilitation services. This trial compares employment outcomes for persons receiving a case coordination intervention to those only receiving a referral for state vocational rehabilitation services. Research Project 3 develops a comprehensive list of symptoms of TBI and, based on this list, creates a classification system for persons with TBI utilizing symptoms, barriers, and facilitators for community integration. This system deploys an innovative, user-friendly, web-based application. Training and technical assistance activities facilitate the widespread dissemination of educational materials on evidence-based strategies for improving function and participation after TBI. Training projects focus on increasing capacity for social networking and on providing education to persons with TBI, caregivers, and treating clinicians, in order to maximize community participation. Training is also conducted in use of the classification system to assist researchers and clinicians in allocating persons with TBI to appropriate treatments. Technical assistance activities are also conducted to improve implementation of training activities and to maximize resulting community integration.
Families with Disabilities Through the Life Cycle: Disability Culture

Through the Looking Glass
3075 Adeline Street, Suite 120
Berkeley, CA 94703
tlg@lookingglass.org
www.lookingglass.org

Principal Investigator: Megan Kirshbaum, PhD; Paul Preston, PhD
Public Contact: 800/644-2666 (toll-free voice); 510/848-1112 (V); 510/848-1005 (TTY); Fax: 510/848-4445

Project Number: 90DP0014 (formerly H133A110009)
Start Date: October 01, 2011
Length: 60 months
NIDILRR Officer: Leslie J. Caplan, PhD
NIDILRR Funding: FY 11 $500,000; FY 12 $500,000; FY 13 $500,000; FY 14 $500,000; FY 15 $500,000

Abstract: This project incorporates two inter-related and overarching frameworks for all project activities: (1) to understand and document the life cycle of families with diverse disabilities – from those parents with and without disabilities who are at the initial stages of having an infant with a disability, through children with disabilities growing up to become parents with disabilities, to adults with disabilities caring for their elderly parents; and (2) to use the perspectives of disability and Deaf communities to inform all project activities with an overall goal to increased participation and community living for individuals with disabilities and their families. Project goals focus on research, development, training, technical assistance, and dissemination activities: (1) increase the national availability of accessible and disability-appropriate resources for families with disabilities that incorporate perspectives drawn from diverse personal and family disability experiences across the life cycle; (2) increase families’ and providers’ knowledge about families with disabilities across the life cycle; (3) increase informed practice and informed decisions regarding families with disabilities across the life cycle; and (4) increase state and local legislative and policy changes to decrease discrimination against families with disabilities.

This project targets four national populations: (1) parents and grandparents with diverse disabilities, (2) children with diverse disabilities, (3) members of families in which a parent or child has a disability, and (4) service providers and trainees. Over 5 years the DRRP (1) conducts 7 separate research and 18 new development projects; (2) provides technical assistance to at least 25,000 parents, family members, and providers; (3) conducts focused trainings to 10,000 diverse parents and providers; (4) nationally disseminates at least 200,000 project materials and products consolidated from project activities as well as from other NIDILRR-funded projects. Project activities are designed to address critical gaps in knowledge and resources that impact the daily lives of families with disabilities. Each of these research, development, and training projects target different facets of families with diverse disabilities – from national prevalence and demographics to understanding the perspectives of families at different stages of family formation to discriminatory or uninformed practice.
I-CONNECT PLUS: Enhancing Community Participation for Adolescents and Adults with ASD Using Online Instruction, Coaching, and Accessible Self-Management Technologies

University of Kansas Center for Research, Inc.
Juniper Gardens Children’s Project
444 Minnesota Avenue, Suite 300
Kansas City, KS 66101-2914
dkamps@ku.edu

Principal Investigator: Debra M. Kamps, PhD; Howard Wills, PhD; Rose Mason, PhD; Ben Mason, PhD; Linda Heitzman-Powell, PhD; Jay Buzhardt, PhD; 913/321-3143, ext. 2603

Public Contact: 913/321-3143

Abstract: This project develops I-CONNECT PLUS, a technology-supported instructional system to teach social competence, problem-solving skills, and organizational/self-monitoring skills for adolescents and young adults with Autism Spectrum Disorder (ASD). The project provides remote tele-coaching by community providers, peers, and family members for promoting generalized use; and focuses on the use of self-management and monitoring of outcomes to promote independence and full engagement across settings. This project includes five objectives: (1) developing instructional technology including use of mobile applications (e.g., I-CONNECT PLUS) to teach social competence, problem solving, and organization/self-monitoring skills for adolescents and young adults with ASD; (2) developing tele-coaching materials to generalize skills to community settings; (3) adapting a self-management system to include applicable system features (e.g., skill task analysis, link to instructional modules) for I-CONNECT PLUS; (4) conducting initial pilot trial of the entire I-CONNECT PLUS program; and (5) assessing the feasibility of I-CONNECT PLUS program.
Measurement of Community Participation Using a Computer Adaptive Test (CAT) in Persons with Burn Injuries (PWB)

Trustees of Boston University
715 Albany Street
Talbot Building – T349W
Boston, MA 02118
lek@bu.edu

Principal Investigator: Alan M. Jette, PT, PhD; Lewis Kazis, ScD
Public Contact: Lewis Kazis, ScD 617/414-1418

Project Number: 90DP0055 (formerly H133A130023)
Start Date: October 01, 2013
Length: 60 months
NIDILRR Officer: Kenneth D. Wood, PhD
NIDILRR Funding: FY 13 $475,000; FY 14 $475,000; FY 15 $475,000; FY 16 $475,000; FY 17 $474,999

Abstract: This project develops and evaluates a computerized adaptive test (CAT) metric for assessing outcomes in adults with burn injuries for purposes of assessing community participation during ambulatory outpatient rehabilitation. The Burn Injury Computer Adaptive Test (BI-CAT) is developed by focusing on three domains: social interaction, work re-integration, and sexual function, with the goal of improving long-term community participation and functioning of individuals with burn injuries. A demonstration of BI-CAT provides an evaluation of respondent burden, acceptability to patients and clinicians, precision, sensitivity to change, and validity in outpatients with burn injury who are receiving care from the Boston Harvard – Burn Injury Model System (BHBIMS) at Massachusetts General Hospital (MGH) and Spaulding Rehabilitation Hospital. Comparisons are made between a well-established legacy measure, the Young Adult Burn Outcomes Questionnaire (YABOQ), and BI-CAT over a six-month follow-up period. This project builds on the resources of the BHBIMS, Boston University School of Public Health, MGH Burn Care Unit and Spaulding Rehabilitation Hospital, the National Phoenix Society, American Burn Association, and World Burn Congress.
Disability and Rehabilitation Research Projects (DRRPs)
Massachusetts

Enhancing the Community Living and Participation of Individuals with Psychiatric Disabilities

Trustees of Boston University
Center for Psychiatric Rehabilitation
940 Commonwealth Avenue West
Boston, MA 02215-1203
zlatka@bu.edu
www.bu.edu/SARPSYCH

Principal Investigator: Zlatka Russinova, PhD; E. Sally Rogers, ScD
Public Contact: 617/353-3549; Fax: 617/353-7700

Project Number: 90DP0066 (formerly H133A140032)
Start Date: October 01, 2014
Length: 60 months
NIDILRR Officer: Pimjai Sudsawad, ScD
NIDILRR Funding: FY 14 $494,906; FY 15 $494,829; FY 16 $494,721; FY 17 $494,502; FY 18 $494,474

Abstract: This project includes several studies targeting the development of a new measure of community living and participation for individuals with psychiatric disabilities and the development and effectiveness testing of an innovative peer-led intervention promoting community living and participation in this population, entitled “Bridging Community Gaps Photovoice”. These development activities are informed by a comprehensive exploratory study examining the barriers and facilitators to the community engagement of individuals with psychiatric disabilities. Finally, this project provides training and technical assistance in the use of the “Bridging Community Gaps Photovoice” and widely disseminates the intervention manuals, the new Multi-Dimensional Assessment of Community Participation (MDACP) instrument, and findings from related exploratory research activities.
The Community for All Project to Develop a Series of Six Online Toolkits to Improve Community Living and Participation for People with Intellectual and Developmental Disabilities

Syracuse University
Taishoff Center for Inclusive Higher Education
150 Huntington Hall
Syracuse, NY 13244
wharbour@syr.edu

Principal Investigator: Wendy S. Harbour, PhD
Public Contact: 315/443-1288; Fax: 315/443-4338

Project Number: 90DP0068 (formerly H133A140063)
Start Date: October 01, 2014
Length: 60 months
NIDILRR Officer: Dawn Carlson, PhD, MPH
NIDILRR Funding: FY 14 $420,139; FY 15 $484,055; FY 16 $499,972; FY 17 $495,699; FY 18 $404,305

Abstract: This project develops a six-part toolkit for self-advocates, families, professionals, and policymakers designed to improve community living and participation for people with intellectual and developmental disabilities (I/DD). The toolkits are based on the 2004 Community for All: Resources for Supporting Community Living. The six components are entitled Deinstitutionalization for All (an update of the 2004 toolkit); Self-Advocacy and Choices for All; Community Participation for All; Lifelong Learning for All; Family for All; and Digital Communities for All. Each toolkit consists of downloadable materials, a website, and an app. Development and modification of the toolkits are based on literature, suggestions from participants in Policy Institutes for each toolkit topic area, and recommendations from a technology conference for self-advocates. Annual Design Institutes advise the project regarding universal design and accessibility, and the development of basic computer instruction videos. Each toolkit prototype is field tested in New York with final versions tested nationally. Technical assistance is available throughout the project and there are four planned toolkit trainings. This project is a collaboration between the Center of Human Policy, Law, and Disability Studies; Taishoff Center for Inclusive Higher Education; the University of Delaware; and the Self-Advocacy Association of New York State (SA-NYS).
Understanding and Increasing Supported Decision-Making a Positive Impact on Community Living and Participation Outcomes

Syracuse University
900 South Crouse Avenue
Crouse-Hinds Hall 300
Syracuse, NY 13244-0001
pblanck@syr.edu

Principal Investigator: Peter D. Blanck, PhD, JD
Public Contact: 315/443-9703

Project Number: 90DP0076
Start Date: September 30, 2015
Length: 60 months
NIDILRR Officer: Dawn Carlson, PhD, MPH
NIDILRR Funding: FY 15 $498,978; FY 16 $498,140; FY 17 $499,318; FY 18 $497,152; FY 19 $499,023

Abstract: This project is a collaboration between the Burton Blatt Institute at Syracuse University, the Beach Center/Kansas University Center on Developmental Disabilities, and Quality Trust for Individuals with Disabilities. It creates and tests an intervention using a randomized control trial approach examining whether training individuals with intellectual and developmental disabilities (I/DD), their families, and support networks to use Supported Decision Making (SDM) approach improves life satisfaction and integration in community living and daily life outcomes. In Study 1, researchers use valid and reliable measures to survey study participants in order to determine their decision-making methods, level of self-determination, and life satisfaction outcomes, including community integration. This study investigates decision-making methods that lead to greater self-determination, life satisfaction outcomes, and community integration; and demographic variables, including legal decision-making status, that are associated with self-determination, quality of life outcomes, and community integration. Study 2 is a field-based intervention examining variables to determine the extent in which training in SDM leads to improvements on community participation. Project findings are used to recommend changes in policy and practice with the target population across the life course (i.e., youth in transition, working-age adults, aging population). Knowledge translation activities target policymakers, service providers, persons with disabilities and their families, and supporters, focusing on the impact and benefits of SDM. Materials and technical assistance are customized to target audience learner needs and preferences.
Collaborative on Health Reform and Independent Living

Washington State University
Department of Health Policy and Administration
PO Box 643140
Pullman, WA 99164-3140
jjkennedy@wsu.edu

**Principal Investigator:** James J. Kennedy, PhD
**Public Contact:** 509/368-6971; Fax: 509/358-7984

**Project Number:** 90DP0075
**Start Date:** September 30, 2015
**Length:** 60 months

**NIDILRR Officer:** Leslie J. Caplan, PhD

**NIDILRR Funding:** FY 15 $499,342; FY 16 $499,803; FY 17 $497,472; FY 18 $499,803; FY 19 $497,472

**Abstract:** The objective of the Collaborative on Health Reform and Independent Living (CHRIL) is to provide disability stakeholders with accurate, current, and actionable information on how recent changes in health policy directly or indirectly impact the community living and participation of working-age adults with disabilities. The CHRIL brings together disability advocates and researchers from four institutions (Washington State University, the University of Kansas, George Mason University, and the Independent Living Research Utilization program at TIRR Memorial Hermann Hospital) to systematically investigate and disseminate essential findings about how the Affordable Care Act’s (ACA) implementation effects adults with disabilities. Specific CHRIL research activities include: (1) Documenting the experiences of working-age adults with disabilities in obtaining and maintaining health insurance, and identifying the impact of insurance on their access, health, and function through phone interviews, internet surveys, and analysis of the Health Reform Monitoring Survey (HRMS); (2) assessing the health insurance information, training, and technical assistance needs of Centers for Independent Living (CILs) and other disability stakeholders through internet surveys, phone interviews of CIL directors, and town-hall meetings at national independent living conferences; (3) analyzing post-reform insurance coverage trends among working-age adults with disabilities using the National Health Interview Survey (NHIS); (4) identifying gaps in coverage and potential areas of undue cost-burden for people with disabilities by analyzing health care expenditures, including premium costs, deductibles, and co-pays using the Medical Expenditure Panel Survey (MEPS); and (5) assessing the impact of the ACA on disability program enrollment and workforce participation by testing how the Medicaid expansion influences SSI activity using the American Community Survey (ACS). The CHRIL engages in knowledge translation activities including: Presenting research findings at professional and scientific meetings; submitting manuscripts for inclusion in scientific and professional journals; offering webinars and creating self-based tutorials on various aspects of health care policy, organization, and financing; and developing and maintaining the CHRIL website that includes access to all publications and presentations in accessible formats.
Deaf Interpreter Certification Project: Certifying Intermediary Interpreters Who Are Deaf to Ensure Effective Communication for the Deaf, Hard of Hearing, and Deaf-Blind

University of Arizona
National Center for Interpretation
Geronimo Building, 2nd Floor
Tucson, AZ 85721
panferov@email.arizona.edu
nci.arizona.edu

Principal Investigator: Suzanne Panferov, PhD
Public Contact: 520/621-1362; Fax: 520/624-8130

Project Number: 90IF0011 (formerly H133G110100)
Start Date: October 01, 2011
Length: 36 months
NIDILRR Officer: Joyce Y. Caldwell
NIDILRR Funding: FY 11 $199,998; FY 12 $199,946; FY 13 $199,990; FY 14 (No-cost extension through 9/30/2015); FY 15 (No-cost extension through 9/29/2016)

Abstract: This project develops empirically-based, criterion-referenced certification tests for Deaf interpreters. Relay interpreting with an intermediary interpreter who is Deaf provides the critical link in accommodating the significant range of language abilities and deficits present in this population (e.g., alingualism, semiligualism, close vision/tactile American Sign Language [ASL] for the deaf-blind, and others). Accommodating these diverse communicative modalities, educational deprivations, and language deficits requires strong proficiency in standardized, non-standardized, and highly idiosyncratic visual gestural communication (VGC) styles. Deaf interpreters specialize in the non-standard VGC styles that meet the culturally, educationally-deprived, socially, regionally, or dialectically idiosyncratic communication needs of a significant proportion of the Deaf, hard of hearing, and deaf-blind communities. The ASL Proficiency Test and Deaf Interpreter Performance Test ensure certified Deaf interpreters possess the requisite knowledge, skills, and abilities to competently perform their duties. The development and administration of these Deaf Interpreter Certification Tests builds upon existing empirical research and University of Arizona’s National Center for Interpreter Testing Research and Policy’s widely accepted interpreter testing model, which has been successfully applied to the development of Texas’ ASL/English Interpreter Certification Tests and the NIDILRR-funded (2004-2008) Trilingual (ASL/Spanish/English) Interpreter Certification Tests, both of which have been validated and proven effective with a national audience.
**Safe@Home: A Self-Management Program for Individuals with Traumatic Brain Injury and Their Families**

Shepherd Center, Inc.
2020 Peachtree Road, NW
Atlanta, GA 30309-1465
nicole_thompson@shepherd.org

**Principal Investigator:** Ronald T. Seel, PhD 404/387-5625  
**Public Contact:** Nicole Thompson, MPH 404/603-4269; Fax: 404/350-7596

**Project Number:** 90IF0052 (formerly H133G130149)  
**Start Date:** October 01, 2013  
**Length:** 36 months  
**NIDILRR Officer:** Pimjai Sudsawad, ScD  
**NIDILRR Funding:** FY 13 $199,989; FY 14 $199,984; FY 15 $199,998

**Abstract:** This project conducts a clinical trial and evaluation of Safe@Home for individuals with moderate or severe traumatic brain injury (TBI). Many individuals with moderate or severe TBI transition from rehabilitation to home settings with impaired cognition, visuomotor skills, and judgment that place them at risk for subsequent unintentional injury or harm resulting from improper use of equipment, fire, or sharp objects; falls; victimization; loss of money or valuables; or medication errors. Risk is highest in the first 12 months following rehabilitation discharge and often has serious consequences including death, emergency room visits, hospitalizations, increased disability, and reduced independence and life quality. Safe@Home is a person-family education and training program based on a social cognitive theory framework that has been used to develop successful, self-directed health management and injury prevention programs in other medical populations. The specific aims of this project are to evaluate whether the Safe@Home program reduces the number of unintentional injuries and harmful events in the home and community and increases individuals’ with TBI daily hours of self-managed activities. Safe@Home participants receive a personalized risk assessment, tailored education, and in-home training supplemented with mobile communication supports. Individuals with TBI benefit from a program that builds on their strengths, helps set goals, and identifies progressive, achievable steps to reduce unintentional injury and harm and increase their self-managed activities. Family members may anticipate a broader range of safety risks, better identify needed environmental modifications, and have an empirical basis for deciding how best to be involved in (i.e., oversee) activities of individuals with TBI and when to feel comfortable that they can be independent safely.
Enhancing Written Communication in Persons with Aphasia: A Clinical Trial

Rehabilitation Institute of Chicago (RIC)
345 East Superior Street
Chicago, IL 60611
lcherney@ric.org
www.ric.org/aphasia

Principal Investigator: Leora R. Cherney, PhD
Public Contact: 312/238-1117; Fax: 312/238-2208

Project Number: 90IF0034 (formerly H133G120123)
Start Date: October 01, 2012
Length: 36 months
NIDILRR Officer: Theresa San Agustin, MD
NIDILRR Funding: FY 12 $199,936; FY 13 $199,845; FY 14 $199,800; FY 15 (No-cost extension through 9/29/2016)

Abstract: This project is a clinical trial to compare ORLA (Oral Reading for Language in Aphasia), a treatment that involves choral reading, to ORLA+WT (ORLA plus Writing Treatment). ORLA+WT involves a combination of choral reading and repeated writing of sentences. Treatment is delivered via computer using state-of-the-art virtual therapist technology in which a perceptive, life-like animated computer agent, using visible speech, reads aloud each sentence in unison with the person with aphasia and then directs the participant to copy the sentence and write it from memory. Participants can work intensively and independently on their home computer which is connected to a central server. This allows the clinician to monitor participant use and progress remotely either in real time during the treatment session or after the session at a convenient time. ORLA+WT and ORLA groups practice for nine hours per week for a six week period of time. Language and communication skills are evaluated pre-treatment, immediately post-treatment, and at six weeks after the end of treatment to assess maintenance effects.
Parents Taking Action: A Parent Training Intervention for Latino Immigrant Families

The Board of Trustees of the University of Illinois
851 South Morgan Street
M/C 154
Chicago, IL 60607
maganas@uic.edu

Principal Investigator: Sandra M. Magaña, PhD
Public Contact: 312/355-4537; Fax: 312/966-6465

Project Number: 90IF0072 (formerly H133G140128)
Start Date: October 01, 2014
Length: 36 months

NIDILRR Officer: Joyce Y. Caldwell
NIDILRR Funding: FY 14 $196,215; FY 15 $199,916; FY 16 $188,110

Abstract: This project evaluates a parent education program designed to meet the needs of Latino parents of children with autism spectrum disorders (ASD). This intervention draws from existing knowledge about autism, treatments, services, and strategies and makes it accessible to the Spanish-speaking Latino community in a culturally competent and cost-effective way. The curriculum for this program is delivered by community health educators and/or promotoras de salud, who are parents of children with autism. Participants are Spanish-speaking mothers who have a child between the ages of 2 and 8 with an autism spectrum disorder (ASD) and who receive 14 weeks of home visits from the promotora. The promotora delivers intervention content using an interactive approach. The first part of the intervention includes understanding autism symptoms and diagnosis, evidence-based interventions, advocacy, reducing stress, and explaining their child's behavior to others. The second part of the intervention teaches parents how to reduce problem behaviors and improve their child’s social and communication skills. Measures of caregiver outcomes (family empowerment, caregiver efficacy, and use of targeted intervention strategies) and child outcomes (autism-related symptoms, services received) are collected pre- and post-intervention and at two additional follow-up points.
Field Initiated Projects (FIPs)
Kansas

Access to Success: Replication and Impact of a Training Program
Supporting Post-Secondary Students in Requesting Disability Accommodations

University of Kansas
1000 Sunnyside Avenue, Room 4089
Lawrence, KS 66045-7555
jsummers@ku.edu
www.rtcil.org/news/AccessstoSuccessgrant.shtml

Principal Investigator: Jean Ann Summers, PhD; Glen W. White, PhD
Public Contact: 785/864-7602

Project Number: 90IF0082 (formerly H133G140213)
Start Date: October 01, 2014
Length: 36 months
NIDILRR Officer: Shelley Reeves
NIDILRR Funding: FY 14 $199,774; FY 15 $199,774; FY 16 $199,636
Abstract: This project investigates the efficacy of a training program, Access to Success, in supporting postsecondary students with disabilities to request accommodations from community-college faculty and staff, to maximize their opportunity for success in their postsecondary career. Access to Success provides students with disabilities with the knowledge and skills enabling them to advocate for accommodations needed to succeed in their coursework as well as to learn skills that may help gain more independence. The training model, developed through a previous NIDILRR Field Initiated Development Project, includes two components: First, an interactive online tutorial that provides knowledge about (a) students’ rights through the ADA and other legislation, including how to establish eligibility for accommodations in postsecondary settings; (b) self-assessment activities to help students understand their own strengths and needs and the most appropriate accommodations to support them; and (c) an introduction to the seven-step negotiation framework for requesting accommodations, including videos of students demonstrating the skills. The second component emphasizes skills development and consists of an in-person workshop with students, providing negotiation skills practice through role-play scenarios. For this project, researchers investigate whether the training results in more long-term outcomes, related to attitudes toward requesting and using supports, generalized use of the skills taught, and successful completion of courses.
Cooperative Learning and Individualized Mentoring to Build Self-Efficacy, Persistence, and Goal Attainment in Postsecondary African American Students

Southern University and A&M College
Department of Rehabilitation and Disability Studies
233 Blanks Hall
Baton Rouge, LA 70813
alodutta1992@aol.com

Principal Investigator: Alo Dutta, PhD, CRC; Madan M. Kundu, PhD, CRC, NCC, LRC
Public Contact: 225/771-2335; Fax: 225/771-2293

Project Number: 90IF0103
Start Date: September 30, 2015
Length: 36 months
NIDILRR Officer: Shelley Reeves
NIDILRR Funding: FY 15 $200,000; FY 16 $200,000; FY 17 $200,000

Abstract: This project develops methods and procedures that maximize the full inclusion and integration into society, employment, independent living, family support, and economic and social self-sufficiency of individuals with severe disabilities, especially those from traditionally underserved groups. Project CLAIM strives to improve the effectiveness of services authorized under the Americans with Disabilities Act, via the conduct of theory-driven research and targeted dissemination activities designed for vocational rehabilitation (VR) clients, their families, communities, practitioners, and employers. Project CLAIM focuses on issues related to employment skills gap from the perspective of educational opportunities, access to multi-disciplinary services, and incorporation of demand-side placement strategies in vocational rehabilitation. The project uses a mixed-methods research study to construct and validate an effective pedagogical framework for promoting self-efficacy, persistence, and goal attainment among African American postsecondary education (AA PSE) students with disabilities. The project ensures achievement of goal by focusing on: (1) Offering of cooperative learning and self-directed career planning opportunities; (2) provision of individualized and culturally sensitive mentoring to assist in adjustment to college life; and (3) identification of modes of integrating needs of employers and AA PSE students with disabilities so that quality employment-related outcomes can be achieved. Project CLAIM utilizes the two well-known and evidence-based pedagogical techniques and two-pronged employment skills development training to guide AA PSE students with disabilities to academic persistence, goal attainment, and job placement: (a) Intervention 1: Cooperative learning, (b) Intervention 2: Mentoring, (c) Intervention 3a: On-campus employment skills development, and (d) Intervention 3b: Community-based employment skills development.
Field Initiated Projects (FIPs)
Massachusetts

Evaluation of “Project TEAM (Teens making Environmental and Activity Modifications)”: Effectiveness, Social Validity, and Feasibility

Trustees of Boston University
Sargent College of Health and Rehabilitation Sciences
Department of Occupational Therapy
635 Commonwealth Avenue (SAR 503)
Boston, MA 02215
kramerj@bu.edu
sites.bu.edu/projectteam
www.facebook.com/ProjectTEAMB

Principal Investigator: Jessica M. Kramer, PhD
Public Contact: 617/353-2702; Fax: 617/353-2926

Project Number: 90IF0032 (formerly H133G120091)
Start Date: October 01, 2012
Length: 36 months
NIDILRR Officer: Dawn Carlson, PhD, MPH
NIDILRR Funding: FY 12 $199,696; FY 13 $198,156; FY 14 $199,657; FY 15 (No-cost extension through 9/29/2016)

Abstract: The purpose of this study is to determine the extent to which Project TEAM (Teens making Environment and Activity Modifications) is an effective, socially valid, and feasible intervention that prepares youth with developmental disabilities ages 14-21 to respond to environmental barriers and increases participation in school, work, and the community. Project TEAM is a manualized intervention co-facilitated by a disability advocate and a licensed professional. The intervention includes eight group sessions and two experiential learning field trips. In addition, young adults with disabilities serve as peer mentors on field trips and contact youth weekly to support attainment of goals. Project TEAM outcomes are to: increase youths’ knowledge of environmental factors and modification strategies; reduce the impact of environmental barriers on participation; increase self-efficacy and self-determination; and increase participation in a personal activity goal in the area of education, employment, or community life. This project builds on a participatory action research partnership with disability community stakeholders to address the following research questions: (1) To what extent do youth with disabilities participating in Project TEAM achieve intervention outcomes? (2) What are the characteristics of youth with disabilities who most benefit from Project TEAM? (3) To what extent are goals, procedures, and outcomes of Project TEAM important and acceptable (socially valid) to youth with disabilities?
Field Initiated Projects (FIPs)
Massachusetts

Toolkit of Recovery Promoting Competencies for Mental Health Rehabilitation Providers

Boston University
Center for Psychiatric Rehabilitation
940 Commonwealth Avenue West
Boston, MA 02215-1203
mfarkas@bu.edu
cpr.bu.edu/research

Principal Investigator: Marianne Farkas, ScD; Zlatka Russinova, PhD
Public Contact: 617/353-3549; Fax: 617/353-7700

Project Number: 90IF0033 (formerly H133G120117)
Start Date: October 01, 2012
Length: 36 months
NIDILRR Officer: Joyce Y. Caldwell
NIDILRR Funding: FY 12 $199,714; FY 13 $199,921; FY 14 $199,869; FY 15 (No-cost extension through 9/29/2016)

Abstract: This project develops, evaluates, and disseminates two Recovery Promoting Competencies Toolkits, one to better prepare providers when they serve Latinos and one to better prepare providers when they serve non-Latinos. The Toolkits for providers of mental health and rehabilitation services enhance recovery promoting competencies by: (1) increasing provider attention to the factors that individuals with psychiatric disabilities perceive to be important in facilitating recovery; (2) increasing their knowledge about recovery and these factors; (3) increasing their ability to use strategies and core relationship skills to promote recovery from serious mental illnesses. The development of the Toolkits is informed by research findings from previous NIDILRR-funded studies that contributed to the development of the Recovery Promoting Competency Scale for both providers, including one for those serving Latinos.
Community-Based Non-Work: Developing Research-Based Guidance for States and Service Providers

University of Massachusetts Boston
100 Morrissey Boulevard
Boston, MA 02125-3393
communitylifeengagement.org

Principal Investigator: Jennifer Sulewski, PhD
Public Contact: 617/287-4356

Project Number: 90IF0075 (formerly H133G140150)
Start Date: October 01, 2014
Length: 36 months
NIDILRR Officer: Dawn Carlson, PhD, MPH

NIDILRR Funding: FY 14 $599,995; FY 15 $1 (Funds for FY2015 were funded using FY2014 money); FY 16 $1 (Funds for FY2016 were funded using FY2014 money)

Abstract: This project forms, refines, and disseminates two toolkits, one for state agency personnel and one for community rehabilitation providers (CRPs), to guide in the implementation of high quality community-based non-work services (CBNW) for people with intellectual and developmental disabilities (I/DD). The toolkits are piloted with CRPs and states to understand, process, and determine their impact on the desired results. This project supports recent federal rules and policies requiring provision of day and employment services in community-based settings. It supports provision of CBNW services that have optimal potential to work in tandem with employment supports toward a full life in the community for people with I/DD. The collaborative development activities of this project include case studies, toolkit development, and pilot testing and refinement. The dissemination activities ensure widespread knowledge transfer and expand the capacity of the field to support people with I/DD.
Field Initiated Projects (FIPs)
Massachusetts

Recovery 4 US - Development of a Photovoice-Based Social Media Program to Enhance the Community Participation and Recovery of Individuals with Psychiatric Disabilities

Boston University
Sargent College of Health and Rehabilitation Sciences
Center for Psychiatric Rehabilitation
940 Commonwealth Avenue West
Boston, MA 02215-1303
zlatka@bu.edu
cpr.bu.edu

Principal Investigator: Zlatka Russinova, PhD
Public Contact: 617/353-3549; Fax: 617/353-7700

Project Number: 90IF0079 (formerly H133G140190)
Start Date: October 01, 2014
Length: 36 months
NIDILRR Officer: Joyce Y. Caldwell
NIDILRR Funding: FY 14 $199,895; FY 15 $199,994; FY 16 $199,966

Abstract: This project develops, evaluates, and disseminates a new social media program aimed at the enhancement of community participation and overall recovery of individuals with psychiatric disabilities. Recovery 4 US is an innovative e-mental health program that integrates Internet and mobile technologies and is designed to be a self-sustaining recovery-oriented virtual community for individuals living with a psychiatric disability based on the principles of Photovoice – a public health community-based participatory research method with significant mental health promise. Members of the Recovery 4 US virtual community post their personal experiences of recovery using photographs and corresponding narratives (i.e., Photovoice works) and share their thoughts on the work of others. In addition to building a virtual community based on ongoing Photovoice creation and dialog about posted work, the Recovery 4 US program includes a Meet-Up feature which enables participating members to engage in joint activities, if they so choose, in their actual communities of residence. Finally, the program is designed to provide members with ongoing personal support and encouragement through a mobile phone application which delivers tailored hope-inspiring messages and images to participating members’ smartphones.
Field Initiated Projects (FIPs)
Massachusetts

Increasing Community Participation Among Adults with Psychiatric Disabilities Through Intentional Peer Support

Advocates for Human Potential, Inc.
490-B Boston Post Road
Sudbury, MA 01776-3365
dpenney@ahpnet.com

Principal Investigator: Darby Penney
Public Contact: 518/729-1225

Project Number: 90IF0098
Start Date: September 30, 2015
Length: 36 months
NIDILRR Officer: Joseph A. DePhillips
NIDILRR Funding: FY 15 $200,000; FY 16 $200,000; FY 17 $200,000

Abstract: This project examines the comparative effectiveness of Intentional Peer Support (IPS) in improving community living and participation for adults with psychiatric disabilities. IPS is a peer-developed, theoretically-based, manualized approach that is unique in conceptualizing peer support as a relationship-based learning process in the context of personal growth and community-building. The study compares IPS with the standard peer support currently practiced by staff at two Peer Advocacy Centers (PACs) in New York City. Using a quasi-experimental design, 125 participants were recruited from one PAC, designated the intervention site, where peer support staff have been trained in IPS; another 125 participants were recruited from the second PAC, the control site, where standard peer support practices are used. Study participants complete two in-person interviews that assess self-efficacy, self-esteem, self-stigma, social connectedness, community participation, and quality of life. All participants are interviewed at two time-points: within two weeks of initial receipt of individual peer support services and at six months after the first interview. Repeated self-assessments of peer support practices are completed by peer support staff at both sites. Focus groups are conducted with peer support recipients and staff to collect qualitative information on receiving and providing peer support that will further inform findings. Randomized regression models and content analyses are used to examine whether any significant differences on outcome measures occur between the groups and are maintained over time. Study results will provide important information on how an innovative model of peer support may enhance community living and integration for adults with psychiatric disabilities.
Partnerships in Wellness: Training and Technical Assistance Model

Regents of the University of Minnesota
The Institute for Community Integration
111C Pattee Hall
150 Pillsbury Drive, SE
Minneapolis, MN 55455
LLA@umn.edu

Principal Investigator: Sheryl Larson, PhD; Lynda Lahti Anderson, MPH; 612/624-6024 (Larson)
Public Contact: Lynda Lahti Anderson 612/626-7220; Fax: 612/625-6619

Project Number: 90IF0031 (formerly H133G120090)
Start Date: October 01, 2012
Length: 36 months
NIDILRR Officer: Dawn Carlson, PhD, MPH
NIDILRR Funding: FY 12 $200,000; FY 13 $200,000; FY 14 $200,000; FY 15 (No-cost extension through 9/29/2016)

Abstract: This project develops a research-based, universally-designed health promotion curriculum for adults with intellectual and/or developmental disabilities (I/DD) that addresses the unique learning needs of this population. The curriculum partners an adult with I/DD with a peer “buddy” to increase comprehension of the material. Project objectives include: (1) Developing a universally-designed health promotion curriculum suitable for use by adults with I/DD that involves support staff or family members throughout the training; and (2) field-testing the health promotion curriculum with people with I/DD and a family member or support staff member. Development of this curriculum uses an iterative process that involves input from adults with I/DD, support staff members, family and foster family members, as well as a technical advisory group from both academic and community sources. The curriculum is tailored to people with moderate to severe intellectual disabilities and is designed to be completed by teams consisting of a person with I/DD and an adult family or foster family member, or a direct-support staff member. The goals are to improve the quality of life and longevity of people with I/DD by increasing physical activity, and reducing obesity and weight gain; preventing lifestyle related secondary conditions; and reducing associated health care costs.
Field Initiated Projects (FIPs)
Minnesota

National Core Indicators: Advance Exploration of Factors Affecting Quality of Life Outcomes of Adults with Intellectual Disabilities

Regents of the University of Minnesota
The Institute for Community Integration
111C Pattee Hall
150 Pillsbury Drive, SE
Minneapolis, MN 55455
larso072@umn.edu
tich0018@umn.edu

Principal Investigator: Sheryl Larson, PhD; Renata Ticha, PhD
Public Contact: 612/624-6024; 612/624-5776

Project Number: 90IF0101
Start Date: September 30, 2015
Length: 36 months
NIDILRR Officer: Dawn Carlson, PhD, MPH
NIDILRR Funding: FY 15 $200,000; FY 16 $200,000; FY 17 $200,000
Abstract: This project uses data from the National Core Indicators Program (NCI) to describe and analyze outcomes for people with intellectual and developmental disabilities (I/DD). This project builds on a previous NIDILRR-funded initiative focused on the development and analysis of the NCI Program, the most widely-used program of outcomes for persons with I/DD in the US addressing their community inclusion, employment and other services, health and wellbeing, and choice/rights. Currently, 42 states participate in at least bi-annual NCI-based outcome research on a minimum of 400 randomly selected individuals with I/DD receiving publicly-financed services. The project: (1) utilizes sophisticated research design and analytical approaches including multivariate analysis to examine patterns of factors across outcomes; (2) uses a hierarchical analytic approach to separate out and better account for state-level variability; (3) focuses on areas important to the lives of individuals with I/DD specifically related to community inclusion, employment, health, and rights; (4) explores trends over time using annual data from participating states; (5) disseminates and translates materials, practices, and policies clearly rooted in state-of-the-art analytic work and dissemination technology and formats that are accessible to persons with disabilities and their caregivers; and (6) compares outcomes for individuals with I/DD to outcomes for specific subgroups as well as to the general population. The project team analyzes a combined data set including at least 13,000 people interviewed for the NCI survey in 2013 and subsequent years. Participating states receive validated, psychometrically-tested instrumentation, technical assistance with random selection procedures, standardized training of interviewers, and a centralized system of data quality review, coding, and analysis. This project is a collaborative effort of the University of Minnesota, the National Association of State Directors of Developmental Disabilities Services, the Human Services Research Institute, and the University of Sydney.
Partnering with People with Intellectual Disabilities to Address Violence

University of Montana
The University of Montana Rural Institute:
A Center for Excellence in Disability Research, Education and Services
52 Corbin Hall
Missoula, MT 59812-7056
rosemary.hughes@mso.umt.edu
ruralinstitute.umt.edu

Principal Investigator: Rosemary Hughes, PhD
Public Contact: 406/243-2898; Fax: 406/243-4730

Project Number: 90IF0057 (formerly H133G130219)
Start Date: October 01, 2013
Length: 36 months
NIDILRR Officer: Dawn Carlson, PhD, MPH
NIDILRR Funding: FY 13 $199,945; FY 14 $199,937; FY 15 $199,846

Abstract: This project conducts a randomized, controlled evaluation of an interpersonal violence (IPV) group prevention program designed to meet the unique needs of men and women with intellectual disabilities (ID). Research suggests that a person with ID may be up to 10 times as likely to be victimized as a person without ID. People with ID are at a high risk of experiencing physical, sexual, psychological, and disability-related abuse. Although their work is effective for victimized women, community-based domestic violence and sexual assault victim programs often do not address disability-related abuse nor offer accessible services for IPV crime victims with disabilities. This program, A Safety Awareness Program for Men and Women with Intellectual Disabilities (ASAP), draws upon existing research findings on violence against men and women with disabilities, prior work on a safety awareness group program for women with diverse disabilities, and the strengths of a community-based participatory research approach to develop and evaluate a group prevention modality that responds to the unique needs of people with ID. ASAP consists of eight weekly sessions that provide information on topics such as self-advocacy, self-care, nature and dynamics of IPV, safety planning strategies, healthy relationships, and community resources. Each session also includes interactive activities to enhance self-efficacy and safety-related skills. During the first year, curriculum and measures are adapted to meet the unique language, content, and process needs of men and women with ID. During the following years, the program is implemented and tested in partnership with twelve centers for independent living across the US. Project staff provide comprehensive online training for independent living center staff from each site to serve as ASAP group facilitators.
Exercising Determinants of Community Participation Among Persons with Psychiatric Disabilities

John Jay College of Criminal Justice
Department of Psychology
524 West 59th Street, 10th Floor
New York, NY 10019
pyanos@jjay.cuny.edu

Principal Investigator: Philip T. Yanos, PhD
Public Contact: 212/237-8773

Project Number: 90IF0049 (formerly H133G130086)
Start Date: October 01, 2013
Length: 36 months
NIDILRR Officer: Shelley Reeves
NIDILRR Funding: FY 13 $197,460; FY 14 $199,860; FY 15 $199,378
Abstract: The objective of this project is to identify individual, housing, and social environment determinants of community participation for people with psychiatric disabilities, in order to guide the development of enhanced services and targeted community stigma interventions geared toward maximizing community participation in this population. Using the Capabilities Framework as a theoretical guide, the project examines how individual, housing, and neighborhood characteristics interact to predict community functioning, helping to identify “optimal fits” between these characteristics to guide the development of targeted programs. Participants include persons with psychiatric disabilities representing a range of socio-economic groups living in supported independent housing and congregate housing with on-site support. The project addresses three related aims: (1) Examine the interaction between housing type (independent scatter-site vs. congregate) and individual-level personal capacity (independent living skills, psychiatric symptoms, substance use, self-efficacy, and coping style) factors in predicting community participation among people with psychiatric disabilities; (2) examine the interaction between social environment characteristics (neighborhood social disadvantage and community stigma) and individual-level personal capacity factors in predicting community participation among people with psychiatric disabilities; and (3) examine the individual-level personal capacity predictors of community participation among people with psychiatric disabilities.
Implementing Psychiatric Advance Directives with Peer Specialist Facilitators

Duke University
Medical Center, Box 3071
Durham, NC 27701
rebecca.hausmann@duke.edu
www.nrc-pad.org

Principal Investigator: Jeffrey W. Swanson, PhD 919/682-4827
Public Contact: Rebecca Hausmann 919/682-8394; Fax: 919/682-1907

Project Number: 90IF0027 (formerly H133G120070)
Start Date: October 01, 2012
Length: 36 months

NIDILRR Officer: Joseph A. DePhillips

NIDILRR Funding: FY 12 $196,140; FY 13 $198,724; FY 14 $197,435; FY 15 (No-cost extension through 2/1/2016)

Abstract: This project studies the effectiveness of two models for assisting individuals with serious mental illness (SMI) to complete psychiatric advance directives (PAD), using trained peer facilitators (persons in recovery from serious mental illness) and non-peer clinicians on Assertive Community Treatment teams. Both are built on the Facilitation Psychiatric Advanced Directive (FPAD), a structured, one-on-one session that guides individuals with SMI through a person-centered, recovery-focused process of completing a PAD. Participants are randomly assigned to either the Peer-Facilitated Psychiatric Advance Directive or the (non-peer) Clinician-Facilitated Psychiatric Advance Directive. Participants are interviewed before and after the FPAD intervention to determine completion rates, content and structure of resulting PAD documents, ratings of PADs’ feasibility and concordance with practice standards, as well as to gauge participants’ sense of empowerment, working alliance, and treatment motivation. The ultimate goal of the research is to provide reliable evidence to guide policymakers in efforts to cost-effectively institute PADs, and PAD facilitation, as routine practice within the array of community-based behavioral healthcare services for adults with SMI.
Field Initiated Projects (FIPs)
Ohio

SPAN - A Tool for Social Participation and Navigation

Cincinnati Children’s Hospital Medical Center
Tufts University
Pediatric Rehabilitation
3333 Burnet Avenue; MLC 4009
Cincinnati, OH 45229
shari.wade@cchmc.org

Principal Investigator: Gary M. Bedell, PhD; Shari L. Wade, PhD
Public Contact: Jessica A. King 513/636-9631; Fax: 513/636-7360

Project Number: 90IF0059 (formerly H133G130272)
Start Date: October 01, 2013
Length: 36 months
NIDILRR Officer: Leslie J. Caplan, PhD
NIDILRR Funding: FY 13 $199,940; FY 14 $199,700; FY 15 $199,971

Abstract: This project develops and evaluates an intervention, Social Participation and Navigation (SPAN), to facilitate social participation of teens with traumatic brain injury (TBI) by integrating training in social communication, problem-solving, self-regulation skills, and social participation goal attainment planning and monitoring via peer coaches (college students), smart phone apps, and linkages to a virtual community. Teens with TBI often experience limitations in their social participation in school and community activities. Consequences of TBI such as impairments in social, behavioral, and executive functioning, as well as inadequate environmental supports and resources at school and in the community, may contribute to these limitations. Social participation is associated with enhanced quality of life, health, and daily-life functioning across the lifespan in teens with and without disabilities and is a primary rehabilitation outcome. This intervention is developed in three phases. In Phase 1, researchers conduct focus groups and interviews with key stakeholders (teens with TBI, their parents, potential college student coaches, and professional experts) to inform the app and training development. The app and training are developed in Phase 2 and subjected to initial usability testing with teens with TBI, their parents, and peer coaches, with refinements based on results from this testing. In Phase 3, researchers conduct an open-label trial to gather further information regarding usability/feasibility and preliminary efficacy in improving social participation prior to dissemination.
Field Initiated Projects (FIPs)
Oregon

In the Classroom: Supporting Students with TBI

University of Oregon
Center on Brain Injury Research and Training (CBIRT)
99 West 10th Avenue, Suite 370
Eugene, OR 97401
www.cbirt.org

Principal Investigator: Ann E. Glang, PhD
Public Contact: 301/346-0594; Fax: 541/346-0599

Project Number: 90IF0067 (formerly H133G140059)
Start Date: October 01, 2014
Length: 36 months
NIDILRR Officer: A. Cate Miller, PhD
NIDILRR Funding: FY 14 $199,674; FY 15 $199,670; FY 16 $199,672
Abstract: This project utilizes the educational and training program In the Classroom (ITC): Supporting Students with Traumatic Brain Injury (TBI) to increase the knowledge and skills of educators related to students with TBI. The program includes: (1) interactive learning modules that offer specific strategies and techniques for managing TBI-related cognitive, behavioral, and social problems in a school setting; (2) the TBI Educator resource center, with printable forms, resource links, and practical tools for the classroom; and (3) Steps to Success, a tool for identifying and evaluating the effectiveness of support strategies. The project uses a randomized control study to establish evidence that the ITC program produces a positive change in student outcomes. Dissemination activities include making the series available to state departments of education, offering the series as an online university class for credit for pre-service and in-service teachers, and making the series available through WETA/Brainline Kids.
Field Initiated Projects (FIPs)
Oregon

Internet Safer and Stronger Program for Men with Disabilities
(Men’s SSP)

Portland State University
Regional Research Institute for Human Services
PO Box 751
Portland, OR 97207-0751
oschwald@pdx.edu

Principal Investigator: Mary Oschwald, PhD
Public Contact: 503/725-9602

Project Number: 90IF0056 (formerly H133G130207)
Start Date: October 01, 2013
Length: 36 months
NIDILRR Officer: Joyce Y. Caldwell
NIDILRR Funding: FY 13 $200,000; FY 14 $200,000; FY 15 $200,000

Abstract: This project conducts a randomized controlled study of an Internet-based violence prevention program, the Safer and Stronger Program for Men with Disabilities (Men’s SSP), which is specifically designed to meet the unique needs of men with diverse disabilities. Community-based programs for interpersonal violence (IPV) prevention and intervention are just beginning their efforts regarding physical and sexual violence against men. However, those programs may not address disability-related abuse, such as the refusal to provide assistance with essential activities of daily living. Additionally, men with disabilities experience multiple barriers to accessing these traditional community-based domestic violence services. The Internet-based Men’s SSP was created by and for men with diverse disabilities. It provides information about IPV against men with disabilities, risk factors, and safety-promoting strategies specific to lives of men with disabilities. The program integrates male survivor stories and affirming narration. During this project, researchers partner with three centers for independent living (CILs) to implement three interrelated studies: (1) The Men’s SPP Pilot Study, which ensures the consistent implementation of the field-test and fidelity of protocols; (2) The Men’s SPP Field-Test Study; and (3) Member-Checking Focus Group Evaluation, designed to provide qualitative feedback about respectively receiving and delivering the Men’s Internet SPP. The Men’s SSP Field-Test is a 3 x 3 (Men’s SSP alone, Men’s SSP in combination with support from a male CIL peer staff, or a control group that will receive an equal-length health promotion Internet program) randomized controlled trial to evaluate the feasibility and efficacy of the Men's SSP, delivered by CILs alone or in conjunction with support from a peer who is a male staff member with a disability.
Increasing Community Participation in Adults with Schizophrenia

Temple University
College of Health Professions and Social Work
1700 North Broad Street, Suite 301A
Philadelphia, PA 19122
gsnethen@temple.edu

Principal Investigator: Gretchen Snethen, PhD; Mark Salzer, PhD; Eugene Brusilovskiy
Public Contact: 215/204-2748

Project Number: 90IF0086 (formerly H133G130137)
Start Date: October 01, 2013
Length: 36 months
NIDILRR Officer: Shelley Reeves
NIDILRR Funding: FY 13 $196,940; FY 14 $196,940; FY 15 $196,940

Abstract: This project uses a novel community-based intervention, the Independence through Community Access and Navigation (ICAN), to increase community participation and decrease sedentary behavior in adults with schizophrenia spectrum disorders (SSD). Research indicates individuals with SSD spend greater than 90% of their day in sedentary or sleep behavior. Sedentary behavior is a unique and modifiable health risk factor that has a significant impact on the health status and life expectancy of individuals with SSD. The ICAN intervention is a recreational therapy intervention theoretically grounded in Self-Determination Theory that operationalizes an individualized placement and support model to promote independent, community-based recreation participation, which facilitates positive efficacy beliefs. Targeting negative symptoms and sedentary behavior through non-pharmacological interventions is consistent with a recovery orientation to mental health treatment. This project draws from a social psychological framework and from a recent innovative model of cognition and negative symptoms, which proposes negative symptoms result from poor efficacy beliefs. This project examines the outcomes of the ICAN intervention using a randomized control trial. Participants in the experimental group participate in the 6-month ICAN intervention, while the active control participants receive literature about freely available community-based activities and the benefits of participation. Goals of this intensive research study include establishing outcomes and outcome measures for the ICAN intervention; establishing the relationship between negative symptoms and motivation, social functioning, community mobility characteristics, and sedentary behavior; and hypotheses about potential change variables associated with the ICAN intervention.
Field Initiated Projects (FIPs)
Pennsylvania

Identifying Enabling Environments Affecting Adults with Psychiatric Disabilities

Temple University
1700 North Broad Street, Suite 301A
Philadelphia, PA 19122

Principal Investigator: Mark Salzer, PhD
Public Contact: 215/204-7879

Project Number: 90IF0065 (formerly H133G140040)
Start Date: October 01, 2014
Length: 36 months
NIDILRR Officer: Joseph A. DePhillips
NIDILRR Funding: FY 14 $200,000; FY 15 $200,000; FY 16 $200,000

Abstract: This project aims to help people with psychiatric disabilities move from institutional care to more integrated settings and to increase their opportunities to participate in a wide range of roles in their communities by generating knowledge about enabling environments that affect them. The project focuses on utilizing emerging research methods, such as Global Position System (GPS) and geographic information systems technologies, to identify social/environmental characteristics that stimulate and support full and meaningful mobility and participation and facilitate the creation of enabling environments for individuals with psychiatric disabilities. By paying attention to the environment, the project offers a new direction in psychiatric rehabilitation research and focus for policy, program, and practice innovations.
Improving Trauma Outcomes: A Goal Management Approach

Vanderbilt University Medical Center
4200 MCE Street
Nashville, TN 37232-8774
kristin.archer@vanderbilt.edu
kristin.a.swygert@vanderbilt.edu

Principal Investigator: Kristin R. Archer, PhD, DPT
Public Contact: 615/322-2732

Project Number: 90IF0024 (formerly H133G120052)
Start Date: October 01, 2012
Length: 36 months
NIDILRR Officer: A. Cate Miller, PhD
NIDILRR Funding: FY 12 $199,989; FY 13 $199,995; FY 14 $199,372; FY 15 (No-cost extension through 9/30/2016)

Abstract: This project conducts a three-group randomized controlled trial to determine the efficacy of Goal Management Training (GMT), a structured manual-based intervention targeting executive functions that impact a person’s ability to carry out daily tasks, with the goal of improving cognitive functioning, functional status, and psychological health in trauma survivors with mild traumatic brain injury. Eligible participants are randomized to 10 weeks of (1) telephone-based GMT, (2) telephone-based attention-control, or (3) usual care. Primary outcomes include observed and self-reported executive functioning and self-reported functional status as measured by a battery of standardized and previously validated cognitive tests and instruments. Secondary outcomes consist of depressive and post-traumatic stress disorder symptoms. This intervention serves to broadly disseminate evidence-based cognitive strategies to a trauma population that has difficulty returning to productive life both inside and outside the home due to profound functional and psychological disability.
Digital Storyteller: A Cognitively Accessible Literary Compositioning Tool for Individuals with Intellectual and Other Cognitive Disabilities

AbleLink Technologies, Inc.
618 North Nevada Avenue
Colorado Springs, CO 80903
dan@ablelinktech.com
www.ablelinktech.com
twitter.com/AbleLinkTech
www.facebook.com/AbleLinkTech
www.youtube.com/user/AbleLinkTechnologies

Principal Investigator: Daniel K. Davies
Public Contact: 719/592-0347; Fax: 719/592-0348

Project Number: 90BI0006 (formerly H133S140091)
Start Date: October 01, 2014
Length: 24 months
NIDILRR Officer: Brian Bard
NIDILRR Funding: FY 14 $287,500; FY 15 $287,500

Abstract: This project continues the design, development, and evaluation of Digital Storyteller (DST), a universally-designed multimedia compositioning tool that supports self-expression and document publication and preservation for individuals with intellectual and other cognitive disabilities. In Phase I, a limited prototype of DST was developed and evaluated in a pilot study with 17 study participants with intellectual disabilities. The results of the Phase I project demonstrated the technical merit and feasibility of the DST approach for providing a platform for individuals with intellectual disabilities to more independently create multimedia compositions when compared to two leading mainstream compositioning tools. Phase II expands the system to develop and test specialized modules that are optimized for specific outputs, such as Book Report, Short Answer, Essay, Activity Reporting, Therapy Journal, Diary Keeping, Web Log, Storytelling, or Memoir modules, and evaluates the usability and efficacy of the system for increasing literary output. When complete, DST provides benefits of increased self-direction, positive benefits on self-esteem, greater opportunities for self-advocacy, greater opportunities for students with intellectual disabilities to participate in the general curriculum, cost savings for schools and agencies by relieving transcription needs, and a greater societal presence for individuals with intellectual disabilities via audio blogging or other Internet distribution methodologies of original literary content.
Small Business Innovation Research (SBIR), Phase II
Kansas

Development and Evaluation of the Online and Applied System for Intervention Skills

Integrated Behavioral Technologies, Inc.
1106 North 155th Street, Suite B
Basehor, KS 66007-7100
katrinaostmeyer@ibt-inc.org

Principal Investigator: Katrina Ostmeyer-Kountzman, PhD
Public Contact: 913/417-7061

Project Number: 90BI0024
Start Date: September 30, 2015
Length: 24 months
NIDILRR Officer: Brian Bard
NIDILRR Funding: FY 15 $219,761; FY 16 $235,024

Abstract: This Phase II project refines and tests a learning management system (LMS), the Online and Applied System for Intervention Skills – Supervision (OASIS-S). OASIS-S is a cloud-based portal that incorporates two modules (online and skill-based activities) for the supervision of individuals in service fields that require post-degree supervision and/or seeking certification as behavior analysts. This system incorporates each element of a good supervision experience such as (1) providing structure for group and individual supervision meetings, (2) informational tutorials in targeted competency areas, (3) pre/post-test assessments for supervisee’s knowledge and skill application, (4) an online “home” for uploading supervision documents/videos, and (5) a “classroom” discussion board to build cohorts of professionals. For supervisors, this system includes (1) supervisory access to monitor progress and competency levels, (2) an avenue for distance supervision documentation, and (3) a means of managing supervision activities from a distance. For employers, this system offers a comprehensive database that provides administrators with the ability to monitor employees’ professional development activities, and a way to manage costs associated with providing services and supervision experiences to employees in the field and/or those who live and provide services in geographic areas removed from the central office. This project builds upon the original OASIS-S 14 topic areas and expands the program to include 17 supervision topic areas, each with pre- and post-tests, interactive lessons, an assignments that provide object measures of targeted behavior analytic kills in each topic area. The LMS includes functional tools to share video and performance feedback, and house important supervision documents, including a functional online graphing and scoring system for students and supervisors to gauge progress.
Small Business Innovation Research (SBIR), Phase II
Oregon


Assistech Systems, LLC
99 West 10th Avenue, Suite 395
Eugene, OR 97401
tkeating@cognitopia.com
www.cognitopia.com

Principal Investigator: Thomas Keating, PhD
Public Contact: 541/342-3763; Fax: 541/342-4310

Project Number: 90BI0008 (formerly H133S140096)
Start Date: October 01, 2014
Length: 24 months
NIDILRR Officer: Brian Bard
NIDILRR Funding: FY 14 $286,001; FY 15 $288,719
Abstract: This is a Phase II project to develop and evaluate the effectiveness of a responsively designed web application, Goal Guide, that enables individuals with intellectual disabilities and autism to effectively manage self-defined goals for everyday living across personal, educational, and vocational life domains. Users will be able to easily enter goals, work with data for each goal, engage with information displays that communicate progress, and complete the self-management loop by self-monitoring progress and linking it with contingent incentives that they have defined. The primary interface for users with cognitive disabilities resides on the mobile device while teacher and parent interfaces emphasize shared access to oversee usage, receive notifications, and provide assistance as needed. Cognitively accessible self-management applications offer an untapped resource to augment the functional ability of individuals with disabilities who cannot use typical commercial applications because of inability to work with interfaces that are text-based and cognitively complex. Participants include 30 individuals with mild to moderate intellectual disabilities and autism aged 18-21 in a postsecondary program focused on teaching daily living skills, employment, and social skills toward successful transition to adulthood.
Health and Function

Maximizing health and function among people with disabilities is critical to the achievement of NIDILRR’s mission and the associated higher-order goals of employment and community participation. Functional ability reflects the complex interaction between individuals and the environments in which they live. NIDILRR supports centers and projects on health and function that improve understanding of health status, health needs, and health care access of individuals with disabilities. These centers and projects also develop and test interventions, including public policy interventions, to improve health outcomes, increase or maintain functional abilities, and contribute to more effective medical rehabilitation and long-term services and supports, including integrated health and long-term services and support approaches.

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Rehabilitation Research and Training Centers (RRTCs)
District of Columbia

Rehabilitation Research and Training Center on Secondary Conditions in Spinal Cord Injury

MedStar Research Institute
NRH Research
102 Irving Street, NW
Washington, DC 20010
inger.h.ljungberg@medstar.net
sci-health.org
www.youtube.com/user/HealthyTomorrow
www.facebook.com/rrtcsci

Principal Investigator: Suzanne L. Groah, MD 202/877-1196
Public Contact: Inger Ljungberg, MPH 202/877-1694; Fax: 202/726-7521

Project Number: 90RT5002 (formerly H133B090002)
Start Date: October 01, 2009
Length: 60 months
NIDILRR Officer: Pimjai Sudsawad, ScD
NIDILRR Funding: FY 09 $799,995; FY 10 $799,998; FY 11 $799,998; FY 12 $799,999; FY 13 $800,000; FY 14 (No-cost extension through 9/30/2015); FY 15 (No-cost extension through 9/29/2016)

Abstract: This RRTC focuses on the frequent and costly complications of obesity such as cardiometabolic syndrome (inclusive of obesity, insulin resistance, hypertension, dyslipidemia, and inflammation), and pressure ulcers among people with spinal cord injury (SCI), with a specific focus on the underserved. Utilizing novel diagnostic and therapeutic practices, this RRTC addresses three major secondary conditions that lead to significant health decay in people with SCI. This RRTC includes three research (R1-R3) and training (T1-T3) projects. Project R1 determines the degree to which obesity is related to cardiometabolic health, cardiometabolic risk (CMR) factors, and atherosclerotic burden. Those requiring intervention based on CMR profile and atherosclerotic burden in R1 are selected to participate in Project R2, a randomized control trial examining impact of an omega-3 dietary supplement intervention. Project R3 determines the physiologic response of sacral and ischial skin to sitting and pressure relief. A behavioral self-management program is assessed to ensure future recommendations can be evidence-based. These research findings feed into three training activities that include culturally sensitive consumer education: T1 emphasizes underserved populations, T2 emphasizes professional training and education of rehabilitation and non-rehabilitation professionals utilizing online media, and T3 emphasizes dissemination through a state-of-science research and training conference.
Rehabilitation Research and Training Centers (RRTCs)
Illinois

RRTC on Psychiatric Disability and Co-Occurring Medical Conditions

University of Illinois at Chicago
Center on Mental Health Services Research and Policy
1601 West Taylor Street, 4th Floor, M/C 912
Chicago, IL 60612
jonikas@psych.uic.edu
www.cmhsrp.uic.edu/health
www.facebook.com/UICHealthRRTC
twitter.com/UICHealthRRTC

Principal Investigator: Judith A. Cook, PhD 312/355-3921
Public Contact: Jessica A. Jonikas 312/355-1696 (V); 312/422-0706 (TTY); Fax: 312/355-4189

Project Number: 90RT5012 (formerly H133B100028)
Start Date: October 01, 2010
Length: 60 months
NIDILRR Officer: Leslie J. Caplan, PhD
NIDILRR Funding: FY 10 $649,976; FY 11 $649,976; FY 12 $649,976; FY 13 $649,962; FY 14 $649,976; FY 15 (No-cost extension through 9/30/2016)

Abstract: The Rehabilitation Research Training Center (RRTC) on Psychiatric Disability and Co-Occurring Medical Conditions conducts a series of projects to identify and reduce health disparities among people with psychiatric disabilities while promoting wellness and recovery, enhancing employment outcomes, and providing targeted education and training. Research projects include a seven-state health screening of people with psychiatric disabilities to estimate the prevalence of medical co-morbidities and people’s health care needs. Also included are two randomized controlled trial studies on: (1) an electronic decision support system to motivate smoking cessation treatment, and (2) the Georgia Peer Support Whole Health model to determine its effectiveness in helping people set and achieve personal health goals. Another project involves assessment of the impact of using a disease registry to improve health and mental health care coordination for people with co-occurring diabetes and psychiatric disabilities. The final research project involves developing and testing a new model combining evidence-based practice-supported employment with peer wellness promotion. Training projects include adaptation of an evidence-based weight management intervention into a curricular format for use by clinicians and peer providers, as well as a how-to health screening manual to be tested in three locations to promote public policy shifts that improve medical care. Another program equips medical students and residents with knowledge about evidence-based medicine when treating co-occurring psychiatric disability and medical conditions. Also offered is an on-line instructional program, as well as the creation and evaluation of a web-based employee wellness program for a peer workforce employed in five states. Finally, the Center is convening a state-of-the-science national conference in 2014 resulting in a comprehensive report.
Rehabilitation Research and Training Center on Developmental Disabilities and Health

University of Illinois at Chicago
Department of Disability and Human Development (MC 626)
College of Applied Health Sciences
1640 West Roosevelt Road
Chicago, IL 60608-6904
www.rrtcdd.org
healthmattersprogram.org

Principal Investigator: Tamar Heller, PhD
Public Contact: 312/413-1647 (V); 800/996-8845 (V); 312/413-0453 (TTY); Fax: 312/996-6942

Project Number: 90RT5020 (formerly H133B130007)
Start Date: October 01, 2013
Length: 60 months

NIDILRR Officer: Dawn Carlson, PhD, MPH

NIDILRR Funding: FY 13 $874,992; FY 14 $874,992; FY 15 $874,999; FY 16 $874,992; FY 17 $874,994

Abstract: This project enhances the health and function of adults with intellectual and developmental disabilities (I/DD) over their lifespan through a coordinated set of research, training, technical assistance, and dissemination activities. The goals of the center are to (1) increase the understanding of health status, health access, and health behaviors of adolescents and adults with I/DD; (2) improve the health and function of persons with I/DD through health promotion interventions; and (3) improve health care access through integrated care practices. Research activities include, but are not limited to, national database analyses of the Medical Expenditure Panel Survey, the National Health Interview Survey, Survey of Child Special Health Care Needs, and the Survey of Adult Transition and Health; a continuing prospective cohort study of health behaviors on health and function over a 10-year period, including minorities with I/DD; the development of a technology-based intervention to reduce obesity; and evaluation of the scaling up of the evidence-based “Health Matters” exercise and nutrition program for individuals with I/DD developed by the project, under a previous grant. The Center includes a prospective study to assess the impact of changes in health and long-term practices to health and function, health care access, preventative services, and satisfaction of adults with I/DD in the process of a change from fee-for-service to integrated health and long-term care with specific analyses targeting persons with diabetes, heart disease, and Alzheimer’s disease. The project’s innovative training and technical assistance approaches include (1) dissemination through national provider, professional, and consumer collaborations; (2) development of user-friendly products in various formats; (3) use of the train-the-trainer and peer training models to promote local ownership of effective practices; (4) targeted promotion of systemic changes that maintain programmatic and policy changes; (5) leadership in national task forces; and (6) use of web-based technologies to provide global access to knowledge and training products, including dissemination through the project’s website, the National Center on Health, Physical Activity and Disability, and the Health Matters Program; and (7) provision of certificate programs in disability and health promotion. This project continues its leadership role in increasing the self-determination of adults with I/DD and their families by involving consumers in all phases of its research, training, and dissemination activities.
Rehabilitation Research and Training Centers (RRTCs)
Illinois

RRTC on Developing Optimal Strategies in Exercise and Survival Skills to Increase Health and Function

Rehabilitation Institute of Chicago (RIC)
345 East Superior Street
Chicago, IL 60611
eroth@ric.org
www.ric.org/research/centers/dosesses

Principal Investigator: Elliot J. Roth, MD; T. George Hornby, PT, PhD
Public Contact: 312/238-4864; Fax: 312/238-1417

Project Number: 90RT5027 (formerly H133B140012)
Start Date: October 01, 2014
Length: 60 months
NIDILRR Officer: A. Cate Miller, PhD
NIDILRR Funding: FY 14 $874,864; FY 15 $874,768; FY 16 $874,820; FY 17 $874,793; FY 18 $874,782

Abstract: This RRTC develops and tests innovative strategies to enable people with disabilities to achieve and maintain their optimal health and function; assesses the optimal dosing, cost-effectiveness, and value of selected approaches to achieve and maintain their health and function; and disseminates information regarding these strategies to various stakeholders. Specific project objectives include: (1) establishing and operating a coordinated, comprehensive, and interdisciplinary Center comprised of a team of specialists with expertise in clinical rehabilitation and research methodology; (2) evaluating the contributions of the task-specific training parameters, intensity, and variability on lower extremity function post-stroke; (3) evaluating the impact of focused, intensive training applied during clinical inpatient physical therapy on mobility outcomes, health, and community participation in patients with acute neurological injury; (4) conducting a randomized clinical trial to compare the efficacy and cost-effectiveness of two different dosing methods for providing an Intensive Comprehensive Aphasia Program; (5) developing and evaluating the feasibility, acceptability, and effectiveness of a targeted evidence-based Peer Health Navigator program for Medicaid beneficiaries with physical disabilities; and (6) assessing the economic and social value of each proposed research intervention. This project also conducts knowledge translation activities and builds research capacity through educating future generations of disability researchers, professionals, people with disability and their families, and the general public, by providing them with the tools and training they need to be able to understand important information regarding health, function, community living, and research methods.
Rehabilitation Research and Training Center on Self-Directed Recovery and Integrated Health Care

University of Illinois at Chicago
Center on Mental Health Services Research and Policy
1601 West Taylor Street, 4th Floor, M/C 912
Chicago, IL 60612
jonikas@psych.uic.edu
www.cmhsrp.uic.edu/health
www.facebook.com/UICHealthRRTC
twitter.com/UICHealthRRTC

Principal Investigator: Judith Cook, PhD
Public Contact: Jessica A. Jonikas 312/355-1696 (V); 312/422-0706 (TTY); Fax: 312/355-4189

Project Number: 90RT5038
Start Date: September 30, 2015
Length: 60 months

NIDILRR Officer: Leslie J. Caplan, PhD

NIDILRR Funding: FY 15 $874,951; FY 16 $874,991; FY 17 $874,986; FY 18 $874,937; FY 19 $874,927

Abstract: This project creates, modifies, and improves self-directed models of medical care and mental health services that promote recovery, health, and employment for people with psychiatric disabilities. The goal of the center is to improve employment outcomes, stimulate the development of self-directed recovery models that are peer-led, and enhance the health and well-being of people with mental illnesses and co-occurring medical conditions. Research activities include: a multi-site randomized controlled trial of self-directed care for adults with psychiatric disabilities in the states of Texas and Florida; development and testing of a new intervention designed to help people with serious mental illnesses self-manage their physical health while working toward recovery of their emotional wellness; an evaluation of costs, medical service utilization, and 30-day readmissions following discharge from medical hospitalizations using the national Truven Health Analytics MarketScan Multistate Medicaid Database; development of a transition intervention that supports patients as they move from the hospital to the community, using teams of community health workers and certified mental health peer specialists; and evaluation of the impact of personal budgets called Career Accounts on the employment outcomes of individuals receiving evidence-based supported employment services designed to help them secure a competitive job.

The center implements the UIC Health & Recovery Solutions Practice, Policy, and Science Exchange to promote knowledge translation through training, dissemination, and technical assistance. Each component of the Exchange is designed to meet the specific needs of its audience with varied dissemination, training, or technical assistance formats of appropriate duration and intensity. The Health & Recovery Solutions Suite is a set of tools, curricula, and manuals that will help people with psychiatric disabilities, their supporters, service providers, and policymakers to promote self-directed recovery of health and wellness. The Health & Recovery Solutions Policy Academy utilizes modalities that are tailored to the needs of human service system designers, including a policymaker mentoring initiative, legislative ac-
tion alerts, and an online technical assistance web portal staffed by experts in state systems change and transformation. The Health & Recovery Solutions Science Showcase is intended to meet the needs of researchers, scholars, and students by informing them about the Center’s research and evaluation projects, highlighting research tools, featuring recent publications on self-directed recovery and healthcare integration, and offering podcasts and free mini-courses on disability research topics. The center will also convene a state-of-the-science national conference in 2018, focusing on self-directed health and mental health care, integration of health and behavioral health care, and self-determination in the vocational rehabilitation process.
Rehabilitation Research and Training Centers (RRTCs)
Ohio

Rehabilitation Research and Training Center on Interventions for Children and Youth with TBI

Children’s Hospital Medical Center
Pediatric Rehabilitation
3333 Burnet Avenue
Cincinnati, OH 45229
shari.wade@cchmc.org
www.tbifocus.org
www.facebook.com/headinjurystudiescincinnatichildrens

Principal Investigator: Shari L. Wade, PhD; Ann E. Glang, PhD; Michael Kirkwood, PhD; McKay Sohlberg, PhD; Terry Stancin, PhD; H. Gerry Taylor, PhD; Keith O. Yeates, PhD
Public Contact: 513/636-3370; Fax: 513/636-7360

Project Number: 90RT5004 (formerly H133B090010)
Start Date: October 01, 2009
Length: 60 months
NIDILRR Officer: A. Cate Miller, PhD
NIDILRR Funding: FY 09 $799,337; FY 10 $799,915; FY 11 $799,884; FY 12 $799,542; FY 13 $799,682; FY 14 (No-cost extension through 9/30/2015); FY 15 (No-cost extension through 9/30/2016)

Abstract: This project addresses the need for interventions for children and youth with traumatic brain injury (TBI). Interventions designed for this population must: (a) target the continuum of service delivery; (b) address the changing needs of the population; and most importantly, (c) include tools, training activities, and dissemination mechanisms for all of the “everyday” people who support children and youth. Project research identifies a reliable and valid measurement battery for assessing functional improvements arising from TBI interventions; and initiates a national, shared database of TBI outcomes data. This RRTC: (1) evaluates specific interventions to improve cognitive, behavioral, and psychosocial outcomes with a range of children and youth with TBI through randomized clinical trials; (2) evaluates the effectiveness of the validated interventions in natural settings; and (3) uses multi-method evaluations of the efficacy of training, technical assistance, and dissemination activities to verify the utility of the final products.
Rehabilitation Research and Training Centers (RRTCs)
South Carolina

Rehabilitation Research and Training Center on Secondary Conditions in Individuals with SCI

Medical University of South Carolina
College of Health Professions
Department of Health Science and Research
77 President Street, Suite C101; MSC 700
Charleston, SC 29425
swayngim@musc.edu
www.longevityafterinjury.com
academicdepartments.musc.edu/chp/longevity_after_injury/funded_projects/rrtc
www.helpafterdisability.com
sciandtbiresearch.blogspot.com
www.facebook.com/longevityafterinjuryproject
www.linkedin.com/groups/MUSC-Longevity-after-Injury-Project-5043886?trk=myg_ugrp_ovr

Principal Investigator: James S. Krause, PhD; Lee L. Saunders, PhD; 843/792-1337
Public Contact: Karla Swayngim Reed 843/792-7051; Fax: 843/792-5649

Project Number: 90RT5003 (formerly H133B090005)
Start Date: October 01, 2009
Length: 60 months
NIDILRR Officer: Pimjai Sudsawad, ScD
NIDILRR Funding: FY 09 $794,504; FY 10 $797,646; FY 11 $791,037; FY 12 $794,494; FY 13 $786,639; FY 14 (No-cost extension through 9/30/2015); FY 15 (No-cost extension through 9/29/2016)

Abstract: The RRTC combines an integrated program of research to identify risk and protective factors for secondary conditions in spinal cord injury (SCI) with a systematic program of education, training, dissemination, and technical assistance. This program allows new knowledge to be directly translated into prevention strategies at the policy, rehabilitative, clinical, community, and individual consumer levels. The key to prevention of secondary conditions is to first identify to whom they occur and why, then to widely educate and disseminate new knowledge to professionals and consumers in a format they can directly use in the prevention of secondary conditions. Through three research studies, integrating two theoretical models of risk of secondary conditions, the project identifies the risk and protective factors that put the greatest number of individuals at risk for the greatest number of conditions. Study 1 is a longitudinal follow-up of 2,548 participants who completed an extensive assessment of risk and protective factors for secondary conditions that include adverse events (e.g., pressure ulcers, hospitalizations), chronic conditions (e.g., pain, fatigue), and psychosocial conditions (e.g., depressive disorder). A new cohort is also being added to the study, comprised of those who are more recently injured (no less than 500 participants). The study examines the stability of secondary conditions and identifies psychological, environmental, and behavioral predictors of future episodes of secondary conditions. Study 2 identifies the association of access to health services, including initial rehabilitation services (i.e., inpatient, outpatient only, no rehabilitation), with presence of secondary conditions. By using two population-based cohorts, with an anticipated 1,500 responses, this study identifies the role of access to services among
those with the fewest resources as they are at greatest risk for secondary conditions. Study 3 utilizes a 17-year follow-up among approximately 150 participants from Rancho Los Amigos National Rehabilitation Center, along with approximately 200 more recently injured individuals, to investigate the stability of metabolic syndrome over time and its relationship with risk and protective factors, and with secondary conditions including pain, fatigue, and a depressive disorder.
University of Washington Rehabilitation Research and Training Center on Promoting Healthy Aging for Individuals with Long-Term Physical Disabilities

University of Washington
Department of Rehabilitation Medicine
1959 NE Pacific Street
Seattle, WA 98195
agerrtc@uw.edu
agerrtc.washington.edu
www.facebook.com/pages/Healthy-Aging-RRTC/308875452523165
twitter.com/AgingRRTC

Principal Investigator: Ivan Molton, PhD 206/543-3602
Public Contact: Amanda Smith 866/928-2114; Fax: 206/685-3244

Project Number: 90RT5023 (formerly H133B130018)
Start Date: October 01, 2013
Length: 60 months
NIDILRR Officer: Margaret Campbell, PhD
NIDILRR Funding: FY 13 $875,000; FY 14 $875,000; FY 15 $875,000; FY 16 $875,000; FY 17 $875,000

Abstract: This project is devoted to better understanding the factors associated with healthy aging in persons with spinal cord injury (SCI), multiple sclerosis (MS), late effects of polio (PPS), and muscular dystrophy (MD). Research activities focus on the impact of secondary conditions and barriers to health care access; testing the feasibility of community-based health and wellness intervention to promote healthy aging in persons with SCI, MS, PPS, and MD; developing an intervention to promote positive psychological adjustment in persons with MS; enhancing understanding of the effect of federal programs such as Medicaid Managed Care on receipt of and satisfaction with health care services; and serving as a national resource center on aging with long-term physical disabilities. Four interrelated scientific studies on healthy aging and disability make up this project and are conducted with the full involvement of consumers and key stakeholder groups. Project I continues a recently-completed, longitudinal survey of 1,600 individuals with long-term physical disabilities, creating the largest longitudinal database of secondary health conditions in the target population. Project II tests the efficacy of an existing, empirically-supported health and wellness intervention in promoting healthy aging for adults with SCI, MS, MD, or PPS in collaboration with a large, regional community senior services agency. Project III develops and pilot tests a novel intervention designed to promote positive psychological factors that are key to healthy aging in individuals with MS. Project IV builds on an existing study of Medicaid Managed Care to evaluate the impact of Medicaid Managed Care on health care utilization, function, and consumer satisfaction in a sample of more than 14,000 individuals with long-term physical disabilities. Dissemination activities include (1) holding a state-of-the-science conference on aging with disabilities; (2) publishing the findings from the studies in national and international journals; and (3) presenting the findings at high profile scientific conferences in the field. This project plans for knowledge translation to occur through pre-service curricula, national consumer organizations, and web-based platforms.
Disability and Rehabilitation Research Projects (DRRPs)
Alabama

Dose-Response Effects of Transformative Exercise in Improving Health and Function in Adults with Spinal Cord Injury and Multiple Sclerosis

The University of Alabama at Birmingham
School of Health Professions, SHPB 331
1720 2nd Avenue South
Birmingham, AL 35294-3361
jrimmer@uab.edu

Principal Investigator: James H. Rimmer, PhD
Public Contact: 205/975-9010; Fax: 205/975-7787

Project Number: 90DP0059 (formerly H133A130044)
Start Date: October 01, 2013
Length: 60 months
NIDILRR Officer: Margaret Campbell, PhD
NIDILRR Funding: FY 13 $475,000; FY 14 $475,000; FY 15 $475,000; FY 16 $475,000; FY 17 $475,000

Abstract: This project consists of three overlapping studies focused on developing and implementing sustainable and effective approaches to improving health and function in people with spinal cord injury (SCI) and multiple sclerosis (MS). The first study (R1) develops and conducts a longitudinal trial focused on prospectively examining the relationships between variables such as sociodemographics, physical activity, diet, health outcomes, and environmental and sociocultural factors in a longitudinal cohort of 120 adults with SCI and 120 adults with MS. Each participant receives twice-yearly assessments via questionnaire and annual laboratory health/physical function tests. Anticipated outcomes include increased knowledge of variables that affect the health trajectories of people with SCI and MS as well as a data-driven framework for the development and testing of interventions to address secondary health conditions, functional deficits, and quality of life in people with disabilities. The second study (R2) is a randomized controlled trial examining the dose-response effects of two types of innovative group exercise classes on the health and functional status of adults with SCI and MS, and determines the relationship between gains in physical function and health status in this population. Finally, the third study (R3) utilizes a tele-health exercise training and monitoring system (e.g., tele-exercise) in translating clinical findings into a home-based exercise program addressing the needs of adults with SCI and MS which is supervised via a remote tele-coach.
A Lifestyle Intervention Targeting Enhanced Health and Function for Persons with Chronic SCI in Caregiver/Care-Receiver Relationships: Effects of Caregiver Co-Treatment

University of Miami
1320 South Dixie Highway, Suite 650
Coral Gables, FL 33146-2919
mnash@med.miami.edu

Principal Investigator: Mark Nash, PhD
Public Contact: 305/243-3628

Project Number: 90DP0074
Start Date: September 30, 2015
Length: 60 months
NIDILRR Officer: Stephen Bauer, PhD
NIDILRR Funding: FY 15 $498,572; FY 16 $497,183; FY 17 $498,908; FY 18 $499,403; FY 19 $484,761

Abstract: This project evaluates and tests a population-specific lifestyle intervention (LI) in persons with spinal cord injury (SCI) that significantly improves fitness, lessens the risk of cardiometabolic disease, and reduces body mass thus improving the execution of daily activities. An increase in body mass occurring early after SCI is widely reported to decay lifelong health and function. Obesity/overweight affects nearly 70 percent of the SCI population, imposing earlier and disproportionate risks for healthy-decaying cardioendocrine disease, inflammatory stress, musculoskeletal pain, and functional decline. These risks also impose significant physical and emotional stress on the caregivers of people with SCI, who are progressively challenged to maintain a reserve of health and function as they also age. Project goals include: (1) testing the impact of a model LI program on attributes of health and function that are recognized to compromise healthy aging in persons with SCI living in caregiver/care-receiver relationships, (2) examining the impact of the LI on the relationship of the caregiver/care-receiver dyad, and (3) determining whether co-intervention with the caregiver improves health/function for their partner. This two-center, randomized, parallel group, wash-in controlled study enrolls 60 men/women ages 18-65 with SCI for more than one year. Their caregivers are co-enrolled, and are defined as family members, significant others, or friends who provide social and/or physical support including personal assistance, routine emotional encouragement, and/or social interaction. All participants with SCI undergo an intense, 6-month LI program incorporating circuit resistance training, Mediterranean-style diet, and a customized 16-session behavioral intervention. A 6-month minimally supervised extension tests intervention durability. Half of the caregivers undergo a comparable, caregiver-targeted exercise, nutrition, and behavioral intervention; and the remaining caregivers receive a compilation of general exercise and nutrition recommendations vetted by medical and nutritional authorities. The outcomes for participants with SCI are examined for body mass and fitness; biomarkers of cardioendocrine risk and inflammation; function; multidimensional pain; and health-related quality of life, treatment acceptance, and symptoms of anxiety, and depression. Caregiver participants are evaluated for their function, multidimensional pain, and health-related quality of life, caregiver burden, life satisfaction, anxiety, and treatment acceptance. A Consumer Advisory Board and Medical Monitor evaluates project progress and information, which is disseminated through consumer conferences, scientific presentations, juried manuscripts, web-based media, and conference symposia attended by health care professionals.

NIDILRR Program Directory FY 2015 - Health and Function
3-14
Robot-Aided Diagnosis, Passive-Active Arm Motor and Sensory Rehabilitation Post Stroke

Rehabilitation Institute of Chicago (RIC)
345 East Superior Street, Room 1406
Chicago, IL 60611
l-zhang@northwestern.edu

Principal Investigator: Li-Qun Zhang, PhD
Public Contact: 312/238-4767; Fax: 312/238-2208

Project Number: 90DP0069 (formerly H133A140065)
Start Date: October 01, 2014
Length: 60 months
NIDILRR Officer: Stephen Bauer, PhD
NIDILRR Funding: FY 14 $499,930; FY 15 $499,930; FY 16 $499,720; FY 17 $499,829; FY 18 $499,678

Abstract: This project develops a custom rehabilitation system to provide a robot-aided diagnosis and passive-active arm motor and sensory rehabilitation post stroke. Project objectives are threefold: (1) quantify the progression of neuromechanical properties throughout the upper extremity during recovery from stroke, (2) address allocation of therapy resources between the arm and hand, and (3) examine the benefits of combining passive stretching with active movement training. Custom devices are employed to both perturb and measure the arm and hand. The data captures the timeline for the advent of specific complications such as spasticity in the different joints and the extent to which they change over time and provides a guide for future treatment. The project investigates and assesses a rehabilitation paradigm for targeting the entire upper extremity, rather than just the arm or just the hand. Both passive stretching and active movement therapy are implemented by two unique devices, the IntelliArm and the X-Glove. The multi-joint IntelliArm rehabilitation robot is capable of controlling and measuring the shoulder, elbow, and wrist simultaneously in order to carry out multi-joint sensorimotor characterizations, forceful stretching, and robot-guided active movement training. The X-Glove robot independently actuates each digit, allowing for stretching and movement assistance customized for each digit. Subacute stroke survivors participate in a blinded, controlled longitudinal intervention trial. Outcome evaluations in stroke survivors capture changes both in clinical measures of upper extremity performance and in neuromechanical properties. The results provide important data for deciding how best to devote limited resources to therapy.
Motivating Self-Management Through Multi-Media Health Promotion

University of Montana
32 Campus Drive Main Hall
Missoula, MT 59812-0001
cravesloot@ruralinstitute.umt.edu

**Principal Investigator:** Craig Ravesloot, PhD
**Public Contact:** 406/243-2992

**Project Number:** 90DP0073
**Start Date:** September 30, 2015
**Length:** 60 months

**NIDILRR Officer:** Pimjai Sudsawad, ScD
**NIDILRR Funding:** FY 15 $499,811; FY 16 $499,999; FY 17 $499,780; FY 18 $499,815; FY 19 $499,952

**Abstract:** This project develops two online, multi-media products that community-based agencies can use to deliver state-of-the-art health promotion services to people with disabilities living in the community. The first product, Multi-Media Living Well with a Disability (MMLWD) is based on the 4th edition of Living Well with a Disability curriculum created by the Research and Training Center on Disability in Rural Communities. The second product, Motivation for Self-Management, is a new multimedia health promotion module based on Self-Determination Theory that increases consumer motivation and confidence for engaging in self-management. These products help to improve the health of people with disabilities by increasing accessibility to evidence-based health promotion curricula that has been shown to be cost-effective for reducing limitation due to secondary conditions. While not focused solely on rural populations, this project partners with long-term collaborator, the Association of Programs for Rural Independent Living (APRIL), who has recruited eight Centers for Independent Living to participate on one of two development teams. These centers are located in urban areas across the country but also provide services to rural areas using satellite offices (e.g., Atlanta, Los Angeles, and Houston). These development teams work in parallel to develop each online multimedia curriculum using an Iterative Participatory Curriculum Development (IPCD) procedure. Knowledge translation activities include new training and technical assistance procedures, and along with outcome results, are widely disseminated to a variety of community-based programs (e.g., Aging and Disability Research Centers) and health promotion researchers.
Collaboration on Mobility Training (COMIT)

University of Pittsburgh
UPMC Rehabilitation Institute
1400 Locust Street
Building B, Suite 11516
Pittsburgh, PA 15219
greekk@upmc.edu
www.upmc-sci.org
www.rehabmedicine.pitt.edu

Principal Investigator: Michael L. Boninger, MD 412/692-4893
Public Contact: Karen Greenwald, RN 412/232-7949; Fax: 412/232-7535

Project Number: 90DP0025 (formerly H133A120004)
Start Date: October 01, 2012
Length: 60 months
NIDILRR Officer: Theresa San Agustin, MD
NIDILRR Funding: FY 12 $900,000; FY 13 $900,000; FY 14 $900,000; FY 15 $900,000; FY 16 $900,000

Abstract: This project addresses lack of training in wheelchair use and maintenance provided to individuals with spinal cord injury (SCI) through randomized controlled trials of two training interventions: the Wheelchair Skills Program (WSP) and the Wheelchair Maintenance Training Program (WMTP). The WSP includes an assessment, the Wheelchair Skills Test (WST), and a training protocol (WSTP). This project: (1) tests the ability of the WSTP to improve manual wheelchair skills in individuals with chronic SCI; (2) refines and tests the WMTP, a readily translatable intervention to improve the maintenance of manual and power wheelchairs by users with SCI and their caregivers; (3) identifies the relative benefits of the combination of WSP and WMTP on quality of life of wheelchair users; and (4) develops and tests readily accessible web-based training programs for clinicians to learn the WSP and WMTP. By improving training in use and maintenance, the project aims to reduce wheelchair breakdowns and repetitive strain injuries for manual wheelchair users.
Promoting Independence and Self-Management Using mHealth

University of Pittsburgh
School of Health and Rehabilitation Sciences
6026 Forbes Tower
Pittsburgh, PA 15260
parmanto@pitt.edu

Principal Investigator: Bambang Parmanto, PhD
Public Contact: 412/383-6649

Project Number: 90DP0064 (formerly H133A140005)
Start Date: October 01, 2014
Length: 60 months
NIDILRR Officer: Margaret Campbell, PhD
NIDILRR Funding: FY 14 $499,911; FY 15 $499,562; FY 16 $499,291; FY 17 $499,619; FY 18 $499,581

Abstract: This project develops and implements mobile health (mHealth) tools to support self-management and aid youth with brain and spinal anomalies (BSA) in their transition to adulthood. Individuals with developmental BSAs, who may have impairments in self-management skills, are susceptible to secondary conditions. The early teen years are a developmentally appropriate time in one’s life to seek separation from one’s parents and gain full independence with regard to self-management. Many teens fail to develop the self-management skills necessary to independently manage medical and self-care routines. One major barrier identified was the lack of developmentally appropriate tools to help in this transition. The mHealth tools incorporate mechanisms for caregiver and family involvement and peer support. This project builds upon previous research with a self-management pilot project for individuals with spinal bifida, implementing the mHealth supported self-management program in a community setting, and developing educational support for participants.
Modulation of Catabolism Mediated by Catecholamine in Severely Burned Children: Analysis of Outcomes at Hospital Discharge, 6 Months, 1, 2, 5, 10, 15 and 20 Years Post-Injury

University of Texas Medical Branch
The University of Texas Medical Branch at Galveston
815 Market Street
Galveston, TX 77550
kepperso@utmb.edu

Principal Investigator: David Herndon, MD; Oscar Suman, PhD; 409/770-6731
Public Contact: Kathy Epperson 409/770-6573; Fax: 409/770-6919

Project Number: 90DP0043 (formerly H133A120091)
Start Date: October 01, 2012
Length: 60 months
NIDILRR Officer: A. Cate Miller, PhD
NIDILRR Funding: FY 12 $373,000; FY 13 $373,000; FY 14 $373,000; FY 15 $373,000; FY 16 $373,000

Abstract: This Pediatric Burn Center conducts clinical research studies that aim to modulate the catabolic and hypermetabolic response to burn trauma and improve long-term outcomes in children with severe burns. Site-specific studies assess: (1) the efficacy of propranolol administered for one year post-burn to diminish the effects of catecholamine to reduce the hypermetabolic and catabolic response, and (2) the efficacy of the combination of oxandrolone plus propranolol administered for one year post-burn to diminish the effects of catecholamine to reduce the hypermetabolic and catabolic response.
Multicenter Evaluation of Memory Remediation After Traumatic Brain Injury with Donepezil (MEMRI-TBI-D)

Memorial Hermann Health System
Baylor College of Medicine
One Baylor Plaza; BCM350
Houston, TX 77030
david.arciniegas@bcm.edu

Principal Investigator: David B. Arciniegas, MD
Public Contact: 713/797-7579; Fax: 713/798-4089

Project Number: 90DP0060 (formerly H133A130047)
Start Date: October 01, 2013
Length: 60 months
NIDILRR Officer: A. Cate Miller, PhD

NIDILRR Funding: FY 13 $600,000; FY 14 $600,000; FY 15 $600,000; FY 16 $600,000; FY 17 $600,000

Abstract: This project evaluates the effectiveness of donepezil as treatment for traumatic brain injury (TBI)-related memory deficit. The study is a four-site, randomized, parallel design, double-blind, placebo-controlled, 10-week trial of donepezil 10 mg daily for verbal memory problems among adults with TBI in the sub-acute or chronic recovery period. The study recruits persons with TBI and functionally important memory problems during a four-year period of open recruitment to evaluate the effects of treatment with donepezil on verbal memory. Additionally, the study evaluates the effects of treatment with donepezil on memory-related activities. Data is collected assessing the effects of donepezil on attention, processing speed, neuropsychiatric symptoms, community participation, quality of life, and caregiver experiences.
Abstract: The goal of this project is to provide a multidisciplinary comprehensive system of care for individuals with burn injury that spans the complete continuum from preventative programs and emergency services to community reintegration and vocational rehabilitation, and fosters burn injury rehabilitation research. The project includes a site-specific project to treat pain, itch, and psychological impairments in burn injury using transcranial Direct Current Stimulation (tDCS), a novel, noninvasive method of brain stimulation. The project also contributes to the Burn Injury Model System national database to facilitate the comprehensive longitudinal assessment of burn injury outcomes. In addition, the Model System disseminates research findings in the region and nationally through seminars, presentations at professional and consumer meetings, publishing in professional and consumer journals, and collaboration with the Model Systems Knowledge Translation Center. The project is a collaboration of clinical and research resources of Harvard Medical School, Partners Healthcare System (Spaulding Rehabilitation Hospital, Massachusetts General Hospital), and Shriners Hospitals for Children.
Burn Injury Model Systems
Texas

North Texas Burn Rehabilitation Model System (NTBRMS)

The University of Texas Southwestern Medical Center
Department of Physical Medicine and Rehabilitation
5323 Harry Hines Boulevard
Dallas, TX 75390-9136
radha.holavanahalli@utsouthwestern.edu
www.utsouthwestern.edu/education/medical-school/departments/
physical-medicine/ntbrms/index.html

Principal Investigator: Karen Kowalske, MD 214/648-2240
Public Contact: Radha Holavanahalli, PhD 214/648-9540; 214/648-3654; Fax: 214/648-2005

Project Number: 90DP0042 (formerly H133A120090)
Start Date: October 01, 2012
Length: 60 months
NIDILRR Officer: Kenneth D. Wood, PhD
NIDILRR Funding: FY 12 $383,000; FY 13 $383,000; FY 14 $383,000; FY 15 $383,000; FY 16 $383,000

Abstract: This project provides comprehensive, multi-disciplinary services to children and adults who sustain major burn injuries from the time of injury to long-term follow-up. The project contributes data to the Burn Model System national database, including follow-up data on eligible subjects at 6 months, 1, 2, 5, and 10 years, and extends follow-up to every 5 years thereafter. North Texas Burn Rehabilitation Model System (NTBRMS) includes a quarterly rural satellite clinic to serve the needs of those patients who cannot return to the burn center for a follow-up. The project includes two site-specific studies: (1) The Effect of Heat Intolerance on Exercise and Physical Function, a prospective, randomized single center study on the efficacy of an exercise intervention and outcomes relating to heat intolerance among survivors of a burn injury to assess if perception of heat intolerance and the related fear of exercise among burn survivors changes following an exercise intervention; and (2) The Evaluation of a Web-Based Social Skills Training Program for Burn Survivors, a program that is designed to assist burn survivors who have a disfigurement in preparing for social situations after leaving the hospital. The NTBRMS collaborates with the Model System Knowledge Translation Center in planning its dissemination activities and providing scientific results and information to clinical and consumer audiences by participating in its systematic reviews of evidence and development of consumer factsheets. Other dissemination efforts include state-of-the-science meetings, several webinars, and other materials.
Burn Injury Model Systems
Washington

Northwest Regional Burn Model System Center

University of Washington
Department of Surgery
Harborview Medical Center
325 Ninth Avenue
Box 359796
Seattle, WA 98104
carrough@uw.edu
burnrehab.washington.edu

Principal Investigator: Nicole Gibran, MD; Peter C. Esselman, MD; 206/744-3140
Public Contact: Gretchen Carrougher, RN, MN 206/744-2866; Fax: 206/744-3656

Project Number: 90DP0029 (formerly H133A120024)
Start Date: October 01, 2012
Length: 60 months
NIDILRR Officer: A. Cate Miller, PhD
NIDILRR Funding: FY 12 $383,000; FY 13 $383,000; FY 14 $383,000; FY 15 $383,000; FY 16 $383,000

Abstract: This project builds upon past efforts to address significant issues of concern to burn survivors – pain management, distress, hypertrophic scarring, community re-entry, and return to work. In addition to participation in the long-term outcomes national database, the project includes one major dissemination project and one site-specific research project. Project 1 – Return to Work After Burn Injury Website Dissemination Project utilizes web-based dissemination efforts to provide education regarding challenges and processes encountered following a significant burn injury. Project 2 – Impact of Hypnosis on Post-Burn Pain and Itch: Randomized Controlled Trial utilizes expertise in clinical management of pain and itch, and experience with hypnosis as an innovative non-pharmacologic intervention. The control group receives pharmacologic treatment using an established treatment algorithm for post-burn itch; the experimental group undergoes hypnosis as well as a standard treatment regimen.
UAB Spinal Cord Injury Model System

University of Alabama at Birmingham
Department of Physical Medicine and Rehabilitation
1717 6th Avenue South - SRC 529
Birmingham, AL 35233-7330
sciweb@uab.edu
www.uab.edu/sci

Principal Investigator: Amie B. McLain, MD; J. Scott Richards, PhD; 205/934-3330
Public Contact: Phil Klebine 205/934-3283; Fax: 205/975-4691

Project Number: 90SI5005 (formerly H133N110008)
Start Date: October 01, 2011
Length: 60 months
NIDILRR Officer: Kenneth D. Wood, PhD
NIDILRR Funding: FY 11 $475,998; FY 12 $475,998; FY 13 $475,998; FY 14 $475,998; FY 15 $475,998

Abstract: The University of Alabama Spinal Cord Injury Model System (UAB-SCIMS) spans the clinical continuum from emergency services through rehabilitation and community re-entry. This multidisciplinary, comprehensive system provides rehabilitation services specifically designed to meet the needs of individuals with spinal cord injury (SCI). The project participates in one or more collaborative research modules, and one in-house research project, the latter aimed at improving the health and function of individuals served. The in-house research project is a controlled intervention trial of a novel approach to treating neuropathic pain, one of the most problematic and difficult-to-treat complications of SCI. UAB-SCIMS continues to participate in data collection activities for the National Spinal Cord Injury Statistical Center, and disseminates its results through a variety of accessible formats and venues for both professionals and persons with SCI and their families.
Southern California Spinal Cord Injury Model System at Rancho Los Amigos National Rehabilitation Center

Rancho Los Amigos National Rehabilitation Center
Los Amigos Research and Education Institute
7601 East Imperial Highway
Downey, CA 90242
l.sutherlandrerc@verizon.net
ranchoresearch.org/research/spinal-cord-injury
www.larei.org

Principal Investigator: Mindy L. Aisen, MD; Yaga Szlachcic, MD; Sara Mulroy, PhD; Philip S. Requejo, PhD
Public Contact: 562/401-7541; Fax: 562/803-5569

Project Number: 90SI5010 (formerly H133N110018)
Start Date: October 01, 2011
Length: 60 months
NIDILRR Officer: Theresa San Agustin, MD
NIDILRR Funding: FY 11 $463,000; FY 12 $463,000; FY 13 $463,000; FY 14 $463,000; FY 15 $463,000

Abstract: The overarching objective of the Southern California Spinal Cord Injury Model System at Rancho Los Amigos National Rehabilitation Center is to generate new knowledge that directly contributes to improving the health and function, and community participation for persons with spinal cord injury (SCI). This project includes four integrated categories of effort, each led by a management team: (1) comprehensive service delivery, (2) participation in the National Spinal Cord Injury Database, (3) site-specific research, and (4) collaborative research module(s). The site-specific research project uses a longitudinal randomized clinical trial to identify whether a home-based intervention that was demonstrated to be effective at reducing chronic shoulder pain in persons with SCI could be used as a preventative program to decrease the rate of shoulder pain onset. Additionally, the project tests whether a more interactive version of the prevention program would also enhance community participation and self-efficacy for exercise engagement, in addition to further lowering the rate of shoulder pain onset.
Spinal Cord Injury Model Systems  
Colorado

The Rocky Mountain Regional Spinal Injury System

Craig Hospital  
3425 South Clarkson Street  
Englewood, CO 80113-2899  
susie@craighospital.org  
www.craighospital.org/Left-Nav/Craig-Programs/SCI---TBI-Research/Spinal-Cord-Injury-Research

Principal Investigator: Susan Charlifue, PhD; Daniel P. Lammertse, MD; 303/789-8220  
Public Contact: Susan Charlifue, PhD 303/789-8306 (V); 303/789-8575 (TTY); Fax: 303/789-8441

Project Number: 90SI5003 (formerly H133N110006)  
Start Date: October 01, 2011  
Length: 60 months  
NIDILRR Officer: Kenneth D. Wood, PhD  
NIDILRR Funding: FY 11 $483,127; FY 12 $482,270; FY 13 $483,438; FY 14 $482,985; FY 15 $482,484

Abstract: The Rocky Mountain Regional Spinal Injury System (RMRSIS) is well-established, progressive, and offers state-of-the-art acute trauma, rehabilitation, and follow-up throughout the lives of people with spinal cord injury (SCI). The RMRSIS' goals are to: (1) implement a program of research focusing on the immediate and long-term health, function, community living, and participation of people with SCI; (2) continually improve its existing and well-integrated, comprehensive lifetime system of care for people with SCI; and (3) continue exemplary participation in the National SCI Database. A site-specific research study tests a group intervention aimed at improving self-efficacy for people with SCI. The RMRSIS participates in collaborative research modules with other Model Systems in both lead and support capacities. The RMRSIS includes two Level I trauma centers with specialized acute neurotrauma care facilities (St. Anthony Hospital and Swedish Medical Center), and the rehabilitation and lifetime follow-up services of Craig Hospital.
Spinal Cord Injury Model Systems
Florida

South Florida Regional Spinal Cord Injury Model System

University of Miami
School of Medicine
1120 NW 14th Street, Room 950
Miami, FL 33136
JMejia-Galvis@med.miami.edu
www.scimiami.med.miami.edu

Principal Investigator: Elizabeth R. Felix, PhD; Kevin Dalal, MD; Mark Nash PhD
Public Contact: George Mejia-Galvis 305/243-3575; Fax: 305/243-4650

Project Number: 90SI5001 (formerly H133N110003)
Start Date: October 01, 2011
Length: 60 months
NIDILRR Officer: Dawn Carlson, PhD, MPH
NIDILRR Funding: FY 11 $444,000; FY 12 $444,000; FY 13 $444,000; FY 14 $444,000; FY 15 $444,000

Abstract: The South Florida Spinal Cord Injury System (SFSCIS) serves a high volume of patients with spinal cord injury (SCI) providing comprehensive rehabilitation services specifically designed to meet their needs. The clinical components of the SFSCIS include in-patient rehabilitation at Jackson Memorial Rehabilitation Hospital, vocational services, community and job placement, and long-term community follow-up and health maintenance. Project research includes: (1) a longitudinal study of the development of shoulder pain/pathology during the first year after injury using quantitative ultrasound (QUS), and (2) a randomized controlled trial of an exercise intervention using QUS as a biologic marker. The goal is to improve outcomes in the preservation or restoration of function following SCI. Additionally, this project contributes to the National Spinal Cord Injury Database; utilizes culturally appropriate methods of education, training, and outreach throughout the care system; and includes a comprehensive evaluation program.
Southeastern Regional Spinal Cord Injury Model System at Shepherd Center

Shepherd Center, Inc.
Crawford Research Institute
2020 Peachtree Road, NW
Atlanta, GA 30309-1465
lesley_hudson@shepherd.org
www.shepherd.org/research/model-system-of-care

Principal Investigator: Edelle Field-Fote, PhD; Lesley M. Hudson; 404/603-4274; 404/350-7582
Public Contact: Lesley M. Hudson 404/350-7591; Fax: 404/350-7596

Project Number: 90SI5002 (formerly H133N110005)
Start Date: October 01, 2011
Length: 60 months
NIDILRR Officer: Theresa San Agustin, MD
NIDILRR Funding: FY 11 $483,500; FY 12 $483,499; FY 13 $483,499; FY 14 $483,500; FY 15 $483,500

Abstract: This model system conducts research and training activities that provide a comprehensive, integrated continuum of pre-hospital, medical, surgical, and rehabilitation services to persons with acute and chronic spinal cord injury (SCI). The current project includes four comprehensive elements: (1) continued management of a large model of service delivery for individuals with a diagnosis of traumatic SCI in the Southeastern United States, from point of injury through lifetime follow-up (500 SCI admissions annually); (2) comprehensive and timely collection of data on subjects who meet the inclusion criteria in three categories: Form I (inpatient hospitalization, 125 new subjects annually); Form II (longitudinal collection at 1, 5, 10, 15, 20, 25, and 30 years post-injury, 600 subjects followed annually); and Registry (demographics only, 200 new subjects annually); (3) two site specific research project titled: “Evaluation of an Improved Method to Assess and Follow the Recovery of Motor Control in SCI” and “A Longitudinal Study of Gainful Employment 10 Years After SCI Onset: Comparisons of Those Who Do and Do Not Return to the Pre-Injury Employer”; and (4) participation in four collaborative “module” research projects: Longitudinal Follow-Up of Individuals Having Diaphragm Pacing Systems Implanted, Extending the SCIRehab Project--Five Year Follow-Up, Evaluating the Sensitivity and Responsiveness of the SCI-QOL CATs, and Neurological Recovery.
Spinal Cord Injury Model Systems
Illinois

Midwest Regional Spinal Cord Injury Care System (MRSCIS)

Rehabilitation Institute of Chicago (RIC)
345 East Superior Street, Room 1146
Chicago, IL 60611
www.ric.org/research/research-centers--programs/mrscics

Principal Investigator: David Chen, MD; Allen W. Heinemann, PhD
Public Contact: 312/238-0764; Fax: 312/238/0869

Project Number: 90SI5009 (formerly H133N110014)
Start Date: October 01, 2011
Length: 60 months
NIDILRR Officer: Kenneth D. Wood, PhD
NIDILRR Funding: FY 11 $483,127; FY 12 $482,270; FY 13 $483,438; FY 14 $482,985; FY 15 $482,484

Abstract: The Midwest Regional Spinal Cord Injury Care System (MRSCIS) provides comprehensive, multi-disciplinary medical and rehabilitation care to persons with spinal cord injury (SCI) from the site of injury to community reintegration. The objectives of the MRSCICS are to (1) provide a comprehensive continuum of care for persons with SCI, (2) contribute to assessment of long-term outcomes by enrolling 80 subjects per year into the national SCI database, (3) conduct one site-specific study, (4) disseminate research findings to various stakeholders in an effective and timely manner, (5) collaborate effectively with the Model System Knowledge Translation Center, and (6) involve individuals with disabilities in research and dissemination activities. The site-specific study; Mobility, Activity, and Participation in Spinal Cord Injury (MAPS), evaluates a novel intervention to enhance the participation and community living outcomes of persons with SCI. The amount of daily physical activity is a primary determinant of self-reported and clinical measures of activity and participation, and quality of life. Specific exercise interventions can improve activity limitations and participation restrictions, including increased walking speed, metabolic capacity and efficiency, and self-reported participation.
Spinal Cord Injury Model Systems
Kentucky

Frazier Rehabilitation and Neuroscience Spinal Cord Injury Model System (FRNSCIMS)

University of Louisville Research Foundation, Inc.
Department of Neurosurgery
220 Abram Flexner Way, Suite 1506
Louisville, KY 40202
www.jhsmh.org/Health-Services/Rehab-Services-Frazier-Rehab/
Specialties/Spinal-Cord-Medicine-Program/Model-System-Of-Care.aspx

Principal Investigator: Daniel E. Graves, PhD; Susan Harkema, PhD; Daryl Kaelin, MD
Public Contact: Project Coordinator 502/582-7443

Project Number: 90SI5004 (formerly H133N110007)
Start Date: October 01, 2011
Length: 60 months
NIDILRR Officer: Dawn Carlson, PhD, MPH
NIDILRR Funding: FY 11 $443,999; FY 12 $443,999; FY 13 $443,999; FY 14 $443,999; FY 15 $443,994

Abstract: Frazier Rehabilitation and Neuroscience Spinal Cord Injury System (FRNSCIS) provides comprehensive, individualized care at all stages and levels of recovery, in all rehabilitation modalities, and across the life span of its patients with spinal cord injury (SCI). It uses a recovery model of care, state-of-the-art technologies, and an integrated team approach to maximize functional recovery and re-integration into the community for the individual who has experienced an SCI. Project objectives are to: (1) provide an integrated multidisciplinary system of rehabilitation care specifically designed to meet the needs of individuals with SCI; (2) engage in an active research program that seeks to identify innovative evidence-based approaches to treating SCI and to move research findings into rehabilitation and clinical settings including participating in a collaborative module and conducting a site-specific research project, entitled Baclofen with Locomotor Training: The Effect on Function and Neuroplasticity in Chronic Incomplete Spinal Cord Injury, which examines the impact of the antispasticity medication baclofen on locomotion in chronic incomplete SCI in a prospective, controlled, randomized study; and (3) enroll at least 30 subjects per year in the Spinal Cord Injury Model Systems database.
NERSCIC: Improving the Lives of People with SCI Across the Lifespan Through Innovative Science and Technology

Boston University Medical Center
Department of Rehabilitation Medicine
Talbot Building, T5W
715 Albany Street
Boston, MA 02118
SCIctr@bu.edu
www.bu.edu/nerscic

Principal Investigator: Alan M. Jette, PT, PhD 617/638-1985
Public Contact: Judi Zazula 866/607-1804; Fax: 617/638-7303

Project Number: 90SI5013 (formerly H133N120002)
Start Date: October 01, 2012
Length: 48 months

Abstract: The New England Regional Spinal Cord Injury Center (NERSCIC) conducts research and clinical activities to improve the health and function of people with spinal cord injury (SCI). This Model System is a partnership among Boston University Medical Center in Boston; Gaylord Hospital in Wallingford, CT; and Hospital for Special Care in New Britain, CT. The objectives of this project are to: (1) improve the health and function of people with SCI by expanding the New England SCI Toolkit (previously referred to as the Standards of Care) network, in concert with regional dissemination and technical support, especially to health professionals serving vulnerable groups; (2) employ innovative technology to improve health and function across the lifespan, especially for the most vulnerable, through better access to care and better outcome measures, building upon our successful research to date; (3) translate and disseminate state-of-the-art knowledge, measures, and resources for consumers and professionals on both a regional and national level to improve function and prevent secondary conditions, in collaboration with the Model Systems Knowledge Translation Center (MSKTC); and (4) empower and engage the SCI community across the lifespan in all clinical, educational, and research activities, especially the most vulnerable groups. NERSCIC includes the following projects and activities: My Care/My Call, a peer-led health care empowerment phone training for people with SCI (site-specific project #1); Missing Links: Assessing Function Across the Lifespan in Persons with SCI (site-specific project #2), which utilizes computer adaptive technology (CAT) to develop a mechanism to assess the functional abilities of children with SCI across the lifespan; the New England SCI Toolkit (NESCIT) training and the Toolkit itself, a comprehensive set of clinical standards to improve the management of patients with SCI, based on best practices. Module projects include: A lead project, formerly known as SCI-CAT, the SCI-FI 2 Enhancement and Evaluation with a specific aim of refining and augmenting the existing SCI-FI 1 instrument. The project collaborates on the University of Michigan’s lead project: Evaluating the sensitivity and responsiveness of the SCI-QOL CATs. The aim of this study is to further establish the psychometric properties of the SCI-QOL CATs by examining their sensitivity and responsiveness to clinically meaningful change across time, and University of Pittsburgh’s lead project: Equity and Quality in Assistive Technology. The objective of this project is to investigate the equity and quality of assistive technology provision and outcomes for individuals with SCI.
Spinal Cord Injury Model Systems
Massachusetts

Spaulding-Harvard Spinal Cord Injury Model System

Spaulding Rehabilitation Hospital
79/96 13th Street
Charlestown, MA 02129
www.sh-sci.org

Principal Investigator: Leslie R. Morse, DO; Ross D. Zafonte, DO
Public Contact: 617/573-2913

Project Number: 90SI5007 (formerly H133N110010)
Start Date: October 01, 2011
Length: 60 months
NIDILRR Officer: Theresa San Agustin, MD
NIDILRR Funding: FY 11 $444,000; FY 12 $444,000; FY 13 $444,000; FY 14 $444,000; FY 15 $444,000

Abstract: The Spaulding-Harvard Spinal Cord Injury System is a comprehensive network of care spanning from preventative programs and emergency services to outpatient care with a special focus on community reintegration and vocational rehabilitation. Clinical and investigative activities are directed to developing evidence-based rehabilitation interventions and clinical practice guidelines through spinal cord injury (SCI) research. The project develops and improves its multidisciplinary system of rehabilitation care designed specifically to meet the needs of individuals with SCI, contribute to the SCI Model Systems National Database and facilitate the longitudinal assessment of long term SCI outcomes, and contribute to improved long term SCI outcomes by conducting a site-specific research project and participating in a collaborative research project. The site-specific research project seeks to use transcranial direct current stimulation technology to treat sublesional neuropathic pain following SCI.
Spinal Cord Injury Model Systems
Michigan

University of Michigan Spinal Cord Injury Model System

University of Michigan
Department of Physical Medicine and Rehabilitation
300 North Ingalls, Room NI2A09
Ann Arbor, MI 48109-5491
model.sci@umich.edu
pmr.med.umich.edu/divisions/spinal-cord-injury-program
www.pinterest.com/umscims
www.twitter.com/umscims
www.facebook.com/umscims

Principal Investigator: Denise G. Tate, PhD; Anthony Chiodo, MD
Public Contact: Martin Forchheimer; Angela Lee; 734/763-0971; Fax: 734/936-5492

Project Number: 90SI5000 (formerly H133N110002)
Start Date: October 01, 2011
Length: 60 months
NIDILRR Officer: Dawn Carlson, PhD, MPH
NIDILRR Funding: FY 11 $457,000; FY 12 $457,000; FY 13 $456,263; FY 14 $456,717; FY 15 $456,829

Abstract: The University of Michigan Spinal Cord Injury Model System (UM-SCIMS) conducts research, information dissemination, education, and training to improve the lives of people with spinal cord injury (SCI). This system also provides comprehensive rehabilitation and community participation services to those with SCI admitted to the University Hospital, part of the University of Michigan Health System. The UM-SCIMS includes two integrated research studies focusing on factors related to bladder and bowel complications following injury and their impact on quality of life. While the first study provides a conceptual framework for identifying mechanisms by which these factors impact quality of life, the second study focuses on how to prevent such complications by testing an intervention: a self-management program developed exclusively for those with SCI. Dissemination efforts include the development of products related to the two studies in collaboration with the Model Systems Knowledge Translation Center, SCI Lecture Series, consumer briefs, newsletters, website updates, and community outreach activities utilizing a network of state and local community partners.
The Northern New Jersey Spinal Cord Injury System (NNJSCIS) provides a comprehensive continuum of state-of-the-art care for persons with spinal cord injury (SCI) and their families from the time of injury through rehabilitation and return to the community. Research and clinical activities at NNJSCIS include: a collaborative module with an associated model SCI system; a site-specific study to test a novel combination therapy using dalfampridine—a drug recently approved to improve walking in patients with multiple sclerosis—with a standardized program of locomotor training—a rehabilitative intervention that has improved walking and other functional outcomes in persons with SCI; and active communication with the SCI consumer and research communities through web and social media, consumer and professional conferences, newsletters, professional publications, and scientific presentations. The NNJSCIS is a cooperative effort of Kessler Foundation, Kessler Institute for Rehabilitation, Rutgers, the State University of New Jersey, and University Hospital.
Regional Spinal Cord Injury Center of the Delaware Valley

Thomas Jefferson University
Regional Spinal Cord Injury Center of the Delaware Valley
132 South 10th Street
375 Main Building
Philadelphia, PA 19107-5244
marilyn.owens@jefferson.edu
www.spinalcordcenter.org

Principal Investigator: Ralph J. Marino, MD
Public Contact: Marilyn Owens, RN 215/955-6579; Fax: 215/955-5152

Project Number: 90SI5012 (formerly H133N110021)
Start Date: October 01, 2011
Length: 60 months

NIDILRR Officer: Dawn Carlson, PhD, MPH
NIDILRR Funding: FY 11 $476,000; FY 12 $476,000; FY 13 $476,000; FY 14 $476,000; FY 15 $476,000

Abstract: The goal of the Regional Spinal Cord Injury Center of the Delaware Valley (RSCICDV) is to provide and evaluate a comprehensive program of coordinated patient care, education, and research activities for individuals who have sustained a traumatic spinal cord injury (SCI). Clinical activities are directed at promoting evidence-based practice, understanding the particular needs of the target population, and providing individualized lifetime care to persons with SCI. Research activities are designed to generate longitudinal data on impairment, activities, participation, and quality of life as part of the national database; and to determine the effectiveness of an early pharmacological intervention to prevent loss of bone mass after SCI. Research and clinical activities include: a collaborative module with other model systems; an onsite, randomized, placebo-controlled clinical trial of intravenous zoledronic acid, a potent bisphosphonate, provided within two weeks of injury, on sublesional bone mass at the proximal femur, distal femur, and proximal tibia in persons with complete SCI; ethnographic interviews with older persons with SCI focusing on changing health needs, access to care, participation in life activities, and the changing experiences in assisting with the care of someone with a disability; and development of educational resources and offerings for patients, healthcare providers, and researchers, including online materials and training workshops in the use of outcome measures.
University of Pittsburgh Model Center on Spinal Cord Injury

University of Pittsburgh
UPMC Rehabilitation Institute
1400 Locust Street, Building B, Suite 11516
Pittsburgh, PA 15219
greekk@upmc.edu
www.upmc-sci.org
www.rehabmedicine.pitt.edu

Principal Investigator: Michael L. Boninger, MD 412/648-6979
Public Contact: Karen Greenwald, RN 412/232-7949; Fax: 412/232-7535

Project Number: 90SI5008 (formerly H133N110011)
Start Date: October 01, 2011
Length: 60 months
NIDILRR Officer: Theresa San Agustin, MD
NIDILRR Funding: FY 11 $457,000; FY 12 $457,000; FY 13 $457,000; FY 14 $457,000; FY 15 $457,000

Abstract: The University of Pittsburgh Model Center on Spinal Cord Injury (UPMC-SCI) continues to investigate the relationship between transfer technique and markers of shoulder injury. The center utilizes previous research to develop transfer training material targeted at clinicians and people with spinal cord injury (SCI) and evaluates the impact of the training in a single-blind randomized controlled trial. During the previous funding cycle, the center led a successful module related to assistive technology (AT). This module found that wheelchair failures are increasingly prevalent and are disproportionately impacting individuals from minority backgrounds. Additionally, it was found that wheelchair users lack the wheelchair skills needed for full participation. The center continues the AT module work allowing further investigation of the impact of recent Centers for Medicare and Medicaid Services changes, such as competitive bidding, on AT quality. In addition, specific interventions as part of a new module address both AT quality and wheelchair skills. UPMC-SCI continues its heavy focus on knowledge translation so that this research can lead to changes in clinical care.
Spinal Cord Injury Model Systems
Washington

Northwest Regional Spinal Cord Injury System

University of Washington
Department of Rehabilitation Medicine
Box 356490
Seattle, WA 98195-6490
scirehab@u.washington.edu
sci.washington.edu
www.facebook.com/nwrscis
twitter.com/nwrscis

Principal Investigator: Charles H. Bombardier, PhD; Stephen P. Burns, MD; Jeanne M. Hoffman, PhD; 206/744-3665
Public Contact: Cynthia Salzman, MHA 206/685-3999; Fax: 206/685-3244

Project Number: 90SI5006 (formerly H133N110009)
Start Date: October 01, 2011
Length: 60 months
NIDILRR Officer: Kenneth D. Wood, PhD
NIDILRR Funding: FY 11 $463,000; FY 12 $463,000; FY 13 $463,000; FY 14 $463,000; FY 15 $463,000

Abstract: The University of Washington’s Northwest Regional Spinal Cord Injury System (NWRSCIS) provides a comprehensive, integrated continuum of pre-hospital, medical, surgical, and rehabilitation services to persons with acute and chronic spinal cord injury (SCI). Goals for this model system are to (1) contribute an average of 50 new subjects per year to the Spinal Cord Injury Model Systems national database; (2) exceed rigorous benchmark standards for subject recruitment and retention; (3) conduct high quality research that contributes to improved outcomes and better evidence-based rehabilitation for people with SCI and is of sufficient quality that it improves evidence-based rehabilitation and clinical guidelines; and (4) enhance services to various consumers and stakeholders, especially racial/ethnic minority persons, low income, and other traditionally underserved groups. A site-specific study uses an innovative “real world” trial designed to test the effectiveness of a collaborative care approach to improving outpatient treatment for inactivity, chronic pain, and depression. This is a single-blind, randomized controlled trial comparing collaborative care to usual care. The primary outcome measure is overall quality of life. Secondary outcomes are increased physical activity, reduced pain intensity and depression severity, and cost-effectiveness.
Traumatic Brain Injury Model Systems
Alabama

UAB Traumatic Brain Injury Model System

University of Alabama at Birmingham
Department of Physical Medicine and Rehabilitation
1717 6th Avenue South, SRC 529
Birmingham, AL 35233-7330
tbi@uab.edu
www.uab.edu/tbi

Principal Investigator: Thomas A. Novack, PhD
Public Contact: Phil Klebine 205/934-3283; Fax: 205/975-4691

Project Number: 90DP0044 (formerly H133A120096)
Start Date: October 01, 2012
Length: 60 months
NIDILRR Officer: Theresa San Agustin, MD
NIDILRR Funding: FY 12 $447,500; FY 13 $447,500; FY 14 $447,500; FY 15 $447,500; FY 16 $447,500

Abstract: This project provides rehabilitation services specifically designed to meet the special needs of individuals with traumatic brain injury (TBI) through a multidisciplinary, comprehensive model system which spans the clinical continuum from emergency services through rehabilitation and community re-entry. Research activities include data collection for the Traumatic Brain Injury Model System national database and a site-specific research project aimed at addressing excessive weight gain following TBI, and tailoring an established, evidence-based program that has proved successful with other groups. In addition, the TBI Model System disseminates research findings in the region and nationally through seminars, presentations at professional and consumer meetings, publishing in professional and consumer journals, and collaboration with the Model Systems Knowledge Center.
The Rocky Mountain Regional Brain Injury Model System (RMRBIMS)

Craig Hospital
3425 South Clarkson Street
Englewood, CO 80113-2899
charrison-felix@craighospital.org
www.craighospital.org/programs/research/the-rocky-mountain-regional-brain-injury-system

Principal Investigator: Cynthia Harrison-Felix, PhD
Public Contact: 303/789-8565; Fax: 303/789-8441

Project Number: 90DP0034 (formerly H133A120032)
Start Date: October 01, 2012
Length: 60 months
NIDILRR Officer: Theresa San Agustin, MD
NIDILRR Funding: FY 12 $441,000; FY 13 $441,000; FY 14 $441,000; FY 15 $441,000; FY 16 $441,000

Abstract: This project provides comprehensive, multidisciplinary services for individuals with traumatic brain injury (TBI) and conducts research that develops evidence-based rehabilitation interventions and clinical practice guidelines. The Rocky Mountain Regional Brain Injury Model System (RMRBIMS) conducts two site-specific, randomized controlled clinical trials. The first study, entitled “Home-Based Virtual Reality Treatment for Chronic Balance Problems in Adults with TBI” evaluates a low-cost, home-based physical therapy program that incorporates the use of a commercially available virtual reality system aimed at increasing balance and community mobility, enhancing overall balance system function, reducing the risk of falls, maximizing treatment adherence, and improving participation in life activities for individuals with TBI who have exhausted their formal physical rehabilitation opportunities. The second study, entitled “Improving Well-Being After TBI Through Structured Volunteer Activity” evaluates the efficacy of a novel intervention to facilitate successful volunteer placement following TBI, and examines the effect of structured altruistic volunteering upon well-being. In addition to these projects, the RMRBIMS participates in collaborative module research and in the TBI Model Systems National Database, and works with the Model Systems Knowledge Translation Center to disseminate research to the widest audience.
South Florida Traumatic Brain Injury Model System (SF-TBIMS)

University of Miami
PO Box 016960 (D-461)
Miami, FL 33101
djgreene@med.miami.edu
www.umpmr.med.miami.edu

Principal Investigator: Douglas E. Johnson-Greene, PhD
Public Contact: 305/243-8472; 305/243-4569; Fax: 305/243-4560

Project Number: 90DP0046 (formerly H133A120099)
Start Date: October 01, 2012
Length: 60 months
NIDILRR Officer: A. Cate Miller, PhD

NIDILRR Funding: FY 12 $427,188; FY 13 $503,526; FY 14 $426,780; FY 15 $426,484; FY 16 $427,145

Abstract: This project provides rehabilitation services and research aimed at meeting the special needs of individuals with traumatic brain injury (TBI) through a coordinated, multidisciplinary, comprehensive TBI program. The project includes active participation and data collection for the TBI Model Systems national database, participation in collaborative modules, and two site-specific studies: (1) “Evaluation and Intervention of Sleep Disordered Breathing (SDB) in Persons with Traumatic Brain Injury,” and (2) in “Evaluating Assessment Methods for Pain in Persons with Traumatic Brain Injury.” Activities of the South Florida Traumatic Brain Injury Model System (SF-TBIMS) reflect an active partnership within the components of the University of Miami and Jackson Memorial Medical Center Health System (UM/JMMC) and Miami HealthSouth Rehabilitation Hospital, and between UM and community organizations such as the Brain Injury Association of Florida, The Florida Department of Health Brain and Spinal Cord Injury Program, and the WellFlorida Council. In addition, the TBI Model System disseminates research findings in the region and nationally through seminars, presentations at professional and consumer meetings, publishing in professional and consumer journals, and collaboration with the Model Systems Knowledge Translation Center.
Brain Research in Aggression and Irritability Network (BRAIN): Building Evidence-Based Approaches to Managing Traumatic Brain Injury

Indiana University
Rehabilitation Hospital of Indiana
4141 Shore Drive
Indianapolis, IN 46254
flora.hammond@rhin.com

Principal Investigator: Flora M. Hammond, MD
Public Contact: 317/329-2106; Fax: 317/329-2600

Project Number: 90DP0036 (formerly H133A120035)
Start Date: October 01, 2012
Length: 60 months
NIDILRR Officer: Leslie J. Caplan, PhD
NIDILRR Funding: FY 12 $427,500; FY 13 $427,500; FY 14 $427,500; FY 15 $427,500; FY 16 $427,500

Abstract: This project aims to further the evidence for improving clinical management and outcomes for irritability and aggression in individuals with traumatic brain injury (TBI). BRAIN is a comprehensive model service delivery and research system serving individuals with TBI. The System includes prevention and emergency medical services, intensive and acute care, comprehensive medical rehabilitation, long-term follow-up, community reintegration, and vocational rehabilitation. The project includes two site-specific studies: (1) Buspirone for the treatment of chronic post-TBI irritability and aggression: A 91-day single-site, flexible-dose, parallel group, randomized, double-blind, placebo-controlled trial; and (2) Preliminary Development of the Aggression and Irritability Impact Measure: Study 2 works towards the development of a standardized measure to evaluate the impact of irritability and aggression on various aspects of functioning and participation. Measuring impact is a novel, yet complementary approach to existing measures that evaluate the expression of irritability and aggression. In addition, the TBI Model System disseminates research findings in the region and nationally through seminars, presentations at professional and consumer meetings, publishing in professional and consumer journals, and collaboration with the Model Systems Knowledge Translation Center.
Spaulding-Harvard Traumatic Brain Injury Model System

Spaulding Rehabilitation Hospital
300 First Avenue
Charlestown, MA 02129
SpauldingHarvardTBIMS@partners.org
www.sh-tbi.org

Principal Investigator: Joseph T. Giacino, PhD
Public Contact: 617/952-5232; Fax: 617/952-5934

Project Number: 90DP0039 (formerly H133A120085)
Start Date: October 01, 2012
Length: 60 months
NIDILRR Officer: A. Cate Miller, PhD
NIDILRR Funding: FY 12 $430,100; FY 13 $430,100; FY 14 $430,100; FY 15 $430,100; FY 16 $430,100

Abstract: This project provides comprehensive, multidisciplinary services for individuals with traumatic brain injury (TBI), and conducts neuroimaging research that favorably impacts persons with severe TBI, their families, and rehabilitation providers. The project contributes to the TBI Model System national database and monitors long-term functional outcomes. Research includes a site-specific study using novel neuroimaging technologies to reduce diagnostic error and facilitate restoration of communication in persons with post-traumatic disorders of consciousness. The project also contributes to improved long-term TBI outcomes by participating in collaborative, multi-site research. The TBI Model System disseminates research findings in the region and nationally through seminars, presentations at professional and consumer meetings, publishing in professional and consumer journals, and collaboration with the Model Systems Knowledge Center.
Mayo Clinic Traumatic Brain Injury Model System

Mayo Clinic
Mayo Clinic College of Medicine
Mayo Foundation for Medical Education and Research
200 First Street
Rochester, MN 55905
bergquist.thomas@mayo.edu
brown.allen@mayo.edu
www.mayo.edu/research/centers-programs/traumatic-brain-injury-program/overview

Principal Investigator: Allen W. Brown, MD
Public Contact: Anne Moessner 507/255-3116; Fax: 507/255-7696

Project Number: 90DP0030 (formerly H133A120026)
Start Date: October 01, 2012
Length: 60 months
NIDILRR Officer: Kenneth D. Wood, PhD
NIDILRR Funding: FY 12 $430,100; FY 13 $430,100; FY 14 $430,100; FY 15 $430,100; FY 16 $430,100

Abstract: This project provides comprehensive, integrated, team-based rehabilitation to individuals with traumatic brain injury (TBI) and their families to promote full personal and societal participation, and to fill gaps in research knowledge and service delivery. The project includes a trial of CONNECT, a model of care that connects individuals hospitalized with TBI, their families, and their local health care providers remotely to specialized brain rehabilitation resources. CONNECT utilizes traditional (i.e., phone) and customized information and communications technology to increase system capacity and access to services for those in a broader geographic region. The goal of CONNECT is to test the extent to which a complex brain rehabilitation intervention delivered remotely improves participation outcomes and satisfaction compared to a matched group receiving usual care in their communities. In addition, this project contributes to the TBI Model Systems national database, participates in collaborative modules, and disseminates research findings in the region and nationally through seminars, presenting at professional and consumer meetings, publishing in professional and consumer journals, and collaboration with the Model Systems Knowledge Translation Center.
Northern New Jersey Traumatic Brain Injury System (NNJTBIS)

Kessler Foundation
Traumatic Brain Injury Laboratory
1199 Pleasant Valley Way
West Orange, NJ 07052
tbi@kesslerfoundation.org
kesslerfoundation.org/researchcenter/tbi/modelsystems.php
www.facebook.com/pages/Traumatic-Brain-Injury-Research/122808701125183
twitter.com/KesslerFdn
www.youtube.com/user/KesslerFoundation

Principal Investigator: Nancy D. Chiaravalloti, PhD
Public Contact: 973/324-8440; Fax: 973/324-8373

Project Number: 90DP0032 (formerly H133A120030)
Start Date: October 01, 2012
Length: 60 months
NIDILRR Officer: Theresa San Agustin, MD
NIDILRR Funding: FY 12 $441,000; FY 13 $441,000; FY 14 $441,000; FY 15 $441,000; FY 16 $441,000

Abstract: This project provides a comprehensive continuum of state-of-the-art rehabilitation care for persons with traumatic brain injury (TBI) and conducts TBI research, including clinical trials and the analysis of standardized data. In this project, the Northern New Jersey Traumatic Brain Injury System (NNJTBIS) conducts a site-specific, double-blinded, randomized controlled trial of a cognitive rehabilitation intervention for processing speed deficits utilizing a proven methodology shown to be effective through multiple studies in the aging population. The project also includes a collaborative modular project to be determined. Finally, the NNJTBIS contributes new data to the National TBI Model Systems Database, and coordinates with the NIDILRR-funded Model Systems Knowledge Translation Center to provide scientific results and information for dissemination to clinical and consumer audiences.
New York Traumatic Brain Injury Model System (NY-TBI-MS)

Icahn School of Medicine at Mount Sinai
Department of Rehabilitation Medicine
One Gustave L. Levy Place, Box 1240
New York, NY 10029-6574
wayne.gordon@mssm.edu
icahn.mssm.edu/research/programs/new-york-traumatic-brain-injury-model-system

**Principal Investigator:** Wayne A. Gordon, PhD  
**Public Contact:** 212/824-8372; Fax: 212/348-5901

**Project Number:** 90DP0038 (formerly H133A120084)  
**Start Date:** October 01, 2012  
**Length:** 60 months

**NIDILRR Officer:** Leslie J. Caplan, PhD  
**NIDILRR Funding:** FY 12 $430,099; FY 13 $430,099; FY 14 $430,099; FY 15 $430,099; FY 16 $430,099

**Abstract:** The objectives of this project focus on improving the quality of life of persons with traumatic brain injury (TBI) through state-of-the-art clinical care, innovative research, and multi-platform, extensive dissemination of research results and other information on TBI to consumers and professionals. This project provides a regional multidisciplinary system of care that includes a number of clinical programs for people with TBI in the New York City metropolitan area, contributes longitudinal data to the TBI National Database, conducts two local research projects to evaluate promising novel approaches to clinical treatment, and participates in “module” and other collaborative research. Two site-specific studies aim to improve quality of life for TBI survivors by developing effective treatments of post-TBI secondary conditions. The first study is a randomized clinical trial that evaluates the impact of light therapy on post-TBI fatigue. The second study examines internet-based group treatment for post-TBI emotional dysregulation. In addition, the TBI Model System disseminates research findings in the region and nationally through seminars, presentations at professional and consumer meetings, publishing in professional and consumer journals, and collaboration with the Model Systems Knowledge Translation Center.
New York University School of Medicine
Rusk Rehabilitation
Ambulatory Care Center
240 East 38th Street
Floor 17, Room 17048
New York, NY 10016
rusk.research@nyumc.org

Principal Investigator: Tamara Bushnik, PhD 212/263-6547
Public Contact: Zena Moore 212/263-8022; Fax: 212/263-2683

Project Number: 90DP0047 (formerly H133A120100)
Start Date: October 01, 2012
Length: 60 months
NIDILRR Officer: A. Cate Miller, PhD
NIDILRR Funding: FY 12 $427,452; FY 13 $427,253; FY 14 $427,151; FY 15 $427,171; FY 16 $427,218

Abstract: The goal of this model system is to generate new knowledge and scientific evidence to improve outcomes for all persons with traumatic brain injury (TBI) through the development of innovative interventions, clinical assessment and outcomes tools, and expanded service delivery options. The project conducts research and development activities including contribution to the TBI Model Systems national database, participation in collaborative modules, and two site-specific studies. The first study uses a two-phase approach to examine cultural disparities in rehabilitation healthcare among patients with TBI. The first phase is a descriptive study to collect data on culturally diverse patients with TBI from both Bellevue and Rusk Rehabilitation, who have been admitted into acute inpatient rehabilitation. Data collection examines the patients’ race/ethnicity, acculturation, family support, trust in health care providers, and health and language literacy as related to retention in healthcare after discharge from acute inpatient rehabilitation. The second phase of the study involves the development of the Multimedia Multicultural Educational Program for TBI (MMEPT) to provide patients with culturally-accessible knowledge about their TBI and the rehabilitation process to facilitate improved outcomes, particularly return for follow-up outpatient care. The second study assesses the responsiveness and sensitivity of the Traumatic Brain Injury Quality of Life Measurement System (TBI-QOL) computerized adaptive tests. In addition, the TBI Model System disseminates research findings in the region and nationally through seminars, presentations at professional and consumer meetings, publishing in professional and consumer journals, and collaboration with the Model Systems Knowledge Translation Center.
Ohio Regional Traumatic Brain Injury Model System

Ohio Valley Center for Brain Injury Prevention and Rehabilitation
Department of Physical Medicine and Rehabilitation
The Ohio State University
2145 Dodd Rehab Hospital
480 Medical Center Drive
Columbus, OH 43210
monica.lichii@osumc.edu
ohiovalley.org/modelsystems/ohioregionalms/index.cfm

Principal Investigator: Jennifer Bogner, PhD; John D. Corrigan, PhD; 614/293-3830
Public Contact: Monica Lichi 614/293-3802; Fax: 614/293-8886

Project Number: 90DP0040 (formerly H133A120086)
Start Date: October 01, 2012
Length: 60 months
NIDILRR Officer: Leslie J. Caplan, PhD
NIDILRR Funding: FY 12 $447,500; FY 13 $447,500; FY 14 $447,500; FY 15 $447,500; FY 16 $447,500

Abstract: This project provides comprehensive, multidisciplinary services for individuals with traumatic brain injury (TBI), and conducts site-specific research examining chronic health conditions related to TBI designed to contribute new protocols for a “disease management” approach. The first site-specific study is a randomized controlled trial that builds on previous studies to determine how Screening and Brief Intervention (SBI) techniques for alcohol misuse can be adapted for persons with moderate and severe TBI. SBI protocols are elaborated by (1) enhancing positive expectations for health and wellness benefits that accrue from reduced alcohol consumption, (2) including “booster sessions” as has been incorporated into SBI protocols used in Emergency Departments, and (3) providing additional accommodations for cognitive deficits. The second study combines data from two studies, thus allowing examination of the contribution of pre-morbid and co-occurring conditions to later decline up to five years following a moderate or severe TBI. Data from almost 350 participants enrolled in both the TBI Model Systems National Dataset and the TBI Practice-Based Evidence Study are combined to allow in-depth medical information on co-morbid conditions to be examined for their effect on mortality and morbidity over the five years following injury. In addition, the TBI Model System disseminates research findings in the region and nationally through seminars, presentations at professional and consumer meetings, publishing in professional and consumer journals, and collaboration with the Model Systems Knowledge Translation Center and Brainline.org.
The Moss Traumatic Brain Injury Model System

Albert Einstein Healthcare Network
Moss Rehabilitation Research Institute
60 East Township Line Road
Elkins Park, PA 19027
thart@einstein.edu
www.mrri.org/traumatic-brain-injury-model-system-of-care

Principal Investigator: Tessa Hart, PhD
Public Contact: 215/663-6153; Fax: 215/663-6113

Project Number: 90DP0037 (formerly H133A120037)
Start Date: October 01, 2012
Length: 60 months
NIDILRR Officer: Pimjai Sudsawad, ScD
NIDILRR Funding: FY 12 $447,500; FY 13 $447,500; FY 14 $447,500; FY 15 $447,500; FY 16 $447,500

Abstract: This project utilizes a network of local and regional, national, and international collaborations to provide a full continuum of high-quality treatment spanning emergency and acute trauma/neurosurgical care through community re-entry with which to achieve multiple goals in clinical care, research, and dissemination. The project includes two site-specific research projects, both designed to generate new knowledge that leads to improved practices to meet the needs of people with traumatic brain injury (TBI). Project 1 is a randomized controlled trial examining the effects of a novel, theoretically motivated treatment to promote emotional health via increased levels of rewarding activity for persons with post-acute TBI. The treatment combines principles of Behavioral Activation with intervention methods derived from action phase theories of behavior change, and uses SMS (text) messaging to support increased activity in values-driven goal areas. Project 2 develops and performs initial validation studies on an observational pain scale, with the potential to extend effective pain management to the at-risk population of patients with TBI who cannot self-report pain due to impairments in consciousness or communication. Moss Traumatic Brain Injury Model System includes strong components for dissemination and knowledge translation targeted to people with TBI and their families, clinical staff across the continuum of care, and other professional and lay audiences.
Rehabilomics: Revolutionizing 21st Century TBI Care and Research

University of Pittsburgh
Department of Physical Medicine & Rehabilitation
3471 Fifth Avenue, Suite 202
Pittsburgh, PA 15213
wagnerak@upmc.edu
www.rehabilomics.pitt.edu

Principal Investigator: Amy K. Wagner, MD
Public Contact: 412/648-6666

Project Number: 90DP0041 (formerly H133A120087)
Start Date: October 01, 2012
Length: 60 months

NIDILRR Officer: Leslie J. Caplan, PhD

NIDILRR Funding: FY 12 $430,100; FY 13 $430,090; FY 14 $430,100; FY 15 $430,100; FY 16 $430,100

Abstract: This project provides comprehensive, multidisciplinary services for individuals with traumatic brain injury (TBI), and applies the principles of Rehabilomics to develop systems-based and best-practice approaches to person-centered care that maximally impact function and recovery. The project includes site-specific research exploring the relationship between dopamine system dysfunction following TBI and genetic variation in dopamine-related genes. In addition to contributing longitudinal data to the TBI Model Systems national database, this project conducts a rehabilitation technology pilot component for developing ecological momentary assessment tools for real-time symptom journaling and data collection tailored to individuals with TBI, infrastructure that critically links biomarkers, and other molecular signatures with assessments grounded in the International Classification of Functioning, Disability, and Health. In addition, the TBI Model System disseminates research findings in the region and nationally through seminars, presentations at professional and consumer meetings, publishing in professional and consumer journals, and collaboration with the Model Systems Knowledge Translation Center.
North Texas Traumatic Brain Injury Model System

Baylor Research Institute
8080 North Central Expressway, Suite 500
Dallas, TX 75206
shahid.shafi@baylorhealth.edu

Principal Investigator: Shahid Shafi, MD
Public Contact: 214/265-2607; Fax: 214/265-3640

Project Number: 90DP0045 (formerly H133A120098)
Start Date: October 01, 2012
Length: 60 months

NIDILRR Officer: A. Cate Miller, PhD
NIDILRR Funding: FY 12 $447,500; FY 13 $447,500; FY 14 $447,500; FY 15 $447,500; FY 16 $447,500

Abstract: The purpose of this project is to improve the outcomes of patients with traumatic brain injury (TBI) in the North Texas region and beyond by providing multidisciplinary state-of-the-art care to meet the needs of TBI patients and families. Project activities include contributing longitudinal data to the TBI Model Systems national database, both new enrollment and follow-up, two site-specific projects, and participation in collaborative research modules. The two site-specific studies are: Project 1: To study the comparative effectiveness of variations in clinical practices and patient outcomes across TBIMS rehabilitation centers and the development of evidence-based practice guidelines for TBI rehabilitation, and Project 2: To identify TBI patients that may benefit from early methylphenidate therapy utilizing Single Photon Emission Computed Tomography (SPECT) imaging of dopamine transporter. In addition, the TBI Model System disseminates research findings in the region and nationally through seminars, presentations at professional and consumer meetings, publishing in professional and consumer journals, and collaboration with the Model Systems Knowledge Translation Center.
Principal Investigator: Mark Sherer, PhD
Public Contact: 713/799-7007

Project Number: 90DP0028 (formerly H133A120020)
Start Date: October 01, 2012
Length: 60 months
NIDILRR Officer: Kenneth D. Wood, PhD
NIDILRR Funding: FY 12 $447,500; FY 13 $447,500; FY 14 $447,500; FY 15 $447,500; FY 16 $447,500

Abstract: This project conducts a program of research, dissemination activities, and clinical care designed to decrease emotional distress and to improve participation outcomes for persons with traumatic brain injury (TBI). Research activities include: (1) contributions to the TBI Model Systems National Database, (2) participation in collaborative module projects, and (3) a local project that is a randomized controlled trial of Acceptance and Commitment Therapy as compared to a devised standard of care intervention to decrease emotional distress and improve participation for persons with TBI. This initial trial will lead to larger multicenter comparative effectiveness trials using this intervention. In addition, the TBI Model System disseminates research findings in the region and nationally through seminars, presentations at professional and consumer meetings, publishing in professional and consumer journals, and collaboration with the Model Systems Knowledge Translation Center.
Abstract: This project utilizes rigorous scientific methods to examine the benefits of two interventions. Projects focus on survivors and couples. One study examines a structured, curriculum-based approach to improve survivors’ resilience and adjustment. The second study examines the benefits of an intervention for couples. Although many professionals agree that strengthening caregivers can enhance rehabilitation outcomes, there is little research regarding the benefits of interventions designed specifically to address the needs of couples after injury. In addition to the site-specific trials, the project collects data for the National Database and participates in a collaborative module project. The Virginia Commonwealth Traumatic Brain Injury Model System disseminates research findings in the region and nationally through seminars, presentations at professional and consumer meetings, publishing in professional and consumer journals, and collaboration with the Model Systems Knowledge Translation Center.
University of Washington Traumatic Brain Injury Model System (UWTBIMS)

University of Washington
Department of Rehabilitation Medicine
Box 356490
BB-953 Health Sciences
Seattle, WA 98195-6490
jeanneh@uw.edu
sites.google.com/a/uw.edu/tbims/about-us/home

Principal Investigator: Jeanne M. Hoffman, PhD
Public Contact: 206/221/6511; Fax: 206/685-3244

Project Number: 90DP0031 (formerly H133A120028)
Start Date: October 01, 2012
Length: 60 months
NIDILRR Officer: A. Cate Miller, PhD
NIDILRR Funding: FY 12 $441,000; FY 13 $441,000; FY 14 $441,000; FY 15 $441,000; FY 16 $441,000

Abstract: This project provides a multidisciplinary system of rehabilitation within a full continuum of medical care by conducting a high quality research site-specific project on post-traumatic headache, participating in a collaborative research projects with other centers, coordinating with the Model Systems Knowledge Translation Center to extend dissemination, addressing the needs of underserved populations with traumatic brain injury (TBI), involving persons with TBI in center operations and research, contributing new data to the TBI Model System database, and participating actively in all Project Directors’ meetings. The site specific project is a trial of sumatriptan, an FDA-approved treatment for migraine, to treat moderate to severe headache after TBI. Activities include training study participants to maintain a reliable headache diary data to monitor compliance with the complex protocol (necessary to adequately treat headaches), as this may present difficulties for those with cognitive challenges and require caregiver assistance; and testing interactive smart phone and web-based diaries that utilize reminders to determine efficacy and acceptance by subjects and caregivers. A collaborative module studies the effect of phototherapy on sleep after acute TBI. This is a randomized controlled trial of two groups with the hypothesis that treatment using bright white light results in improved sleep and secondarily, in improved cognition and behavior.
Cognitive Behavioral Therapy (CBT) for Caregivers of Operation Iraqi Freedom/Operation Enduring Freedom (OIF/OEF) Service Members with Traumatic Brain Injury (TBI)

University of Alabama at Birmingham
Department of Ophthalmology
1720 University Boulevard
Callahan Hospital, Suite 609
Birmingham, AL 35294
dreer@uab.edu

Principal Investigator: Laura E. Dreer, PhD
Public Contact: 205/325-8681; Fax: 205/325-8692

Project Number: 90IF0039 (formerly H133G120237)
Start Date: October 01, 2012
Length: 36 months
NIDILRR Officer: A. Cate Miller, PhD
NIDILRR Funding: FY 12 $200,000; FY 13 $200,000; FY 14 $200,000; FY 15 (No-cost extension through 9/29/2016)

Abstract: This project evaluates the impact of Problem-Solving Training (PST), a telehealth-based, cognitive behavioral therapy intervention for adult, non-paid military family caregivers of Operation Iraqi Freedom and Operation Enduring Freedom (OIF/OEF) service members with combat-related traumatic brain injury (TBI). A randomized clinical trial has the following objectives: (1) To test the efficacy of an innovative, telephone-based, PST intervention for adult, non-paid military family caregivers of OIF/OEF service members with combat-related TBI on improving caregiver quality of life outcomes; and (2) to test the indirect impact of a telephone-based, PST intervention for military caregivers on quality of life outcomes of OIF/OEF service members with combat-related TBI. Primary and secondary outcomes are assessed at baseline prior to intervention implementation and at three- and seven-month follow-up.
Field Initiated Projects (FIPs)
Alabama

Prognostic Indicators for Reading in Pediatric Vision Impairment

The University of Alabama at Birmingham
Callahan Eye Hospital
Center for Low Vision Rehabilitation
1720 University Boulevard, Suite 405
Birmingham, AL 35233
lowvision@uab.edu

Principal Investigator: Mark Bolding, PhD; Dawn K. DeCarlo, OD; Gerald McGwin, PhD; 205/325-8114
Public Contact: Lisa Forte 205/488-0788

Abstract:
This longitudinal study aims to answer the following questions: 1. What demographic characteristics of young children with vision impairment contribute to later reading ability? 2. What is the relationship between executive function and reading ability among young children with vision impairment? 3. Is there a relationship between executive function and visual acuity in young children with vision impairment? 4. Does Rapid Automatic Naming predict reading ability in young children with vision impairment as measured by the Woodcock Johnson III® Tests of Achievement? and 5. Are there areas of school readiness of particular concern for young children with vision impairment? There is already work being done to address the above questions in children without vision impairment, however children with vision impairment are systematically excluded from such studies. In order to address these questions in this population, the project has assembled a team consisting of experts in pediatric vision rehabilitation, eye movements, and eye movement recording, as well as developmental psychology. The project assesses domains known to be associated with reading: The Battelle Developmental Inventory, 2nd Edition (development), the Beery VMI (visuomotor integration), RAN (Rapid Automatized Naming), and an Executive Function Battery (working memory, inhibitory control, and attentional shifting). The primary outcome measure is performance on the Basic Reading cluster of the Woodcock-Johnson III Tests of Achievement. Children are evaluated prior to entry into kindergarten and twice annually until the completion of first grade. The study assesses the relationship between reading and the domains listed above to identify factors that are more potent mediators of individual variance in reading ability. By identifying characteristics of children with vision impairment at risk for reading disability or repeating kindergarten or first grade, the project enables educators to appropriately allocate the limited and highly specialized services of teachers of the students with visual impairments. The knowledge gained facilitates utilization of existing interventions or development of new, individual-centric, targeted interventions.
Field Initiated Projects (FIPs)
Colorado

Walking and its Effect on Health and Function in Individuals with Cerebral Palsy as they Transition to Adulthood: A Health Outcomes Study

University of Colorado Denver
Children’s Hospital Colorado
Musculoskeletal Research Center
13123 East 16th Avenue
Aurora, CO 80045
james.carollo@childrenscolorado.org
www.ucdenver.edu/academics/colleges/medicalschool/departments/Orthopaedics/research/Pages/About-the-Cerebral-Palsy-Adult-Transition-study.aspx
orthopedics.childrenscolorado.org/our-programs/center-for-gait-and-movement-analysis/research/adult-cerebral-palsy-research

Principal Investigator: James Carollo, PhD, PE
Public Contact: 720/777-5806; Fax: 707/777-7101

Project Number: 90IF0055 (formerly H133G130200)
Start Date: October 01, 2013
Length: 36 months
NIDILRR Officer: William V. Schutz, PhD, MSW, MPH
NIDILRR Funding: FY 13 $199,999; FY 14 $199,530; FY 15 $199,948
Abstract: This project conducts a comprehensive longitudinal study of walking ability and overall health status in young adults with cerebral palsy (CP). This population is particularly at risk since there is now substantial evidence that as people with CP grow into adulthood, they can display a variety of symptoms secondary to their primary condition that are mediated by pain and chronic fatigue, and lead to reduced activity and overall mobility. The project comprehensively evaluates the physical, metabolic, mood, cognition, and quality of life of a cohort of 72 young adults with cerebral palsy from Colorado who had previously been tested at the Center for Gait and Movement Analysis (CGMA) as children, adolescents, or teenagers, including subjects across several levels of walking ability, disease severity, and greatest risk of decline. As all members of the cohort will have had instrumented gait analysis and a physical exam at CGMA in the past, measures of their walking ability, biomechanics, their Gross Motor Function Classification System level, and selected measures of strength, range of motion, and spasticity are compared longitudinally. The remaining measures serve as a cross-sectional sample of young adults with CP, focusing on the measures that commonly describe the secondary conditions most frequently reported, as well as a detailed physical, cognitive, and quality of life assessment. By combining both a longitudinal and cross-sectional study of individuals with CP, the project aims to better understand the functional basis for the decline in health status often reported.
Intervention to Promote Goal-Directed Behavior in Infants with Down Syndrome

Colorado State University
601 South Howes Street
Fort Collins, CO 80521-2807
lisa.daunhauer@colostate.edu

Principal Investigator: Lisa Daunhauer, ScD
Public Contact: 970/491-6917

Project Number: 90IF0096
Start Date: September 30, 2015
Length: 36 months

NIDILRR Officer: Joyce Y. Caldwell
NIDILRR Funding: FY 15 $199,430; FY 16 $198,372; FY 17 $199,817

Abstract: This project tests the efficacy of an innovative, parent-delivered reaching intervention to improve goal-directed behavior and functional abilities in infants with Down syndrome (DS), targeting and supporting the development of goal-directed behavior in its earliest forms for infants with DS. The study randomly assigns infants and their parents to two developmentally matched groups. Parents are trained to administer either the 4-week intervention or a control condition. Outcome measures include direct observations of object exploration, object grasp planning, object affordances/characteristics detection, and parent reports of functional abilities. Direct observations are measured in weekly intervals while functional abilities are measured at three points: baseline, immediately following intervention, and at the six-month follow-up. Project outcomes directly inform intervention planning recommendations for infants and young children with DS and contribute to the larger effort to improve outcomes in this population.
Interpreting COPD Dyspnea Change: Sensitivity, Responsive and Predictive Validity of the DMQ-CAT

Rehabilitation Institute of Chicago (RIC)
Center for Rehabilitation Outcomes Research (CROR)
345 East Superior Street
Chicago, IL 60611
anorweg@bu.edu

Principal Investigator: Ann Norweg, PhD
Public Contact: 312/925-7286

Project Number: 90IF0078 (formerly H133G140186)
Start Date: October 01, 2014
Length: 36 months
NIDILRR Officer: Theresa San Agustin, MD
NIDILRR Funding: FY 14 $199,956; FY 15 $199,977; FY 16 $199,987

Abstract: The aim of this project is to test the relative sensitivity to change, responsiveness, and predictive validity of DMQ-CAT, a comprehensive dyspnea-outcome computer adaptive test (CAT) that measures new anxiety and activity avoidance in adults with chronic obstructive pulmonary disease (COPD). The 71-item DMQ-CAT captures four distinct dyspnea constructs: intensity, anxiety, activity avoidance, and self-efficacy to evaluate outcomes of COPD pharmacologic, preliminary rehabilitation, and cognitive-behavioral therapy. This project expects to (1) begin to transform how dyspnea is assessed, (2) improve dyspnea symptom management, (3) impact functional status, (4) improve quality of life, (5) facilitate the earlier treatment and prevention of exacerbations, (6) improve COPD prognosis and survival, and (7) improve COPD healthcare utilization. The DMQ-CAT addresses the limitations of other dyspnea scales by using state-of-the-art item banking method techniques to provide a tailored multidimensional dyspnea assessment using only a minimal number of items.
Motivational Interviewing and Physical Activity Change in Parkinson’s Disease

Rehabilitation Institute of Chicago (RIC)
Center for Rehabilitation Outcomes Research (CROR)
345 East Superior Street
Chicago, IL 60611-4805
ljones1@ric.org

Principal Investigator: Danny Bega, MD; Linda Ehrlich-Jones, PhD, RN; Amy Eisenstein, PhD; Julia Lee, PhD
Public Contact: 312/238-0743

Project Number: 90IF0093
Start Date: September 30, 2015
Length: 36 months
NIDILRR Officer: Joyce Y. Caldwell
NIDILRR Funding: FY 15 $199,941; FY 16 $199,926; FY 17 $199,863

Abstract: This project aims to develop a smartphone application for self-monitoring of physical activity for persons with Parkinson’s Disease (PD). The project includes testing the efficacy of motivational interviewing (MI), a patient-centered guiding method for enhancing intrinsic motivation to change, and the smartphone self-monitoring application for improving physical activity as the primary outcome, and balance and quality of life as secondary outcomes; and assessing persistent effects of the interventions at 9 months (3 months post-intervention) in persons with PD. The project begins with focus groups of persons with PD to assist in developing the smartphone application for self-monitoring and the other interventions. A clinical trial includes participants recruited from a PD registry at Northwestern University and randomly assigned to one of four intervention groups: education (control intervention); MI intervention only, smartphone self-monitoring application only; and both MI + smartphone interventions. Participants are assessed for physical activity, balance, and quality of life at baseline, 3, 6, and 9 months to assess for changes in the outcomes.
Weight Management and Wellness for People with Psychiatric Disabilities

University of Illinois at Chicago
Center on Mental Health Services Research and Policy
1601 West Taylor Street, 4th Floor, M/C 912
Chicago, IL 60612
jonikas@psych.uic.edu
www.cmhsrp.uic.edu/health/weight-wellbeing.asp

**Principal Investigator:** Judith Cook, PhD 312/355-3921
**Public Contact:** Jessica A. Jonikas 312/355-1696 (V), 312/422-0706 (TTY); Fax: 12/355-4189.

**Project Number:** 90IF0100
**Start Date:** September 30, 2015
**Length:** 36 months

**NIDILRR Officer:** Hugh Berry, EdD

**NIDILRR Funding:** FY 15 $199,998; FY 16 $199,212; FY 17 $199,896

**Abstract:** This project conducts a randomized controlled trial (RCT) to test the effectiveness of a new intervention called Nutrition and Exercise for Wellness and Recovery (NEW-R) in promoting weight loss, healthy eating, and increased physical activity in individuals with psychiatric disabilities. NEW-R is an 8-week recovery-oriented behavioral intervention that is co-led by mental health peer- and non-peer instructors. It uses innovative strategies such as peer support and modeling, YouTube exercise videos featuring people with psychiatric disabilities, real-world weight management strategies that are inexpensive and easily adopted, and freely available instructor and participant manuals. The study takes place in a community psychiatric rehabilitation and outpatient program of a large urban hospital in Chicago, from which 225 research participants were recruited and randomly assigned to receive NEW-R or services as usual. Research participants are interviewed at study baseline, 2-months (immediate post-intervention), and 8-months post-baseline to assess weight loss, health and mental health outcomes, and changes in health knowledge. The application has two aims: to finalize the intervention and fidelity assessment procedures, and then hire and train NEW-R instructors; and to deliver the intervention and gather data to test its effectiveness on participant health and mental health outcomes. The study protocol includes measures of weight and body mass index, health and function, health self-efficacy, and health knowledge. A study advisory committee meets quarterly throughout the project to ensure the study’s sensitivity to diverse groups of people with psychiatric disabilities, and continued relevance to public disability and state system policy development. An innovative dissemination plan including podcasts, research briefs, and other knowledge exchange formats will promote the translation of research findings into practice.
Examining Determinants of Negative Attribution Bias in People with Traumatic Brain Injury

Trustees of Indiana University
980 Indiana Avenue Lockfield, Room 2232
Indianapolis, IN 46202-2915
drneuman@iupui.edu

Principal Investigator: Dawn Neumann, PhD
Public Contact: 317/329-2188

Project Number: 90IF0095
Start Date: September 30, 2015
Length: 36 months

NIDILRR Officer: William V. Schutz, PhD, MSW, MPH
NIDILRR Funding: FY 15 $199,999; FY 16 $200,000; FY 17 $200,000

Abstract: This project examines factors associated with negative attribution bias in people with traumatic brain injury (TBI), and how this bias differs from healthy controls. Negative attribution bias is the tendency to perceive others’ behaviors as intentional, hostile, and blameworthy, especially when those behaviors are ambiguous or benign. The aims of the study are to: (1) determine group differences for negative attributions (intent, hostility, and blame) and feelings of irritation and anger reported by people with and without TBI for ambiguous behaviors; (2) determine the associations of negative attributions for ambiguous behaviors with cognitive processes and emotional factors; (3) identify regression models that best explain attributions of intent, hostility, and blame in response to ambiguous behaviors; and (4) determine the associations of negative attribution biases with community participation and satisfaction with life. Participants with and without TBI are presented with scenarios that describe characters’ behaviors as benign, ambiguous, or hostile, and result in hypothetically unpleasant outcomes for the participant. Participants rate how irritated and angry they are in response to the situation, and judge the intent, hostility, and blameworthiness of the characters in the scenarios. Trait aggression, anxiety, alexithymia, executive functioning, perspective-taking, and social inference are also evaluated, as well as community participation and satisfaction with life. Study objectives rest on the premise that negative attribution bias will be exacerbated in people with TBI and differ from healthy controls due to frequent cognitive and emotional impairments. The findings from this study are critical to the development of an intervention to reduce negative attribution bias in people with TBI.
Take Charge of Burn Pain: A Randomized Controlled Trial of a Web-Based Self-Management Intervention to Improve Burn Pain Outcomes

Johns Hopkins University
5th Floor Hampton House
615 North Wolfe Street
Baltimore, MD 21205

Principal Investigator: Stephen Wegener, PhD
Public Contact: 410/502-2441

Project Number: 90IF0068 (formerly H133G140079)
Start Date: October 01, 2014
Length: 36 months
NIDILRR Officer: A. Cate Miller, PhD
NIDILRR Funding: FY 14 $198,000; FY 15 $198,000; FY 16 $198,000

Abstract: This project uses a randomized control trial to test the efficacy of Take Charge of Burn Recovery – Pain (TCBR-Pain), a web-based self-management intervention. The Project goals are to (1) determine the efficacy of TCBR-Pain in improving pain management efficacy, and reducing pain and pain-related interference in burn survivors; and (2) determine whether TCBR-Pain improves psychological health and participation in life activities for burn survivors with pain. Participants are randomized into a control group or a standard-care plus TCBR-Pain group and are evaluated at baseline, two months, and five months follow-up. The project advances the knowledge about management of burn-related chronic pain, pain interference, and pain-related distress. The project disseminates information utilizing a Cloud-based system that allows for nationwide dissemination, facilitates patient-centered care, and improves access for persons with disabilities.
Field Initiated Projects (FIPs)
Michigan

The Menopause Transition in Women with Traumatic Brain Injury

University of Michigan
Department of Physical Medicine and Rehabilitation
325 East Eisenhower Parkway, Suite 300
Ann Arbor, MI 48108
clairez@umich.edu

Principal Investigator: Claire Z. Kalpakjian, PhD
Public Contact: 734/763-0153; Fax: 734/936-7048

Project Number: 90IF0047 (formerly H133G130011)
Start Date: October 01, 2013
Length: 36 months
NIDILRR Officer: Theresa San Agustin, MD
NIDILRR Funding: FY 13 $199,790; FY 14 $198,262; FY 15 $197,657

Abstract: This project examines the experience of menopause symptoms (vasomotor, somatic, psychological, and cognitive) during menopause in women with traumatic brain injury (TBI), and whether this experience significantly differs from their non-injured peers. The objectives rest on the premise that due to the direct and indirect effects of TBI on health and functioning, the experience of symptoms during menopause transition will be exacerbated among women with TBI compared to their peers without TBI. This project has five phases: Phase I engages post-menopausal women with TBI to participate in focus groups to identify key issues experienced during menopause. This informs the content of a new survey tool and is developed in collaboration with a consultation team of women with TBI, who work with investigators for the duration of the project. In Phase II the survey content and momentary assessment methodology are developed. In Phase III, survey data is collected from 150 mid-life women with TBI and 150 women without TBI. Later in Phase III, the project conducts a momentary assessment data collection in a local sample of 48 women with and without TBI. This methodology allows researchers to examine within- and between-day variability of symptoms and the impact of contextual factors on symptom experience. In Phase IV, researchers conduct quantitative data analysis of the cross-sectional survey and momentary assessment data to characterize the target population. Phase V culminates in the production of a comprehensive protocol and guidance for conducting menopause research in women with TBI with the broader vision of it being adapted to other populations of women with cognitive, physical, and/or sensory disabilities.
Targeting Sedentary Behavior Reduction in Adults with Cerebral Palsy Using a Real-Time Behavioral Intervention

The Regents of University of Michigan
503 Thompson Street
Ann Arbor, MI 48109-1340
mdpeterz@med.umich.edu

Principal Investigator: Mark Peterson, PhD
Public Contact: 734/763-0692

Project Number: 90IF0102
Start Date: September 30, 2015
Length: 36 months
NIDILRR Officer: William V. Schutz, PhD, MSW, MPH
NIDILRR Funding: FY 15 $200,000; FY 16 $200,000; FY 17 $200,000

Abstract: This project aims to determine the extent of cardiometabolic risk in adults with cerebral palsy (CP), and to reduce sedentary behavior using a novel strategy that will lead to sustainable behavior modification and improved health outcomes. The project comprises three objectives: (1) Compare total sedentary behavior and cardiometabolic risk profiles between adults with CP and matched adult controls; (2) determine the effectiveness of a novel, context-aware wearable monitoring and smartphone-based intervention (iReduceSB) to reduce total sedentary behavior, increase fragmentation of sedentary behavior, and lead to sustainable improvement of behavior change in adults with CP; and (3) determine the effects of reducing total sedentary behavior and increasing fragmentation of sedentary behavior on clinically relevant serum markers of cardiometabolic risk.
Field Initiated Projects (FIPs)
Michigan

Prevention of Long-Term Consequences of Mild Traumatic Brain Injury

Wayne State University
Department of Physical Medicine and Rehabilitation
261 Mack Avenue, Suite 546
Detroit, MI 48201
rhanks@med.wayne.edu

Principal Investigator: Robin A. Hanks, PhD
Public Contact: Daniela Ristova-Trendova 313/745-9763; Fax: 313/966-7682

Project Number: 90IF0048 (formerly H133G130021)
Start Date: October 01, 2013
Length: 36 months
NIDILRR Officer: A. Cate Miller, PhD
NIDILRR Funding: FY 13 $198,520; FY 14 $199,062; FY 15 $193,748

Abstract: The main objectives of this study are to evaluate the clinical utility of a Brief Concussion Educational Intervention in adults with mild traumatic brain injury (mTBI), and to determine the effectiveness of a brief concussion recovery guide in comparison to a longer, but well-validated guide, with regard to protection against long-term consequences of mTBI. Early education and development of positive expectancies for recovery after mTBI can decrease disability substantially, in some cases by half. Yet, mTBI educational materials are typically cumbersome due to their length and complexity; therefore, emergency department (ED) personnel understandably resist providing educational interventions with patients routinely. For this study, participants with mTBI who presented to the ED, were treated, and discharged to home are randomized to one of three groups: (1) a group that receives an intervention using the Brief Concussion Recovery Guide; (2) a group that receives an intervention using the original, well-validated, but lengthy concussion recovery guide; and (3) a usual care group that receives standard instructions for patients with mTBI provided by the ED upon discharge (e.g., told to follow-up with primary care physician and return to the emergency room if they experience continued headaches, dizziness, vomiting, or blurred vision). Primary outcomes of interest are severity of mTBI symptoms, perceived community integration, and return to work, as well as comprehension and retention of information provided in the concussion recovery guides and satisfaction with the materials.
Effects of Resistive Respiratory Muscle Training on Respiratory Function, Functional Performance, Fatigue, and Quality of Life in Individuals with Multiple Sclerosis

State University of New York (SUNY) at Buffalo
Department of Rehabilitation Science
515 Kimball Tower
Buffalo, NY 14214
nfisher@buffalo.edu

Principal Investigator: Nadine M. Fisher, EdD
Public Contact: 716/829-6724; Fax: 716/829-3217

Project Number: 90IF0029 (formerly H133G120081)
Start Date: October 01, 2012
Length: 36 months

NIDILRR Officer: Theresa San Agustin, MD
NIDILRR Funding: FY 12 $596,998; FY 13 $1 (Funds for FY 2013 were funded using FY 2012 program money); FY 14 $1 (Funds for FY 2014 were funded using FY 2012 program money); FY 15 (No-cost extension through 9/29/2016)

Abstract: This study examines whether improving respiratory muscle strength and endurance also improves overall exercise capacity and, in turn, functional performance. The most common symptom of multiple sclerosis (MS) is fatigue that interferes with an individual’s function. Fatigue also affects respiratory muscles, which leads to stealing of blood from other working muscles, causing their fatigue as well. Thus, respiratory muscle weakness contributes to exercise intolerance. It has been shown that exercise can reduce fatigue in individuals with MS. The goals of this research study are: (1) to determine the effects of a six-week resistive respiratory muscle training (RRMT) program of the inspiratory and expiratory muscles on respiratory muscle strength and endurance, exercise capacity, pulmonary function, functional performance, perceived fatigue, and quality of life; and (2) to assess the effects of a once-a-week RRMT maintenance program on maintaining these variables over a six-month period for individuals with mild to moderate MS.
TBITutor: An Intelligent Tutoring System to Improve Educational Outcomes in Youth with TBI

University of Oregon
Center on Brain Injury Research and Training
6222 University of Oregon
Eugene, OR 97403-6222
crode@uoregon.edu

Principal Investigator: Catrin Rode, PhD
Public Contact: 541/346-0593

Project Number: 90IF0073 (formerly H133G140134)
Start Date: October 01, 2014
Length: 36 months
NIDILRR Officer: A. Cate Miller, PhD
NIDILRR Funding: FY 14 $199,675; FY 15 $199,869; FY 16 $199,654

Abstract: This project develops TBITutor, a cloud-based intelligent tutoring system designed to help students achieve their academic goals when they return to educational settings after a traumatic brain injury (TBI). As they return to their homes and communities, many of these students face severe challenges, particularly in the academic arena. The most common TBI-related sequelae related to school performance are memory and executive dysfunction, which often result in a progressive lag in academic achievement. The goal of TBITutor is to provide a learning environment that places minimal demands on the executive functioning system and to therefore allow the learner to allocate all memory and attention resources to the learning activities rather than to managing the learning process. TBITutor can be used at home or in school using the students’ own course materials. It guides students through a sequence of evidence-based learning activities while they are doing their homework or studying for tests. TBITutor provides (1) effective scaffolding for an optimal learning process; (2) tailored support and guidance as needed based on skill level, cognitive profile, and extent of the impairment; and (3) consistent feedback on the content as well as the learning process. TBITutor has the potential to support adult learners with TBI as well as young students.
Project EF: Executive Function in Infants and Toddlers Born Low Birth Weight and Preterm

Western Oregon University
Teaching Research Institute
345 North Monmouth Avenue
Monmouth, OR 97361
blascop@wou.edu
teachingresearchinstitute.org/projects/pepi
teachingresearch institute.org/pages/show/project-piece?site=cepe

Principal Investigator: Patricia Blasco, PhD
Public Contact: 503/838-8783

Project Number: 90IF0084 (formerly H133G140244)
Start Date: October 01, 2014
Length: 36 months
NIDILRR Officer: A. Cate Miller, PhD
NIDILRR Funding: FY 14 $200,000; FY 15 $200,000; FY 16 $200,000

Abstract: This project examines whether traditional assessment methods that have components of executive function (EF) in their structure can discern early indicators of executive functioning in three subgroups of children ages six months to three years: (a) children born low birth weight (LBW) and pre-term at low risk, (b) children born LBW and pre-term at high risk, and (c) children born at full-term. The primary goal in Years 1 and 2 is to assess a sample of 100 children born LBW and pre-term, and 50 children who were full-term by administering a battery of standardized measures of infant and toddler development involving both caregiver report and individual assessment. In Year 3, the children are assessed on these measures and a measure of executive function. In the first phase of Project EF, researchers examine differences among the LBW and pre-term groups (at low and high risk) and the full-term sample on domains of early development (Bayley Scales of Infant Toddler Development III and Dimensions of Mastery Questionnaire (DMQ-17). In the second phase of Project EF (Year 3), researchers examine the relationship between children’s performance on these developmental measures and later performance on a measure of EF: Behavior Rating Inventory of Executive Function: Preschool Version (BRIEF-P).
Field Initiated Projects (FIPs)
Pennsylvania

Dynamic Supported Mobility for Infants and Toddlers with Cerebral Palsy

Children’s Hospital of Philadelphia
Research Institute
34th Street and Civic Center Boulevard
Philadelphia, PA 19104
prosserl@email.chop.edu

Principal Investigator: Laura Prosser, PT, PhD
Public Contact: 215/590-2495

Project Number: 90IF0076 (formerly H133G140166)
Start Date: October 01, 2014
Length: 36 months
NIDILRR Officer: William V. Schutz, PhD, MSW, MPH
NIDILRR Funding: FY 14 $200,000; FY 15 $200,000; FY 16 $200,000

Abstract: The objective of this project is to determine if dynamic supported mobility (DSM) using novel technology leads to greater improvement in motor function than conventional (CONV) physical therapy in infants and toddlers with cerebral palsy (CP). Participants receiving DSM training are given dynamic weight support and therapy focuses on child-directed motor play and exploration in a physically challenging environment designed to encourage motor variability and error experience with minimal assistance or correction from the therapist. CONV therapy involves therapist-directed activities with a focus on the repeated practice of typical movement patterns with assistance and correction from the therapist. The primary outcome measure is gross motor function. Motor outcomes are compared to published percentile scores to determine if the trajectory of predicted motor development has been altered. Secondary outcomes include improvements in physical activity at home, postural control, engagement in daily life, and parent satisfaction and cognition.

Medical University of South Carolina
College of Health Professions
Department of Health Sciences and Research
77 President Street, Suite C101
MSC 700
Charleston, SC 29425
swayngim@musc.edu
www.longevityafterinjury.com

Principal Investigator: James S. Krause, PhD; Lee L. Saunders, PhD; 843/792-1337
Public Contact: Karla Swayngim Reed 843/792-7051; Fax: 843/792-5649

Project Number: 90IF0015 (formerly H133G110157)
Start Date: October 01, 2011
Length: 36 months

NIDILRR Officer: Kenneth D. Wood, PhD

NIDILRR Funding: FY 11 $199,998; FY 12 $200,000; FY 13 $200,000; FY 14 (No-cost extension through 9/30/2015); FY 15 (No-cost extension through 6/30/2016)

Abstract: This project builds upon a 40-year ongoing longitudinal study of spinal cord injury (SCI) to better understand the natural course of aging and to lay the foundation for intervention strategies to improve outcomes. This study was initiated in 1973 using a revolving-panel longitudinal design with routine follow-ups every five years, and the intermittent addition of new participant samples to counter attrition (this is the eighth stage of data collection). Study enhancements include identification of age-related changes, factors predicting change, and the role of resiliency in buffering individuals from age-related declines. The project identifies the natural course of changes in employment, participation, health, life satisfaction, and self-reported problems using an expanded version of the Life Situation Questionnaire (developed in 1973). Several additional key constructs are addressed. Specific measures have been added related to aging, with more detail and diversity than those that are included in more basic large-scale data sets. The data are analyzed using sequential designs that combine cross-sectional and longitudinal elements. Researchers also identify factors related to unfavorable changes in outcomes over time by contrasting participants whose outcomes are stable with those whose outcomes have declined; and policy recommendations at the individual (recommended practices), rehabilitative (programmatic needs), and legislative federal level (allocation of funds in areas that will promote better outcomes).
Prevalence of Chronic Disease After Spinal Cord Injury: A Longitudinal Study

Medical University of South Carolina
College of Health Professions
Department of Health Sciences Research
77 President Street, Suite C101
MSC 700
Charleston, SC 29425
swayngim@musc.edu
www.longevityafterinjury.com
www.sciandtbiresearchblogspot.com

Principal Investigator: Lee L. Saunders, PhD
Public Contact: Karla Swayngim Reed 843/792-7051; Fax: 843/792-5649

Project Number: 90IF0070 (formerly H133G140101)
Start Date: October 01, 2014
Length: 36 months
NIDILRR Officer: Pimjai Sudsawad, ScD
NIDILRR Funding: FY 14 $199,707; FY 15 $199,823; FY 16 $199,952

Abstract: The aim of this project is to perform a comprehensive and epidemiologic assessment of the prevalence and risk factors of chronic health conditions (CHC) after spinal cord injury (SCI). This project utilizes a population-based cohort from a state SCI surveillance system registry (SCISSR), lays the foundation for the development of prevention strategies, and provides valuable knowledge needed for the allocation of limited resources. The objectives of this project are: (1) identify the prevalence of CHC’s and the added risk associated with SCI relative to the general population, (2) identify differences in health behaviors compared with the general population, (3) identify risk and protective factors for multiple CHCs, and (4) assess the change in prevalence of a subset of CHC’s over a five-year interval. A community advisory panel convenes to provide stakeholder input from people with SCI. Dissemination activities are geared to both professional and stakeholders through multiple avenues. The ultimate goal of the entire project is to generate new knowledge that may be used in diverse settings and circumstances to promote better outcomes; specifically, the prevention of or early intervention for CHC after SCI.
Field Initiated Projects (FIPs)
South Carolina

Risk of Early Mortality After Spinal Cord Injury

Medical University of South Carolina
College of Health Professions
Department of Health and Science Research
77 President Street, Suite C101
MSC 700
Charleston, SC 29425
swayngim@musc.edu
www.longevityafterinjury.com
scianstbiresearch.blogspot.com

Principal Investigator: James S. Krause, PhD
Public Contact: Karla Swayngim Reed 843/792-1337; Fax: 843/792-7051

Project Number: 90IF0066 (formerly H133G140048)
Start Date: October 01, 2014
Length: 36 months
NIDILRR Officer: Pimjai Sudsawad, ScD
NIDILRR Funding: FY 14 $199,638; FY 15 $199,926; FY 16 $199,596

Abstract: This project conducts a cohort study of more than 3,000 participants to link risk and protective factors to both all-cause and cause-specific mortality after spinal cord injury (SCI). Data collection includes psychological, socio-environmental, behavioral, and health status. Data analysis: (1) evaluates each set of predictors in relation to mortality, using time dependent covariates; (2) assesses change in predictive variables between two follow-ups in relation to mortality; (3) classifies causes of death in comparison to the general population; and (4) identifies predictors of specific causes of death. The project includes input from stakeholder and professional advisory panels on study design, analyses, and dissemination. A primary focus is the development of recommendations for prevention strategies that target high risk factors for both all cause and specific causes of mortality. Prevention strategies are directed at rehabilitation, public health, policy, and stakeholder audiences. Dissemination includes peer-reviewed publications, presentations at national conferences, and publication in stakeholder journals.
Field Initiated Projects (FIPs)
Texas

Readmission and Disability Outcomes Related to Post Acute Care

The University of Texas Medical Branch at Galveston
301 University Boulevard
Galveston, TX 77555-1137

Principal Investigator: Kenneth J. Ottenbacher, PhD, ORT 843/792-8828
Public Contact: 409/747-1637; Fax: 409/747-1638

Project Number: 90IF0071 (formerly H133G140127)
Start Date: October 01, 2014
Length: 36 months
NIDILRR Officer: Kenneth D. Wood, PhD
NIDILRR Funding: FY 14 $199,321; FY 15 $199,632; FY 16 $199,866

Abstract: This project aims to determine the factors associated with hospital readmissions from post-acute care settings and create and test predictive models to identify those persons at high risk for re-hospitalization. To this end, this project (1) examines national data from the Centers for Medicare & Medicaid Services (CMS) to determine rates of hospital readmission for diagnostic groups receiving post-acute rehabilitation in the US including stroke, fracture of lower extremities, and joint replacement of the lower extremity; (2) determines patient socio-demographic characteristics, clinical factors, and functional variables associated with hospital readmission across different post-acute care settings; and (3) uses data and information generated from 1 and 2 to create risk profiles and quantitative models to predict hospital readmission for persons across disability groups and post-acute care settings. This project addresses priorities of the Affordable Care Act, assists in validating readmission as a national quality indicator for post-acute care settings, helps reduce health care costs, and helps in establishing guidelines and parameters for emerging bundled payment programs.
Project WOWii: Developing and Testing a Web-Based Intervention to Promote Exercise Among Those with Spinal Cord Injury

The University of Texas Health Science Center at Houston
7000 Fannin Street, Suite 1006
Houston, TX 77030-5400
katherine.froehlichgrobe@uth.tmc.edu

Principal Investigator: Katherine Froehlich-Grobe, PhD
Public Contact: 214/648-1054

Project Number: 90IF0091
Start Date: September 30, 2015
Length: 36 months
NIDILRR Officer: Theresa San Agustin, MD
NIDILRR Funding: FY 15 $199,873; FY 16 $199,983; FY 17 $199,954

Abstract: This project examines the usability, feasibility, and effectiveness of a technology-based intervention (WOWii) in promoting exercise and improved fitness for those with spinal cord injury (SCI), using community-based participatory research to refine and enhance an existing evidence-based approach. During the formative evaluation phase, the project uses an iterative process to refine and enhance the WOWii web-based exercise program for people with SCI, resulting in an acceptable and usable intervention approach. Feasibility testing examines participants’ engagement with the web-based intervention during a 4-week trial, during which participants provide input on the strengths and weaknesses of the program. In the summative evaluation phase, WOWii aims to increase participant’s exercise behavior, fitness, and perceptions over a 16-week intervention and 2-month follow-up (6 months total).
The Relations Among Pain, Depression, and Resilience and their Prediction of Life Satisfaction in Men and Women with Spinal Cord Injury

The Institute for Rehabilitation and Research (TIRR)
TIRR Memorial Hermann
1333 Moursund Avenue
Houston, TX 77030
michelle.feltz@memorialhermann.org

Principal Investigator: Heather B. Taylor, PhD 713/797-5908
Public Contact: Michelle Feltz 713/797-5981

Project Number: 90IF0099
Start Date: September 30, 2015
Length: 36 months
NIDILRR Officer: Theresa San Agustin, MD
NIDILRR Funding: FY 15 $199,931; FY 16 $199,923; FY 17 $199,972

Abstract: This project identifies and evaluates relations among pain, depression, and resilience and the extent to which they predict life satisfaction in men and women with chronic pain secondary to spinal cord injury (SCI). The study uses a cohort longitudinal design with data collected at four time points (baseline, 4 month, 8 month, and 12 month). The aims are to investigate: (1) the extent to which men and women with SCI differ in the relation of chronic pain and depression to physical, psychological, and social functioning at initial assessment and over time; (2) the extent to which men and women with SCI differ on resilience characteristics at initial assessment and over time; and (3) the extent to which men and women with SCI differ on the relation of resilience characteristics to pain and depression and physical, psychological, and social functioning at initial assessment and over time. A new cohort of 200 men and women with chronic pain secondary to SCI was recruited among individuals from community based, public, and private clinics over a period of five months. Data were gathered at each time point using one face-to-face and three telephone-administrated oral questionnaires that incorporate several standardized instruments for measuring pain and pain resilience strategies, depression and functioning (physical and social). Findings from this study will have implications for clinical practice in primary medicine and rehabilitation, and for public health policy that governs the availability and delivery of mental health services to people with SCI. Dissemination strategies include fact sheets and information on pain management strategies for people with disabilities. This project is a collaboration of TIRR Memorial Hermann, the University of Montana, and Miami University.
Amitriptyline to Prevent Headache After Traumatic Brain Injury

University of Washington
Department of Rehabilitation Medicine
1959 NE Pacific Street
Box 356490
Seattle, WA 98195-6490
jeanneh@uw.edu

Principal Investigator: Jeanne M. Hoffman, PhD
Public Contact: 206/221-6511

Project Number: 90IF0025 (formerly H133G120055)
Start Date: October 01, 2012
Length: 36 months
NIDILRR Officer: A. Cate Miller, PhD
NIDILRR Funding: FY 12 $199,213; FY 13 $198,418; FY 14 $199,826; FY 15 (No-cost extension through 9/29/2016)

Abstract: This project conducts a two-arm, open-label pilot study to determine if early treatment with amitriptyline will decrease the frequency and severity of headaches after mild traumatic brain injury (TBI). Specific Aim 1 is to conduct a two-arm open-label study to examine the effect of preventive treatment with amitriptyline on the frequency and severity of headache after mild TBI. Specific Aim 2 is to collect data needed for design of a Phase III study, including an estimate of effect size, headache variability, and desirable drug treatment start date. Specific Aim 3 is to examine the feasibility of using headache diaries with individuals with mild TBI. Specific Aim 4 is to establish the safety and tolerability of amitriptyline for the prevention of headache after mild TBI. Headache is one of the most common persisting pain complaints after mild TBI. Preventive treatment of headache after TBI may not only reduce chronicity but also improve general health and quality of life for those with TBI.
Disability Demographics

As stated in NIDILRR’s 2013-2017 Long-Range Plan, valid and reliable demographic data help all agencies and research in the disability field. NIDILRR continues to work with other Federal agencies to meet its statutory mandate to collaborate in producing demographic and statistical data that describe the population of individuals with disabilities. Projects funded in this area generate and disseminate new and current information that can be used by individuals with disabilities, service providers, policy makers, and others working to identify disparities in employment, community living and participation, and health and function.

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Rehabilitation Research and Training Centers (RRTCs)
New Hampshire

Rehabilitation Research and Training Center on Disability Statistics and Demographics (StatsRRTC)

University of New Hampshire
Institute on Disability
10 West Edge Drive, Suite 101
Durham, NH 03824
disability.statistics@unh.edu
www.disabilitycompendium.org
www.researchondisability.org/statsrrtc

Principal Investigator: Andrew J. Houtenville, PhD 603/862-4004
Public Contact: Penny Gould 603/864-0165; Fax: 603/863-0555

Project Number: 90RT5022 (formerly H133B130015)
Start Date: October 01, 2013
Length: 60 months
NIDILRR Officer: Hugh Berry, EdD
NIDILRR Funding: FY 13 $874,998; FY 14 $875,000; FY 15 $874,999; FY 16 $874,998; FY 17 $874,998

Abstract: The objective of the Rehabilitation Research and Training Center on Disability Statistics and Demographics (StatsRRTC) is to narrow and actively bridge the divide between the producers and end users of disability statistics. In pursuit of this objective, the RRTC conducts 12 research and 15 knowledge translation projects that build upon the work of past StatsRRTC projects. Several of the research projects focus on the collection of disability statistics and narrow the divide by (a) developing recommendations and tools that improve the identification of the population with disabilities and measurement of services, and (b) conducting experiments to test alternative survey methods. Project activities include (a) analyzing existing data to assess progress towards national goals and address information needs about critical programs; (b) providing access to timely and relevant disability statistics through national and state-level Annual Reports on Disability that track key indicators and an Annual Disability Statistics Compendium that allows end users to access even more statistics; (c) providing technical assistance to key stakeholders to produce customized statistical analyses and compilations; (d) developing and maintaining a State/Local Statistics which allows users to create customized reports; (e) providing information and referral services, and technical consultation on collection methods and data analysis; and (f) increasing the capacity of end users to effectively utilize disability statistics through the Annual Report and Compendium Rollout event, online training courses for vocational rehabilitation evaluators, and the Center’s State-of-the-Science conference.
Field Initiated Projects (FIPs)
Colorado


University of Colorado Denver
Coleman Institute for Cognitive Disabilities
3825 Iris Avenue, Suite 200
Boulder, CO 80301
braddock@cu.edu

Principal Investigator: David L. Braddock, PhD
Public Contact: 303/492-0639; Fax: 303/735-5643

Project Number: 90IF0022 (formerly H133G120010)
Start Date: October 01, 2012
Length: 36 months

NIDILRR Officer: Dawn Carlson, PhD, MPH
NIDILRR Funding: FY 12 $200,000; FY 13 $200,000; FY 14 $200,000; FY 15 (No-cost extension through 9/29/2016)

Abstract: This project is a comprehensive longitudinal study of the characteristics, trends, and determinants of public spending for disability programs in the United States. The study analyzes disability services and spending trends in the 50 states and District of Columbia in four broad domains: income maintenance, general health care, long-term care, and special education services. The study develops and maintains a comprehensive state-by-state database on public disability spending and services during the 17-year period encompassing fiscal years 1997-2013. The project also responds in a timely fashion to data dissemination requests from state and federal legislators and their staffs, executive officials in Washington, DC and the states, and to state and national disability-related advocacy organizations, self-advocates, and researchers. The project provides information and technical assistance to consumers with disabilities, state governments, and service providers. Collaborators for dissemination and technical assistance include the Denver-based National Conference of State Legislatures (NCSL), the Washington, DC-based Consortium for Citizens with Disabilities (CCD) (a network with over 100 member organizations), and ADAPT, which, along with project staff, provide internet-based dissemination and produce and distribute publications with detailed state-by-state financial and programmatic data.
Impacts and State Utilization of HCBS Waiver Services for Families and Children with Autism

Towson University
8000 York Road
College of Liberal Arts Building, Suite 2210
Towson, MD 21252
keskow@towson.edu
www.towson.edu/fmst/autismresearch

Principal Investigator: Karen Eskow, PhD 410/704-2238
Public Contact: Gretchen Armington 410/704-5851; Fax: 410/704-3612

Project Number: 90IF0023 (formerly H133G120030)
Start Date: October 01, 2012
Length: 36 months

Abstract: This project explores impacts of implementation of Medicaid Home and Community Based (HCBS) Waiver initiatives in support of children and families who experience autism. In a two-pronged approach, the project studies state policy makers and factors contributing to or impeding implementation of HCBS autism waivers at the state level, and studies families and youth in a state with an autism waiver in place -- Maryland -- to learn more about service needs, impacts of the waiver on children/youth and families, and service configurations that may make the most difference to children with autism and their families at younger ages as compared to transition ages. In Study One, Phase 1 involves in-depth qualitative interviews with policy makers in four states concerning perspectives about facilitators and barriers to implementing HCBS waivers in general and autism waivers in particular. These results are used to develop a national survey to be distributed in Phase 2 to all 50 states. Study Two involves in-depth qualitative interviews with 48 Waiver and Registry families to probe their perspectives about their child and family needs, impacts of the child’s disability, concerns about approaching transitions, and impacts of the services they are receiving. The results of this study inform Phase 2 of Study Two (as well as any additional issues identified in the national survey of states from Study One), which is a statewide survey distributed to families receiving Waiver services and on the Registry list.
Technology for Access and Function

With NIDILRR’s research priorities, technology spans the goals of sustaining health and function, employment, and community living and participation reflecting the critical contributions of technology to successful outcomes for persons with disabilities in all of these areas. At the individual level, the primary focus is on assistive technology devices that enhance the physical, sensory, and cognitive abilities of people with disabilities and assist them in participating and functioning more independently in the home, at work, in recreational settings, and at cultural and community events. At the systems level, the emphasis is on applying technology research and development in ways that enhance community integration, independence, productivity, competitiveness, and equal opportunity by mitigating or eliminating barriers found in large social systems such as public transportation, telecommunications, IT, and the built environment. This research area also includes research to ensure the accessibility and potential of cloud computing to support the independence, employment, and functional capabilities of persons with disabilities.

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Rehabilitation Engineering Research Centers (RERCs)
Alabama

Interactive Exercise Technologies and Exercise Physiology for People with Disabilities

The University of Alabama at Birmingham
School of Health Professions, SHPB 331
1720 2nd Avenue South
Birmingham, AL 35294-3361
jrimmer@uab.edu
www.rectech.org

Principal Investigator: James H. Rimmer, PhD
Public Contact: 205/975-9010; Fax: 205/975-7787

Project Number: 90RE5009 (formerly H133E120005)
Start Date: October 01, 2012
Length: 60 months
NIDILRR Officer: Margaret Campbell, PhD
NIDILRR Funding: FY 12 $950,000; FY 13 $950,000; FY 14 $950,000; FY 15 $950,000; FY 16 $950,000

Abstract: This Center conducts an advanced engineering research and development program using new and emerging technologies to address the high rates of physical inactivity in youths and adults with disabilities. The Center includes a coordinated set of research, development, capacity building, and knowledge translation/dissemination projects focused on promoting healthier, more active lifestyles for people with disabilities. The key target areas for the research and development projects are improving access to recreation and exercise venues and equipment, increasing opportunities for people with disabilities to participate in beneficial exercise, using technology to support greater adherence to regular exercise, and promoting regular exercise and active lifestyles for people with disabilities as a way to improve health and function. The research agenda includes projects aimed at (1) determining a valid methodology for using commercially available activity monitors to estimate energy expenditure (i.e., daily physical activity) in manual wheelchair users, (2) the use of off-the-shelf e-health technology for promoting safe and effective dose-response tele-exercise training in the home for adults with mobility disability, and (3) evaluation of a highly scalable information communication technology platform that promotes community-based physical activity for youths with disabilities. Development projects include (1) adaptation of sensors and game controllers to allow youths with disabilities to participate in currently inaccessible active video games, (2) high definition video-based virtual exercise environments integrated into an Advanced Virtual Exercise Environment Device for promoting socially engaging physical activity in people with disabilities, and (3) development of universal design standards for accessible fitness equipment and fitness facilities. Capacity building efforts include a rehabilitation engineering mentorship program, student design coursework in exercise/recreation technology, and infusion of rehabilitation engineering and disability into the graduate curriculum. Knowledge transfer projects include a state-of-the-science conference in exercise/recreation technology, a RecTech wiki, and a series of webinars and online newsletters promoting new knowledge in exercise science, engineering, and recreation.
Rehabilitation Engineering Research Centers (RERCs)
California

Rehabilitation Engineering Research Center: Develop and Evaluate Technology for Low Vision, Blindness, and Multi-Sensory Loss

The Smith-Kettlewell Eye Research Institute
2318 Fillmore Street
San Francisco, CA 94115
rerc@ski.org
www.ski.org/Rehab

Principal Investigator: John A. Brabyn, PhD 415/345-2110
Public Contact: Deborah Gilden, PhD 415/345-2000; Fax: 415/345-8455

Project Number: 90RE5008 (formerly H133E110004)
Start Date: October 01, 2011
Length: 60 months
NIDILRR Officer: Stephen Bauer, PhD
NIDILRR Funding: FY 11 $949,490; FY 12 $949,149; FY 13 $949,892; FY 14 $949,332; FY 15 $949,198

Abstract: This project conducts a comprehensive research and development program in the areas of blindness, low vision, and sensory loss, focusing on assessment, access to technology, and education in science, technology, engineering, and math (STEM). Within these three main areas, the project identifies and addresses outstanding problems faced by the different age and population groups including infants and young children, school and working age individuals, elders, returning veterans, and persons with combined visual and hearing impairments. Assessment projects include utilizing visual evoked potential technology to investigate how to best predict likely future visual ability for reading, assessing the factors leading to reading deficits in elders and veterans, determining optimal eye movement strategies for persons with blind spots in their central visual fields, and guidelines for evaluation of visual function afforded by visual prostheses. The CamIO system addresses access to graphics, appliances, and devices with visual displays and controls, using computer vision to capture finger motions relative to device controls, read display contents, and provide auditory feedback for real-time interaction. Expanding the existing computer-vision-based sign finding and sign reading research to solve practical user-oriented problems such as camera aiming and user information overload addresses access to signage. The project also develops a next-generation, reduced-cost variant of the Remotely Accessible Infrared Signage technology, and pursues development of special hearing aids designed to enhance wayfinding cues for people with combined visual and hearing impairments. Finally, the project partners with a major science curriculum developer to apply these and other technology to adapt widely used mainstream science curricula for universal access to support STEM education for students with visual impairments.
Rehabilitation Engineering Research Centers (RERCs)
Colorado

Rehabilitation Engineering Research Center for Advancing Cognitive Technologies (RERC-ACT)

University of Colorado Denver
Health Sciences Center
601 East 18th Avenue, Suite 130
Denver, CO 80203
cathy.bodine@ucdenver.edu
www.rerc-act.org

Principal Investigator: Cathy Bodine, PhD; Michael Lightner, PhD
Public Contact: 303/503-8396; Fax: 303/837-1208

Project Number: 90RE5019 (formerly H133E140054)
Start Date: October 01, 2014
Length: 60 months
NIDILRR Officer: Margaret Campbell, PhD
NIDILRR Funding: FY 14 $949,999; FY 15 $949,995; FY 16 $949,999; FY 17 $950,000; FY 18 $950,000

Abstract: This project focuses on the research and development of cognitive technologies for individuals with cognitive impairments designed to improve their quality of life, and that of their caregivers. The RERC-ACT focuses on three research and three development projects; educational activities, knowledge translation, and utilization; and continuous quality improvement of the overall center. The Center’s six research and development activities focus on expanding the cognitive technology standards for work, training, dissemination/knowledge utilization, and commercialization by: (R1) performing usability tests with the myriad of technologies used by persons with cognitive disabilities in order to improve individual consumer selection of the ‘right’ technology as well as facilitating improvements in the design and development of existing, emerging, and new technologies for working-age adults with traumatic brain injury; (R2) developing a tablet-based simulator which enables researchers to test, in a very controlled manner, specific user interface features with specific populations; and (R3) conducting an applied clinical trial of the Non-Linear Context-Aware Interactive Prompting Platform (IPP). The clinical trial has three major development components: (D1) providing an easy-to-configure authoring system for non-technical set-up of the IPP in warehouse environments; (D2) combining workplace business systems monitoring (computerized inventory management/business processes) with navigation and contextualized prompts; and (D3) collecting ongoing data and comparing the prescribed task to actual performance, enabling error detection and correction.
Abstract: This RERC’s mission is to provide consumers who are hard of hearing or deaf, as well as their families and clinicians, with the knowledge and tools necessary (1) to take control of their communication and hearing technologies, adapt those technologies to their needs in real-world environments, and achieve greater autonomy in their technology use; and (2) to derive full benefit of the shift from special-purpose devices to increasingly powerful and interconnected consumer electronics. The RERC aims to narrow the gaps between the potential for new technologies to improve the lives of individuals who are hard of hearing or deaf and their ability to exploit this potential. The center carries out three research and three development and training projects, as follows. R1 investigates how a previously successful face-to-face, clinical program of aural rehabilitation for cochlear implant users can be transferred to a telerehabilitation model, in which services are delivered in the home to previously underserved populations with limited access to clinical facilities using the interactive platform for telehealth and collaborative applications developed by the RERC on Telerehabilitation. R2 investigates how consumers with hearing loss can customize their own cochlear implant mapping using a consumer-driven system to control the programming of the device and personally explore a range of programming parameters to determine if this type of user-driven customization can maximize device benefit. R3: investigates new clinical tools to address a critical gap in fitting hearing devices to very young, prelingual children with hearing loss. D1 develops a framework for a consumer-centric, technology-focused train-the-trainer program, which develops skilled consumer trainers to provide improved quantity and quality of technology training to other consumers. D2 develops field tools, implemented through the integration of hearing devices and smartphones, for monitoring listeners’ perceptions, environmental context information, and hearing device configuration during real-world listening situations, so that factors that interfere with the ability of consumers to use or benefit from hearing devices can be identified. D3 develops interactive learning environments where consumers can explore virtual, yet realistic, listening situations, learn how to optimize the use of their hearing technology, and then transfer the knowledge and skills they have acquired to similar situations encountered in the real-world.
Rehabilitation Engineering Research Centers (RERCs)
Georgia

Rehabilitation Engineering Research Center for Wheeled Mobility in Everyday Life

Georgia Institute of Technology
Center for Assistive Technology and Environmental Access (CATEA)
490 Tenth Street, NW
Atlanta, GA 30318
mobilityerc@coa.gatech.edu
www.mobilityerc.gatech.edu

Principal Investigator: Stephen Sprigle, PhD 404/385-4302
Public Contact: 404/894-4960 (V/TTY); Fax: 404/385-9320

Project Number: 90RE5000 (formerly H133E080003)
Start Date: October 01, 2008
Length: 60 months
NIDILRR Officer: Thomas Corfman
NIDILRR Funding: FY 08 $949,998; FY 09 $949,995; FY 10 $949,994; FY 11 $949,998; FY 12 $949,995; FY 13 (No-cost extension through 9/30/2014); FY 14 (No-cost extension through 9/30/2015); FY 15 (No-cost extension through 9/29/2016)

Abstract: This project promotes new ways of conceptualizing and understanding wheeled mobility while focusing on devices and interventions that impact device use and activity performance. This approach enables as many individuals as possible to actively participate in everyday life. Project goals include four integrated program areas in research, development, training, and dissemination that utilize a variety of methodologies and scientific approaches taking research out of the laboratory and putting it into real-world, everyday environments. Project research centers on four activities: R1. Pressure Ulcer Prevention: Susceptibility and Pressure Relief Effectiveness; R2. Effects of Mobility Device and Environmental Facilitators on Activity and Participation; R3. Improved Training to Improve Function which studies the effect of immediate video feedback on acquisition of advanced wheelchair skills, and the impact of an innovative wheelchair Tai Chi program on health, activity, and participation; and R4. Improved Wheelchair Prescription which examines effects of wheelchair type on performance of elders in public spaces and investigates how well clinicians predict the wheelchair use of their clients. Development projects address standards and test methods and commercial projects and include: D1. Development of Standards and Test Methods which develops three wheelchair cushion standards and a wheelchair test method to accurately measure the mechanical effort required to propel manual wheelchairs; D2. Inventor-Driven Product Development that assists in developing products that have been conceived by small companies and inventors; and D3. Development of Orphan Technologies, developing devices that have small markets but serve useful needs. Four training projects focus on a variety of audiences including: T1. Evidence-Based Online Wheelchair Seating and Positioning Course; T2. Advanced Rehabilitation Research Training; T3. Creating Rehabilitation Engineering and Assistive Technology Experiences; and T4. State of the Science Conference.
Rehabilitation Engineering Research Centers (RERCs)
Georgia

Rehabilitation Engineering Research Center for Wireless Technologies

Georgia Institute of Technology
Virginia C. Crawford Research Institute
Shepherd Center
500 Tenth Street, NW
Atlanta, GA 30318
info@wirelessrerc.org
www.wirelessrerc.org
www.facebook.com/WirelessRERC
twitter.com/CACPGT_wRERC
www.linkedin.com/groups?mostRecent=&gid=1854667&trk=my_groups-tile-flipgrp

Principal Investigator: Helena Mitchell, PhD
Public Contact: Paul M.A. Baker, PhD 404/385-3367; Fax: 404/385-0269

Project Number: 90RE5007 (formerly H133E110002)
Start Date: October 01, 2011
Length: 60 months
NIDILRR Officer: Stephen Bauer, PhD
NIDILRR Funding: FY 11 $950,000; FY 12 $950,000; FY 13 $950,000; FY 14 $950,000; FY 15 $950,000

Abstract: The mission of the Rehabilitation Engineering Research Center (RERC) for Wireless Technologies is to: (1) promote access and use of wireless technologies by people with disabilities, and (2) encourage adoption of universal design approaches in future generations of wireless technologies. The Research Section includes two projects focused on user-centered approaches to research, development, and evaluation of wireless technologies and policy initiatives to remove barriers to and promote use of wireless innovations by people with disabilities. User-Centered Research: Consumer Advisory Network (R1) is designed to provide the wireless industry and government regulators with reliable, actionable, and independent data on the needs and wants of consumers with disabilities. Policy Approaches to Accelerate Access to Advanced Wireless Technologies (R2) conducts policy research and analysis as it relates to the needs of people with disabilities, accessibility, and migratory shifts in wireless technologies. The Development Section includes two projects aimed at responding to ongoing trends in handheld technology, wireless networks, and federal policy. The App Factory (D1) is an “open (to any app developer) shop” to promote development of a variety of software applications that address needs, support independence, and improve quality of life and community participation of people with disabilities; including those with cognitive, physical, sensory, or communication disabilities. Emergency Lifelines on Wireless Platforms (D2) identifies, develops, and tests solutions for ensuring that next-generation emergency communication systems (e.g., NG 9-1-1 and mobile broadband alerting) afford full access to people with disabilities, particularly as emergency alerts move from conventional broadcast media (radio and TV) to wireless networks and devices. The Training and Dissemination Section includes three projects that promote the adoption of new knowledge into practice. The State of the Technology conference focuses on strategies for engaging consumers in rehabilitation research and engineering, impact of public policy
on equitable access and migration from legacy, analog technologies to next-generation, digital technologies. The RERC’s two other training projects undertake initiatives designed to educate consumers, service providers, manufacturers, and other professionals. Efforts include consumer workshops, university courses, an annual student design competition, and conference tutorials; all geared toward access and usability of mobile wireless technologies.
Rehabilitation Engineering Research Center on Technologies to Support Successful Aging with Disability (RERC TechSAge)

Georgia Tech Research Corporation
Center for Assistive Technology and Environmental Access (CATEA)
490 Tenth Street, NW
Atlanta, GA 30318
jon.sanford@coa.gatech.edu
techsage.gatech.edu

Principal Investigator: Jon Sanford; Wendy A. Rogers; Tracy L. Mitzner
Public Contact: 404/894-1413; Fax: 404/894-9320

Project Number: 90RE5016 (formerly H133E130037)
Start Date: October 01, 2013
Length: 60 months
NIDILRR Officer: Margaret Campbell, PhD
NIDILRR Funding: FY 13 $924,999; FY 14 $924,994; FY 15 $924,992; FY 16 $924,998; FY 17 $924,994

Abstract: The RERC TechSAge conducts programs of advanced rehabilitation engineering and technical research and development (R&D) to increase knowledge about, availability of, and access to effective, universally-designed technologies that enable people to sustain independence, maintain health, safely engage in basic activities of daily living at home and the community, and participate in society as they age with disability. The RERC conducts nine R&D projects. Research projects include: R1. User Needs. This project uses a multi-faceted approach to provide converging evidence to support development of integrated technology that meets the needs of older adults with disabilities. Specifically, it develops a taxonomy of everyday support needs, assesses user needs for home-based activities, and creates an integrated dataset to predict task performance and technology need; R2. Effects of Age-Related Hearing Loss. This project investigates the ancillary impact of age-acquired hearing impairment on the use of mobility-related assistive technology (AT) and outdoor mobility among visually-impaired older adults to identify impacts on AT use, mobility, and community participation, resulting in design and practice guidelines; R3. Telewellness Technologies. This project identifies the requirements of telepresence technology interventions to compensate for activity limitations and participation restrictions among older adults with disabilities through an understanding of telerobot acceptance by the target population, determining the effectiveness of telerobot exercise interventions for enhancing self-efficacy and social connectedness, and assessing the usefulness and ease-of-use of a telerobot. Development projects include: D1. App Development. This project develops mobile applications to support successful aging by older adults with a disability. Three apps are planned: cognitive training to prevent functional decline, route planning to promote community mobility, and gait analysis to predict activity limitations; D2. Smart Bathroom. This project develops a system of smart bathroom technologies and fixtures, such as grab bars and adjustable toilets, that adapt to user’s needs and functional abilities based on an analysis of gait, balance, posture, grip strength, and other factors; D3. Mobile Manipulator Robot. This project develops an open-source code, open hardware robotic system that performs common actions with its hand (e.g., tool use) and is capable of adapting to changes in a user’s abilities and preferences to provide better assistance. Project activities result in universally-designed interventions that support successful aging with disability.
Machines Assisting Recovery from Stroke and Spinal Cord Injury for Reintegration into Society (MARS3)

Rehabilitation Institute of Chicago (RIC)
Sensory Motor Performance Program (SMPP)
Department of Physical Medicine and Rehabilitation at Northwestern University
345 East Superior Street, ONT-936
Attn: MARS-RERC Research Administration Chicago
Chicago, IL 60611-2654
j-patton@northwestern.edu
www.mars-rerc.org

**Principal Investigator:** Jim Patton, PhD; David J. Reinkensmeyer, PhD; 949/824-5218
(Reinkensmeyer)

**Public Contact:** Jim Patton, PhD 312/238-1277; Fax: 312/238-7605

**Project Number:** 90RE5010 (formerly H133E120010)

**Start Date:** October 01, 2012

**Length:** 60 months

**NIDILRR Officer:** Dawn Carlson, PhD, MPH

**NIDILRR Funding:** FY 12 $949,613; FY 13 $949,754; FY 14 $949,782; FY 15 $949,717; FY 16 $949,800

**Abstract:** Machines Assisting Recovery from Stroke Rehabilitation (MARS3) is a multi-institutional center designed to evaluate the utility of robotic devices for providing rehabilitation therapy after neural injury. Research activities focus substantially on recovery from stroke because individuals with stroke are by far the largest user group requiring intensive rehabilitation and assistance. However, this center also pilots new applications in spinal cord injury, cerebral palsy, traumatic brain injury, and aging. Seven research and development projects center on the use of robots for restoration of function and return to society: D1: Development of expertise in lower-extremity exoskeleton use; D2: A body-machine interface for promoting motor recovery while controlling assistive devices; D3: Wheelchair-based robotic upper extremity exercise and power-assisted propulsion; D4: Wearable aid for fall prevention; R1: Robotic mobility activity center in a fitness facility for people with disabilities; R2: Virtual environment for hand home therapy following stroke; and R3: Community-ready upper extremity interactive rehabilitation. Additionally, three cross-cutting core facilities assist all projects: (1) avatar communications with users; (2) statistical design; and (3) technology transfer. This Center is an international collaboration with the Rehabilitation Institute of Chicago, University of Illinois at Chicago, the University of California at Irvine, Northwestern University, the Illinois Institute of Technology, and Delft University of Technology in the Netherlands.
Rehabilitation Engineering Research Centers (RERCs)
Illinois

Rehabilitation Engineering Research Center on Timing Investigation
Dosage Implementation (TIDI)

Rehabilitation Institute of Chicago (RIC)
Sensory Motor Performance Program (SMPP) and the
Department of Physical Medicine and Rehabilitation at Northwestern University
345 East Superior Street, ONT-936
Chicago, IL 60611-2654
llovell@ric.org

Principal Investigator: W. Zev Rymer, MD, PhD 312/239-3919
Public Contact: Linda Lovell, Grants Manager 312/238-6197

Project Number: 90RE5013 (formerly H133E130019)
Start Date: October 01, 2013
Length: 60 months
NIDILRR Officer: Thomas Corfman
NIDILRR Funding: FY 13 $924,937; FY 14 $924,906; FY 15 $924,805; FY 16 $924,726; FY 17 $924,719

Abstract: The Rehabilitation Institute of Chicago (RIC) together with its partners, Northwestern University (NU), Emory University, Carnegie Mellon University, University of Colorado at Boulder, and Ekso Bionics design and implement a program of research and development centered on establishing a rational basis for quantifying the appropriate time distribution for use of robotic and computer-based interventions in rehabilitation therapy. The center also investigates how therapists interact with robotic devices when delivering therapy. Seven areas of research and development include: D1-R1 mixed-reality therapy for restoration of arm function in stroke survivors, D2-R2 development of computer-based algorithms for restoration of speech after stroke, D3-R3 effect of stretching of ankle muscles on locomotion in stroke survivors, and D4 how to train people with a spinal cord injury to use a robotic exoskeleton. Training for the center includes an advanced Education and Training project for undergraduate engineers dedicated to the design of simple devices for rehabilitation as part of NU’s highly successful initiative in engineering design education. Dissemination includes presentations at engineering and rehabilitation conferences, publications in high-impact peer reviewed journals, press releases, websites, and faculty presentations.
Rehabilitation Engineering Research Centers (RERCs)
Illinois

Technologies to Evaluate and Advance Mobility and Manipulation (TEAMM) Rehabilitation Engineering Research Center

Rehabilitation Institute of Chicago (RIC)
345 East Superior Street
Chicago, IL 60611
abarlow@ric.org
www.ric.org/TEAMM-RERC

Principal Investigator: Todd Kuiken, MD, PhD; Levi Hargrove, PhD; Arun Jayaraman, PhD; Konrad Kording, PhD; Christian Poellabauer, PhD; W. Zev Rymer, MD, PhD; 312/238-1315
Public Contact: Ann K. Barlow, PhD 312/238-5653; Fax: 312/238-2081

Project Number: 90RE5014 (formerly H133E130020)
Start Date: October 01, 2013
Length: 60 months
NIDILRR Officer: Thomas Corfman
NIDILRR Funding: FY 13 $924,939; FY 14 $924,997; FY 15 $924,972; FY 16 $924,931; FY 17 $924,953

Abstract: This RERC develops technologies to evaluate and advance mobility and manipulation for people with movement disabilities and includes a total of six projects: three combined development/research projects, two research projects, and one development project. Two projects are focused on upper limb amputees: the Voluntary Opening and Voluntary Closing Terminal Device (VOVC) Project and the Partial-hand Control Project. The VOVC Project is a clinical trial of an innovative new terminal device that enables two types of grasp that traditionally require two separate devices. The Partial-hand Control Project develops a pattern recognition–based control system for motorized fingers and evaluates this technology in a clinical trial. The Ekso Project evaluates use of a powered exoskeleton device to improve gait and mobility therapy in people following severe stroke. The Social Mobility Project develops and evaluates a new research tool that uses a cell phone application (app) to monitor a person’s mobility at home and anywhere in the community. The app identifies the mobility mode (i.e. walking, wheelchair, car, etc.) and assesses social interactions by analyzing where people go. While focusing on people with stroke, one of the largest populations with disability, this app can be applied to virtually any population with mobility-limiting disability. The Manual Standing Wheelchair (MSW) Project develops and evaluates a wheelchair that enables users to be mobile in a sitting or standing position utilizing an ergonomically efficient lever drive. The MSW Project focuses on a large array of wheelchair users, including those with spinal cord injury, spina bifida, and multiple sclerosis. Finally, the Powered Leg Project uses state-of-the-art-technology to create a lightweight powered leg system targeted for older or smaller persons with a lower limb amputation.
Rehabilitation Engineering Research Centers (RERCs)
Michigan

Technology Increasing Knowledge: Technology Optimizing Choice (TIKTOC) Rehabilitation Engineering Research Center (RERC)

Regents of the University of Michigan
University of Michigan Department of Physical Medicine & Rehabilitation
325 East Eisenhower Parkway, Suite 300
Ann Arbor, MI 48108
domichin@med.umich.edu
eethi.medicine.umich.edu/initiatives/tiktoc-rerc

Principal Investigator: Michelle A. Meade, PhD; Edmund Durfee, PhD
Public Contact: Donna Omichinski 734/615-6720; Fax: 734/936-7048

Project Number: 90RE5012 (formerly H133E130014)
Start Date: October 01, 2013
Length: 60 months
NIDILRR Officer: Pimjai Sudsawad, ScD
NIDILRR Funding: FY 13 $923,442; FY 14 $924,560; FY 15 $924,502; FY 16 $920,402; FY 17 $922,220

Abstract: This project develops and evaluates innovative rehabilitation strategies, techniques, and interventions to enhance health, participation, and employment outcomes among adolescents and young adults with physical, cognitive, and neurodevelopmental disabilities. Center projects include two research studies: R1: An exploratory study to identify the primary cognitive and motivational variables that impact self-management ability, and behaviors among adolescents and young adults with neurodevelopmental disabilities; and R2: A randomized clinical trial of a serious game developed to enhance self-management ability among adolescents and young adults with spinal cord dysfunction. The Center has four development activities: D1: The development of an effective system of data collection, analysis, and display tools to assist healthcare teams who support individuals with disabilities to prioritize, address, measure, and track success in achieving personally optimal levels of health and participation; D2: The development of a dynamic scheduling system based on state-of-the-art artificial intelligence (AI) techniques that augments human cognition to support the management of health and participation of young adults with disabilities; D3: The development of a cloud-based mobile system for dynamic, personalized self-management plans, allowing continuous coordination among the adolescent or young adult with a physical disability, clinical staff, and caregiver networks, and providing each with different capabilities for viewing, updating, acting on, and reporting progress on the shared plans and related medical information; and D4: The development of a visual, interactive, AI-enhanced intervention that uses reinforcement learning to target health management behaviors among transition age adolescents and young adults with neurodevelopmental disabilities. This project is an interdisciplinary collaboration of clinicians and researchers from the School of Medicine, the College of Engineering, the College of Pharmacy, and the School of Information within the University of Michigan.
Rehabilitation Engineering Research Centers (RERCs)
New Jersey

Rehabilitation Engineering Research Center on Wearable Robots for Independent Living

New Jersey Institute of Technology
323 Martin Luther King Jr. Boulevard
Newark, NJ 07102-1824
foulds@njit.edu

Principal Investigator: Richard A. Foulds, PhD
Public Contact: 973/596-3335

Project Number: 90RE5021
Start Date: September 30, 2015
Length: 60 months
NIDILRR Officer: Thomas Corfman
NIDILRR Funding: FY 15 $924,577; FY 16 $924,776; FY 17 $924,818; FY 18 $924,858; FY 19 $924,558

Abstract: This project conducts research and development activities focused on wearable robots for independent mobility and manipulation. This RERC is a joint effort of the New Jersey Institute of Technology (NJIT) and the Kessler Research Foundation comprising three research and two comprehensive development projects, plus a portfolio of training activities. Two of the research projects employ three commercially available, lower extremity exoskeletons: One explores the potential of simultaneous spinal cord stimulation to improve exoskeleton use by individuals with spinal cord injury; the second studies the possible improvement in gait after stroke caused by using exoskeletons early in the rehabilitation process. The third project studies the benefit of home-based robotic rehabilitation of the upper extremities in persons who have had a stroke, employing the new upper extremity exoskeleton being developed by the NJIT. One development project explores the application of robotic admittance control as means of allowing users of a lower extremity exoskeleton to have complete control over the movement of their legs. The users make walking-like movements with their hands (or fingers) which are sensed and used to control the movement of the exoskeleton legs. Haptic feedback of the leg movement, conveyed to the hands, provides essential feedback to the user. The project also explores the ability of additional powered degrees of freedom to allow a combination of autonomous and user initiated balance. The second development project extends the NJIT-developed upper extremity orthosis to meet the needs of children with muscular dystrophy and people of all ages with incomplete tetraplegia due to SCI. Admittance control is used as it offers a superior way to counterbalance gravity and the mass of objects to be lifted, thus letting the exoskeleton respond reliably and accurately to limited residual muscle forces. Training activities include a new continuing education (2-3 day) course for clinicians and physicians on wearable robotic applications and a new graduate course for engineering students on the design of wearable robots. Material from the RERC is included in the Kessler Post-Doctoral and Rehabilitation Residency curricula as well as to NJIT’s existing graduate courses on biorobotics, neuromuscular engineering, and neurorehabilitation. Additional training includes a new graduate certificate to be given after the completion of four graduate courses, as well as the infusion of wearable robot experience into masters theses, undergraduate capstone design projects, and mentoring of pre-college students.
Rehabilitation Engineering Research Centers (RERCs)
New York

RERC on Universal Design in the Built Environment

University at Buffalo
The State University of New York
School of Architecture and Planning
114 Diefendorf Hall
3435 Main Street
Buffalo, NY 14214
ap-idea@buffalo.edu
idea.ap.buffalo.edu
www.udeworld.com/rercud-overview.html
twitter.com/IDeA_Center
www.facebook.com/pages/Center-for-Inclusive-Design-and-Environmental-Access

Principal Investigator: Edward Steinfeld, ArchD; James Lenker, PhD; 716/829-5899
Public Contact: Jordana Maisel, PhD 716/829-5902; Fax: 716/829-3861

Project Number: 90RE5005 (formerly H133E100002)
Start Date: October 01, 2010
Length: 60 months
NIDILRR Officer: Kenneth D. Wood, PhD
NIDILRR Funding: FY 10 $950,000; FY 11 $950,000; FY 12 $950,000; FY 13 $950,000; FY 14 $950,000; FY 15 (No-cost extension through 9/29/2016)

Abstract: This project advances knowledge translation for universal design using a Knowledge-To-Action Model. It generates strategically important research, development, training, and dissemination deliverables that integrate universal design principles with the generally accepted models, methods, and metrics in the building and product manufacturing industries. Research and dissemination activities address three broad domains of the built environment: (1) housing, (2) public buildings, and (3) community infrastructure. Research projects produce new knowledge about needs and priorities in universal design and critical human factors data essential to resolving design and engineering problems in each of the three domains. One research project establishes a knowledgebase for home modification service delivery and standards; another studies the effectiveness of current universal design standards and conducts targeted human performance studies to improve the evidence base for public building design. A third project evaluates, organizes, and improves knowledge to support and improve current policy initiatives and standards related to universal design of public rights-of-way. One set of development initiatives improves and creates consensus standards and evidence-based guidelines to implement universal design concepts through a certification and accreditation process. Another applies best practices in new product development to produce exemplar products and environments with industry partners. Training activities increase understanding and build capacity for a wide range of stakeholders through online education for professionals, research and development experiences for advanced graduate students, and outreach and assistance to design schools. Dissemination outputs include traditional refereed and trade publications, an extensive website with downloadable information products, and outreach activities related to newly emerging federal policy. The State of the Science Conference involves stakeholders in identifying knowledge gaps in practice. Collectively, these projects generate strategically important deliverables that address high priority needs that increase the adoption of universal design within the built environment.
Rehabilitation Engineering Research Centers (RERCs)
New York

RERC on Universal Design and the Built Environment

University at Buffalo
The State University of New York
School of Architecture and Planning
402 Crofts Hall
Buffalo, NY 14260-7003
ap-idea@buffalo.edu
idea.ap.buffalo.edu
twitter.com/IDeA_Center
www.facebook.com/pages/Center-for-Inclusive-Design-and-Environmental-Access

Principal Investigator: Edward Steinfeld, ArchD 716/829-5899
Public Contact: Jordana Maisel, PhD 716/829-5902; Fax: 716/829-3861

Project Number: 90RE5022
Start Date: September 30, 2015
Length: 60 months
NIDILRR Officer: Thomas Corfman

NIDILRR Funding: FY 15 $924,992; FY 16 $924,993; FY 17 $924,996; FY 18 $924,998; FY 19 $924,995

Abstract: The RERC on Universal Design and the Built Environment uses a Knowledge-To-Action Model to advance accessibility and universal design (UD) in the four domains of the built environment: (1) housing, (2) commercial and public buildings, (3) community infrastructure, and (4) transportation. The RERC activities address key needs for knowledge and demonstrate the value of evidence-based practice through improved building regulations and adoption of voluntary UD standards. Strategically important research, development, training, and dissemination activities integrate accessibility and UD principles with the generally accepted models, methods, and metrics in the building and product development industries. Short, intermediate, and long-term outcomes improve physical access, health, and social participation for people with disabilities while also being beneficial for the broader population of users of the built environment. Project R1 conducts evaluations of buildings and facilities in which UD features have been incorporated to assess their effectiveness in practice, strengthen the business case for UD, and provide evidence to support increased adoption of UD. Project R2 conducts human factors research on prevention of slips and falls, use of wayfinding apps, and cost effective methods to evaluate UD products during the design process. Project DV1 develops software tools to improve the implementation of accessibility and UD standards, including an interface for UD certification. Project DV2 engages nine industry partners to create exemplar UD products and environments. Training activities increase knowledge and capacity about accessibility and UD for a wide range of stakeholders, including individuals with disabilities and their advocates. The RERC offers continuing education for design professionals and service providers through conferences, online modules, and collaborations with partners already serving these audiences. Interdisciplinary graduate education opportunities build the expertise of the next generation of researchers and practitioners. To reach a broad audience, dissemination activities include a wide array of print and electronic media, all accessible from a web portal. Outreach includes participation in international, national, and local networks and events.
Rehabilitation Engineering Research Centers (RERCs)
North Carolina

LiveWell - The Information and Communication Technology
Rehabilitation Engineering Research Center for Community Living, Health, and Function

Duke University
Speech Pathology and Audiology
DUMC 3887
Durham, NC 27710
deruy001@mc.duke.edu

Principal Investigator: Frank DeRuyter, PhD
Public Contact: 919/684-6271; Fax: 919/684-8298

Project Number: 90RE5023
Start Date: September 30, 2015
Length: 60 months

NIDILRR Officer: Stephen Bauer, PhD
NIDILRR Funding: FY 15 $924,872; FY 16 $924,764; FY 17 $924,978; FY 18 $924,954; FY 19 $924,899

Abstract: The primary goals of the Information and Communication Technology (ICT) Rehabilitation Engineering Research Center for Community Living, Health, and Function (LiveWell-RERC) are to: (1) promote ICT access to existing and emerging technologies for all people regardless of ability; and (2) develop and validate ICT applications to improve the capacity for independent living and community participation. Three research and three development projects are proposed. Each will examine important aspects of ICT access. Discovery of User Needs and Preferences for Information and Communication Technologies: Priority Needs and Access Issues identifies users’ needs and preferences related to independent living and priorities for potential ICT development independent of technology platforms or form factors. Factors Affecting Acceptance of ICT – People with Disabilities and Caregivers discovers and reports barriers and opportunities to accessibility and use of wearable, home monitoring and automation technology. Improving Safety and Activity Independence in the Home/Community following TBI is designed to improve safety, increase activity and participation, lessen family burden, and improve family life quality through use of self-report measurement paired with technology-based environmental feedback that informs on ability, realistic “next step” goals, treatment, and progress. The development activities are: (1) Technology/Policy Watch and Emerging Issues for ICT Access, which identifies mainstream scientific and technology developments that can impact ICT access, policies, guidelines, and standards; (2) Tech Factory – Meeting User Needs by Developing ICT & Software, comprised of two complementary efforts to respond rapidly to new mainstream ICT to meet the needs and opportunities of people with disabilities; and (3) Use of Behavioral Informatics to Support Safety and Activity Independence in the Home and Community, which builds a virtual coach to complement or replace the hands-on support and assistance provided by a life coach or family member. Finally, the training and dissemination activities promote the adoption of new knowledge into practice. This includes student capacity building, as well as consumer and industry engagement to develop and maintain tools and channels for communicat-
ing information on accessible ICT produced by the LiveWell-RERC. The LiveWell-RERC is a partnership of Duke University, the Shepherd Center, and Northeastern University. Additional collaborators in this work include the AGE-WELL National Center of Excellence and University of Toronto in Canada, the Center on Knowledge Translation for Technology Transfer (KT4TT), Side by Side Brain Injury Clubhouse, and commercial partners ilumivu, Samsung, and Verizon.
Rehabilitation Engineering Research Centers (RERCs)
Pennsylvania

Rehabilitation Engineering Research Center on Physical Access and Transportation

Carnegie Mellon University
Robotics Institute
5000 Forbes Avenue
Pittsburgh, PA 15213
steinfeld@cmu.edu
www.rercapt.org

Principal Investigator: Aaron Steinfeld, PhD
Public Contact: 412/268-6346; Fax: 412/268-6436

Project Number: 90RE5011 (formerly H133E130004)
Start Date: October 01, 2013
Length: 60 months
NIDILRR Officer: Kenneth D. Wood, PhD
NIDILRR Funding: FY 13 $923,878; FY 14 $924,054; FY 15 $922,383; FY 16 $923,440; FY 17 $923,446

Abstract: The RERC on Physical Access and Transportation empowers consumers, manufacturers, and service providers in the design and evaluation of accessible transportation equipment, information services, and physical environments. Project activities build upon previous work to focus on enabling technology and universal design to support independent and efficient multi-modal travel in daily life, including its significant role in employment and social participation. Research and development activities provide new tools, research findings, guidelines, and products that advance the field of transportation and “last mile” (e.g., the portion of a trip from public transportation to the rider’s final destination) issues. Research Project 1 focuses on understanding real-time trip information and community dialog as methods for empowering accessible travel. Research Project 2 expands the evidence base for boarding and disembarking policies, practices, and products with an in-depth examination of vehicle ramp and interior design in large transit vehicles. Research Project 3 studies para-transit usage and the usability of the “last mile.” Development Project 1 leverages existing technologies to implement software systems to help riders during multi-modal trips. Development Project 2 partners with bus manufacturers, service providers, and transit agencies to produce standards and regulations, reference designs, and vehicle interior concepts ready for commercialization. This project’s training activities increase understanding and build capacity for accessible transportation and pedestrian right-of-ways for a wide range of stakeholders through an online continuing education program, multi-disciplinary research and development experiences for university students, and advanced graduate students. Dissemination outputs include traditional refereed and trade publications; an extensive website with downloadable information products and design tools; and outreach activities with professional, business, and standards development organizations. Finally, a State-of-the-Science conference brings together all stakeholder groups to envision how future transportation systems can support independent transit use and incorporate universal design as a guiding philosophy.

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Rehabilitation Engineering Research Centers (RERCs)
Pennsylvania

Rehabilitation Engineering Research Center (RERC): From Cloud to Smartphone – Accessible and Empowering ICT

University of Pittsburgh
School of Health and Rehabilitation Sciences
6026 Forbes Tower
Pittsburgh, PA 15260
parmanto@pitt.edu

Principal Investigator: Bambang Parmanto, PhD
Public Contact: 412/383-6649

Project Number: 90RE5018 (formerly H133E140039)
Start Date: October 01, 2014
Length: 60 months
NIDILRR Officer: Stephen Bauer, PhD
NIDILRR Funding: FY 14 $949,413; FY 15 $949,361; FY 16 $947,365; FY 17 $949,360; FY 18 $949,301

Abstract: The goal of this RERC is to mitigate accessibility barriers to information and communication technology (ICT) for persons with disabilities (PwDs) with functional and device limitations, provide affordable access to ICT for underserved populations, and develop innovative ICT to improve health and function, social participation, and employment among PwDs. The theme of “From Cloud to Smartphone: Empowering and Accessible ICT” guides the Center’s research and development activities which address cognitive and vocational rehabilitation, communication technology assessment and training, tele-rehabilitation infrastructure, and prevention and management of secondary conditions through six projects: (1) Cloud Accessibility WebAnywhere, (2) Accessible TeleWellness, (3) Accessible Mobile Vocational Coaching, (4) Speech and Language Teletherapy to Rural Underserved Areas, (5) Adaptive Accessible mHealth Transcoding, (5) Longitudinal Accessibility of Web 2.0, and (6) Privacy and Security for PwDs. Center collaborators include the University of Pittsburgh School of Health and Rehabilitation Sciences, the Computer Sciences Human-Computer Interaction Institute at Carnegie-Mellon University, and Physical Medicine and Rehabilitation at the DePaul School of Hearing and Speech.
Rehabilitation Engineering Research Centers (RERCs)
Pennsylvania

Rehabilitation Engineering Research Center on Augmentative and Alternative Communication (The RERC on AAC)

The Pennsylvania State University
401H Ford Building
University Park, PA 16802
jcl4@psu.edu
rerc-aac.psu.edu

Principal Investigator: Janice C. Light, PhD
Public Contact: 814/863-2010; Fax: 814/863-3759

Project Number: 90RE5017 (formerly H133E140026)
Start Date: October 01, 2014
Length: 60 months
NIDILRR Officer: Stephen Bauer, PhD
NIDILRR Funding: FY 14 $948,188; FY 15 $949,461; FY 16 $949,224; FY 17 $949,976; FY 18 $949,600

Abstract: This project conducts rigorous evidence-based research for designing effective augmentative and alternative communication (AAC) technologies and interventions, develops and evaluates innovative AAC engineering solutions driven by consumer needs, and provides comprehensive training and dissemination to ensure that all individuals, including those with severe disabilities, have access to effective AAC to enhance the communication of individuals with complex communication needs (CCN). The Center’s research and development activities (R & D) are organized around three themes: (1) improving access to technologies for individuals with CCN who have severe motor impairments by investigating and developing new access techniques (e.g., brain control interfaces and multimodal access); (2) developing language support technologies to enhance communication for those with significant language/cognitive limitations (e.g., technologies that facilitate the transition to literacy, provide contextually relevant smart prediction, and support video visual scene displays to enhance participation in school, work and community routines); and (3) improving the AAC human-computer interface to reduce cognitive processing demands and enhance communication. Additionally, the Center brings together a team of rehabilitation engineers and scientists to deliver targeted training and dissemination to build greater capacity and maximize the effective translation of R & D for real-world use.
Rehabilitation Engineering Research Centers (RERCs)
Wisconsin

Rehabilitation Engineering Research Center on Universal Interface and Information Technology Access

University of Wisconsin-Madison
Trace Research and Development Center
2107 Engineering Centers Building
1550 Engineering Drive
Madison, WI 53706-1609
outreach@trace.wisc.edu
trace.wisc.edu

Principal Investigator: Gregg C. Vanderheiden, PhD 608/263-5788
Public Contact: Kate Vanderheiden 608/265-4621; Fax: 608/262-8848

Project Number: 90RE5015 (formerly H133E130028)
Start Date: October 01, 2013
Length: 60 months
NIDILRR Officer: Stephen Bauer, PhD
NIDILRR Funding: FY 13 $925,000; FY 14 $925,000; FY 15 $925,000; FY 16 $925,000; FY 17 $925,000

Abstract: This RERC is focused on accessibility of information and communication technologies, for persons across disability types and socio-economic levels. Accessibility issues addressed by this RERC stem from the interaction of four trends in information technology: (1) technology is increasingly required for all aspects of life (education, employment, health, safety, transportation, community participation, home management); (2) accessibility solutions do not exist for many groups – especially people with non-“mainstream” disabilities; (3) solutions that exist are often unaffordable; and (4) the number of different technology platforms, operating systems, and technology types that an individual must be able to use is increasing faster than assistive technology (AT) vendors can address. The RERC builds on and coordinates with the ongoing work of an international consortium (“Raising the Floor”) engaged in development of an underlying inclusive infrastructure that can greatly simplify accessibility and reduce costs for users and developers. This “Global Public Inclusive Infrastructure” (GPII) is designed to make assistive technologies and other access solutions available for many more users, much more efficiently and cost-effectively. (Both the consortium and the GPII concept were originated in the predecessor RERC.) The RERC’s research and development activities include: (1) Continuing development of the GPII concept – evolving it to address the changing technology landscape and our growing understanding of its role based on discussions with accessibility and mainstream stakeholders; (2) Moving the GPII from concept, papers, and laboratory prototypes, through to field implementations to test the efficacy and viability of the concept with real-world conditions, users, and limitations/realities; specifically: (a) Development and testing of a package for deploying and applying the GPII in public libraries of all sizes, with a focus on providing libraries with cost-effective ways of serving users with a wider range of abilities – including those with cognitive, memory, and digital-literacy related barriers such as elders and first-time users; (b) Development and testing of a decision support tool based on the GPII Unified Listing, that provides users and clinicians with a new capability for tracking and selecting ever-changing

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solutions for users – including not only comprehensive information on assistive technologies, but also not-previously-available information on the access features that are built into mainstream technologies; (3) Facilitating and promoting access built directly into mainstream ICT products through technology transfer programs and research support for industry standards groups and governmental agencies working on accessibility standards.
Rehabilitation Engineering Research Centers (RERCs)
Wisconsin

Rehabilitation Engineering Research Center on Technologies for Children with Orthopedic Disabilities

Marquette University
Orthopaedic and Rehabilitation Engineering Center
735 North 17th Street
PO Box 1881
Milwaukee, WI 53201-1881
depps@mcw.edu
www.orec.org
www.tech4pod.org

Principal Investigator: Gerald F. Harris, PhD 414/288-0698
Public Contact: Deborah Epps, Project Administrator 414/288-0696; Fax: 414/288-0713

Project Number: 90RE5006 (formerly H133E100007)
Start Date: October 01, 2010
Length: 60 months
NIDILRR Officer: Thomas Corfman
NIDILRR Funding: FY 10 $872,886; FY 11 $950,000; FY 12 $950,000; FY 13 $950,000; FY 14 $890,264; FY 15 (No-cost extension through 9/29/2016)

Abstract: This project conducts research and development projects aimed at addressing the needs of children with orthopedic disabilities. The overall goal of the project is to transfer and commercialize the research to offer new tools, better technologies, and improved treatment strategies for children with cerebral palsy, clubfoot, spina bifida, spinal cord injury, osteogenesis imperfecta (OI), and other conditions that cause mobility and manipulation problems. The project designs and develops devices and improved protocols that will help alert doctors, therapists, caregivers, and family members of joint overload concerns. Those devices include the development of an elliptical machine to improve neuromuscular control and stability in children. Other development projects are a novel pediatric robotic gait trainer, a biplanar (3-D) fluoroscopic imaging system that allows researchers to see the internal motion of the bones inside the foot, and a customized orthotic (brace) based on sensor technologies to treat pediatric flat foot. The research projects include: gait analysis of children with OI and severe clubfoot deformity to determine strain on the femur and humerus in those using crutches in order to modify activities or design better devices to absorb forces (and thus prevent fractures) and to better direct surgeons so they are aware of high load areas; using MRI and fMRI imaging for children with cerebral palsy to assess if there are changes in brain activity as a result of surgery or robotic-assisted rehabilitation of the arms and legs; evaluation of home-based robot-guided therapy, combined with interactive game elements to keep children interested, and tele-assessment to determine effectiveness in maintaining mobility in children with cerebral palsy; and mobility modeling of the upper and lower extremities (arms and legs) to determine the relationship between internal joint forces, assistive devices, ankle arthroeresis (implants), and longer-term tissue level effects as they relate to pain and function.
Disability and Rehabilitation Research Projects (DRRPs)
Pennsylvania

Disability and Rehabilitation Research Project on Inclusive Cloud and Web Computing

Carnegie Mellon University
Robotics Institute
5000 Forbes Avenue
Pittsburgh, PA 15213
steinfeld@cmu.edu
inclusiveweb.org

Principal Investigator: Aaron Steinfeld, PhD
Public Contact: 412/268-6346; Fax: 412/268-6436

Project Number: 90DP0061 (formerly H133A130057)
Start Date: October 01, 2013
Length: 60 months
NIDILRR Officer: Stephen Bauer, PhD
NIDILRR Funding: FY 13 $748,126; FY 14 $748,192; FY 15 $748,208; FY 16 $748,455; FY 17 $748,957

Abstract: This project researches and develops methods to enable software providers to easily and rapidly implement inclusive user experiences so that consumers are empowered to fully participate in cloud and web systems. The project is guided by four main principles: (1) rapid utilization, (2) cloud services, (3) universal design, and (4) a focus on users with low vision and cognitive disabilities. Research and development activities are built upon cutting-edge efforts in computer science, human-computer interaction, and machine learning. The research projects are focused on forming a better understanding of how end users want and should interact with and utilize enabling software components. Key areas of research include crowd-sourced assistance, adaptive user interfaces, and authentication. The development projects are focused on implementing prototypes and moving them rapidly towards deployment and eventual commercialization. They are designed to draw from the research projects and ensure rapid transition of new knowledge through a variety of utilization pathways.
**Disability and Rehabilitation Research Projects (DRRPs)**
Pennsylvania

**Self-Management Assistance Through Technology (SMART) - Virtual Coaches for Wheelchair Users**

University of Pittsburgh
School of Health and Rehabilitation Sciences
6425 Penn Avenue
Pittsburgh, PA 15206
dad5@pitt.edu

**Principal Investigator:** Dan Ding, PhD  
**Public Contact:** 412/822-3684; Fax: 412/822-3698

**Project Number:** 90DP0056 (formerly H133A130025)  
**Start Date:** October 01, 2013  
**Length:** 60 months  
**NIDILRR Officer:** Brian Bard  
**NIDILRR Funding:** FY 13 $473,772; FY 14 $474,735; FY 15 $474,724; FY 16 $474,590; FY 17 $474,685

**Abstract:** This project aims to improve health and functional outcomes of wheelchair users by increasing their knowledge of appropriate wheelchair use and their role in the wheelchair service delivery process, and providing supportive technologies to assist them in leading a healthy lifestyle through the development and testing of a two virtual coaches. The Wheelchair/Seating Usage Coach is a suite of interactive mobile apps and portable sensing devices that teach safe and effective use of a wheelchair (e.g., wheelchair fit, propulsion techniques, wheelchair maintenance, and use of seat functions), and assists wheelchair users in navigating the service delivery process. The Lifestyle Coach is a suite of interactive mobile apps and portable sensing devices that assist wheelchair users to self-monitor and manage their weight and physical activity. The United Spinal Association, and peer support groups in the Pittsburgh area and other regions assist in the development and testing of these virtual coaches. The project expects to commercialize the portable sensing devices and disseminate the mobile apps through app stores, partner organizations, professionals pursuing continuing education credits, professional conferences, and social media. The coaching tools can be incorporated into a community-based program that teaches self-management skills applied to wheelchair use and healthy lifestyle for wheelchair users.
Disability and Rehabilitation Research Projects (DRRPs)
Pennsylvania

Translating Transfer Training and Wheelchair Maintenance into Practice

University of Pittsburgh
3520 5th Avenue
Pittsburgh, PA 15213-3320
boninger@pitt.edu

Principal Investigator: Michael L. Boninger, MD; Lynn Worobey, PhD; Cindy Cai, PhD
Public Contact: 412/648-6979

Project Number: 90DP0078
Start Date: September 30, 2015
Length: 60 months
NIDILRR Officer: Pimjai Sudsawad, ScD
NIDILRR Funding: FY 15 $150,000; FY 16 $150,000; FY 17 $150,000; FY 18 $150,000; FY 19 $150,000

Abstract: This project focuses on the knowledge translation of transfer training and wheelchair maintenance into practice in order to improve transfers and wheelchair maintenance leading to decreased pain and increased independence for individuals with mobility disabilities. The multi-institution, consumer-focused team: (1) Develops and continually refines high-quality training products to translate wheelchair transfer and maintenance research to wheelchair users, their support systems, and clinicians; (2) integrates stakeholder feedback throughout all stages of material development; (3) creates self-assessment versions of the transfer assessment instrument and wheelchair maintenance training questionnaire as educational tools to enable wheelchair users to track progress and identify areas requiring further training; (4) disseminates and promotes utilization of materials to wheelchair users and their support systems including clinicians providing their care, nationally, and internationally; and (5) evaluates utilization of materials through focus groups, social media, satisfaction surveys, self-assessments, and population changes in reported pain and wheelchair breakdown. The University of Pittsburgh Model Center on Spinal Cord Injury is partnering with American Institutes for Research (AIR) and is joined by the United Spinal Association, and the Spina Bifida Association to bring connections to the target audience and enable stakeholder participation.
Prosody and Voice Characteristics of Children with Cochlear Implants

The George Washington University
2115 G Street NW
Hall of Government, Room 207
Washington, DC 20052
jmahshie@gwu.edu

Principal Investigator: James Mahshie, PhD
Public Contact: 202/994-2052

Project Number: 90IF0042 (formerly H133G120272)
Start Date: October 01, 2012
Length: 36 months
NIDILRR Officer: Stephen Bauer, PhD
NIDILRR Funding: FY 12 $199,967; FY 13 $199,498; FY 14 $198,256; FY 15 (No-cost extension through 9/29/2016)

Abstract: This project examines the prosodic and voice characteristics of 40 children with cochlear implants (CIs) in two groups – a 4-5 year old group and a 7-8 year old group. For comparison, matched groups of hearing children are also studied. In addition to examining how prosodic and voice characteristics differ between younger and older children with CIs, this work permits identification of those characteristics that differ from those of hearing children and that persist despite experience with the implant. This project also examines the relative contribution of prosodic and voice attributes to overall speech intelligibility in CI children, analyzing the co-occurrence of prosodic and voice issues with measures of other features such as vocabulary and articulation that can influence spoken language communication. Finally, the project explores selected acoustic factors in the CI children’s productions to explain the acoustic and production bases for their prosody and voice difficulties.
Design and Development of a Novel Body-Powered Prehensor and Hand

Rehabilitation Institute of Chicago (RIC)
345 East Superior, Room 1309
Chicago, IL 60611
jim.lipsey@ricres.org

Principal Investigator: Jim Lipsey, PE
Public Contact: 312/238-1568; Fax: 312/238-2081

Project Number: 90IF0026 (formerly H133G120059)
Start Date: October 01, 2012
Length: 36 months
NIDILRR Officer: Thomas Corfman
NIDILRR Funding: FY 12 $198,621; FY 13 $199,576; FY 14 $198,704; FY 15 (No-cost extension through 9/29/2016)
Abstract: This project develops novel body-powered terminal devices for upper-limb prostheses that provide significantly greater function than currently available options and that are both clinically and commercially viable. Body-powered prostheses are the most commonly used type of device, and offer two terminal device options: a prehensor (hook) or a hand. Because of superior functionality, prehensors are often chosen over hands; however, although they are lightweight, robust, and relatively inexpensive, they are non-anthropomorphic and not aesthetically pleasing. Body-powered hands look somewhat more natural, but are heavy, more expensive, and provide comparatively poor function. For both of these device categories, users must choose between voluntary opening (VO) or voluntary closing (VC) devices, options that differ both in their inherent advantages and functional drawbacks. This project refines and tests a design for a body-powered prehensor that combines the features of both VO and VC devices: a body-powered hand that provides multiple grasps, fingers that can be used in power grips or locked out of the way to allow precision grips, a passive thumb that can be used to select different grip patterns, and a novel VO/VC switch.
Field Initiated Projects (FIPs)
Illinois

The Development of a Real Time Platform for Intuitive Control of Grasp and Release During Functional Arm Activities Following Stroke

Northwestern University
645 North Michigan Avenue, Suite 1100
Chicago, IL 60611
j-yao4@northwestern.edu

Principal Investigator: Jun Yao, PhD 312/908-9060
Public Contact: 312/503-2936

Project Number: 90IF0090 (formerly H133G120287)
Start Date: October 01, 2012
Length: 36 months
NIDILRR Officer: Dawn Carlson, PhD, MPH
NIDILRR Funding: FY 12 $198,020; FY 13 $198,020; FY 14 $198,020; FY 15 (No-cost extension through 9/29/2016)

Abstract: This project develops a reliable and intuitive control of an assistive device for the hand (ReIn-HAND) to provide reliable hand control during functional arm activities following stroke. Specific aims of the project are to: (1) develop a series of algorithms for the detection of hand grasp, release, and rest of moderate to severely impaired stroke survivors during different arm activities; (2) implement the developed algorithm into a real-time platform to control an electric stimulation device to assist the hand movements; and (3) test the performance of the developed platform. To further improve the performance of the platform, researchers: (1) collect data from individuals with moderate to severe stroke in well-control, robot-mediated haptic environments using the Arm Coordination Training 3-D robot developed by Dewald Rehab Tech, LLC; and (2) use novel methods to reduce the impact from flexion synergy to improve the platform’s performance. This project is a consortium between Northwestern University; Dewald Rehab Tech, LLC; Simple System, Inc.; and Biodex Medical Systems, Inc.
Field Initiated Projects (FIPs)
Michigan

Investigating Performance Indicators in Accessible and Inclusive Public Transportation

The Regents of University of Michigan
503 Thompson Street
Ann Arbor, MI 48109-1340
crdsouza@umich.edu

Principal Investigator: Clive R. D’Souza, PhD
Public Contact: 734/763-0542

Project Number: 90IF0094
Start Date: September 30, 2015
Length: 36 months
NIDILRR Officer: Thomas Corfman
NIDILRR Funding: FY 15 $199,954; FY 16 $199,544; FY 17 $198,227

Abstract: This project aims to determine factors in public transit vehicle design and operations that impact user performance (accessibility, safety, and usability) and users’ perceptions and mode preference (fixed-route bus, complementary paratransit, demand response), and in turn affect transit system performance. Two research studies are conducted to accomplish the project objectives. The first study involves a quantitative analysis of data obtained from a local transit agency combining operations (fixed-route, paratransit, and demand-response) and passenger information over a two year period within a defined geographical area to determine dependencies between transit system performance and the performance (accessibility, safety, and usability) of users with mobility disabilities. The analysis uses datasets routinely gathered by transit agencies, including automated vehicle location, in-vehicle video surveillance records, archived demographic and trip information of paratransit service riders, and passenger surveys. The second study engages individuals with diverse mobility disabilities (including users of wheeled mobility devices, ambulation aids, and individuals that are blind or visually impaired) in a field study yielding kinematic, physiological, and self-reported contextual data to model relationships between physical, psychosocial, and environmental factors at the individual level. Individuals with disabilities, community partners, and transportation service providers play a key role in the project as consultants, Advisory Board members, and study participants - contributing their expertise and first-person perspectives to this project. Dissemination activities focus on translating project findings into outputs and formats that are tailored to key stakeholder groups; including traditional refereed and trade publications for researchers; downloadable information products on a community partner’s website tailored to transportation service providers, individuals with disabilities, and their advocates; and collaborative outreach activities with community partners.
Field Initiated Projects (FIPs)
Michigan

Visual Gaze and Validity of Cognitive Evaluations

Wayne State University
5057 Woodward Avenue, 13th Floor
Detroit, MI 48202
rapport@wayne.edu

Principal Investigator: Lisa J. Rapport, PhD
Public Contact: 313/577-7879; Fax: 313/577-7636

Project Number: 90IF0092
Start Date: September 30, 2015
Length: 36 months
NIDILRR Officer: A. Cate Miller, PhD
NIDILRR Funding: FY 15 $195,489; FY 16 $192,631; FY 17 $193,956
Abstract: This project aims to enhance diagnostic accuracy in identification of traumatic brain injury (TBI), using a novel application of eye-tracking technology during standard cognitive testing, based on the hypothesis that persons with verified TBI and persons who feign TBI each show distinct oculomotor patterns during cognitive evaluation. The primary target population is adults referred for assessment of TBI-related cognitive impairment. The study employs a known-groups design that comprises four groups: adults with moderate to severe TBI, adults with mild TBI, healthy adults instructed to put forth full effort, and healthy adults coached to simulate TBI. These groups are tested using adapted standard cognitive tests, including tests of malingering, to include eye tracking. Principal dependent variables relate to classification accuracies. Principal predictors are traditional scores from the tests plus indices of oculomotor response (e.g., distribution of attention in areas of interest, fixation patterns and time, pupil dilation, and blinks) combined with performance indices (e.g., correct/incorrect responses). The project is innovative in that no prior research has systematically investigated visual gaze combined with elements of decisional process applied clinically to distinguish cognitive impairment and dissimulation.
Development of a Pediatric Intelligently Controlled Assistive Rehabilitation Elliptical (Pedi-ICARE) Training System to Promote Walking and Fitness in Children with Physical Limitations

Madonna Rehabilitation Hospital
Movement and Neurosciences Center
Institute for Rehabilitation Science and Engineering
5401 South Street
Lincoln, NE 68506
jburnfield@madonna.org
www.madonna.org/researcher/movement/research

Principal Investigator: Judith M. Burnfield, PhD, PT
Public Contact: 402/413-4505

Project Number: 90IF0060 (formerly H133G130274)
Start Date: October 01, 2013
Length: 36 months
NIDILRR Officer: Thomas Corfman
NIDILRR Funding: FY 13 $200,000; FY 14 $200,000; FY 15 $200,000

Abstract: The overall goal of this project is to develop the Pedi-ICARE trainer and therapeutic intervention, an affordable tool that can be used in healthcare and other community settings to help children (3 to 12 years of age) with physical disabilities and special health care needs improve/retain their walking and cardiovascular function. Specifically, the project develops, refines, and field-tests a prototype Pedi-ICARE trainer, including an affordable intelligent control system that adapts the movement pattern of an elliptical to the unique physical assistance needs of children as they work to regain, sustain, or obtain the ability to walk and exercise. In year one, the project identifies essential design features (ergonomic and clinical) and iteratively develops two prototype trainers for children. In year two, a fully functional prototype is pilot-tested and refined in a laboratory environment to optimize function, features, walking biofidelity, durability, and affordability. In year three, the Pedi-ICARE system is implemented in multiple pediatric rehabilitation settings to evaluate the capacity to improve walking ability and cardiovascular function of children with varied gait dysfunctions and develop a therapeutic program using the device.
WorkingWell: Developing a Mobile Employment Support Tool for Individuals with Psychiatric Disabilities

Trustees of Dartmouth College
Dartmouth Psychiatric Research Center
85 Mechanic Street, Suite B4-1
Lebanon, NH 03766
Joanne.Nicholson@Dartmouth.edu

Principal Investigator: Joanne Nicholson, PhD
Public Contact: 603/448-0263

Project Number: H133G140089 (formerly H133G140089)
Start Date: October 01, 2014
Length: 36 months
NIDILRR Officer: Shelley Reeves
NIDILRR Funding: FY 14 $199,619; FY 15 $199,149; FY 16 $199,779
Abstract: This project develops and tests WorkingWell, an innovative, easy-to-access, self-directed, and individualized mobile employment support tool (smartphone “app”) for individuals with psychiatric disabilities, available when and where the user needs it. WorkingWell targets autonomy-supportive constructs derived from Self-Determination Theory, and builds on previous research and the Individual Placement and Support (IPS) model of supported employment to help people succeed at work. This project aims to (1) develop the information architecture, functionality, technical specifications, and general design for the WorkingWell prototype via iterative, user-centered design including focus groups of users and employment specialists, and expert review; (2) develop the fully functional WorkingWell prototype using state-of-the-art processes informed by iterative, formative testing of the usability, accessibility, and acceptability of prototype components; and (3) test the acceptance and feasibility of WorkingWell through a six-month pre- and post-test demonstration field test with individuals receiving IPS supported employment, usage metrics, and post-implementation feedback interviews with a sample of users and employment specialists. The goal is to create a validated application that can be easily installed onto a mobile phone to facilitate wide-scale and far-reaching dissemination of IPS and follow-up support for people with severe psychiatric disabilities.
Field Initiated Projects (FIPs)

New Jersey

Impact of Prism Adaptation Therapy for Spatial Neglect on Home and Community Outcomes

Kessler Foundation
1199 Pleasant Valley Way
West Orange, NJ 07052
abarrett@kesslerfoundation.org
www.kesslerfoundation.org

Principal Investigator: A.M. Barrett, MD 973/324-3563
Public Contact: Calandra Matthews 973/324-3569; Fax: 973/243-6984

Project Number: 90IF0037 (formerly H133G120203)
Start Date: October 01, 2012
Length: 36 months
NIDILRR Officer: Theresa San Agustin, MD
NIDILRR Funding: FY 12 $196,849; FY 13 $198,956; FY 14 $199,951; FY 15 (No-cost extension through 09/29/2016)

Abstract: This project examines prism adaptation therapy (PAT), and whether the discovery that spatial-motor aiming neglect predicts better neglect recovery is specific to PAT or whether this classification method identifies patients more likely to recover spontaneously. Additionally, the project evaluates the impact of receiving two weeks of PAT in the inpatient setting to home and community outcomes at three and six months after treatment. Disseminating grant activities and products to clinician and survivor/family stakeholders through a consumer conference, and training clinician collaborators, is intended to result in better clinical practice guidelines, to increase the rate of identification, management, and treatment of spatial neglect, and launch a multi-site clinical trial of PAT at the next research stage. The long-term goal of this research is to reduce falls, accidents, and other morbidity affecting stroke survivors with spatial neglect and other hidden disabilities, through methods of patient classification and targeted use of PAT and other spatial neglect therapies, to optimize eventual home and community functional outcomes.
The Development of a Virtual Reality Program to Improve Executive Functioning in Individuals with TBI

Kessler Foundation
300 Executive Drive, Suite 70
West Orange, NJ 07052
dkrch@kesslerfoundation.org

Principal Investigator: Denise Krch, PhD
Public Contact: 973/342-3559; Fax: 973/243-6984

Project Number: 90IF0054 (formerly H133G130189)
Start Date: October 01, 2013
Length: 36 months
NIDILRR Officer: A. Cate Miller, PhD

NIDILRR Funding: FY 13 $199,624; FY 14 $199,578; FY 15 $199,716

Abstract: This project develops an innovative treatment that is strongly motivating, yet relevant to real-life function for people with traumatic brain injury (TBI): the Virtual Reality Executive Function Training (VREFT). Many studies have shown that executive function (EF) impairments are a key problem following TBI, and deficits in EF have been shown to impact multiple areas of the lives of people with disabilities, including societal and family functioning and employment. EFs are complex and dynamic in nature, making it a very difficult area of function to address using traditional rehabilitation tools. In order to rehabilitate EF skills, interventions must allow patients the opportunity to practice implementing sequences of actions and the complex behavioral patterns required of everyday interactions. Whereas traditional clinical treatment environments often lack the sequence of actions and reactions that occur in real life, the technology of virtual reality (VR) allows for the creation of an intervention environment with realistic spatial and temporal scenarios that closely mimics real-life, thus increasing the intervention’s ecological validity. The project development objectives are to: (1) Design and develop a functional, interactive virtual environment that simulates the complexity of occupational scenarios; (2) develop and implement a set of cognitive tasks in the virtual environment that specifically train problem solving, set shifting, and divided attention; and (3) implement adaptive task difficulty to optimize training progress. The completed VREFT prototype is tested in a pilot evaluation trial with individuals with TBI and moderate to severe EF impairments.
Field Initiated Projects (FIPs)
New Jersey

Patient-Specific In-Shoe Orthoses for Knee OA Prescribed Using Weight Bearing MRI

Kessler Foundation
Human Performance and Engineering Research
1199 Pleasant Valley Way
West Orange, NJ 07052
pbarrance@kesslerfoundation.org
kesslerfoundation.org/researchcenter/hpel/index.php

Principal Investigator: Peter Barrance, PhD
Public Contact: 973/324-3550

Project Number: 90IF0077 (formerly H133G140183)
Start Date: October 01, 2014
Length: 36 months
NIDILRR Officer: Thomas Corfman
NIDILRR Funding: FY 14 $199,878; FY 15 $199,983; FY 16 $199,994

Abstract: This project refines the process for prescribing in-shoe footwear modifications, leveraging in particular the weight-bearing MRI technology developed under a previous NIDILRR field initiated project Improved Weight Bearing Evaluation of Knee Osteoarthritis. This project consists of two phases: (1) investigation of the immediate effect of incremental lateral in-shoe wedging on both static and dynamic descriptors of lower extremity biomechanics, as assessed using weight bearing MRI and gait analysis; and (2) a short term interventional trial in which the clinical effect of patient-specific in-shoe wedging is compared against the performance of a neutral (un-wedged) orthotic. Functional mobility tests and questionnaire reporting are utilized to evaluate the clinical effect on osteoarthritis-related pain and disability.
Building the Foundation of Clinical Practice of EMG Pattern Recognition for Prosthetic Arm Control

North Carolina State University
NCSU/UNC Department of Biomedical Engineering
4402C Engineering Building III
Raleigh, NC 27695
helen-huang@unc.edu
hhuang11@ncsu.edu
www.bme.ncsu.edu/index.php/component/comprofiler/userprofile/hhuang11

Principal Investigator: He (Helen) Huang, PhD
Public Contact: 919/515-5218

Project Number: 90IF0064 (formerly H133G130308)
Start Date: October 01, 2013
Length: 24 months
NIDILRR Officer: Joyce Y. Caldwell

NIDILRR Funding: FY 13 $550,942; FY 14 $1 (Funds for FY 2014 were funded using FY 2012 program money); FY 15 (No-cost extension through 9/29/2016)

Abstract: This project improves the function of upper limb prostheses by developing a reliable, robust, and clinically-viable prosthesis control system based on electromyography (EMG) pattern recognition (PR). Conventional prosthesis control (i.e. body-powered or proportional EMG control) is inadequate for multifunctional prostheses operation. Research in laboratory has shown that EMG PR enables transradial amputees or above-elbow amputees with targeted muscle reinnervation surgeries to control multiple degrees of freedom of a prosthesis intuitively and efficiently. Unfortunately, no commercially available prosthetic arms use EMG PR control scheme due to several challenges for clinical practice, including high computational complexity, lack of wearability, poor robustness, and need for frequent recalibrations. The objective of this project is to develop new technologies and engineering solutions that resolve the difficulties in current EMG PR-based prosthesis control, advancing its adoption in practice. The design incorporates: (1) an optimized EMG PR algorithm for accurate, reliable, and responsive user intent recognition; (2) novel sensor fault detectors, system recovery technologies, and spatial filtering approaches to ensure the robustness of the sensor interface and EMG PR system; (3) a new wearable and user-friendly calibration interface integrated with a prosthesis-guided calibration program; and (4) embedded implementation of advanced control algorithms specifically tailored to the hardware structure for fast and accurate algorithm execution with power efficiency.
MyLife: Development of a Cloud-Based Transition ePortfolio for Individuals with Cognitive Disabilities

Eugene Research Institute
99 West Tenth Avenue, Suite 395
Eugene, OR 97401
tkeating@eugeneresearch.org
www.eugeneresearch.org

Principal Investigator: Thomas Keating, PhD
Public Contact: 541/342-3763

Project Number: 90IF0080 (formerly H133G140192)
Start Date: October 01, 2014
Length: 36 months
NIDILRR Officer: Brian Bard
NIDILRR Funding: FY 14 $199,989; FY 15 $199,857; FY 16 $199,855

Abstract: The goal of the MyLife e-Portfolio is to provide a cognitively accessible life-experience communication tool that grows and changes throughout transition and later life, providing an easily accessible life and work history in appropriate formats to students with disabilities, families, educators, and other transition-team members. Students with cognitive disabilities face significant challenges to involvement in transition planning and realizing meaningful outcomes in employment, post-secondary educational opportunities, and independent living. MyLife is a cloud-based application, enabling shared creation and management of an electronic transition portfolio for secondary transition students with cognitive disabilities such as autism and intellectual disability. MyLife is evaluated through a usability field study to aid iterative development followed by a repeated-measures study to assess impact of the full application on self-determination and transition outcomes. The project collaborates on testing and evaluation with a school-based transition program serving 18-21 year olds pursuing a modified diploma.
Field Initiated Projects (FIPs)
Texas

Development of a Virtual Reality Weight Management Intervention for Women with Mobility Impairments

Baylor College of Medicine
Center for Research on Women with Disabilities (CROWD)
1333 Moursund Avenue, Suite A221
Houston, TX 77030
mnosek@bcm.edu

Principal Investigator: Margaret A. Nosek, PhD
Public Contact: 713/799-5086

Project Number: 90IF0036 (formerly H133G120192)
Start Date: October 01, 2012
Length: 36 months
NIDILRR Officer: Leslie J. Caplan, PhD
NIDILRR Funding: FY 12 $599,997; FY 13 $1 (Funds for FY 2013 were funded using FY 2012 program money); FY 14 $1 (Funds for FY 2014 were funded using FY 2012 program money); FY 15 (No-cost extension through 9/29/2016)

Abstract: This project develops and pilot tests the first evidence-based weight management program designed to meet the unique needs of women with mobility impairments. The goal is to use a community-based participatory and multidisciplinary approach to develop and pilot test a weight management intervention that: (1) responds to the unique needs and expressed concerns of women with mobility impairments, (2) builds on prior weight management research conducted on adults in general, and (3) is delivered using virtual reality on the Internet. Project objectives are to: Adapt a face-to-face, evidence-based weight loss program for adults, the Lifestyle Change Program curriculum from the Diabetes Prevention Program, to GoWoman, an Internet-based, virtual reality weight loss intervention that responds to the specific needs of women with mobility impairments; pilot test the Internet-based weight management intervention; and disseminate the results of this project in the form of postings to the Center for Research on Women with Disabilities website for lay and professional audiences, publications in refereed journals, and podcasts and online illustrated lectures on approaches to weight management for women with mobility impairments. The project is a consortium of four institutions -- the Center for Research on Women with Disabilities at Baylor College of Medicine, the Texas Obesity Research Center at the University of Houston, the Rural Institute at the University of Montana, and Case Western Reserve University Medical School.
Field Initiated Projects (FIPs)
Wisconsin

Development of a Passive Prosthetic Ankle with Energy Return that Matches that of a Natural Ankle

Marquette University
Orthopaedic and Rehabilitation Engineering Center
735 North 17th Street
PO Box 1881
Milwaukee, WI 53201-1881
joseph.schimmels@marquette.edu

Principal Investigator: Joseph M. Schimmels, PhD
Public Contact: 414/288-3623; Fax: 414/288-7790

Project Number: 90IF0040 (formerly H133G120256)
Start Date: October 01, 2012
Length: 36 months
NIDILRR Officer: Thomas Corfman
NIDILRR Funding: FY 12 $199,862; FY 13 $199,733; FY 14 $199,920; FY 15 (No-cost extension through 09/29/2016)

Abstract: The goal of this project is to develop an inexpensive ankle prosthesis that behaves the same as a natural ankle. Current commercially available prostheses (e.g., SACH, ESAR feet) allow the amputee to walk, but with significant limitations. The primary functions of a natural ankle during walking are: (1) the absorption of ground reaction forces, and (2) the generation of forces to propel the body forward. Existing devices absorb ground reaction forces, but do not generate sufficient or appropriately timed forces to propel the body forward during push-off. This project develops a purely passive prosthetic ankle, which is low in cost and light in weight, with active behavior that allows the amputee to walk with near-normal gait. The device uses a network of springs in a multi-degree-of-freedom mechanism to provide the active and nonlinear behavior normally provided by a natural ankle. It does this without using sensors or actuators. The force generated along the leg during walking is converted into ankle torque used to propel the body forward during push-off. As a result, the need for a relatively large motor to generate push-off torque is eliminated.
Field Initiated Projects (FIPs)
Wisconsin

Optimal Augmentative and Alternative Communication Technology for Individuals with Severe Communication Disabilities: Development of a Comprehensive Assessment Protocol

University of Wisconsin-Milwaukee
Department of Communication Sciences and Disorders
Enderis Hall, Room 871
Milwaukee, WI 53201-0413
sklund@uwm.edu

Principal Investigator: Shelley Lund, PhD, CCC-SLP; Wendy Quach; Miechelle McKelvey; Kristy Weissling
Public Contact: Shelley Lund, PhD, CCC-SLP 414/229-4945; Fax: 414/229-

Project Number: 90IF0061 (formerly H133G130275)
Start Date: October 01, 2013
Length: 36 months
NIDILRR Officer: William V. Schutz, PhD, MSW, MPH
NIDILRR Funding: FY 13 $199,377; FY 14 $197,380; FY 15 $196,477

Abstract: This project develops and validates a decision-making protocol that speech-language pathologists (SLPs) can use in assessing individuals with severe communication disabilities in order to make the best recommendations for the most effective augmentative and alternative communication (AAC) technologies. A comprehensive assessment and recommendation of appropriate AAC systems is a significant factor in the success of intervention for individuals with severe communication disabilities. Many SLPs report that they are not comfortable providing AAC services. In spite of increased graduate education in AAC, recent research shows that general practice SLPs do not have the skills to perform consistently effective assessments in this area. This protocol provides SLPs with practice guidelines to consistently and efficiently complete quality assessments that result in an appropriate match between the communication needs of an individual with severe disabilities and an AAC system, thereby allowing full participation in daily activities. Project objectives are to: (1) Develop effective AAC assessment protocols for adults and children with a variety of motor or language impairments, (2) establish content validity of the protocols and refine them as necessary, (3) establish consequential and face validity of the protocols, and (4) disseminate the results of the project.
Field Initiated Projects (FIPs)
Wisconsin

Development of a Multi-Faceted Software Evaluation for Home Reintegration: There’s an App for That?

University of Wisconsin-Milwaukee
Rehabilitation Research Design and Disability Center
College of Health Sciences
PO Box 413
Milwaukee, WI 53201-0413
smithro@uwm.edu

Principal Investigator: Roger O. Smith, PhD; Noralyn Pickens, PhD
Public Contact: 414/229-6803 (V); 414/229-5628 (TTY); Fax: 414/229-6843

Project Number: 90IF0083 (formerly) H133G140222
Start Date: October 01, 2014
Length: 36 months
NIDILRR Officer: Joyce Y. Caldwell
NIDILRR Funding: FY 14 $200,000; FY 15 $200,000; FY 16 $200,000

Abstract: This project develops a technology-based assessment and documentation system for home evaluation of individuals with disabilities returning home from institutional settings. The complexity of home evaluation requires the home evaluation expert to detail and integrate the myriad factors that affect a person’s ability to live independently. Currently, evaluators rely on pen-and-paper assessments and time-consuming tools that limit the number of evaluations that can be conducted. The aim of this project is to modernize this process with HESTIA, an in-depth, multi-faceted assessment to identify problems in the home environment that hamper a person’s ability to successfully live as independently as possible. HESTIA incorporates advances in handheld computing such as smart technology data collection through computer-based question branching, Bayesian-like predictive models, and cloud knowledgebase access to help a practitioner collect and integrate large amounts of complex data. HESTIA embeds intelligent measurement tools such as smart sensors that interpret distances for satisfactory door widths and meters that determine light and sound levels in the home. The tools are based on prototype mobile apps that use the sensors indigenous to hand-held devices available on the market. Three data-collection modules measure a person’s body structure and function, home environment accessibility, and performance in day-to-day activities. HESTIA combines the data, creating integrated reports to facilitate the home evaluation team’s identification of customized goals and select specific home interventions. Project activities include content development for HESTIA, development of three data collection and integrative report modules, and preliminary product validation.
Accessible Environmental Information Application for Individuals with Visual Impairments

Sendero Group, LLC
739 Miller Drive
Davis, CA 95616-3620
GPS@senderogroup.com

Principal Investigator: Michael May
Public Contact: 530/757-6900

Project Number: 90BI0016
Start Date: September 30, 2015
Length: 6 months
NIDILRR Officer: Joseph A. DePhillips
NIDILRR Funding: FY 15 $75,000

Abstract: This project develops an Accessible Environmental Information (AEI) application for the iPhone with Voice Over. Despite many technological breakthroughs, it remains difficult for people with visual impairments to navigate indoor spaces independently. Finding one’s way inside a building can often result in fear, a sense of dependence, frustration, reluctance to leave one’s home or known routes, and a consequent withdrawal from major life participation in work, family, and community. The AEI application provides orientation and location information indoors allowing users to explore and navigate indoor spaces such as malls, airports, conference venues, large public facilities, and sporting venues. Project objectives include: (1) Evaluating Bluetooth beacon technology, (2) developing the AEI application for iPhone for locating Bluetooth beacons, and (3) testing and analyzing data of AEI in real-world situations. The goal is for the AEI application to detect Bluetooth beacons in the user’s vicinity triggering sign and location information from a database on the user’s smartphone. Further research will build upon information and user feedback to broaden the AEI application to allow users to select informational preference, and include other smartphone devices and applications leading to information access and greater independence in indoor spaces.
Sensorized Actuation for Rehabilitative Robotics and Prosthetics

Intelligent Fiber Optic Systems Corporation (IFOS)
2363 Calle Del Mundo
Santa Clara, CA 95054-1008
sb@ifos.com

Principal Investigator: Sargis Babakhanian
Public Contact: 408/565-9001

Project Number: 90BI0015
Start Date: September 30, 2015
Length: 6 months
NIDILRR Officer: Thomas Corfman
NIDILRR Funding: FY 15 $74,991

Abstract: This project develops a fiber-optically sensorized actuator technology and system that may be adapted to advanced upper limb prosthetic hands, as well as orthotic and exoskeleton components for both lower and upper limbs, to enhance sensory and motor function of individuals with disabilities. The goal of this project is to increase independence of individuals with disabilities in community settings, and provide improved means to carry out activities of daily living (ADLs). During Phase I, researchers investigate the application of techniques of under-actuation sensorized actuation, based on tendons equipped with Intelligent Fiber Optic System Corporation (IFOS) fiber Bragg grating (FBG) sensors using methods and implementations of multi-finger robotic hand actuation platform developed at the Carnegie Mellon University (CMU) School of Computer Science Robotic Institute. Fiber-optic sensors alleviate the need for complex and intrusive wiring and control systems and have numerous advantages including robustness, immunity to electromagnetic radiation, and very low weight and size. Initially, the IFOS sensorization approaches and designs developed in this project are adapted for the needs of dexterous prosthetic hands, and later to several other active rehabilitative robotic devices with the aim of greatly enhancing sensory and motor function for individuals with disabilities. The resulting approach is especially beneficial for prosthetic hands, reducing the complex control loops and algorithms needed to drive grasping motions and manipulation of objects of arbitrary size and shape, contributing to greater patient acceptance of prosthetic and orthotic devices.
Small Business Innovation Research (SBIR), Phase I
Florida

Embedded Access to Signing of Science Terms and Definitions

Vcom3D, Inc.
12124 High Tech Avenue, Suite 250
Orlando, FL 32817-8382
eds@vcom3d.com

Principal Investigator: Edward Sims
Public Contact: 321/710-4841

Project Number: 90BI0012
Start Date: September 30, 2015
Length: 6 months
NIDILRR Officer: William V. Schutz, PhD, MSW, MPH
NIDILRR Funding: FY 15 $74,974

Abstract: Deaf and hard-of-hearing students may lag behind their hearing peers in English literacy and in science, technology, engineering, and mathematics (STEM). Evaluations in classroom and informal environments have demonstrated the efficacy of the dictionaries in increasing student engagement and mastery of math and science content and vocabulary. This project develops a cloud-based service and corresponding browser plug-in, which allows 7th-12th grade Deaf and hard-of-hearing students to access signed translations of science terms and definitions. The plug-in scans an open web page and highlights terms included in the Signing Life Science Dictionary. The student can then click on a highlighted term to see an animated American Sign Language (ASL) or Signed English (SE) translation of the term and its definition. For Phase I, the web browser plug-in and sign language server include approximately 750 life science terms used in grades 7-12. Future phases will include expanding the dictionary to more than 6,000 terms.
Development of a Wearable Robot for Motor Rehabilitation in Acute Stroke

RehabTek, LLC
2510 Wilmette Avenue
Wilmette, IL 60091-2262
rehabtek_bo@yahoo.com

Principal Investigator: Yupeng Ren
Public Contact: 847/853-8380

Project Number: 90BI0013
Start Date: September 30, 2015
Length: 6 months
NIDILRR Officer: Brian Bard
NIDILRR Funding: FY 15 $75,000

Abstract: This project develops a wearable rehabilitation robot to train acute stroke survivors to improve their mobility as early as possible, as much as possible, and regain function and independence. Stroke survivors often have considerable ankle impairments, including spasticity, contracture, muscle weakness and motor impairment, contributing directly to their impaired balance and asymmetrical slow locomotion. Early intensive rehabilitation post-stroke is critical in promoting neuroplasticity, which occurs immediately after stroke, and improving functional outcomes. The wearable ankle rehabilitation robot closely interacts with the user and provides (1) closely guided motor relearning based on progressive augmented feedback with simplified tasks, and sensitive detection of re-emerging motor output signals; (2) intensive combined passive stretching and active task-related mobility training with progressive postures of in-bed, sitting, standing, and locomotion, covering hospital wards, rehabilitation clinics, and patients home settings; and (3) quantitative assessment of improvements using neuromechanical and clinical outcome measurements.
HeadLamp – A Tablet- and Smart-Glasses-based Home Electronic Aids for Daily Living System

CreateAbility Concepts, Inc.
5610 Crawfordsville Road, Suite 2401
Indianapolis, IN 46224-3727
steve@createabilityinc.com

Principal Investigator: Stephen M. Sutter
Public Contact: 317/777-0356

Project Number: 90BI0014
Start Date: September 30, 2015
Length: 6 months
NIDILRR Officer: Brian Bard
NIDILRR Funding: FY 15 $74,932

Abstract: This project researches and develops the HEADLAMP system, a system that empowers individuals with limited and/or no use of their hands to seamlessly interact and manipulate their physical world in ways that were previously unattainable. People who cannot use their hands need lower cost electronic aids for daily living (EADL) systems that offer greater functionality to help them to interact with their home environment. Project objectives for Phase I include: (1) determining end-user requirements, (2) developing a proof-of-concept prototype of the HEADLAMP system, and (3) performing a usability testing with end-users. Individuals with spinal cord injury, ALS, tetraplegia, multiple sclerosis, muscular dystrophy, cerebral palsy, or severe carpal tunnel syndrome who previously relied on the assistance of others may fully and independently interact with their environment promoting independence, enhancing self-esteem, and creating opportunities for self-direction in a respectful, non-invasive approach. Activities of daily living may be accomplished with less assistance while not compromising safety as well as reducing caregiver costs and fatigue.
Automated Incident Alerting System for Individuals with Disabilities

Intellispeak
PO Box 3426
Lawrence, KS 66046
suman.saripalli@kalscott.com

Principal Investigator: Suman Saripalli
Public Contact: 785/979-1116

Project Number: 90BI0011
Start Date: September 30, 2015
Length: 6 months
NIDILRR Officer: Brian Bard
NIDILRR Funding: FY 15 $74,948

Abstract: This project develops and tests an Incident Alerting System (IAS) to enable real-time cross-flow of information to law enforcement officials (LEOs) and caregivers of individuals with cognitive/communication disorders. Incidents involving LEOs and individuals with cognitive/communication disorders have resulted in negative outcomes (i.e., detention, imprisonment, physical/mental/emotional trauma, and in some incidents, fatalities). In some cases, LEOs did not recognize or were not aware of health conditions and/or associated behaviors of these individuals. Negative outcomes may have been avoided if the individual’s caregiver, parent, or guardian were quickly involved and able to serve as the individual’s advocate. IAS provides LEOs with up-to-date, real-time alerts about the medical conditions of individuals that they confront, and enables officers to contact caregivers immediately. The system also simultaneously alerts caregivers about an incident, enabling the caregiver to intervene promptly. During Phase I, the system is tested with normative individuals from an autism support group, a local LE agency, and parents/caregivers to gather user feedback. The system allows for improved safety of individuals with disabilities (i.e., autism, Alzheimer’s and other cognitive/behavioral disorders) in independent living, work, and learning environments. Additionally, the system may be used in conjunction with Amber/Silver Alerts, and in search-and-rescue operations.
Improving Hearing Aid Satisfaction Through Remote Feedback and Settings Adjustments

Innovative Design Labs, Inc.
95 7th Avenue NE
Minneapolis, MN 55413-1847
jcondon@innovativedesignlabs.com

Principal Investigator: John Condon
Public Contact: 612/251-6560

Project Number: 90BI0017
Start Date: September 30, 2015
Length: 6 months
NIDILRR Officer: Brian Bard
NIDILRR Funding: FY 15 $75,000

Abstract: This project researches and develops a new system to assist in fitting individuals with a hearing aid. In modern digital programmable hearing aids, there are an increasing number of customizations and settings to fit a hearing aid to a unique user. However, multiple iterations are required to find a profile which satisfies the user, and it may be difficult to diagnose the root cause of a poor hearing aid fit in the audiologist’s office. Patient feedback can be subjective and nonspecific which often times leads to a mediocre fitting and dissatisfaction with the hearing aid. In the new system patient feedback is sent to the audiologist who can then remotely modify the hearing aid settings through a Bluetooth Smart programmable interface controlled by a smartphone. This leads to a better, more satisfying product experience.
Application for Stuttering Treatment via Smartphone

Moai Technologies, LLC
14300 34th Avenue, North 326
Plymouth, MN 55447-5207
moaitechnologies@gmail.com

Principal Investigator: Brian Hanzal
Public Contact: 612/481-8723

Project Number: 90BI0019
Start Date: September 30, 2015
Length: 6 months
NIDILRR Officer: Joyce Y. Caldwell
NIDILRR Funding: FY 15 $74,787

Abstract: This Phase I project develops a smartphone application and associated server software to allow a speech language pathologist (SLP) working with students who stutter to administer treatment over a smartphone. The student may conduct smartphone video chat sessions with their SLPs at times that best fit their schedules. Students can also record video and audio samples of themselves between the sessions with the SLP, as stuttering severity may increase in certain social situations. Additionally, the individual is able to add text comments to the video and audio samples to provide details for the SLP. The samples are sent to the server running the SLP’s web-based interface. The samples are analyzed for disfluency counts prior to the student’s video chat session with the SLP. The SLP and the student can then review past video and audio speech samples during a video chat session. A record of severity ratings overtime can be accessed by the student to review their progress.
Overbrook School for Blind’s Talking Campus Model: Demonstrating New Fabrication Methods for Interactive Wayfinding and Orientation Aids

Touch Graphics, Inc.
32 Winthrop Road
Hillsdale, NJ 07642-1111
sl@touchgraphics.com

Principal Investigator: Steven Landau
Public Contact: 800/884-2440, ext. 1

Project Number: 90BI0025
Start Date: September 30, 2015
Length: 6 months
NIDILRR Officer: Joseph A. DePhillips
NIDILRR Funding: FY 15 $74,023

Abstract: This project develops and refines new fabrication methods to drastically reduce the cost and complexity of universally accessible interactive maps and models for wayfinding and orientation in public places. During Phase I, researchers design, implement, and evaluate the Talking Campus Model for Overbrook School of the Blind. The model includes opaque scale models of campus buildings placed on a translucent base layer showing roads and other landscape features in tactile relief. This assembly is then mounted on a large tablet computer repurposed as a 3D touch sensor. Conductive pathways are embedded in the plastic building models, connecting fingers touching their surfaces to the touch screen below. As users explore the model with their hands, they use a simple gestural vocabulary consisting of single, double, and triple taps on any location to hear spoken information about that place. Simultaneously, visual highlighting and captions appear through the translucent landscape, making additional information available. Students with visual disabilities at Overbrook School are recruited to test the campus model at the conclusion of Phase 1.
Viability of Social-Network Based Transit Information Systems for Accessibility

Tiramisu Transit, LLC
405 Wickford Drive
Pittsburgh, PA 15238-2533
omerriaz@gmail.com
www.tiramisutransit.com

Principal Investigator: Omer Riaz
Public Contact: 740/815-7003

Project Number: 90BI0018
Start Date: September 30, 2015
Length: 6 months
NIDILRR Officer: Kenneth D. Wood, PhD
NIDILRR Funding: FY 15 $73,762

Abstract: This project researches the viability of social-network-based transit information systems; specifically, Tiramisu, a crowd-powered transit information system developed by researchers to improve users’ transit experiences and transit accessibility. Accessible public transportation is critically important. However, the current state of accessible public transportation is a barrier to social participation and employment. Tiramisu, Italians for “pick me up,” addresses these issues and improves the transit experiences of individuals with disabilities through valuable, real-time information about accessibility details (e.g., bus fullness) and vehicle arrival times (i.e., exposure to inclement weather, and crime). With Tiramisu, anyone waiting at a bus stop with a smartphone can see which buses or light rail vehicles are due to arrive next, thanks to the information provided from riders already aboard, and get an idea of how long they have to wait. The extension of Tiramisu within social networks allows communication between riders as well as between riders and transit agencies.
Small Business Innovation Research (SBIR), Phase II  
Florida

Fluentbuddy Device to Enhance the Sensory and Motor Function of Individuals with Speech Communication Disorders

AventuSoft LLC  
2840 North University Drive, 2nd floor  
Coral Springs, FL 33065  
kaustubh@aventusoft.com  
www.aventusoft.com

Principal Investigator: Kaustubh Kale  
Public Contact: 954/399-3335

Project Number: 90BI0003 (formerly H133S130071)  
Start Date: October 01, 2013  
Length: 24 months  
NIDILRR Officer: Brian Bard  
NIDILRR Funding: FY 13 $250,000; FY 14 $250,000; FY 15 (No-cost extension through 9/29/16)  
Abstract: This project develops FluentBuddy, a rehabilitation framework that utilizes innovative speech processing algorithms, as a platform to enable new cloud computing-based service delivery solutions for autonomous assessment, treatment, and management of communication disorders outside of a clinic. This project focuses on disorders associated with problems of the physiological and anatomical system (namely, voice disorders, speech sound disorders, motor speech disorders, and the associated disabilities in children and adults). The four goals of this project are: (1) to enhance sensory and motor function to support improved functional capacity; (2) to enhance workforce participation; (3) to increase independence of individuals; and (4) to improve healthcare interventions. The goals are met through the development of the end-to-end Take Along Clinical Therapy (TACT) cloud computing platform integrated with FluentBuddy applications. TACT combines biologically plausible speech processing algorithms for automated assessment with speech-therapy procedures to develop a new platform for the delivery of clinical therapy that is used outside of the clinic, can be used in real world situations, and enables tele-therapy for speech pathologists and for individuals while providing an extraordinary therapy experience for each.
HomePortal – A Universal Home Environment for Individuals Who Are Blind or Have Visual Impairments

CreateAbility Concepts, Inc.
5610 Crawfordsville Road, Suite 2401
Indianapolis, IN 46224-3727
steve@createabilityinc.com

Principal Investigator: Stephen M. Sutter 317/777-0356
Public Contact: 317/564-4677; Fax: 317/484-8401

Project Number: 90BI0022
Start Date: September 29, 2015
Length: 24 months
NIDILRR Officer: Joseph A. DePhillips
NIDILRR Funding: FY 15 $287,497; FY 16 $287,499

Abstract: In previous Phase I research, this project demonstrated the technical merit, feasibility, and cost efficiency of combining commercially available technology with sophisticated pattern recognition and speech recognition and synthesis technology with an innovative approach and state-of-the-art software to deliver HomePortal, a universal console system to aid with daily living activities and remove barriers in the home for elderly individuals with multiple disabilities. During Phase II, the project builds upon the previous research to (1) complete the HomePortal system and application, (2) expand the features and functions, (3) perform extensive usability evaluations of the system in a range of settings, (4) and transition to commercialization. HomePortal is developed with natural support mechanisms in mind to promote independence, enhance self-esteem, and create opportunities for self-direction with a respective, non-invasive approach. This allows for activities of daily living to be accomplished with less assistance and without compromising safety.
The Intelligent Brace: A Compliance Monitoring System for Scoliosis

Liberating Technologies, Inc.
325 Hopping Brook Road, Suite A
Holliston, MA 01746
jen.johansson@liberatingtech.com
www.liberatingtech.com

Principal Investigator: Jennifer Johansson
Public Contact: 508/893-6363; Fax: 508/893-9966

Project Number: 90BI0010 (formerly H133S140097)
Start Date: October 01, 2014
Length: 24 months
NIDILRR Officer: Stephen Bauer, PhD
NIDILRR Funding: FY 14 $288,502; FY 15 $286,578

Abstract: The goal of this project is to provide real-time monitoring and data logging to help both the patient and clinician determine if and when a scoliosis brace is being worn effectively. There is widespread use of bracing for treatment of adolescent idiopathic scoliosis, and recent studies have begun documenting its efficacy and establishing a positive correlation between brace wear and treatment success. However, these studies have also indicated that user compliance is a large factor in the efficacy of scoliosis brace treatment. Two factors comprise wear compliance: (1) the quantity of wear (i.e. does the actual wear time meet the prescribed wear time?), and (2) the quality of wear (i.e. is the fit as tight as prescribed?). Without both of these criteria being met, the effectiveness of the brace treatment is compromised. The Intelligent Brace for Scoliosis utilizes advanced Micro-Electro-Mechanical Systems technology to measure the pressure at clinically important sites within the brace to determine both the quality and quantity of fit. With the Intelligent Brace, the patient receives immediate feedback if the brace is improperly adjusted, allowing them to obtain an optimal fit and maximum benefit from the brace. In addition, it would provide currently unavailable measures of wear compliance to the clinician on the quality of fit of the brace to better inform brace treatment.
Small Business Innovation Research (SBIR), Phase II
Massachusetts

Therapeutic Intermittent Compression Socket

Liberating Technologies, Inc.
325 Hopping Brook Road, Suite A
Holliston, MA 01746
todd.farrell@liberatingtech.com
www.liberatingtech.com

Principal Investigator: Todd Farrell, PhD
Public Contact: 508/893-6363; Fax: 508/893-9966

Project Number: 90BI0020
Start Date: September 30, 2015
Length: 24 months
NIDILRR Officer: Thomas Corfman
NIDILRR Funding: FY 15 $283,031; FY 16 $291,900

Abstract: The purpose of this project is to develop a device that provides rapid intermittent compression to the residual limb of amputees that do not have good blood flow in their limbs. During Phase II, the project develops an actuator that: (1) mimics the pressures and rise times of currently available pneumatic intermittent compression systems, (2) produces a compression profile that has been shown to be clinically effective, (3) can be fit to residual limbs with different shapes and sizes, (4) can be easily incorporated into prosthetic socket, and (5) has had its efficacy demonstrated on human subjects. The device is portable to provide the user with therapy throughout the day, which frees the user from being confined to a chair for up to six hours each day in order to receive the prescribed amount of therapy. The goal of the device is to reduce the number of ulcers that form, help those ulcers that do form to heal, and ultimately reduce the number of reamputation surgeries that need to occur by increasing blood flow in the limb.
Enhancing Conversation Intelligibility for Hearing Aid Users in Noisy Environments

Advanced Medical Electronics Corporation
6901 East Fish Lake Road, Suite 190
Maple Grove, MN 55369
thendrickson@ame-corp.com
www.ame-corp.com

Principal Investigator: Paul Gibson 763/515-5360
Public Contact: Tom Hendrickson 763/515-5353; Fax: 763/463-4817

Project Number: 90BI0009 (formerly H133S130064)
Start Date: October 01, 2013
Length: 24 months
NIDILRR Officer: Brian Bard
NIDILRR Funding: FY 13 $288,376; FY 14 $288,376; FY 15 (No-cost extension through 9/29/2016)
Abstract: This project develops and tests an easy-to-use and unobtrusive hearing aid accessory that utilizes a directional microphone array: to improve understanding of speech in noisy environments. A common problem amongst hearing aid users is trouble understanding speech while listening to a conversation in environments with competing speech babble noise and other noises such as restaurant conversations, social gatherings, and conversations in busy workplaces or schools. The prototype accessory enhances conversation intelligibility with a directional microphone array that wirelessly transmits audio to the user’s hearing aids or a wireless ear piece for those who do not use hearing aids.
Wheelchair Optimal Route Planning for Public Urban and Indoor Spaces

Innovative Design Labs, Inc.
95 7th Avenue Northeast
Minneapolis, MN 55413
info@innovativedesignlabs.com
www.innovativedesignlabs.com/projects.html

Principal Investigator: John Condon
Public Contact: 612/567-8554; Fax: 763/463-4817

Project Number: 90BI0002 (formerly) H133S140099
Start Date: October 01, 2014
Length: 24 months
NIDILRR Officer: Brian Bard
NIDILRR Funding: FY 14 $273,041; FY 15 $301,745

Abstract: This project creates an easy-to-use navigation and route-planning aid system for wheelchair users to optimize wheelchair specific paths through complex urban landscapes and indoor environments. Since the Americans with Disabilities Act Accessibility Guidelines were established in 1990, the ability of wheelchair users to navigate public spaces has greatly improved. However, there are still many areas in which modification for accessibility was not “readily achievable,” and therefore, may not be conducive to wheelchair travel. The system under Phase II development tracks the location of wheelchair users in indoor locations and provides wheelchair specific mobility guidance using a crowd-sources model of data collection. The system is comprised of navigation electronics attached to the wheelchair, and a software application to provide a wheelchair user with a graphical, intuitive interface for cloud-based online routing tools. This system improves access and independence for people with limited mobility and allows wheelchair users freedom of movement between public and commercial buildings safely and efficiently.
Semantics-Aware Web Screen-Reading Assistant

Charmtech Labs, LLC
1500 Stony Brook Road
Stony Brook, NY 11794-4600
borodin@charmtechlabs.com

Principal Investigator: Yevgen Borodin, PhD
Public Contact: 888/533-7884; Fax: 631/323-5959

Project Number: 90BI0023
Start Date: September 30, 2015
Length: 24 months
NIDILRR Officer: Brian Bard
NIDILRR Funding: FY 15 $287,500; FY 16 $287,500

Abstract: This Phase II project builds upon previous research to develop a Semantics-Aware Web Screen-Reading Assistant that empowers people with vision impairments to interact with the Web more naturally and efficiently via a spoken-dialog interface that is aware of high-level semantic entities such as an article section, a date picker widget, etc. The Assistant organizes the web content into a collection of meaningful semantic entities by using the semantic cues in HTML5 and ARIA specifications, as well as automatically identifying such entities with intelligent content analysis algorithms. The ability to interact with semantic entities enables users to say commands such as “Read the article,” “Log in,” “Next result,” as well as interact with common widgets such as the Date-Picker by saying “Next month,” “Which day is March 13th,” etc. The Assistant provides a spoken-dialog interface to interact with users, interprets and disambiguates user utterances, maintains a dialog with the user, and automates browsing actions on behalf of the user. With the Assistant, users utilize fewer shortcuts, spend less time listening through irrelevant content, perform browsing tasks more efficiently, and, very importantly, do so without having to let go of the screen readers they are used to.
Accommodation Integrated Technology to Minimize the Impact of Disability on Students’ Assessment Performance

3-C Institute for Social Development, Inc.
4364 Alston Avenue
Durham, NC 27713
info@3cisd.com
www.3cisd.com/funding/grants/view/federal-grants-contracts/H133S140102

Principal Investigator: Janey Sturtz McMillen, PhD
Public Contact: 919/677-0102, ext. 531; Fax: 919/677-0112

Project Number: 90BI0007 (formerly H133S140102)
Start Date: October 01, 2014
Length: 24 months
NIDILRR Officer: Stephen Bauer, PhD
NIDILRR Funding: FY 14 $319,215; FY 15 $255,781

Abstract: This SBIR project integrates universal design principles in assessing the development and testing of Assess2Progress; an innovative, easy-to-use, and secure web-based system by which kindergarten through 5th grade (K-5th) teachers can independently create assessments of any type in any subject area, and deploy that assessment to one or more students with embedded text-to-speech functions, audio controls, and visual accommodations. Objectives of Phase II are to develop a fully functioning software system with tailored teacher and student user interfaces; conduct pre-pilot usability testing with K-5th grade students and teachers; and conduct field testing to pilot the full product with K-5th grade students and teachers in authentic educational settings. The fourth and final objective is to prepare the Assess2Progress system for commercial dissemination. The Assess2Progress product is expected to place directly into the hands of teachers the technological capability of an assessment system that integrates universal design principles thus ensuring all students have access to the tools they need to demonstrate what they actually know and can do.
Interactive E-Learning to Promote Successful Postsecondary Employment Outcomes for Students with Intellectual Disabilities

3-C Institute for Social Development, Inc.
4364 Alston Avenue, Suite 300
Durham, NC 27713
childress@3cisd.com
www.3cisd.com/funding/grants/view/federal-grants-contracts/90BI0021-01-00

Principal Investigator: Debra Childress, PhD
Public Contact: 919/677-0102, ext. 515

Project Number: 90BI0021
Start Date: September 30, 2015
Length: 24 months

NIDILRR Officer: Shelley Reeves
NIDILRR Funding: FY 15 $306,034; FY 16 $268,957

Abstract: This project creates a Web-based Occupational Resource Kit (W.O.R.K.), the first self-paced, adaptive job skills intervention designed specifically to meet the learning styles and social-emotional needs of students with intellectual disabilities. W.O.R.K. enhances students’ preparedness for postsecondary employment, optimizing the likelihood of success in the workforce following completion of high school. Project objectives include: (1) conduct iterative software development and testing with key stakeholders to inform the development of the program content and interface; (2) develop implementation materials, such as the Online Implementation Center, where providers can access program functions and implementation support tools; and (3) conduct pilot testing of the product with secondary students with intellectual disabilities to assess the usability and feasibility of the product in its intended educational delivery setting. In developing W.O.R.K, the project (1) engages secondary students with intellectual disabilities in a customized online interactive environment for scaffolded learning and practice, (2) increases educators’ access to the intervention through easy-to-use and feasible technology, (3) strengthens the home-school partnership through integrated resources, reports, and activities for easy sharing with parents, and (4) enhances educators’ skills for implementing the intervention through online professional development tools. The W.O.R.K. product provides instruction, support, and interactive exercises based on individual needs to promote the development of critical employment, self-determination, and advocacy skills of students with intellectual disabilities thereby supporting these individuals in achieving and maintaining employment.
Knowledge Translation

For NIDILRR, knowledge translation (KT) encompasses the multidimensional, active process of ensuring that new knowledge gained through the course of research ultimately improves the lives of people with disabilities and furthers their participation in society. KT encompasses not only knowledge creation, knowledge validation, dissemination, and utilization but also the transfer of technology from the research and development setting to the commercial marketplace to make possible widespread utilization of the products or devices. NIDILRR funds a number of KT projects focusing on different content areas to assist NIDILRR grantees in their knowledge translation efforts through technical assistance, training, and other activities, as well as to generate new knowledge and understanding of KT in the context of disability and rehabilitation.

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Rehabilitation Research and Training Centers (RRTCs)
Illinois

Rehabilitation Research and Training Center on Improving Measurement of Medical Rehabilitation Outcomes

Rehabilitation Institute of Chicago (RIC)
Center for Rehabilitation Outcomes Research (CROR)
345 East Superior Street
Chicago, IL 60611
a-heinemann@northwestern.edu
www.ric.org/research/centers/cror
www.facebook.com/RehabOutcomes

Principal Investigator: Allen W. Heinemann, PhD
Public Contact: 312/238-2802; Fax: 312/238-4572

Project Number: 90RT5008 (formerly H133B090024)
Start Date: October 01, 2009
Length: 60 months
NIDILRR Officer: Dawn Carlson, PhD, MPH
NIDILRR Funding: FY 09 $850,000; FY 10 $850,000; FY 11 $850,000; FY 12 $850,000; FY 13 $850,000; FY 14 (No-cost extension through 9/30/2015); FY 15 (No-cost extension through 9/29/2016)

Abstract: This project focuses on combining innovative measurement, data collection, and reporting methods with practical concerns for usability, implementation, and multi-user communication. Measurement of the cognitive and environmental factors affecting participation is hampered by instruments that are not tailored appropriately to persons with disabilities or for use in time-pressed clinical settings. This project focuses on persons with traumatic brain injury, spinal cord injury, and stroke because these groups experience complex cognitive, physical, sensory, and emotional impairments that limit access to and use of standardized test protocols. Specific project goals include: (1) increasing the accessibility of measures of cognitive function for use in rehabilitation settings so that consumers’ needs and outcomes are documented; (2) examining the reliability, validity, and sensitivity of measures of cognitive function for persons with disabilities within major item banks including the NIH Toolbox, the Executive Function Performance Test, Neuro-QOL, TBI-QOL, SCI-QOL, and SCI-CAT projects; (3) evaluating and refining measures of barriers and facilitators of community participation enabling better evaluation of the outcomes of rehabilitation services; (4) utilizing the large set of data to examine the validity of the cognitive items on the Continuity and Record Evaluation Tool, a standardized patient assessment instrument developed by the Centers for Medicare and Medicaid Services; and (5) evaluating the extent to which the International Classification of Functioning, Disability, and Health (ICF) represents disablement characteristics by mapping instruments collected as part of project activities to concepts within the ICF.

This RRTC conducts research; hosts forums for discussion; publishes in the rehabilitation science, health policy, and consumer literature; trains new researchers in rehabilitation-focused health services research; and disseminates information to diverse scientific, clinician, consumer, and policymaker audiences.
Disability and Rehabilitation Research Projects (DRRPs)
Alabama

National Spinal Cord Injury Statistical Center

University of Alabama at Birmingham
Department of Physical Medicine and Rehabilitation
1717 6th Avenue South - SRC 515
Birmingham, AL 35233-7330
nscisc@uab.edu
www.uab.edu/nscisc

Principal Investigator: Yuying Chen, MD, PhD 205/934-3320
Public Contact: Phil Klebine 205/934-3283; Fax: 205/975-4691

Project Number: 90DP0011 (formerly H133A110002)
Start Date: October 01, 2011
Length: 60 months
NIDILRR Officer: Kenneth D. Wood, PhD
NIDILRR Funding: FY 11 $625,000; FY 12 $625,000; FY 13 $625,000; FY 14 $625,000; FY 15 $625,000

Abstract: With the ultimate goal of advancing knowledge of spinal cord injury (SCI) outcomes, the National Spinal Cord Injury Statistical Center (NSCISC) provides resources and services that support the longitudinal Spinal Cord Injury Model System (SCIMS) Database, ensure high-quality data, and promote rigorous research. Project activities are planned with several target populations in mind: individuals with SCI, SCIMS centers, researchers who intend to use the database, and any person who needs SCI statistics. The web-based data management system is upgraded with advanced functionality and user-friendly features to enhance security, quality control, and data retrieval/reporting as well as support SCIMS module projects and research. High-quality reliable data are ensured through utilization of a network of experts; refinement of the Standard Operating Procedures; implementation of a comprehensive certification program for data collectors; monitoring data quality and conducting site visits; and enforcement of on-site quality assurance procedures, training, and technical assistance. A series of analyses are conducted to identify underlying factors that contribute to racial/ethnic differences in enrollment, retention, and responsiveness to interview questions, along with continued assessment of intercultural competence status and needs as a guide for the development of training materials. To increase the quantity and quality of SCIMS Database research, this project has four objectives: (1) intramural and collaborative research; (2) internship, award, and other training programs; (3) development of education and information resources for investigators; and (4) individual consultation and technical assistance. To enhance SCIMS Database continuity, two previously established mechanisms (subcontract and centralized data collection) are utilized for continued collection of follow-up data from unfunded SCIMS centers, and procedures are enacted to ensure high-quality reliable data. Moreover, this project implements an evaluation plan designed to assess the quality and quantity of project outputs with the impacts of advancing knowledge in SCI rehabilitation outcomes and facilitating changes in policy and clinical practice through SCIMS research.

NIDILRR Program Directory FY 2015 - Knowledge Translation
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Disability and Rehabilitation Research Projects (DRRPs)
Colorado

National Data and Statistical Center for the TBI Model Systems

Craig Hospital
Research Department
3425 South Clarkson Street
Englewood, CO 80113-2899
charrison-felix@craighospital.org
www.tbindsc.org

Principal Investigator: Cynthia Harrison-Felix, PhD
Public Contact: 303/789-8565; Fax: 303/789-8441

Project Number: 90DP0013 (formerly H133A110006)
Start Date: October 01, 2011
Length: 60 months

NIDILRR Officer: Kenneth D. Wood, PhD

NIDILRR Funding: FY 11 $625,000; FY 12 $625,000; FY 13 $625,000; FY 14 $625,000; FY 15 $625,000

Abstract: The Traumatic Brain Injury Model Systems National Data and Statistical Center (NDSC) provides innovative technologies, training, and resources to the Traumatic Brain Injury Model Systems (TBIMS). Building upon a comprehensive system of data management, communication technologies, and operating procedures that emulate the best practices of clinical research organizations, the NDSC increases the rigor and efficiency of scientific efforts to longitudinally assess the experience of individuals with TBI and advance TBI rehabilitation. NDSC has nine project goals: (1) maintain the TBIMS National Database (NDB) providing for confidentiality, quality control, and data retrieval capabilities, using cost-effective and user-friendly technology; (2) provide training/technical assistance to TBIMS on subject retention, data collection procedures, data entry methods, appropriate use of study instruments, and monitoring data quality; (3) provide knowledge, training, and technical assistance to TBIMS on culturally appropriate methods of longitudinal data collection and participant retention; (4) provide statistical/methodological consultation to TBIMS; (5) implement a mechanism for continued follow-up data collection from defunded TBIMS; (6) collaborate with Spinal Cord Injury and Burn Data Centers and the Model Systems Knowledge Translation Center (MSKTC); (7) coordinate on research projects of mutual interest with NIDILRR-funded projects; (8) involve individuals with disabilities in planning and implementing the research, training, and dissemination activities, and in evaluating its work; and (9) identify anticipated outcomes that are linked to stated grant objectives. NDSC introduces new innovations including web-based data collectors training; resources to support the important work of the TBIMS committees, module studies, and special interest groups; advanced longitudinal analytic strategies, and several proposed NDB analysis projects; new cultural competency resources and language translation services; collaboration with the MSKTC on a TBIMS exhibit and materials; and new collaborative partnerships. The success of the project is assessed by five measurable outcome goals: (1) advance TBI rehabilitation by increasing the scientific rigor and utilization the TBIMS NDB/Modules, as measured by an increase in the annual rate of peer-reviewed journal articles that cite the TBIMS NDB/Modules as the primary source of research data; (2) maintain the TBIMS NDB/Modules using cost-effective and
user-friendly technologies as measured by user acceptance of new technologies/methodologies as indicated by annual customer evaluations; (3) ensure high-quality, reliable data in the TBIMS NDB/Modules by providing comprehensive technical support as measured by center quality support visit reports and data quality reports; (4) improve data collected from NDB participants of all racial/ethnic backgrounds as measured by an increase in the follow-up rate of minorities; and (5) enhance continuity of the TBIMS NDB by developing mechanisms/strategies for following participants enrolled by defunded centers as measured by improvement of follow-up rates of TBIMS NDB participants.
Model Systems Knowledge Translation Center (MSKTC)

American Institutes for Research (AIR)
1000 Thomas Jefferson Street, NW
Washington, DC 20007
ccai@air.org
coverton@air.org
www.msktc.org

Principal Investigator: Steven Garfinkel, PhD; N. Lynn Gerber, MD; 919/918-2306; 703/993-1940
Public Contact: Cindy Cai, PhD; Cynthia Overton, PhD; 202/403-6929; 202/403-5058; Fax: 202/403-5454

Project Number: 90DP0012 (formerly H133A110004)
Start Date: October 01, 2011
Length: 60 months
NIDILRR Officer: Pimjai Sudsawad, ScD
NIDILRR Funding: FY 11 $800,000; FY 12 $799,999; FY 13 $799,999; FY 14 $800,000; FY 15 $799,999

Abstract: The mission of the Model Systems Knowledge Translation Center (MSKTC) is to enhance the rigor and relevance of the model systems research and to communicate this research effectively to all potential audiences. This project has three goals: (1) enhanced understanding of the quality and relevance of the findings of NIDILRR’s Spinal Cord Injury (SCI), Traumatic Brain Injury (TBI), and Burn Model Systems (MS) programs; (2) enhanced knowledge of advances in SCI, TBI, and Burn research among consumers, clinicians, and other end users of such information; and (3) the centralization of SCI, TBI, and Burn Model Systems resources for effective and uniform dissemination and technical assistance. These goals serve to guide the Center’s strategies and activities to create an impact on the target population, including the MS grantees and other researchers as well as the broader audience of people with disabilities and their families, clinicians and practitioners, and policymakers and advocates through services in three areas. Service Area 1 uses a systematic approach to identify, evaluate, and synthesize evidence-based research findings. Tasks under Service Area 1 include: (1) establishing and maintaining a Technical Review Committee, (2) establishing standards for systematic reviews, (3) conducting reviews and publishing results, and (4) conducting quick turnaround reviews. Service Area 2 offers a strategic approach in knowledge translation (KT) support to grantees. Tasks under Service Area 2 include: (1) KT technical assistance and training, (2) communities of practice focused on each injury area among all audiences, and (3) conducting consumer needs research. Service Area 3 creates a central location to host all the KT resources and uses a multifaceted approach to knowledge dissemination, in order to ensure that audiences have timely access to relevant information that (1) helps facilitate the knowledge translation process; (2) informs decisions surrounding rehabilitation options in the areas of SCI, TBI, and Burn; and (3) informs the professional practices to key audiences. Tasks under Service Area 2 include: (1) website redesign and maintenance, (2) MSKTC multimedia development, (3) an online dissemination toolkit development, and (4) outreach and dissemination.
Center on Knowledge Translation for Technology Transfer

University at Buffalo
The State University of New York
Center for Assistive Technology
100 Sylvan Parkway, Suite 400
Amherst, NY 14228
joelane@buffalo.edu
kt4tt.buffalo.edu

Principal Investigator: Joseph Lane 716/204-8606, ext. 211
Public Contact: 716/204-8606 (V), 877/742-4141 (V), 716/204-8606 (TTY); Fax: 716/204-8610

Project Number: 90DP0054 (formerly H133A130014)
Start Date: October 01, 2013
Length: 60 months
NIDILRR Officer: Pimjai Sudsawad, ScD
NIDILRR Funding: FY 13 $924,512; FY 14 $924,511; FY 15 $924,511; FY 16 $924,564; FY 17 $924,559

Abstract: The objective of this project is to study and apply the theory and practice of knowledge translation (KT) to the knowledge outputs of NIDILRR technology grantees. Goals of this project are to increase the rate of successful technology transfer (TT) of rehabilitation projects by NIDILRR grantees to the marketplace and into engineering standards, increase understanding among rehabilitation engineers and disability researchers in development of TT processes and practices that lead to successful TT, and increase capacity of NIDILRR grantees to plan and engage in TT activities. Research Project 1, Grantee Evidence of TT Practices, uses case-based examples from grantees in technology innovation processes to demonstrate how their actions and decisions affect TT outputs and outcomes. Research Project 2, Profile of Industry TT Receptivity and Capacity, optimizes the likelihood of accomplishing TT by evaluating industry opportunities and constraints. Development Project 1, Generate Three Need to Knowledge (NtK) Model Variants, utilizes planning and charting processes across three non-commercial output categories (standards and protocols, freeware, and instruments and tools) to increase capacity in TT and expand the original NtK Model for commercial products. Development Project 2, Collaborative Commercialization, utilizes partnerships between NIDILRR grantees and corporations to bring new or improved commercial products to the marketplace through two utilization activities: (1) Delivering Practice-Level TT Training, and (2) Demonstrating Program-Level NtK Model Uptake by External Agencies. These activities increase grantees’ ability to plan, implement, and manage TT capacity by teaching how to accommodate best practices within personnel, time, and resource constraints while demonstrating the use of the NtK Model by other government and advisory agencies. KT4TT operates at the School of Public Health and Health Professions, University at Buffalo (SUNY), in partnership with Western New York Independent Living Inc., and a team of international consulting experts.
Disability and Rehabilitation Research Projects (DRRPs)
New York

Center for International Rehabilitation Research Information & Exchange (CIRRIE-3)

The Research Foundation of SUNY on behalf of the University at Buffalo
515 Kimball Tower
Buffalo, NY 14214
ub-cirrie@buffalo.edu
cirrie.buffalo.edu

Principal Investigator: John Stone, PhD
Public Contact: 716/829-6739; Fax: 716/829-3217

Project Number: 90DP0008 (formerly H133A100021)
Start Date: October 01, 2010
Length: 60 months

NIDILRR Officer: Dawn Carlson, PhD, MPH
NIDILRR Funding: FY 10 $399,994; FY 11 $399,994; FY 12 $399,992; FY 13 $399,992; FY 14 $399,995; FY 15 (No-cost extension through 9/29/2016)

Abstract: This project establishes a comprehensive program to identify, organize, and disseminate international research and development knowledge relevant to the disability and rehabilitation community in the US. The Center for International Rehabilitation Research Information and Exchange (CIRRIE-3) includes four coordinated sets of activities: database, dissemination, exchange, and cultural competence education. CIRRIE-3 continues to expand its Database of International Rehabilitation Research. In this cycle it is adding features making it comparable to major commercial databases. CIRRIE-3 continues to disseminate its previously created international information resources while developing new resources, including bibliographies on topics of interest to NIDILRR-funded projects; databases of cross-walks of rehabilitation instruments to the ICF and resources on universal design; and access to international literature on development methods for assistive technology. Additionally, CIRRIE-3 is developing a comparative profile of US and international research in 50 topic areas and conducting a conference in 2011 on the WHO World Report on Disability and Rehabilitation. CIRRIE-3 is conducting a program for international exchanges of research and development personnel from NIDILRR-funded projects and counterparts in other countries. Approximately 60 exchanges are occurring over the 5-year cycle. The focus of the program is on building productive research and development collaborations. CIRRIE-3 continues to develop educational resources for use in training future rehabilitation professionals to work effectively with persons with disabilities who were born in other countries. CIRRIE-3 is developing simulations involving cross-cultural rehabilitation with high fidelity manikins and standardized patients trained to mirror foreign-born rehabilitation clients. The CIRRIE-3 program is global in scope and encompasses all of the NIDILRR domains of disability and rehabilitation research and development.
Disability and Rehabilitation Research Projects (DRRPs)
Texas

SEDL Center on Knowledge Translation for Employment Research

American Institutes for Research (AIR)
4700 Mueller Boulevard
Austin, TX 78723
tbaum@air.org
www.kter.org
www.facebook.com/kter.org
twitter.com/kter_center

Principal Investigator: John Westbrook, PhD
Public Contact: 512/391-6517; Fax: 512/476-2286

Project Number: 90DP0009 (formerly H133A100026)
Start Date: October 01, 2010
Length: 60 months
NIDILRR Officer: Pimjai Sudsawad, ScD
NIDILRR Funding: FY 10 $650,000; FY 11 $650,000; FY 12 $650,000; FY 13 $650,000; FY 14 $650,000; FY 15 (No-cost extension through 9/30/2016)

Abstract: The Center on Knowledge Translation for Employment Research has a dual purpose: (1) assessing, describing, and informing relevant stakeholders about the current research base related to improving employment outcomes among individuals with disabilities; and (2) exploring and testing knowledge translation strategies that can increase the appropriate use of that research among four key audiences: individuals with disabilities, employers, policy makers, and vocational rehabilitation practitioners. To address those purposes, this project (1) reviews the research literature to identify evidence-based practices that can be used to improve employment outcomes for individuals with disabilities; (2) identifies gaps that need to be addressed in future research; (3) widely disseminates project findings; (4) conducts survey and interview research to explore factors that either impede or support the use of research findings among the four target audiences; (5) conducts several research studies to test ways of helping target audiences to access and use the evidence-based practices identified (i.e., testing knowledge translation strategies); and (6) provides training and technical assistance to researchers so that they can incorporate effective knowledge translation strategies into their research, development, and dissemination activities. This is a collaborative project with SEDL and Virginia Commonwealth University.
Disability and Rehabilitation Research Projects (DRRPs)
Texas

SEDL’s Center on Knowledge Translation for Disability and Rehabilitation Research

American Institutes for Research (AIR)
4700 Mueller Boulevard
Austin, TX 78723
tbauman@air.org
www.ktdrr.org
www.facebook.com/ktdrr.org
twitter.com/ktdrr_center

Principal Investigator: John Westbrook, PhD 512/391-6565
Public Contact: 512/391-6517; Fax: 512/476-2286

Project Number: 90DP0027 (formerly H133A120012)
Start Date: October 01, 2012
Length: 60 months
NIDILRR Officer: Pimjai Sudsawad, ScD
NIDILRR Funding: FY 12 $750,000; FY 13 $750,000; FY 14 $750,000; FY 15 $750,000; FY 16 $750,000

Abstract: This project serves as a primary knowledge translation (KT) resource for NIDILRR-funded researchers, developers, and KT brokers, addressing the need for access to and skills in implementing best practices; undertaking systematic reviews and other high-quality syntheses of research; and translating research findings and using them to make critical decisions. To address these needs, the Center provides an array of training, dissemination, utilization, and technical assistance activities, including: supports for the production of high quality systematic reviews and research syntheses, including long-term, individualized technical assistance; tools and training to assist in extracting data, assessing quality, and using evidence from systematic reviews in identifying research gaps and formulating research questions; training and assistance to help NIDILRR grantees meet the challenges of evidence standards; training and assistance addressing KT planning, including use of planning templates and tools; supports for NIDILRR grantees in the development of evidence-based knowledge products; establishment of a Consumer Review Panel to provide guidance in ensuring that knowledge products and KT strategies are relevant and accessible to knowledge users; ready access to an array of KT strategies, with information about evidence of their effectiveness, and support for their use among NIDILRR grantees; facilitation of collaborative work and information-sharing among NIDILRR grantees, through working groups and communities of practice; for knowledge users, awareness of and ready access to evidence-based knowledge through accessible web-based resources and social media; tools for knowledge users that facilitate the assessment of quality of systematic reviews and research syntheses, and the identification and utilization of high quality research evidence; and strategies to help NIDILRR grantees engage knowledge users in all phases of KT, from seeking and creating knowledge through its application.
Disability and Rehabilitation Research Projects (DRRPs)
Texas

Center on Knowledge Translation for Employment Research

American Institutes for Research (AIR)
4700 Mueller Boulevard
Austin, TX 20007-3835
jwestbrook@air.org
www.kter.org
www.facebook.com/kter.org
twitter.com/kter_center

Principal Investigator: John Westbrook, PhD
Public Contact: 512/391-6565; Fax: 512/476-2286

Project Number: 90DP0077
Start Date: September 30, 2015
Length: 60 months
NIDILRR Officer: Pimjai Sudsawad, ScD
NIDILRR Funding: FY 15 $500,000; FY 16 $500,000; FY 17 $500,000; FY 18 $500,000; FY 19 $500,000

Abstract: The Center on Knowledge Translation for Employment Research (the KTER Center) identifies and promotes the effective and appropriate use of research-based knowledge addressing stakeholders’ informational needs related to employment for individuals with disabilities, and knowledge translation (KT) strategies to increase the use of high-quality employment-related research. The KTER Center investigates existing and new KT strategies regarding barriers to and facilitators of the use of research in vocational rehabilitation (VR) settings. VR counselors are the linchpins of the employment process, engaging both adults with disabilities in search of employment and the businesses who seek to hire qualified employees. The KTER Center continues to provide KT support to employment-focused National Institute on Disability, Independent Living, and Rehabilitation Research (NIDILRR) grantees as well as technical assistance and dissemination support to enhance the use of this important research.
Disability and Rehabilitation Research Projects (DRRPs)
Washington

National Data and Statistical Center for the Burn Model Systems

University of Washington
Department of Rehabilitation Medicine
1959 NE Pacific Street
Box 357920
Seattle, WA 98185
burndata@uw.edu
mcmulk@uw.edu
burndata.washington.edu

Principal Investigator: Dagmar Amtmann, PhD; Kurt Johnson, PhD; 206/543-4741
Public Contact: 720/380-0073; Fax: 206/543-2779

Project Number: 90DP0053 (formerly H133A130004)
Start Date: April 12, 2013
Length: 60 months
NIDILRR Officer: Kenneth D. Wood, PhD
NIDILRR Funding: FY 13 $350,000; FY 14 $350,000; FY 15 $350,000; FY 16 $350,000; FY 17 $350,000

Abstract: The purpose of the National Data and Statistical Center for the Burn Model Systems (BMS Data Center) is to (a) maintain and enhance a longitudinal database following individuals with burn injury, (b) support research on health outcomes in burn injury conducted by both researchers in the NIDILRR Burn Model Systems Centers (BMS Centers) and external to the BMS Centers, and (c) provide annual reports to the public. The project enhances the technological foundation of the BMS Database by adding more sophisticated reporting features; enhances the capacity of BMS Data Centers to collect high quality data on individuals with burn injury from all racial and ethnic backgrounds through training and technical assistance; improves the capacity of researchers within and outside of the BMS Centers to engage in research and statistical analysis of the longitudinal database through technical assistance and direct participation in research, statistical analysis, and writing; collaborates with other NIDILRR-funded data centers in spinal cord injury and traumatic brain injury and with national organizations that collect large datasets on burn injury, such as the American Burn Association’s National Burn Repository, to increase efficiency and reduce redundant effort; and improves the quality of information provided to the public through better reports and the development of consumer-friendly materials. The primary outcome across all five years of the project is the development of significant research evidence about the effects of burn injury on the lives of burn survivors through the maintenance and enhancement of a robust, high quality, longitudinal database; and through training and technical assistance to those who use it.
Disability and Rehabilitation Research Projects (DRRPs)
Washington

Translating Evidence About Traumatic Brain Injury to Practice Within Washington State Department of Corrections

University of Washington
1959 NE Pacific Street, HSB BB-919
Seattle, WA 98195
mharniss@uw.edu

Principal Investigator: Mark Harniss, PhD; Kurt Johnson, PhD
Public Contact: 206/685-0289; Fax: 206/543-4779

Project Number: 90DP0079
Start Date: September 30, 2015
Length: 60 months
NIDILRR Officer: Pimjai Sudsawad, ScD
NIDILRR Funding: FY 15 $150,000; FY 16 $150,000; FY 17 $150,000; FY 18 $150,000; FY 19 $150,000

Abstract: This project focuses on translating evidence about traumatic brain injury (TBI) into practice within the Washington State Department of Corrections (DOC). The goal is to improve the management of offenders with TBI by helping front line staff understand what TBI is; how offenders might be affected by TBI; what they could do that would help in day-to-day management of problems faced by offenders with TBI (e.g., memory, communication, mood, impulsivity); how TBI might affect engagement in treatment programs; how TBI affects compliance with DOC rules and regulations; and how TBI might affect transition from corrections to community living. The goal is to affect change at two levels in the DOC by increasing awareness and knowledge about TBI system-wide, and developing and piloting intensive knowledge translation (KT) activities with front line staff who work with specific target populations (e.g., veterans, women, or individuals with disabilities) in order to translate knowledge into practice. These activities can then be generalized to other correctional facilities within the DOC. In order to achieve these goals, the project identifies and prioritizes research-based products on TBI from current and completed NIDILRR-funded projects that are most relevant for the DOC. Factsheets and evidence-based materials developed by previous NIDILRR-funded grants serve as starting points for integrating research-based evidence into practices within corrections. The project assesses the current level of TBI knowledge and programming within the DOC to identify knowledge gaps and potential barriers and facilitators to the use and adoption of NIDILRR-sponsored TBI evidence in DOC. Finally, the project develops and implements a comprehensive KT plan, including system-wide strategies and an intensive pilot intervention, as well as evaluating the effectiveness of knowledge translation strategies and overall processes, and providing a summary of findings for recommendations of informed practice within DOC and the broader criminal justice community.
Field Initiated Projects (FIPs)
Massachusetts

Explore VR Increasing Adoption and Utilization of a Web Based Open Share Public Portal of Survey Data on VR and Other Employment Service Providers

University of Massachusetts Boston
Institute for Community Inclusion
100 Morrissey Boulevard
Boston, MA 02125-3393
DeBrittany.Mitchell@umb.edu
www.explorevr.org

Principal Investigator: Julisa Cully
Public Contact: DeBrittany Mitchell 617/287-4323

Project Number: 90IF0050 (formerly H133G130110)
Start Date: October 01, 2013
Length: 36 months
NIDILRR Officer: Hugh Berry, EdD
NIDILRR Funding: FY 13 $199,641; FY 14 $199,806; FY 15 $199,322

Abstract: This project promotes the dissemination, adoption, and utilization of ExploreVR, a community-developed public web portal initiated under the auspices of the NIDILRR-funded Rehabilitation Research and Training Center on Vocational Rehabilitation Research (VR-RRTC, 2007-2012). The original project gathered data from multiple employment systems to provide detailed descriptive information on the constellation of employment services for people with disabilities in all 50 states, the District of Columbia, Puerto Rico, and US territories, with the goal of offering a compendium for researchers, practitioners, and policymakers; and creating a base of knowledge that provides a foundation for future research and evaluation efforts. The original data collection has been expanded into a community-driven and -managed web portal making this a unique resource from data portals and resources currently available to the VR community. During this project, developers enhance ExploreVR in partnership with content and technical experts to provide accessible data for VR practitioners, policymakers, and rehabilitation researchers; link survey research variables with administrative data; import survey research datasets from various researchers into the portal to enable cross-organizational analysis and reduce respondent burden and fatigue; promote the generation of research and evaluation contracts by putting publicly collected data into the marketplace; and test and evaluate methods for promoting adoption and utilization of ExploreVR among VR practitioners, policymakers, and rehabilitation researchers.
ADA Technical Assistance Projects
Washington

ADA Network Knowledge Translation Center

University of Washington
1959 NE Pacific Street, HSB BB-919
Box 356490
Seattle, WA 98195
adakt@uw.edu
adata.org

Principal Investigator: Kurt Johnson, PhD
Public Contact: 206/543-3677; Fax: 206/543-4779

Project Number: 90DP0015 (formerly H133A110014)
Start Date: October 01, 2011
Length: 60 months
NIDILRR Officer: Pimjai Sudsawad, ScD
NIDILRR Funding: FY 11 $850,000; FY 12 $850,000; FY 13 $850,000; FY 14 $850,000; FY 15 $850,000

Abstract: The purpose of the Americans with Disabilities Act (ADA) Network Knowledge Translation Center (ADA Network-KTC) is to ensure that information and products developed and identified through the ten ADA regional centers are of high quality, based on the best available research evidence, and are deployed effectively to multiple key stakeholders; and to develop processes and technology to facilitate highly collaborative and efficient progress toward accomplishing these goals. Stakeholders include: employers, researchers, educators, policy makers, staff of state and local government agencies, individuals with disabilities, family members, and project staff in the ADA regional centers and other related federal and privately-funded organizations. To achieve this purpose the ADA Network-KTC has four project goals. Goal 1: Optimize the efficiency and impact of the ADA National Network’s training, technical assistance, and information dissemination by: (1) maintaining and further developing the ADA National Network’s website and ADA Document Portal, (2) developing an online system to enable the ADA Regional Centers to share training and technical assistance materials, (3) facilitating joint development of ADA products by the ADA Regional Centers to maximize resources and avoid duplication, and (4) organizing and providing logistical and financial support for annual meetings of the ADA Regional Centers. Goal 2: Increase the use of available ADA-related research findings to inform behavior, practices, or policies that improve equal access in society for individuals with disabilities by: (1) identifying topics of importance to ADA stakeholders in collaboration with the ADA Centers and other key informants, and by conducting systematic reviews of the evidence; (2) identifying topics for future research (knowledge gaps) to help individuals understand their rights and responsibilities under ADA; and (3) synthesizing information from systematic reviews, research publications, and expert consensus to develop stakeholder materials. Goal 3: Increase awareness and utilization of ADA-related research findings by appropriate ADA stakeholder groups by: (1) collaborating with the ADA Centers on developing individual KT plans that support a national KT implementation plan for the ADA National Network, and (2) coordinating and hosting one ADA research conference in year 5. Goal 4: Improve understanding of ADA stakeholders’ need for and receipt of ADA Network Services over time, including services to
address emerging issues related to compliance with ADA requirements by: (1) operating and maintaining the outcome measurement system; (2) collaborating with NIDILRR and the ADA Regional Centers to improve usability and accessibility; (3) developing a data sharing plan to facilitate program improvement and research; (4) monitoring data quality, and providing training and technical assistance on use of the database, and (5) development and implementation of a system for measuring and tracking outcomes of the ADA National Network.
NIDILRR Contracts
Maryland

National Rehabilitation Information Center (NARIC)

HeiTech Services, Inc.
8400 Corporate Drive, Suite 500
Landover, MD 20785
naricinfo@heitechservices.com
www.naric.com
www.pinterest.com/naricinfo
www.facebook.com/NationalRehabilitationInformationCenter
twitter.com/naricinfo
twitter.com/naricenespanol
www.facebook.com
www.facebook.com/NARICenEspanol
plus.google.com/+Naricinfo
naricspotlight.wordpress.com

Principal Investigator: Mark X. Odum 800/346-2742, ext. 1112
Public Contact: Information Specialists 800/346-2742 (V), 301/459-5900 (V); Fax: 301/459-4263

Project Number: GS-06F-0726Z
Start Date: September 28, 2015
Length: 60 months
NIDILRR Officer: Pimjai Sudsawad, ScD
NIDILRR Funding: FY 15 $1,583,388; FY 16 $1,948,101; FY 17 $1,868,203; FY 18 $1,922,781; FY 19 $1,977,360

Abstract: The National Rehabilitation Information Center (NARIC) maintains a research library of more than 65,000 documents and responds to a wide range of information requests, providing facts and referral, database searches, and document delivery. Through telephone and online information referral, NARIC disseminates information gathered from NIDILRR-funded projects, other federal programs, and from journals, periodicals, newsletters, and multimedia. NARIC maintains REHABDATA, a bibliographic database on rehabilitation and disability issues, both in-house and online. Users are served in English and Spanish by telephone, mail, electronic communications, or in person. Current tasks include a crosswalk between the REHABDATA Thesaurus and the International Classification of Function (ICF); acquisition of digital media; maintaining and expanding a digital archive of original research documents; and knowledge translation activities in support of NIDILRR’s mission including citation analysis, long term project tracking, and promotion of NIDILRR-sponsored research. NARIC also prepares and publishes the annual NIDILRR Program Directory, available in database format from NARIC’s web site, and several regular publications highlighting NIDILRR research.
AbleData

New Editions Consulting
103 West Broad Street, Suite 400
Falls Church, VA 22046
abledata@neweditions.net
www.abledata.com
www.twitter.com/AT_Info
www.facebook.com/Abledata

Principal Investigator: Elizabeth Tewey 703/356-8035, ext. 119
Public Contact: Information Specialists 800/227-0216; 703/356-8035 (V); 703/992-8313 (TTY); Fax: 703/356-8314

Project Number: ED-OSE-13-C-0064
Start Date: October 01, 2013
Length: 60 months
NIDILRR Officer: Pimjai Sudsawad, ScD
NIDILRR Funding: FY 13 $687,578; FY 14 $661,730; FY 15 $681,106; FY 16 $701,060; FY 17 $722,564
Abstract: AbleData provides objective information on assistive technology and rehabilitation equipment available from domestic and international sources to consumers, organizations, professionals, and caregivers within the United States. This project maintains and expands the AbleData database of assistive technology, develops information and referral services that are responsive to the special technology product needs of consumers and professionals, and provides data to major dissemination points to ensure wide distribution and availability of the information to all who need it. The AbleData database contains information on more than 40,000 commercially produced and custom-made assistive devices. All of the project’s resources are available free of charge on its website. Requests for information are answered via telephone, mail, electronic communications, or in person.
The Americans with Disabilities Act (ADA) opens more opportunities for persons
with disabilities. It also places certain responsibilities on employers, transit and
communication systems, state and local governments, and public accommodations. To
assist covered parties to understand and comply with the ADA, NIDILRR has funded
a network of grantees to provide information, training, and technical assistance to
businesses and agencies with duties and responsibilities under the ADA, as well as to
conduct ADA-related research. The current program includes ten regional centers, one
collaborative research center, and one ADA knowledge translation center.

Contents

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ADA Technical Assistance Projects
Region I - CT, ME, MA, NH, RI, and VT

New England ADA National Network Regional Center - Region I

Institute for Human Centered Design, Inc.
200 Portland Street, First Floor
Boston, MA 02114
adininfo@newenglandada.org
www.NewEnglandADA.org

Principal Investigator: Valerie Fletcher 617/695-1225, ext. 226
Public Contact: Oce Harrison, EdD, Project Director 800/949-4232 (V/TTY in CT, ME, MA, NH, RI, and VT), 617/695-1225 (V/TTY); Fax: 617/482-8099

Project Number: 90DP0023 (formerly H133A110028)
Start Date: October 01, 2011
Length: 60 months
NIDILRR Officer: Brian Bard
NIDILRR Funding: FY 11 $1,000,000; FY 12 $1,000,000; FY 13 $1,000,000; FY 14 $1,000,000; FY 15 $1,000,000

Abstract: The New England ADA Center meets the growing demands and complex challenges of providing outreach, training, technical assistance, information dissemination, and capacity building through Americans with Disabilities Act (ADA) network services. These services are tailored to meet the needs and preferences of people with rights and responsibilities under the ADA. Services include information and training for individual, business, and government needs at the local, regional, and national levels. To increase capacity building among priority audiences, the Center expands ADA network services with the following initiatives beyond the core services: (1) a set of new digital and interactive information tools that integrate recent ADA changes (Title II Action Guide, Title III Action Guide); (2) five new distance-learning courses in the format of web-based multi-media courses; and (3) new, in-person training packages related to accessible information and communication technology. The center addresses persistent gaps in the field in collaboration with the IHCD Studio that includes: (1) field-based training for cities and towns, (2) an eight-unit comprehensive course on ADA-accessible design for architects and designers, and (3) a hands-on training program for people with disabilities and other accessibility advocates on how to read an architectural drawing to check for compliance.
ADA Technical Assistance Projects
Region II - NJ, NY, PR, and VI

Northeast ADA National Network Regional Center - Region II

Cornell University
Office of Sponsored Programs
201 Dolgen Hall
Ithaca, NY 14853-3901
northeastada@cornell.edu
www.northeastada.org

Principal Investigator: Wendy Strobel Gower, Project Director
Public Contact: 800/949-4232 (V/TTY in NY, NJ, PR, and VI); 607/255-6751; Fax: 607/255-2763

Project Number: 90DP0071 (formerly H133A110020)
Start Date: October 01, 2011
Length: 60 months
NIDILRR Officer: Brian Bard
NIDILRR Funding: FY 11 $1,112,165; FY 12 $1,112,165; FY 13 $1,112,165; FY 14 $1,112,165; FY 15 $1,112,165

Abstract: The Northeast ADA Center at Cornell University provides a series of training programs, an extensive set of dissemination activities, and ongoing, on-demand technical assistance to inform Americans with Disabilities Act (ADA) stakeholders in federal Region II (New York, New Jersey, Puerto Rico, and the US Virgin Islands) of their rights and responsibilities under all titles of this law. The center provides a comprehensive series of five training sessions, four dissemination activities, three technical assistance components, and three collaboration projects. Additionally, the center conducts rigorous training with a network of new and advanced trainers; develops an online ADA-focused curriculum; develops online tools for mid-level managers and supervisors; educates on the ADA, and new DOJ and EEOC regulations; addresses emerging issues including veterans, emergency management, and IT accessibility; and offers continued on-demand training. Information dissemination via the web, e-mail, and phone complements the above training activities, while also focusing on maximizing outreach to diverse stakeholders. The goal of this center is to expand the availability and accessibility of information on the ADA, while building the capacity of networks of stakeholders to make use of this information with a long-term goal of increasing inclusion and integration of individuals with disabilities in all economic and social areas of everyday life.
ADA Technical Assistance Projects
Region III - DC, DE, MD, PA, VA, and WV

Mid-Atlantic ADA National Network Regional Center - Region III

TransCen, Inc.
401 North Washington Street, Suite 450
Rockville, MD 20850
adainfo@transcen.org
www.adainfo.org

Principal Investigator: Laura Owens, PhD
Public Contact: Marian S. Vessels, Project Director 800/949-4232 (V/TTY, in DC, DE, MD, PA, VA, and WV); 301/217-0124 (V/TTY); Fax: 301/217-0754

Project Number: 90DP0017 (formerly H133A110017)
Start Date: October 01, 2011
Length: 60 months

NIDILRR Officer: Brian Bard

NIDILRR Funding: FY 11 $1,110,141; FY 12 $1,110,141; FY 13 $1,110,141; FY 14 $1,110,141; FY 15 $1,110,141

Abstract: The Mid-Atlantic ADA Center (Region III) identifies and implements a variety of approaches designed to assist individuals with disabilities in gaining improved access to employment and other areas of community life. The Mid-Atlantic ADA Center implements an operational plan of specific objectives and tasks associated with four major project goals: (1) improving the understanding by individuals and entities of their rights and responsibilities under the Americans with Disabilities Act (ADA); (2) building the capacity of local and state entities to provide training, technical assistance, and information dissemination on ADA-related topics; (3) improving employment and other life outcomes of individuals with disabilities; and (4) increasing access by individuals with disabilities to lodging, restaurant, and other services from, as well as employment opportunities within, the hospitality industry. Project activities include: (1) training, technical assistance, and information dissemination to general ADA constituencies on all titles of the act; (2) outreach to individual statewide coalitions, AT consortiums, and regional training networks to increase the capacity of other organizations to provide locally focused training, technical assistance, and dissemination of all titles of the ADA; (3) identification of problematic areas where research and informational campaigns might aid in the avoidance of, or solutions to, problems associated with the access to programs, services, and facilities; and (4) research on organizational and individual factors that affect decisions to provide reasonable accommodations and result in employment outcomes.
ADA Technical Assistance Projects
Region IV - AL, FL, GA, KY, MS, NC, SC, and TN

Southeast ADA National Network Regional Center - Region IV

Syracuse University
Burton Blatt Institute
1419 Mayson Street
Atlanta, GA 30324
adasoutheast@law.syr.edu
www.adasoutheast.org

Principal Investigator: Peter D. Blanck, PhD, JD 315/443-9703
Public Contact: Pamela Williamson, Project Director 800/949-4232 (V/TTY, in AL, FL, GA, KY, MS, NC, SC, and TN); 404/541-9001 (V/TTY); Fax: 404/541-9002

Project Number: 90DP0019 (formerly H133A110021)
Start Date: October 01, 2011
Length: 60 months
NIDILRR Officer: Shelley Reeves
NIDILRR Funding: FY 11 $1,241,643; FY 12 $1,242,940; FY 13 $1,244,127; FY 14 $1,242,860; FY 15 $1,243,316

Abstract: The Southeast ADA Center Consortium consists of over 100 organizations and entities across 8 states representing all Americans with Disabilities Act (ADA) stakeholders, including people with disabilities, businesses, state and local government agencies, service providers, vocational rehabilitation agencies, and others. The Southeast ADA Center: (1) facilitates implementation of and compliance with the ADA through training, technical assistance, and broad dissemination of accurate, timely information; (2) conducts outreach to a diverse audience of stakeholders; (3) builds the ADA knowledge and implementation capacity of the state and local affiliates; and (4) advances the social, civic, and economic participation of people with disabilities through targeted outreach, knowledge translation, and capacity building in the region. The Center improves understanding by ADA stakeholders of their rights and responsibilities under the ADA and related laws, and improves knowledge about evidence-based best practices for advancing civil rights and increasing disability equality using a Knowledge-to-Action-based framework for knowledge translation that incorporates outreach, training, dissemination, technical assistance, and capacity-building to the next level and ensures behavioral and practice-oriented changes by ADA stakeholders. A comprehensive plan of continuous quality improvement and evaluation tracks these mid-term outcomes to demonstrate change across the region.
Great Lakes ADA National Network Regional Center - Region V

University of Illinois at Chicago
Department of Disability and Human Development (MC 626)
College of Applied Health Sciences
1640 West Roosevelt Road, Room 405
Chicago, IL 60608-6904
adata@adagreatlakes.org
www.adagreatlakes.org
www.ada-audio.org
www.accessibilityonline.org
www.accessibletech.org
www.adacaselaw.org
www.adat raining.org
www.adaconferences.org
www.qiat-ps.org

Principal Investigator: Robin A. Jones, Project Director 312/996-1059
Public Contact: 800/949-4232 (V/TTY, in IL, IN, MI, MN, OH, and WI); 312/413-1407 (V/TTY); Fax: 312/413-1856

Project Number: 90DP0024 (formerly H133A110029)
Start Date: October 01, 2011
Length: 60 months
NIDILRR Officer: Shelley Reeves
NIDILRR Funding: FY 11 $1,246,000; FY 12 $1,246,000; FY 13 $1,246,000; FY 14 $1,246,000; FY 15 $1,246,000

Abstract: The Great Lakes ADA Center promotes awareness and compliance with the Americans with Disabilities Act (ADA). Project goals and objectives center on the provision of high quality, timely, and accurate technical assistance, training, and material dissemination to identified target audiences. The Great Lakes ADA Center provides responsive and proactive services utilizing a comprehensive service delivery model. The technical assistance, training, and information needs of the individuals and their families, employers, business, government, educational entities, design professionals, and employment programs serving veterans with disabilities are part of an ongoing needs assessment, and programs and activities are tailored accordingly. Project activities and goals include: (1) operation of a toll-free number and use of current and emerging technologies for information and referral; (2) enhancement of the Center’s existing regional network of individuals and organizations who can provide on-site consultation, technical assistance, and training as needed; (3) conducting and sponsoring training events and activities at the local, state, and regional level focused on raising awareness of the ADA; (4) development and dissemination of technical assistance and training products and tools that are evidence based; (5) identification and dissemination of best practices related to the recruitment, hiring, and retention of qualified individuals with disabilities by employers and employment training programs; (6) promotion of the acquisition and utilization of accessible information technology by employers, business, government,
and educational institutions; and (7) utilization of existing and emerging technology to promote the exchange of information including websites, list servs, e-newsletters, mobile applications, social media, multi-faceted distance learning strategies and techniques, self-paced learning, and web-based assessment tools. Through partnerships and collaboration at the local, state, regional, and national level, the Center maximizes resources ensuring that a high quality and quantity of activity occurs.
Southwest ADA National Network Regional Center - Region VI

The Institute for Rehabilitation and Research (TIRR)
Independent Living Research Utilization (ILRU)
1333 Moursund Street
2nd Floor - ILRU Department.
Houston, TX 77030
swdbtac@ilru.org
www.southwestada.org

Principal Investigator: Lex Frieden, LLD
Public Contact: Vinh Nguyen, Project Director 800/949-4232 (V/TTY, in AR, LA, NM, OK, and TX); 713/520-0232 (V); 713/520-5136 (TTY); Fax: 713/520-5785

Project Number: 90DP0022 (formerly H133A110027)
Start Date: October 01, 2011
Length: 60 months
NIDILRR Officer: Shelley Reeves
NIDILRR Funding: FY 11 $1,110,822; FY 12 $1,110,958; FY 13 $1,110,458; FY 14 $1,111,192; FY 15 $1,111,032

Abstract: The Southwest ADA Center at ILRU provides outreach, training, technical assistance, information, dissemination, and capacity building to the target population of individuals and entities with rights and responsibilities under the Americans with Disabilities Act (ADA), including local, regional, and national groups representing stakeholders. Special target audiences include: minority individuals with disabilities, postsecondary institutions, small businesses, veterans with disabilities, individuals newly covered by the ADA Amendments Act (ADAAA) of 2008, employers, hospitality industry, and emergency preparedness professionals. The purpose of the Southwest ADA Center is to maximize the full inclusion and integration into society of individuals with disabilities, especially individuals with severe disabilities, and to improve services authorized under the Rehabilitation Act. The goal of the Center is to improve understanding by stakeholders of their rights and responsibilities under the ADA by implementing a sustained program of ADA Network Services, which include: (1) high impact training at national, regional, state, and local levels with a large cadre of experienced, qualified, and well-trained instructors using the highest quality training materials vetted by the ADA Knowledge Translation (KT) Center, other ADA Centers, affiliates, trainers, and targeted stakeholders, including materials from US Departments of Justice and Education, other ADA Centers, federally funded projects, and ILRU; (2) dissemination of knowledge about the rights and responsibilities of the ADA utilizing technology ranging from print mail to the latest popular social media tools and networking websites to reach the broadest audiences; (3) timely, relevant, accurate technical assistance activities that respond to the needs of individuals and entities that are well-managed, appropriately staffed, and evaluated regularly to identify trends to improve future services; (4) a collaborating group of 55+ experienced, skilled, and well-respected individuals and organizations from Region VI and around the country to assist ILRU’s highly skilled and experienced personnel in delivering proposed services to targeted stakeholders; (6) collaboration with the ADA KT Center to record and analyze data about stakeholder requests for information and services; and (7) enhancement of efficiency and effectiveness of the overall ADA Network Services by partnering with the ADA KT Center and Regional Centers to develop and distribute products and services relevant to ADA stakeholders in multiple regions.
Great Plains ADA National Network Regional Center - Region VII

University of Missouri at Columbia
100 Corporate Lake Drive
Columbia, MO 65203
ada@missouri.edu
www.gpadacenter.org
www.adasymposium.org

Principal Investigator: Jim de Jong, Project Director
Public Contact: 800/949-4232 (V/TTY, in IA, KS, MO, and NE); 573/882-3600 (V/TTY); Fax: 573/884-4925

Project Number: 90DP0020 (formerly H133A110022)
Start Date: October 01, 2011
Length: 60 months
NIDILRR Officer: Shelley Reeves
NIDILRR Funding: FY 11 $1,000,000; FY 12 $1,000,000; FY 13 $999,999; FY 14 $1,000,000; FY 15 $1,000,000

Abstract: The Great Plains ADA Center continues to expand services as the ADA National Network Regional Center for federal Region VII, serving Kansas, Iowa, Missouri, and Nebraska. The mission of the Center is to ensure the full opportunity for participation of persons with disabilities and their families in all facets of American life by providing professional-quality services to Americans with Disabilities Act (ADA) stakeholders. Target populations include all entities and individuals with disability-related issues that have rights and responsibilities under the ADA. The Great Plains ADA Center: (1) implements a sustained program of outreach, training, technical assistance, information dissemination, and capacity building (collectively ADA Network Services); (2) provides information to ADA stakeholders on both longstanding ADA requirements as well as the ADA Amendments Act, the 2010 Standards for Accessible Design, and subsequent judicial/regulatory changes; (3) identifies best practices through collaborative initiatives addressing emerging critical issues such as Olmstead implementation, emergency preparedness, and the professionalization of ADA Coordinators; (4) sponsors the National ADA Symposium, which offers a comprehensive matrix of training opportunities presented by nationally recognized authorities and experts in their fields; and (5) partners with the ADA Network Knowledge Translation Center and other ADA Regional Centers to develop, provide, and distribute ADA training and technical assistance materials and other informational products and services. Through a collaborative structure of partnerships with local, regional, and national organizations, the Center provides core service delivery of ADA knowledge to the stakeholders of Region VII.
ADA Technical Assistance Projects
Region VIII - CO, MT, ND, SD, UT, and WY

Rocky Mountain ADA National Network Regional Center - Region VIII

Meeting the Challenge, Inc.
3630 Sinton Road, Suite 103
Colorado Springs, CO 80907-5072
rstafford@mtc-inc.com
www.adainformation.org

Principal Investigator: Rachael Stafford, Project Director
Public Contact: 800/949-4232 (V/TTY, in CO, MT, ND, SD, UT, and WY); 719/444-0268 (V/TTY);
Fax: 719/444-0269

Project Number: 90DP0018 (formerly H133A110018)
Start Date: October 01, 2011
Length: 60 months

NIDILRR Officer: Pimjai Sudsawad, ScD
NIDILRR Funding: FY 11 $1,000,000; FY 12 $1,000,000; FY 13 $1,000,000; FY 14 $1,000,000; FY 15 $1,000,000

Abstract: The Rocky Mountain ADA Center provides information, guidance, and training on the Americans with Disabilities Act (ADA) tailored to meet the needs of individuals and organizations in Colorado, Montana, North Dakota, South Dakota, Utah, and Wyoming. The Center presents a comprehensive program of training, dissemination, and technical assistance activities designed to move toward full implementation of the ADA throughout the region. The Center continues its program of technical assistance based on the concept of mass customization to address the specific needs of stakeholders across the region. The training program takes advantage of technology and customized curricula to ensure maximum impact of training activities. Dissemination efforts provide tailored materials that offer actionable information for the specific needs of stakeholders. The Center also has an extensive plan of evaluation and ongoing regional needs assessment research to maximize the efficiency and effectiveness of the ADA Network services.
ADA Technical Assistance Projects
Region IX - AZ, CA, HI, NV, and the Pacific Basin

Pacific ADA National Network Regional Center - Region IX

Public Health Institute
555 12th Street, Suite 1030
Oakland, CA 94607-4046
adatech@adapacific.com
www.adapacific.org

Principal Investigator: Erica C. Jones, MPH 510/285-5600 (V/TTY)
Public Contact: 800/949-4232 (V/TTY, in AZ, CA, HI, NV, and the Pacific Basin); 510/285-5600 (V/TTY); Fax: 510/285-5614

Project Number: 90DP0021 (formerly H133A110024)
Start Date: October 01, 2011
Length: 60 months
NIDILRR Officer: Shelley Reeves
NIDILRR Funding: FY 11 $1,246,000; FY 12 $1,246,000; FY 13 $1,246,000; FY 14 $1,246,000; FY 15 $1,246,000

Abstract: The Pacific ADA Center implements an integrated, multi-dimensional initiative that facilitates enhanced awareness, understanding, compliance, and implementation of the Americans with Disabilities Act (ADA) in all states and territories within the region. The program places special emphasis on collaborations by expanding the existing Pacific Region ADA Network of affiliate and local community organizations to maximize meeting the grassroots-level needs of ADA stakeholders (such as employers, businesses, state and local governments, and individuals with disabilities), as well as the development of resources in the emerging areas of accessible information technology and emergency preparedness. Pacific ADA Center goals include: (1) improving understanding regarding rights and responsibilities and implementation of the Americans with Disabilities Act of 1990, as amended (ADA), the ADA Amendments Act of 2008 (ADAAA) and corresponding regulations for Title I from the US Equal Employment Opportunity Commission, the regulations for Title II and III of the ADA published by the US Department of Justice in 2010, as well as emerging compliance issues in information technologies and emergency preparedness, and continuing developments in ADA case law, policy, and implementation through comprehensive training, dissemination, and technical assistance activities to individuals with rights and responsibilities under the ADA; (2) improving understanding of ADA stakeholders’ needs for, and receipt of, Region IX services over time through data entry and analysis of Center activities in conjunction with the ADA National Network made up of the ADA Knowledge Translation (KT) Center and other ADA Regional Centers; and (3) enhancing the efficiency and effectiveness of ADA information dissemination, awareness, and referral activities by establishing effective, coordinated local, regional, and national resource networks, including by partnering with the ADA KT Center and other regional ADA Centers to develop, implement, and evaluate materials, products, trainings, and services that are useful to ADA stakeholders. The Pacific ADA Center conducts a comprehensive evaluation that monitors the quality, scope, and effectiveness of all Center programs and activities, including a quantitative evaluation program that tracks programmatic outputs related to Center services, and a qualitative evaluation program designed to assess the impacts and outcomes of its work.
ADA Technical Assistance Projects
Region X - AK, ID, OR, and WA

Northwest ADA National Network Regional Center - Region X

University of Washington
The Center for Continuing Education in Rehabilitation
6912 220th Street SW, Suite 105
Mountlake Terrace, WA 98043
nwadactr@uw.edu
www.nwadacenter.org

**Principal Investigator:** Kathe Matrone, PhD 425/771-7436
**Public Contact:** Michael Richardson, Project Director 800/949-4232 (V/TTY, AK, ID, OR, and WA); 425/248-2480 (V); Fax: 425/774-9303

**Project Number:** 90DP0016 (formerly H133A110015)
**Start Date:** October 01, 2011
**Length:** 60 months
**NIDILRR Officer:** Shelley Reeves

**NIDILRR Funding:** FY 11 $1,000,000; FY 12 $1,000,000; FY 13 $1,000,000; FY 14 $1,000,000; FY 15 $1,000,000

**Abstract:** The purpose of the ADA National Network Regional Center – Region X (Northwest ADA Center) is to provide a sustained program of outreach, training, technical assistance, information dissemination, and capacity building to Americans with Disabilities Act (ADA) stakeholders in Region X. These ADA Network Services assist any individual or entity with rights and responsibilities under the ADA in understanding those rights and responsibilities. These services address established ADA requirements, more recent legislative and regulatory changes, as well as information in emerging areas. The Northwest ADA Center also participates with the ADA Knowledge Translation Center and other ADA Regional Centers in assessing the needs and documenting the receipt of ADA Network Services, as well as enhancing efficiency and effectiveness of ADA Network Services. The Northwest ADA Center achieves these outcomes through three major delivery strategies: (1) services provided throughout the region (regional office activities), (2) state anchor activities (state partners in AK, ID, OR, WA), and (3) community impact partners (local partners). Project activities within these delivery strategies include: outreach; training; technical assistance; dissemination of information; capacity building; maintaining online resources (i.e. website, databases); developing projects and tools; offering distance education; data analysis and needs determination; and identifying, developing, and maintaining local partnerships and collaborations.
ADA Technical Assistance Projects  
Texas

ADA Participation Action Research Consortium

The Institute for Rehabilitation and Research (TIRR)  
Independent Living Research Utilization (ILRU)  
2323 South Shepherd, Suite 1000  
Houston, TX 77030  
swdbtac@ilru.org  
centerondisability.org/ada_parc/index.php

Principal Investigator: Lex Frieden, LLD; Joy Hammel, PhD, OTR/L; 713/520-0232; 312/996-3513  
Public Contact: Lex Frieden, LLD 713/797-7116 (V); 713/520-5136 (TTY); Fax: 713/520-5785

Project Number: 90DP0026 (formerly H133A120008)  
Start Date: October 01, 2012  
Length: 60 months  
NIDILRR Officer: Pimjai Sudsawad, ScD  
NIDILRR Funding: FY 12 $613,091; FY 13 $614,007; FY 14 $613,688; FY 15 $613,828; FY 16 $613,651

Abstract: This project examines what factors are influencing societal participation of citizens with disabilities within and at community and regional levels. The project conducts multiregional strategic gap analyses across three primary participation areas mandated by the ADA: community living, community participation, and work/economic. This includes mining of existing large population and community datasets to inform the benchmarking of key participation disparities and promising practices at state, regional, and community levels, as well as collecting new individual data with people who are trying to move out of nursing homes and institutions to the community post-ADA and Olmstead Decision to add their participation experiences and issues, a voice that has not been represented in existing ADA and participation research. As a second aim, this consortium of ADA Regional Centers and a network of disability and ADA stakeholders utilizes a participatory Strategic Gap Analysis process to (1) identify key indicators of high priority and high feasibility to collect in communities, (2) create a Community Participation Action Toolkit (CPAT) for assessing these indicators within communities, (3) pilot test this Toolkit within 18 communities across 6 collaborating ADA Center regions, (4) analyze results and translate back to communities in the form of benchmarking reports, and (5) create a toolkit of resources to accompany CPAT for both ADA Centers and community stakeholders to plan initiatives in their communities to reduce disparities and increase full participation. The aim is to create a tool and a systematic process for assessing community participation at the community level that could be shared with communities via the ADA Center collaboration, and formally linked to ADA Center information resources and technical assistance, as well as future participatory research initiatives.
Capacity Building for Rehabilitation Research and Training

A stated objective of NIDILRR’s 2013-2017 long-range plan is to provide for the training of emerging talent and leadership in research and development. To that end, NIDILRR builds the Nation’s capacity to conduct research and development activities that make positive contributions to the lives of individuals with disabilities across the domains of employment, community living and participation, and health and function. Activities funded in this area include fellowship and advanced rehabilitation research training programs where emerging talent and leadership in research and engineering are developed. These activities include opportunities for individuals with disabilities as well as individuals from minority backgrounds.

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Rehabilitation Research and Training Centers (RRTCs)
Oklahoma

Langston University Rehabilitation Research and Training Center on Research and Capacity Building for Minority Entities

Langston University
Department of Rehabilitation Counseling and Disability Studies
4205 North Lincoln Boulevard, Suite 102
Oklahoma City, OK 73105
clmoore@langston.edu
www.langston.edu/capacitybuilding-rrtc

Principal Investigator: Corey L. Moore, RhD
Public Contact: 405/530-7530; Fax: 405/962-1638

Project Number: 90RT5024 (formerly H133B130023)
Start Date: October 01, 2013
Length: 60 months
NIDILRR Officer: Shelley Reeves
NIDILRR Funding: FY 13 $875,000; FY 14 $875,000; FY 15 $875,000; FY 16 $875,000; FY 17 $875,000

Abstract: This project engages minority entities (MEs) to generate new knowledge leading to improved outcomes for persons from traditionally underserved racial and ethnic populations and communities and to enhance research capacity and infrastructure at minority-serving institutions. The project works with six MEs to address research infrastructure challenges and enhance the research skills of their individual faculty scholars and students. The following themes are addressed through five major studies and numerous capacity-building activities: (1) describe and evaluate an emerging research team mentorship model across six different MEs; (2) examine factors that contribute to disability and rehabilitation research leaders’ career development and success to increase the number of talented researchers available to mentor ME junior investigators; (3) forecast the impact of new US citizen and legal permanent resident populations and trends on state vocational rehabilitation agencies’ (SVRAs) systems capacity to serve immigrants of color with disabilities; (4) describe SVRAs and Veteran Affairs co-service strategies aimed at placing veterans of color with disabilities into employment; (5) examine ME faculty scholars’ personal/intrinsic factors and extrinsic rewards that motivate them to conduct disability and rehabilitation research; and (6) pilot-test an emerging research capacity-building and infrastructure model across six different MEs. This project is developing and implementing a partnership plan that ensures that all activities are predominantly focused on research capacity and infrastructure building. The project plans a state-of-the-science conference in the fourth year to discuss the research topics identified and devotes attention to demonstrating how findings are translated to practical applications in research, service initiatives, and policy development for persons of color with disabilities and ME research capacity-building efforts.
The Refined Health Action Process Approach for Physical Activity
Self-Regulation in People with MS

Chung-Yi Chiu, PhD
1206 South 4th Street
Champaign, IL 61820-6953
chiucy@illinois.edu

Principal Investigator: Chung-Yi Chiu, PhD
Public Contact: 217/244-6435

Project Number: 90SF0011
Start Date: September 30, 2015
Length: 12 months
NIDILRR Officer: Theresa San Agustin, MD
NIDILRR Funding: FY 15 $70,000

Abstract: This project evaluates an expanded and refined Health Action Process Approach (ReHAPA) model to promote physical activity (PA) for people with multiple sclerosis (MS). Physical activity (PA) has considerable benefits for people with MS, yet many persons with this immune-mediated disease of the central nervous system are physically inactive and sedentary. Recent evidence indicates that nearly 80% of people with MS are not meeting public health guidelines for moderate-to-vigorous PA, and PA levels further decrease over time in persons with relapsing-remitting MS. This information indicates that many people with MS are not benefiting from PA as a health promotion behavior, and accordingly may have increased risks of other comorbid conditions such as obesity, cardiovascular disease, and type-II diabetes. ReHAPA is a theory-driven motivational model of PA promotion for people with MS. The model includes seven latent variables: antecedents of motivation, barriers and facilitators, multiphasic self-efficacy, motivation, props of volition, self-regulation skills, and PA. The study will provide useful information on motivational and volitional factors influencing PA behaviors in people with MS and findings can be used to design an effective PA intervention for people with MS.
Creating a Multidimensional Model of Engagement for Young Adult with Psychiatric Disabilities in Adult System Team-Based Community Outreach and Support Services

Vanessa Vorhies Klodnick, PhD, LCSW
4101 North Ravenswood Avenue
Chicago, IL 60613-2193
v.v.klodnick@gmail.com

Principal Investigator: Vanessa Vorhies Klodnick, PhD, LCSW
Public Contact: 773/844-7380

Project Number: 90SF0008
Start Date: September 30, 2015
Length: 12 months
NIDILRR Officer: Kenneth D. Wood, PhD
NIDILRR Funding: FY 15 $70,000

Abstract: Evidence-based practices are needed that both engage and support young people with serious mental health conditions in tackling the many challenges the transition to adulthood poses. This project examines engagement processes of adult system team-based community outreach and support services aimed at supporting community integration and independent living among young adults with psychiatric disabilities. The specific aims of this study are to: (1) investigate how adult system team-based services aimed at supporting community integration and independence engage young adults; (2) explore how engagement is impacted by individual, family, and system level processes; (3) examine characteristics and patterns of “engagement” in team-based community outreach and support services through triangulation of data sources; and (4) develop a multidimensional definition of engagement and model explaining engagement specifically for young adults in team-based community outreach and support services.
Promoting Community-Based Physical Activity Early Post-Stroke: An Adaptation of the 14-Weeks to a Healthier You Program

Carmen E. Capo-Lugo, PhD
633 North Saint Clair Street; 20th Floor
Chicago, IL 60611-3234
carmen.capolugo@northwestern.edu

Principal Investigator: Carmen E. Capo-Lugo, PT, PhD
Public Contact: 312/503-3742

Project Number: 90SF0010
Start Date: September 30, 2015
Length: 12 months
NIDILRR Officer: Kenneth D. Wood, PhD
NIDILRR Funding: FY 15 $70,000

Abstract: This project develops a patient-centered program that promotes the maintenance of healthy levels of community-based physical activity immediately after discharge from acute rehabilitation following stroke. Although mortality due to stroke is decreasing, stroke continues to be a leading cause of serious long-term disability. Stroke commonly causes mobility disabilities that impair daily physical activity and, in turn, physical inactivity is associated with a greater risk for stroke recurrence and the development of cardiovascular comorbidities. While rehabilitation can reduce disability caused by stroke, functional recovery is often halted once rehabilitation services stop. Hence, a particularly critical period is that which immediately follows rehabilitation discharge, in which individuals post-stroke must engage in sustained physical activity and long-term healthy behaviors in order to continue with their functional recovery and prevent stroke-related comorbidities. The specific aims of this project are to: (1) identify post-stroke facilitators and barriers to community-based physical activity by means of questionnaires and focus groups and (2) adapt the physical activity program, “14-Weeks to a Healthier You”, to enhance its patient-centeredness and address the needs of individuals post-stroke. The resulting stroke-adapted physical activity program could be used as a resource to bridge the end of rehabilitation with community-based physical activity.
Timing and Dosage of Intermittent Hypoxia Therapy for Persons with Spinal Cord Injury

Milapjit Singh Sandhu, PhD
300 South Maple Avenue, Apt. A2
Oak Park, IL 60302-3426
m-sandhu@northwestern.edu

Principal Investigator: Milapjit Singh Sandhu, PhD
Public Contact: 312/238-6529

Project Number: 90SF0013
Start Date: September 30, 2015
Length: 12 months
NIDILRR Officer: Theresa San Agustin, MD
NIDILRR Funding: FY 15 $70,000

Abstract: This project aims to establish the time-course and dosage of acute intermittent hypoxia (AIH), a novel therapeutic intervention for improvement of lower extremity function after spinal cord injury (SCI). AIH refers to brief (<2 min) exposures to a relatively mild hypoxia (i.e. low oxygen levels), which have been shown to significantly augment neuromotor function after SCI, as measured by ankle torque, gait speed, gait endurance, and muscle EMG. The project addresses two elemental questions in individuals with incomplete SCI: (1) What is the time-course of improvement and decay of outcome measures following a single session of AIH therapy? (2) How do we distribute serial AIH therapy sessions based on the time-course of performance decay following the first session? Results will be presented at leading conference and made available online to researchers and clinicians.
Processing Speed Deficits in Multiple Sclerosis: Exploring the Complex Sensorial Cognitive Motor Interaction

Silvana Lopes Costa, PhD
333 River Street, Apt 1016
Hoboken, NJ 07030
silvanalopescosta@gmail.com

Principal Investigator: Silvana Lopes Costa, PhD
Public Contact: 973/204-1342

Project Number: 90SF0012
Start Date: September 30, 2015
Length: 12 months
NIDILRR Officer: Kenneth D. Wood, PhD
NIDILRR Funding: FY 15 $70,000

Abstract: This project examines the impact of sensorial, cognitive, and motor impairments on information processing speed (IPS) in individuals with multiple sclerosis (MS). Despite the prevalence and impact of sensorial, cognitive and motor impairments in MS, the interactions between the three and their impact on IPS is poorly understood. This is critical given that in order to process information one needs to execute a series of basic processing steps that can be individually vulnerable to brain pathology. This project: (1) assesses the integrity of each of three functions (sensorial, cognitive, and motor) essential to process information efficiently (both accurately and temporally); examines the interaction between sensorial speed (temporal dynamics of visual processing), cognitive speed (attention, learning, and working memory), and motor speed (ocular-motor function and speech rate) on the execution of cognitive tasks often used in clinical and research settings as MS cognitive diagnostic tests (e.g. Symbol Digit Modalities Test); and tests the impact of deficits in these three information processing speed processes (sensorial, cognitive, and motor speed) on quality of life. The goal is to provide researchers and clinicians with more fine-graded diagnostic instruments that will most effectively identify IPS deficits in MS, with the potential to be extended to other neurological disorders. In addition, the results of this study will allow researchers to focus rehabilitation efforts on the source of the deficit.
**Motivational Influences on Cognitive Fatigue in Individuals with Traumatic Brain Injury**

Ekaterina Dobryakova  
Kessler Foundation  
Traumatic Brain Injury Research  
1199 Pleasant Valley Way  
West Orange, NJ 07052  
edobryakova@kesslerfoundation.org

**Principal Investigator:** Ekaterina Dobryakova, PhD  
**Public Contact:** 862/250-7323

**Project Number:** 90SF0009  
**Start Date:** September 30, 2015  
**Length:** 12 months  
**NIDILRR Officer:** Kenneth D. Wood, PhD  
**NIDILRR Funding:** FY 15 $70,000

**Abstract:** This goal of this project is to identify whether motivation is a factor that impacts cognitive fatigue in individuals with traumatic brain injury (TBI) and if it can lead to the development of effective interventions that reduce cognitive fatigue and improve the quality of life in those with TBI. It has been suggested that cognitive fatigue is due to a disruption of the functioning of the fronto-striatal network, leading to an effort-reward imbalance. The striatum and the ventromedial prefrontal cortex play a vital role in effort calculation and reward valuation. This study investigates whether rewards associated with performing a task can modulate the expression of cognitive fatigue in individuals with TBI. Participants with and without TBI undergo functional MRI while performing a task that includes a reward and a no reward condition. During the reward condition, participants have a chance to receive a monetary reward, but not during the no reward condition, with fatigue ratings acquired at intervals during the scan. The study also examines functional and structural connectivity of the network to assess whether fatigue levels are related to the strength of functional and/or structural connectivity. Results are used to develop an intervention that involves self-motivation as a tool to cope with cognitive fatigue.
Advanced Rehabilitation Research Training Projects (ARRTs)
California

Advanced Rehabilitation Research Training in Neuromuscular and Neurodevelopmental Disorders

Regents of the University of California at Davis
Department of Physical Medicine and Rehabilitation
One Shields Avenue
Davis, CA 95616-8655
www.ucdmc.ucdavis.edu/pmr/education/fellowship.html

Principal Investigator: Craig M. McDonald, MD 916/734-2923
Public Contact: Patricia Settje, Education Coordinator 916/734-5292; Fax: 916/34-7838

Project Number: 90AR5008 (formerly H133P110005)
Start Date: October 01, 2011
Length: 60 months

NIDILRR Officer: Theresa San Agustin, MD

NIDILRR Funding: FY 11 $150,000; FY 12 $150,000; FY 13 $150,000; FY 14 $150,000; FY 15 $150,000

Abstract: The Advanced Rehabilitation Research Training at UC Davis (ARRT) provides core research methodology training, advanced research training, research experience, mentorship, and career development support for clinicians, allied health professionals, and post-doctoral students committed to developing productive careers in rehabilitation research. The aim of the ARRT is to produce rigorously-trained, extramurally-competitive, and scientifically-productive independent investigators or physician-scientists who improve the health outcomes, participation, and quality of life of individuals with disabilities. Over the course of five years, this ARRT trains 10 postdoctoral or physician trainees in a two-year comprehensive program to develop specialized and multidisciplinary research skills. The focus of the research training is a mentored period of hypothesis-driven clinical research in areas related to the rehabilitation of individuals with neuromuscular diseases or neurodevelopmental disorders. The training provides core research competency in the following areas: (1) rehabilitation concepts and research methodology, (2) clinical epidemiology and study design, (3) methods in clinical research, (4) strategies for writing grants and publications, (5) health informatics, (6) medical statistics, and (7) responsible conduct of research. Advanced coursework and clinical training in neuromuscular diseases and neurodevelopmental disorders completes the didactic coursework. Each trainee is required to develop his/her own research project and grant proposal, author a scientific publication, and present findings at professional meetings and conferences. Rigorous and periodic assessment of the individual trainee’s progress, as well as a periodic evaluation of the training program, ensure the development of successful research training providing a research foundation that cultivates continual mentorship and provides multidisciplinary research opportunities for trainees to engage in productive careers that benefit the lives of individuals with neuromuscular and neurodevelopmental disorders.
Advanced Rehabilitation Research Training Projects (ARRTs)
District of Columbia

Advanced Rehabilitation Research Training in Neurorehabilitation

Georgetown University
Department of Neuroscience Research
Department of Neuroscience Research Building EP09
3970 Reservoir Road NW
Washington, DC 20007
bregmanb@georgetown.edu
www.neuro.georgetown.edu

Principal Investigator: Barbara S. Bregman, PhD
Public Contact: 202/687-1452; Fax: 202/687-1617

Project Number: 90AR5005 (formerly H133P100015)
Start Date: October 01, 2010
Length: 60 months

NIDILRR Officer: Margaret Campbell, PhD
NIDILRR Funding: FY 10 $150,000; FY 11 $150,000; FY 12 $150,000; FY 13 $150,000; FY 14 $150,000; FY 15 (No-cost extension through 9/29/2016)

Abstract: This project develops a comprehensive training program incorporating hands-on research experience within a high-quality laboratory setting for post-doctoral fellows focusing on the recovery of function after a central nervous system (CNS) injury. This training program targets individuals with advanced rehabilitation-related degrees (physicians, physiatrists, neurologists, neurosurgeons, PhD trained physical and occupational therapists, and biomedical engineers). The program co-directors and training faculty are experienced mentors and researchers with both clinical and basic science experience in nervous system responses to CNS injury and recovery of function. This project promotes interactions between basic and clinical research to develop effective interventions and promote functional recovery after CNS injuries, such as brain and spinal cord trauma and stroke. Didactic courses provide a firm basis in all areas of neuroscience research, including the basic sciences, the clinical aspects of neurological disorders, clinical research methodology, and cutting-edge technologies. Participating fellows receive formal training through courses, workshops, and seminars covering such topics as scientific writing, grant preparation, teaching methodologies, scientific resources and technologies for neuroscience research, and ethics in science and research, with guidance in career opportunities. Additionally, participating fellows receive personalized career mentoring and assistance in developing the specific skills necessary for career success. This project’s goal is to provide the strongest possible education for early career development of neuroscience rehabilitation researchers while contributing to rehabilitation research and improving the quality of life for individuals with spinal cord injury, traumatic brain injury, and stroke.
Advanced Rehabilitation Research Training Projects (ARRTs)
Florida

Advanced Rehabilitation Research Training Project (ARRT)

University of Florida
BLDG 212, Room 2107A
Gainesville, FL 32611
wmann@phhp.ufl.edu

Principal Investigator: William C. Mann, PhD
Public Contact: 352/273-6883

Project Number: 90AR5017 (formerly H133P130009)
Start Date: October 01, 2013
Length: 60 months
NIDILRR Officer: Margaret Campbell, PhD
NIDILRR Funding: FY 13 $150,000; FY 14 $150,000; FY 15 $150,000; FY 16 $150,000; FY 17 $150,000

Abstract: This project partners with the Veterans Health Administration to train postdoctoral fellows in conducting high-quality, multidisciplinary disability policy research in the area of community living and participation for veterans with disabilities. This project collaborates with a two-site Center of Innovation for Disability and Rehabilitation Research (CINDRR) to bring opportunities to the project fellows through immediate experience in ongoing disability policy-related projects focused on veterans with disabilities. Through the training program, the project (1) increases capacity in the field by providing postdoctoral training in disability policy research to six postdoctoral fellows, including at least one fellow from a minority or underserved population; (2) conducts disability policy research, which results in fellow participation in 10 collaborative research projects, 10 conference presentations, 10 research grant proposals, and 10 peer-reviewed publications; and (3) advances each postdoctoral fellow to the next stage in their research career through career development support. Dissemination activities include a Disability and Rehabilitation Policy Seminar, planned and implemented by fellows, which provides practical experience in establishing a network for research dissemination.
Advanced Rehabilitation Research Training Projects (ARRTs)
Illinois

Advanced Training in Translational and Transformational Research to Improve Outcomes for People with Disabilities

The Board of Trustees of the University of Illinois
Disability and Human Development Applied Health Sciences
1640 West Roosevelt Road
Chicago, IL 60608-6904
theller@uic.edu

Principal Investigator: Tamar Heller, PhD; Yolanda Suarez Balcazar, PhD; Alexander S. Aruin, PhD
Public Contact: 312/413-1467; Fax: 312/996-6942

Project Number: 90AR5007 (formerly H133P110004)
Start Date: October 01, 2011
Length: 60 months
NIDILRR Officer: Margaret Campbell, PhD
NIDILRR Funding: FY 11 $149,988; FY 12 $149,989; FY 13 $149,826; FY 14 $149,978; FY 15 $149,987

Abstract: The University of Illinois at Chicago provides an intensive, interdisciplinary postdoctoral training program that actively engages scholars in research designed to improve the health, employment, and community engagement and participation outcomes for persons with disabilities. This advanced training program focuses on sub-populations of persons with disabilities who are most likely to encounter the greatest number of barriers in community life: minorities, persons with intellectual and developmental disabilities, persons with severe physical disabilities, and older adults. The training program emphasizes preparing scholars to conduct research that has real-world impact (i.e., guiding and changing services, programs, organizations, and policies that influence the lives of persons with disabilities). Areas of emphasis include: (1) translational scholarship that uses empirical knowledge to develop, refine, and test optimal services and environmental strategies to support these outcomes; and (2) transformational scholarship that employs participatory methodologies that involve stakeholders in the research process and directly improve services, programs, organizations, and policies. The postdoctoral training program recruits and enrolls seven highly qualified postdoctoral fellows from a variety of disciplines. Particular effort is made to recruit postdoctoral trainees with disabilities as well as those from ethnically diverse backgrounds. Each trainee completes an intensive advanced-training program (average of two years) designed to assure acquisition of key skills critical to successful research careers. The training program includes: (1) didactic preparation, (2) close mentoring by highly qualified researchers, (3) immersion in ongoing research, and (4) field placement in carefully selected programs or organizations that serve the target populations. Each trainee’s program is individually designed to assure that the trainee has access to the most rigorous and relevant concepts and research methodologies for his/her chosen focus (health promotion, employment, and/or community engagement and participation). The project monitors and assures high-quality training, and supports trainees to develop capacity to enter productive research careers that directly improve services, programs, policies, and societal attitudes toward people with disabilities.
Rehabilitation Sciences for Engineers and Basic Scientists: 
An Advanced Training Program

Northwestern University 
Feinberg School of Medicine 
Department of Physical Medicine & Rehabilitation 
345 East Superior Street, Room 1406 
Chicago, IL 60611 
l-zhang@northwestern.edu 
www.ric.org/aboutus/people/doctors/detail/?id=112

Principal Investigator: Li-Qun Zhang, PhD
Public Contact: 312/238-4767; Fax: 312/238-2208

Project Number: 90AR5010 (formerly H133P110013) 
Start Date: October 01, 2011 
Length: 60 months
NIDILRR Officer: Thomas Corfman
NIDILRR Funding: FY 11 $149,902; FY 12 $149,987; FY 13 $149,947; FY 14 $149,946; FY 15 $149,968

Abstract: The goal of this program is to increase the number of postdoctoral engineers and scientists trained to perform research aimed at solving problems of persons with disabilities. To meet this objective, special attention is given to the following areas of expertise: neurologic disorders, musculoskeletal injuries, biomechanics, and prosthetics and orthotics. Targeted technical and scientific training is provided by faculty with relevant technical expertise in multiple departments at Northwestern University. This training is coordinated with intensive clinical and scientific instruction, and experience provided by faculty with relevant clinical expertise in multiple departments of the university. Postdoctoral trainees also receive training and develop experience in community-based settings. Postdoctoral trainees are recruited using regional and national advertising in appropriate engineering and scientific publications, and via appropriate web advertising and email list-servers. With the help of national organizations dedicated to improving minority participation in science, minority scientists/engineers are recruited to participate in the training programs. Similar efforts are made to attract scientists and engineers with disabilities.
Advanced Rehabilitation Research Training: Interventions for Neurologic Communication Disorders

Northwestern University
Feinberg School of Medicine
Department of Physical Medicine & Rehabilitation
345 East Superior Street
Chicago, IL 60611
lcherney@ric.org

Principal Investigator: Leora R. Cherney, PhD
Public Contact: 312/238-1117; Fax: 312/238-2208

Project Number: 90AR5015 (formerly H133P120013)
Start Date: October 01, 2012
Length: 60 months
NIDILRR Officer: Margaret Campbell, PhD
NIDILRR Funding: FY 12 $149,278; FY 13 $148,077; FY 14 $149,900; FY 15 $149,990; FY 16 $149,083

Abstract: This training program targets individuals with advanced degrees in communication sciences and disorders and related fields, and engages them in rehabilitation research activities designed to address the communication needs of persons with disabilities. The program is structured to provide two years of intensive training to four post-doctoral fellows who are committed to a career in rehabilitation research. Fellows are supervised by a team of multidisciplinary mentors in a comprehensive program that has three major components: (1) didactic training, (2) a mentored clinical experience in stroke, traumatic brain injury (TBI), Parkinson’s disease, or other neurological disorder, and (3) immersion in a research practicum. The research practicum includes participation in ongoing research projects, and development and implementation of an independent research project. The capstone experience is the preparation and submission of a competitive grant application to an extramural funding agency.
Advanced Rehabilitation Research Training Projects (ARRTs)
Illinois

Northwestern University Advanced Rehabilitation Research Training (ARRT) Program

Northwestern University
Rehabilitation Institute Research Corporation
Center for Rehabilitation Outcomes Research
345 East Superior Street
Chicago, IL 60611-2654
a-heinemann@northwestern.edu

Principal Investigator: Allen W. Heinemann, PhD
Public Contact: 312/238-2802; Fax: 312/238-4572

Project Number: 90AR5019 (formerly H133P130013)
Start Date: October 01, 2013
Length: 60 months
NIDILRR Officer: Margaret Campbell, PhD
NIDILRR Funding: FY 13 $150,000; FY 14 $150,000; FY 15 $150,000; FY 16 $150,000; FY 17 $150,000

Abstract: This project provides an integrated, interdisciplinary, collaborative training program for early-career scholars focusing on rehabilitation-related health services research. Health services faculty work closely with fellows to provide a rigorous and relevant interdisciplinary curriculum, integrating faculty and programs from diverse departments and centers into a unified health services research training program. Through this program, six post-doctoral fellows will develop new skills to enhance their previous training in order to pursue a research career in rehabilitation-related health services research. The program includes carefully matched mentors, didactic course work, original research, grant writing, and scientific publishing over a two-year period.
Advanced Rehabilitation Research Training Projects (ARRTs)
Illinois

Advanced Training in Translational and Engaged-Scholarship to Improve Community Living and Participation of People with Disabilities

The Board of Trustees of the University of Illinois
809 South Marshfield, Room 520
Chicago, IL 60612-4305
ysuarez@uic.edu

Principal Investigator: Yolanda Suarez-Balcazar, PhD 312/413-0117
Public Contact: 312/413-1467; Fax: 312/996-6942

Project Number: 90AR5023
Start Date: September 30, 2015
Length: 60 months
NIDILRR Officer: Thomas Corfman
NIDILRR Funding: FY 15 $148,245; FY 16 $148,438; FY 17 $149,550; FY 18 $149,852; FY 19 $149,426

Abstract: This project provides an interdisciplinary postdoctoral training program that actively engages scholars in research designed to improve the community living and participation outcomes for persons with disabilities. The advanced-training program focuses on sub-populations of people with disabilities who are most likely to encounter the greatest number of barriers in community life: minorities, persons with intellectual and developmental disabilities, persons with severe physical disabilities, and older adults with impairments. Moreover, the training program prepares scholars to conduct research that has real world impact (i.e., guiding and changing services, programs, organizations, and policies that influence the lives of persons with disabilities). As such, it emphasizes: (a) translational scholarship that uses empirical knowledge to develop, refine, and test optimal community participation assessment instruments, services, and environmental strategies to support these outcomes; and (b) engaged-scholarship whose premise is that knowledge is generated by researchers, practitioners, and individuals with disabilities and other stakeholders collaborating not only to generate theory and research but also to advance practice. Trainees complete an intensive advanced training program designed to assure acquisition of key skills critical to successful research careers. The training program includes: didactic preparation, close mentoring by researchers, immersion in ongoing research, and field placement in programs or organizations that serve the target populations. The project supports trainees to develop capacity to enter productive research careers that directly improve services, programs, policies, and societal attitudes toward people with disabilities.
Advanced Rehabilitation Research Training Projects (ARRTs)
Maryland

University of Maryland Advanced Neuromotor Rehabilitation Research Training (UMANRRT)

University of Maryland, Baltimore
School of Medicine
655 West Baltimore Street
Baltimore, MD 21201
mmartinez@som.umaryland.edu

Principal Investigator: Mark W. Rogers, PhD 410/706-0841
Public Contact: Monica Martinez 410/706-1771

Project Number: 90AR5004 (formerly H133P100014)
Start Date: October 01, 2010
Length: 60 months
NIDILRR Officer: Margaret Campbell, PhD
NIDILRR Funding: FY 10 $150,000; FY 11 $150,000; FY 12 $150,000; FY 13 $150,000; FY 14 $150,000; FY 15 (No-cost extension through 9/29/2016)

Abstract: The University of Maryland Advanced Neuromotor Rehabilitation Training (UMANRRT) program trains post-doctoral fellows in interdisciplinary rehabilitation research with a primary focus on neuromuscular disorders including Parkinson’s disease and stroke. The UMANRRT program targets doctorally prepared professionals with backgrounds in bioengineering, physical therapy, occupational therapy, and the movement sciences. The overall goal of the UMANRRT program is training post-doctoral fellows to further develop and refine the skills needed to conduct high-quality, independent, interdisciplinary, funded research in the rehabilitation of clinical populations with neuromotor disorders. Specific project objectives include: (1) recruiting and selecting highly qualified candidates to become UMANRRT post-doctoral fellows; (2) providing a scientifically-based, multidisciplinary training program that includes collaboration among affiliated institutions; (3) providing mentoring and collaborative opportunities with established researchers at University of Maryland at Baltimore and affiliated institutions; (4) providing fellows with interdisciplinary neuromotor rehabilitation research leadership experience by involving them in research projects where at least one is led by the fellow; (5) providing opportunities for participation in presentations, publications, and grant development; and (6) providing opportunities to develop teaching and mentoring skills for transitioning to a junior faculty role.
Advanced Rehabilitation Research Training Projects (ARRTs)
Massachusetts

Post-Doctoral Training in Rehabilitation Outcomes Measurement Research

Trustees of Boston University, BUMC HDRI
School of Public Health
Health and Disability Research Institute
715 Albany Street
Talbot Building 5 West
Boston, MA 02118
mslavin@bu.edu
sph.bu.edu/HDRI/health-and-disability-research-institute/menu-id-617420.html

Principal Investigator: Alan M. Jette, PT, PhD 617/638-1985
Public Contact: Mary Slavin, PhD 617/638-1987; Fax: 617/638-1999

Project Number: 90AR5012 (formerly H133P120001)
Start Date: October 01, 2012
Length: 60 months
NIDILRR Officer: Dawn Carlson, PhD, MPH
NIDILRR Funding: FY 12 $149,999; FY 13 $149,999; FY 14 $149,999; FY 15 $149,999; FY 16 $149,999

Abstract: This project addresses a gap in medical rehabilitation residency programs, rehabilitation therapists training programs, and PhD programs in rehabilitation sciences in providing optimal training and mentoring in outcome measurement theory and methodology. This post-doctoral fellowship training program helps rehabilitation researchers develop and refine the contemporary outcomes measurement skills they will need to conduct high quality, independent rehabilitation research. Participating fellows obtain advanced knowledge in contemporary measurement theory and methodology, advanced research design, and statistical methods; work as part of a sophisticated research team and under direct supervision from an experienced research mentor; write scientific abstracts, presentations, and publications; develop skills in the responsible conduct of research and working with consumers; obtain experience in developing and presenting scientific presentations; and develop skills in writing research grant applications.
Advanced Rehabilitation Research Training Projects (ARRTs)
Massachusetts

Advanced Research Training Program in Employment and Vocational Rehabilitation of Persons with Psychiatric Disabilities

Boston University
Sargent College of Health and Rehabilitation Sciences
940 Commonwealth Avenue West
Boston, MA 02215-1303
zlatka@bu.edu
www.bu.edu/SARPSYCH

Principal Investigator: Zlatka Russinova, PhD; E. Sally Rogers, ScD; 617/353-3549
Public Contact: Zlatka Russinova, PhD 617/353-3549; Fax: 617/353-7700

Project Number: 90AR5018 (formerly H133P130011)
Start Date: October 01, 2013
Length: 60 months
NIDILRR Officer: Leslie J. Caplan, PhD
NIDILRR Funding: FY 13 $149,979; FY 14 $149,968; FY 15 $149,968; FY 16 $149,960; FY 17 $149,908

Abstract: This advanced rehabilitation research training project (ARRT) trains six post-doctoral fellows through a two-year training program in the area of psychiatric vocational rehabilitation. The training program is implemented in two consecutive cycles with three fellows in residence and is designed to provide broad-based, didactic training in psychiatric vocational rehabilitation and employment research, which is complemented with an intensive research practicum that combines mentored and independent research in one of the following specializations of employment-related research: vocational recovery research, interventional research, vocational rehabilitation policy and systems research, or transition-age and young adults. Throughout the program, the fellows are mentored, actively and intensely, by accomplished scholars, through a variety of modalities which allow them to acquire competencies in the following areas: research design/methodology; advanced statistics and instrument development; psychiatric vocational rehabilitation and employment research; participatory research methods and peer employment research; conduct of applied research; and grant and professional writing.
Advanced Rehabilitation Research Training Program on Health and Functioning of People with Disabilities

Brandeis University
415 South Street
Waltham, MA 02453-2728
slp@brandeis.edu

Principal Investigator: Susan L. Parish, PhD
Public Contact: 781/736-3928

Project Number: 90AR5024
Start Date: September 30, 2015
Length: 60 months
NIDILRR Officer: Stephen Bauer, PhD
NIDILRR Funding: FY 15 $149,998; FY 16 $149,996; FY 17 $150,000; FY 18 $149,999; FY 19 $149,999

Abstract: This project trains six postdoctoral fellows, recruited from racial, ethnic, and/or disability minority backgrounds, who are interested in research careers. The overarching focus of this program is racial, ethnic, and disability-based health disparities among children and adults with disabilities. Each postdoctoral fellow receives training driven by an individual development plan, modeled on that created by the National Science Foundation. Project participants conduct a self-assessment, and with the guidance of a primary mentor from Brandeis University and two secondary mentors from institutions in greater Boston, develop an individual development plan. They then embark on a training and professional development program that includes (1) biweekly meetings with the primary mentor; (2) applied research experience on a funded research project of the primary mentor; (3) support and guidance from quarterly meetings with two secondary mentors; (4) coursework in advanced research methods, health services research, and disability from any of the 11 Boston Consortium universities (including Boston University, MIT, Boston College, Tufts, and Brandeis University); (5) participation in a biweekly postdoc seminar which will address fellows’ professional development; (6) mentored research on independent projects of the fellows’ choosing; and (7) advice, guidance, and community learning activities from the disability community represented by a Community Advisory Board. Through the course of this program, postdoctoral fellows author or coauthor six papers for peer-reviewed journal articles; attend at least four national scientific conferences; develop and submit one extramural grant proposal as principal investigator; and present their research findings in the disability community four times. Project mentors are drawn from the fields of disability studies, education, medicine, occupational therapy, public health, social policy, social work, and sociology. The project is overseen by a Community Advisory Board of individuals involved in the disability field in different ways, including self-advocates, clinicians, nonprofit executives, and community leaders.
Advanced Rehabilitation Research Training Projects (ARRTs)
Michigan

The University of Michigan Advanced Rehabilitation Research Training Program in Community Living and Participation

University of Michigan
Department of Physical Medicine and Rehabilitation
325 East Eisenhower Parkway, Suite 300
Ann Arbor, MI 48108
angellee@umich.edu
pmr.med.umich.edu/education-training/fellowships/advanced-rehabilitation-research-training-program

Principal Investigator: Claire Z. Kalpakjian, PhD; Denise G. Tate, PhD
Public Contact: 734/963-5600; Fax: 734/936-7048

Project Number: 90AR5020 (formerly H133P140005)
Start Date: October 01, 2014
Length: 60 months
NIDILRR Officer: Dawn Carlson, PhD, MPH
NIDILRR Funding: FY 14 $150,000; FY 15 $150,000; FY 16 $150,000; FY 17 $150,000; FY 18 $150,000

Abstract: The ARRTP-CP trains six postdoctoral fellows and up to five physician resident trainees to advance the rehabilitation field in community living and participation, promoted by embracing community-based research approaches. This training program is guided by the principles of competency-based education and assessment to develop individualized training plans and the achievement of core competencies. The overall objectives of the ARRTP-CP are to: (1) provide research training in community living and participation in persons with disabilities; (2) orient training toward advancement of rehabilitation science by promoting community-based research that enables the development of sound disability policy; (3) prepare researchers to conduct studies in community-based settings, including home, school, and other environments; (4) foster advanced research skills that result in successful research proposals addressing issues relevant to persons with disabilities; and (5) build productive partnerships and collaborations that lead to successful careers to address the critical shortage of qualified rehabilitation scientists.

Training in research methods focuses on diverse community-based research approaches designed to capture community living and environmental, social, and situational contextual factors. A core curriculum complements hands-on experience, and includes academic courses, seminars, and workshops to train fellows in qualitative methods (i.e. community-based participatory research - CBPR) supported by quantitative ones. Opportunities to complete a CBPR project, attend presentations and lectures at partner institutions and national conferences, and engage in networking round out the training program.

This program is a collaborative effort among academic researchers at the University of Michigan’s School of Public Health, Institute of Social Research, and the Department of Physical Medicine and Rehabilitation and their partners at community-based organizations.
Advanced Rehabilitation Research Training Projects (ARRTs)
New Jersey

Advanced Rehabilitation Research Training Center on
Neuro-Musculoskeletal Rehabilitation

Rutgers New Jersey Medical School and Kessler Foundation
Human Performance and Engineering
1199 Pleasant Valley Way
West Orange, NJ 07052
pbarrance@kesslerfoundation.org
kesslerfoundation.org/researchcenter/postdoctoralfellowshipprogram.php

Principal Investigator: Peter Barrance, PhD; Gail Forrest, PhD
Public Contact: 973/324-3550; Fax: 973/243-6984

Project Number: 90AP5011 (formerly H133P110014)
Start Date: September 01, 2011
Length: 12 months
NIDILRR Officer: Thomas Corfman
NIDILRR Funding: FY 11 $149,847; FY 12 (No-cost extension through 8/31/2013); FY 13 (No-cost extension through 8/31/2014); FY 14 (No-cost extension through 8/31/2015); FY 15 (No-cost extension through 9/29/2016)

Abstract: This interdisciplinary training program on neuro-musculoskeletal rehabilitation provides postdoctoral research opportunities to qualified individuals interested in research and academic careers related to rehabilitation research. Over the course of the program, nine postdoctoral fellows plan, conduct, and disseminate research, and may choose to conduct research in neuro-musculoskeletal rehabilitation. Each fellow conducts rehabilitation research for a two-year term. Anticipated measurable outcomes include published research studies, presentations at national scientific meetings, submission of grant proposals, completion of research-related courses, training in techniques of dissemination, and the development of interdisciplinary research networks. In addition to participation in research activities, each fellow completes a series of core courses and directed study on interdisciplinary research, HIPAA, and the ethics for the recruitment of human subjects in rehabilitation research. The activities of each postdoctoral fellow are directed and monitored by a fellowship mentor with a demonstrated ability to implement, conduct, and disseminate the results of research investigations contributing to the advancement of rehabilitation science. Core faculty involved in the program represent departments/divisions of physical therapy, occupational therapy, rehabilitation science, biomedical engineering, biomechanics, computer science, and mechanical-aerospace engineering. The goal of this project is to provide young investigators a stimulating environment, with an atmosphere of enthusiasm tempered by rigorous methodology that instills the desire to improve the everyday lives of persons with disabilities.
Rusk Advanced Rehabilitation Research Training Postdoctoral Fellowship

New York University School of Medicine
Rusk Institute of Rehabilitation Medicine
240 East 38th Street; ACC 17-73
New York, NY 10016
joseph.rath@nyumc.org
rusk.med.nyu.edu/research/psychology-postdoctoral-fellowship-rehabilitation-research

Principal Investigator: Joseph F. Rath, PhD
Public Contact: 212/263-6183

Project Number: 90AR5014 (formerly H133P120011)
Start Date: October 01, 2012
Length: 60 months
NIDILRR Officer: A. Cate Miller, PhD
NIDILRR Funding: FY 12 $149,994; FY 13 $149,866; FY 14 $149,995; FY 15 $149,993; FY 16 $149,998

Abstract: This project trains postdoctoral fellows in skills necessary to become independent investigators in clinical rehabilitation research. Doctoral-level professionals from appropriate psychology fields of study (e.g., rehabilitation, clinical, counseling, and health psychology and neuropsychology) receive training through mentored independent research projects (IRPs) and ongoing multidisciplinary collaborative research projects. In addition to expanding their research expertise, fellows increase their knowledge of participatory action research (PAR) through collaborations with consumer disability advocacy groups, PAR-focused seminars, and/or partnership with a consumer whose disability is the focus of the fellow’s IRP. By completion of training, fellows are expected to complete a minimum of one IRP, participate on a minimum of one ongoing collaborative research project, present research results to professional and consumer groups and/or submit findings for publication in peer-reviewed journals, and participate in writing extramural grant proposals, including their own grant applications.
Advanced Rehabilitation Research Training Projects (ARRTs)  
Pennsylvania

ARRT - Career Advancement for Engineers in the Science of Rehabilitation

University of Pittsburgh  
School of Health and Rehabilitation Sciences  
Department of Rehabilitation Science and Technology  
6425 Penn Avenue, Suite 400  
Pittsburgh, PA 15206  
millvill@pitt.edu  
www.herl.pitt.edu/education/postdocs

Principal Investigator: Dan Ding, PhD 412/822-3684  
Public Contact: Maria Milleville, CAESOR Coordinator 412/822-3700; Fax: 412/822-3699

Project Number: 90AR5021 (formerly H133P140012)  
Start Date: October 01, 2014  
Length: 60 months  
NIDILRR Officer: Stephen Bauer, PhD  
NIDILRR Funding: FY 14 $149,991; FY 15 $149,993; FY 16 $150,000; FY 17 $149,966; FY 18 $149,997

Abstract: Career Advancement for Engineers in the Science of Rehabilitation (CAESOR) provides integrated engineering and clinical training for up to seven postdoctoral fellows, fostering a deep understanding of human function and needs, enabling them to design innovative rehabilitation devices, tools, and techniques to help people with disabilities and older adults live more satisfying and productive lives. CAESOR utilizes a rehabilitation research team consisting of a focused cadre of mentors with interdisciplinary expertise in engineering, clinical, and psychosocial disciplines to provide the trainees with a balanced exposure to research, clinical, and academic approaches to rehabilitation and disability issues. The program is specifically designed to give the postdoctoral trainees the skills needed to become independent researchers in rehabilitation engineering. The comprehensive training activities are designed to facilitate the development of skills and competencies in six key areas including technical, person-centered (clinical and psychosocial), research, communication, innovation, and leadership skills. The training program consists of five components, with each component addressing one or more of the six key skills: (1) immersion in a mentored rehabilitation research experience by matching postdoctoral trainees with highly successful research mentors; (2) complementary didactics including core and individualized components that teach and enhance the critical skills necessary for a successful research career (such as grant writing, ethics, and issues in human subject research), and topics that are not usually covered in traditional engineering curricula (such as medical and social aspects of disability, research methods, and statistical analysis); (3) involvement in mentored clinical experience to gain clinical insights into and better understanding of the clinical decision-making process; (4) structured professional development and networking activities; and (5) participation in a community practicum to understand the real user needs and contextual constraints of technology. The capstone experience for the postdoctoral trainees is the submission of an extramural research proposal.
Advanced Rehabilitation Research Training Projects (ARRTs)
Texas

Health and Function: Advanced Rehabilitation Research Training (ARRT) at UTEP

The University of Texas at El Paso
500 West University Avenue
El Paso, TX 79968
asalvatore@utep.edu

Principal Investigator: Anthony P. Salvatore, PhD
Public Contact: 915/747-7265

Project Number: 90AR5016 (formerly H133P130001)
Start Date: October 01, 2013
Length: 60 months

NIDILRR Officer: Shelley Reeves

NIDILRR Funding: FY 13 $150,000; FY 14 $150,000; FY 15 $150,000; FY 16 $150,000; FY 17 $150,000

Abstract: This project provides a multidisciplinary, doctoral-level rehabilitation research training in traumatic brain injury (TBI) that teaches six postdoctoral fellows techniques in rehabilitation counseling, speech-language pathology, public health, sports medicines, clinical laboratory sciences, diagnostic imaging, computer science, and kinesiology. The project (1) provides a multidisciplinary training program that emphasizes advanced research methodology, participatory in the initiation and carrying out of advanced research projects; (2) provides a clinical research experience utilizing both group designs and single-subject designs to further develop research skills in the rehabilitation of persons with TBI; (3) provides advanced research experience in a community-based research setting and community outreach to organizations serving individuals with TBI; (4) provides advanced research mentoring and opportunities for scientific collaboration with researchers in Kinesiology Vestibular Lab, Clinical Laboratory Science Lab, Public Health Sciences, Computer Modeling Lab, Sports Medicine Clinic, Concussion Management Research Lab, and the Department of Emergency Medicine at the Texas Tech University Medical School in El Paso; and (5) provides trainees with opportunities to publish findings and present papers in national, regional, local, and university outlets. The project’s training program leads postdoctoral researchers toward receiving the Certificate of Concussion Management.
Advanced Rehabilitation Research Training Projects (ARRTs)  
Texas

Interdisciplinary Rehabilitation Research Training Program

University of Texas Medical Branch  
301 University Boulevard  
Galveston, TX 77555-1137  
bacammar@utmb.edu

Principal Investigator: Kenneth J. Ottenbacher, PhD, ORT  
Public Contact: Beth Cammarn 409/747-1637; Fax: 409/747-1638

Project Number: 90AR5009 (formerly H133P110012)  
Start Date: October 01, 2011  
Length: 60 months  
NIDILRR Officer: Margaret Campbell, PhD  
NIDILRR Funding: FY 11 $149,999; FY 12 $149,999; FY 13 $149,999; FY 14 $149,999; FY 15 $149,999

Abstract: The Interdisciplinary Rehabilitation Research Training Program provides postdoctoral research opportunities to qualified individuals interested in academic and clinical careers related to disability, rehabilitation, and recovery. Postdoctoral fellows plan, conduct, and disseminate research involving rehabilitation outcomes with a focus on older persons with disabilities and chronic disease. The research is accomplished in collaboration with an interdisciplinary team focusing in one of the following areas: muscle biology of rehabilitation, clinical and community rehabilitation, and population-based health services rehabilitation. Each postdoctoral fellow identifies a primary mentor who is a member of one of three research teams, and has an established research program and a record of external funding. The trainee and mentor develop an individualized career development plan. The plan includes a core curriculum of formal (credit bearing) and informal learning experiences, seminars, and workshops that are completed by all the fellows. The career development plan includes a series of learning activities directly related to the trainees’ area of research focus. Outcomes include published research studies, presentations at national scientific meetings, submission of grant proposals, training in methods of dissemination, and participation in interdisciplinary research networks. The activities of each postdoctoral fellow are monitored by the primary mentor and members of the research team. All trainees complete a community-based practicum experience that includes structured opportunities to interact with health care providers and consumers in a community context. Fellows also have the opportunity to earn a Master’s degree in Public Health as part of the postdoctoral training program. Finally, the fellows are assisted by program faculty in identifying and securing professional positions providing the opportunity to conduct and disseminate the results of research advancing rehabilitation science and evidence-based practice.
Advanced Rehabilitation Research Training Projects (ARRTs)
Virginia

Advanced Rehabilitation Research Training Projects

Virginia Commonwealth University
Department of Physical Medicine and Rehabilitation
Box 980542
Richmond, VA 23298-0542
jeffrey.kreutzer@vcuhealth.org

Principal Investigator: Jeffrey S. Kreutzer, PhD 804/828-3704
Public Contact: Nancy H. Hsu, PsyD 804/828-0231; Fax: 804/828-2378

Project Number: 90AR5025
Start Date: September 30, 2015
Length: 60 months
NIDILRR Officer: Pimjai Sudsawad, ScD
NIDILRR Funding: FY 15 $150,000; FY 16 $150,000; FY 17 $150,000; FY 18 $150,000; FY 19 $150,000

Abstract: This project implements a highly effective advanced rehabilitation research training program (ARRT) for individuals with advanced degrees, committed to a career in rehabilitation research, with a focus on neurobehavioral recovery and intervention. Training and research activities address brain injury and other neurological disorders including Parkinson’s, stroke, and brain tumors. The program trains a diverse group of fellows, including persons with disabilities. Individualized research training plans emphasizing scientific rigor guide fellows’ choices of training activities. Multidisciplinary mentors, didactic experiences, and collaborative and independent research activities provide the foundation for the VCU ARRT program. Mentors include scientists from the fields of rehabilitation medicine, neuropsychology, neurosurgery, and vocational rehabilitation. Core courses on ethics, biostatistics, research design, and grant writing are complemented by graduate courses, seminars, grand rounds, and conferences. All fellows complete and submit a grant application during the second year of their fellowship. The ultimate goal of the VCU ARRT is to benefit rehabilitation practice and outcomes by increasing the number of highly skilled clinical research professionals.
Advanced Rehabilitation Research Training Projects (ARRTs)
Washington

Advanced Training on Outcomes in Rehabilitation Research
(UW-ATORR)

University of Washington Office of Research
Department of Rehabilitation Medicine
1959 North East Pacific Street
Box 356490
Seattle, WA 98195
dagmara@uw.edu
www.uwcorr.washington.edu

Principal Investigator: Dagmar Amtmann, PhD
Public Contact: 206/543-4741; Fax: 206/685-9224

Project Number: 90AR5013 (formerly H133P120002)
Start Date: October 01, 2012
Length: 60 months
NIDILRR Officer: Dawn Carlson, PhD, MPH
NIDILRR Funding: FY 12 $149,997; FY 13 $147,559; FY 14 $149,999; FY 15 $149,999; FY 16 $149,998

Abstract: This program provides unique opportunities for rehabilitation researchers to acquire and apply modern psychometric techniques and for researchers trained in modern psychometric theory to develop expertise in rehabilitation and physical medicine. Postdoctoral trainees receive two years of advanced training that includes: (1) immersion in a mentored rehabilitation research experience, matching postdoctoral trainees with highly successful rehabilitation researchers; and (2) complementary didactics (core and individualized) to support trainee development. The overall goal of this project is to advance research capacity in rehabilitation research by providing researchers with training and mentoring opportunities that facilitate better outcomes measurement in rehabilitation research. Researchers with training in both rehabilitation and outcomes measurement are best positioned to develop, test, and evaluate psychometrically sound and clinically meaningful outcomes, translate research into practice, identify gaps in evidence that most affect people with disabilities, examine the prognostic information available to patients and providers, and examine behaviors, lifestyles, and choices within people's control that may affect their health outcomes.
Advanced Rehabilitation Research Training Projects (ARRTs)
Washington

Advanced Rehabilitation Research Training in Rehabilitation Research Policy (UW-ARRT-RP)

University of Washington
Department of Rehabilitation Medicine
1959 NE Pacific Street
Seattle, WA 98195
imolton@u.washington.edu

Principal Investigator: Ivan Molton, PhD
Public Contact: 206/543-3602

Project Number: 90AR5026
Start Date: September 30, 2015
Length: 60 months
NIDILRR Officer: Margaret Campbell, PhD
NIDILRR Funding: FY 15 $79,103; FY 16 $148,677; FY 17 $148,935; FY 18 $149,203; FY 19 $81,242

Abstract: This project implements a five-year Advanced Rehabilitation Research Policy Fellowship (UW-ARRT-RP) for postdoctoral rehabilitation professionals. Through a collaborative partnership between the University of Washington and the Health and Aging Policy Fellows Program, administered by Columbia University, the primary goal is to increase the number of successful independent rehabilitation policy researchers who are prepared to conduct investigations related to healthcare policy in individuals with disabilities across the lifespan, with an emphasis on older adults. The program provides advanced training for four postdoctoral trainees, in two phases. The first year immerses fellows in a mentored rehabilitation research experience at UW, matching trainees with researchers in disability and rehabilitation. All trainees complete an individualized research development plan, as well as formal coursework in policy research. In year 2, fellows move into the policy intensive portion of the program, by participating in the residential track of the Health and Aging Policy Fellows Program in Washington, DC, working inside the Federal policymaking and policy-related research process as legislative assistants in Congress, or as professional staff members in executive-branch agencies or policy organizations. Both years of training include core and individualized didactics and coursework, as well as workshops and integrated mentorship. Fellows also complete a mentored policy research project, culminating in a presentation of findings at the end of Year 2. The UW-ARRT-RP also conducts ongoing formal evaluation of all aspects of the program.
Advanced Rehabilitation Research Training Projects (ARRTs)
Wisconsin

Advanced Rehabilitation Research Training (ARRT) in Pediatric to Adult Transition

Marquette University
Orthopaedic and Rehabilitation Engineering Center
735 North 17th Street
PO Box 1881
Milwaukee, WI 53201-1881
depps@mcw.edu
www.tech4pod.org/4researchers/training-activities/t1

Principal Investigator: Gerald F. Harris, PhD 414/288-0698
Public Contact: Deborah Epps, Project Administrator 414/288-0696; Fax: 414/288-0713

Project Number: 90AR5003 (formerly H133P100008)
Start Date: October 01, 2010
Length: 60 months
NIDILRR Officer: Thomas Corfman
NIDILRR Funding: FY 10 $150,000; FY 11 $150,000; FY 12 $150,000; FY 13 $150,000; FY 14 $150,000; FY 15 (No-cost extension through 9/29/2016)

Abstract: This project provides advanced education and training in rehabilitation research to selected engineers and clinician researchers with a background and interest in rehabilitation medicine. Participating fellows develop in-depth expertise, enthusiasm, and productivity in rehabilitation research with experience in community-based research settings and with organizations representing individuals with disabilities with the fundamental goal of training individuals to become career researchers. The program is structured to support postdoctoral physicians, engineers, physical therapists, and psychologists who seek advanced rehabilitation research training. This program offers directed mentorship, research training, and formal didactic components, and includes a cross-disciplinary course structure for all fellows. Three research areas (RAs) support opportunities for career-oriented contributions to the field of pediatric-to-adult transition. These RAs include: Function and Outcomes Assessment, Biomaterials and Skeletal Biology, and Motion and Mobility. A team of mentors with qualifications specific to each of these RAs support candidates entering the program to enhance their current skills and offer additional high-level training and experience. Trainees attend courses, symposia, and seminars in four in-depth areas, including Evidence Based Research, Scientific Writing and Grantsmanship, Biostatistics and Outcomes Assessment, and Motion and Mobility Analysis. At the completion of the program all trainees are expected to have completed necessary pilot work, written and submitted several journal manuscripts, prepared two extramural proposals, and gained experience in managing a functional research team. The program also includes support for career planning and job search assistance.
Advanced Rehabilitation Research Training Projects (ARRTs)
Wisconsin

Advanced Rehabilitation Research Training in Pediatric Mobility for Physicians and Engineers

Marquette University
Orthopaedic and Rehabilitation Engineering Center
735 North 17th Street
PO Box 1881
Milwaukee, WI 53201-1881
depps@mcw.edu
www.tech4pod.org/4researchers/training-activities/t1

Principal Investigator: Gerald F. Harris, PhD 414/288-1586
Public Contact: Deborah Epps, Project Administrator 414/288-0696; Fax: 414/288-0713

Project Number: 90AR5022 (formerly H133P140023)
Start Date: October 01, 2014
Length: 60 months
NIDILRR Officer: Stephen Bauer, PhD
NIDILRR Funding: FY 14 $150,000; FY 15 $150,000; FY 16 $150,000; FY 17 $150,000; FY 18 $150,000

Abstract: This project offers advanced education and training in rehabilitation research to selected engineers and physician researchers in four areas that support opportunities for career-oriented contributions to the field of pediatric mobility: (1) musculoskeletal biomechanics and biomaterials, (2) assistive devices and robotics, (3) foot and ankle mobility, and (4) functional assessment/outcomes measurement. A team of two senior mentors and a physician/surgeon with qualifications specific to each of these research areas support candidates entering the program to enhance their current skills and offer additional, high-level training and experience. The postdoctoral trainees experience a program designed to provide a unique set of capabilities to succeed as a rehabilitation researcher. The program includes three essential elements: didactics, mentored research areas, and collegial and collaborative activities. Fellowship research requirements include the successful submission of an intramural proposal, pilot study completion and refinement, multiple journal article submissions, and submission of extramural proposals. The fellowship experience also includes an ‘away’ rotation at one of several research support laboratories including: the Lawrence Berkeley National Laboratory (CA), the UC Berkeley Department of Materials Science and Engineering (CA), the Hospital for Special Surgery Motion Analysis Laboratory (NY), the Thomas Jefferson University School of Health Professions (PA), and the Northwestern University Biodynamics Laboratory (IL). The fellowship also provides an international clinical rotation through videoconference with our colleagues in the Motion Analysis Laboratory at ITESM, Chihuahua, Mexico. Optional off-site rotations are also available through facilities in Cali, Columbia and Manila, Philippines.
Grantees
3-C Institute for Social Development, Inc.
Durham, NC
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90BI0021 .....................................................5-63

AbleLink Technologies, Inc.
Colorado Springs, CO
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Advanced Medical Electronics Corporation
Maple Grove, MN
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Advocates for Human Potential, Inc.
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Coral Springs, FL
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Baylor College of Medicine
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Baylor Research Institute
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Carnegie Mellon University
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Washington, DC
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Atlanta, GA
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New York, NY
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Indianapolis, IN
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Oklahoma City, OK
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Mayo Clinic
Rochester, MN
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Charleston, SC
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MedStar Research Institute
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Meeting the Challenge, Inc.
Colorado Springs, CO
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Houston, TX
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Milapjit Singh Sandhu, PhD
Oak Park, IL
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Mississippi State University
Mississippi State, MS
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Plymouth, MN
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New Editions Consulting
Falls Church, VA
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New Jersey Institute of Technology
Newark, NJ
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New York University School of Medicine
New York, NY
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North Carolina State University
Raleigh, NC
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<td>Silvana Lopes Costa, PhD</td>
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The Board of Trustees of the
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Principal Investigators
Abery, Brian, PhD
Regents of the University of Minnesota
612/624-5592 .....................................................2-7

Aisen, Mindy L., MD
Rancho Los Amigos National Rehabilitation Center
562/401-7541 ...................................................3-25

Alim, Tanya, MD
Howard University
202/865-6611 ...................................................1-26

Amtmann, Dagmar, PhD
University of Washington
206/543-4741 ...................................................6-13

Anderson, Lynda Lahti, MPH
Regents of the University of Minnesota
612/626-7220 ...................................................2-31

Archer, Kristin R., PhD, DPT
Vanderbilt University Medical Center
615/322-2732 ...................................................2-41

Arciniegas, David B., MD
Memorial Hermann Health System
713/797-7579 ...................................................3-20

Aruin, Alexander S., PhD
The Board of Trustees of the University of Illinois
312/413-1467 ...................................................8-13

Ashley, Joseph M., RhD, CRC
University of Richmond
804/662-7624 ...................................................1-25

Babakhanian, Sargis
Intelligent Fiber Optic Systems Corporation (IFOS)
408/565-9001 ...................................................5-46

Balcazar, Yolanda Suarez, PhD
The Board of Trustees of the University of Illinois
312/413-1467 ...................................................8-13

Barrance, Peter, PhD
Kessler Foundation
973/324-3550 ...................................................5-38, 8-23

Barrett, A.M., MD
Kessler Foundation
973/324-3563 ...................................................5-36

Bedell, Gary M., PhD
Cincinnati Children's Hospital Medical Center, Tufts University
513/636-9631 ...................................................2-36

Bega, Danny, MD
Rehabilitation Institute of Chicago (RIC)
312/238-0743 ...................................................3-59

Biebel, Kathleen, PhD
University of Massachusetts Medical School
508/856-2816 ...................................................1-17

Blanck, Peter D., PhD, JD
Syracuse University
315/443-9703 ...................................................2-18, 7-6

Blasco, Patricia, PhD
Western Oregon University
503/838-8783 ...................................................3-68

Bodine, Cathy, PhD
University of Colorado Denver
303/503-8396 ...................................................5-5

Bogner, Jennifer, PhD
Ohio Valley Center for Brain Injury Prevention and Rehabilitation
614/293-3830 ...................................................3-47

Bolding, Mark, PhD
The University of Alabama at Birmingham
205/325-8114 ...................................................3-55

Bombardier, Charles H., PhD
University of Washington
206/744-3665 ...................................................3-37
Boninger, Michael L., MD  
University of Pittsburgh  
412/648-6979 ........................................3-36, 3-17, 5-28

Borodin, Yevgen, PhD  
Charmtech Labs, LLC  
888/533-7884 .............................................5-61

Brabyn, John A., PhD  
The Smith-Kettlewell Eye Research Institute  
415/345-2110 ...........................................5-4

Braddock, David L., PhD  
University of Colorado Denver  
303/492-0639 .............................................4-4

Bregman, Barbara S., PhD  
Georgetown University  
202/687-1452 .............................................8-11

Brown, Allen W., MD  
Mayo Clinic  
507/255-3116 ............................................3-43

Brusilovskiy, Eugene  
Temple University  
215/204-2748 .............................................2-39

Bruyère, Susanne M., PhD  
Cornell University  
607/255-9536 (V),  
607/255-2891 (TTY) ....................................1-11

Burnfield, Judith M., PhD, PT  
Madonna Rehabilitation Hospital  
402/413-4505 .............................................5-34

Burns, Stephen P., MD  
University of Washington  
206/744-3665 .............................................3-37

Bushnik, Tamara, PhD  
New York University School of Medicine  
212/263-6547 .............................................3-46

Butterworth, John, PhD  
University of Massachusetts Boston  
617/287-4357 .............................................1-5

Buzhardt, Jay, PhD  
University of Kansas Center for Research, Inc.  
913/321-3143, ext. 2603 ..................................2-14

Cai, Cindy, PhD  
University of Pittsburgh  
412/648-6979 .............................................5-28

Caldwell, Joe, PhD  
The Board of Trustees of the University of Illinois  
312/355-4537 .............................................2-4

Capo-Lugo, Carmen E., PT, PhD  
312/503-3742 .............................................8-6

Carollo, James, PhD, PE  
University of Colorado Denver  
720/777-5806 ............................................3-56

Chan, Fong, PhD  
The Board of Regents of the University of Wisconsin System  
608/262-2137 .............................................1-13

Charlifue, Susan, PhD  
Craig Hospital  
303/789-8220 .............................................3-26

Chen, David, MD  
Rehabilitation Institute of Chicago (RIC)  
312/238-0764 .............................................3-29

Chen, Yuying, MD, PhD  
University of Alabama at Birmingham  
205/934-3320 .............................................6-4

Cherney, Leora R., PhD  
Northwestern University  
312/238-1117 .............................................2-22, 8-15
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<tr>
<th>Principal Investigators</th>
<th>Affiliation</th>
<th>Phone Numbers</th>
</tr>
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<tr>
<td>Chiaravalloti, Nancy D., PhD</td>
<td>Kessler Foundation</td>
<td>973/324-8440</td>
</tr>
<tr>
<td>Childress, Debra, PhD</td>
<td>3-C Institute for Social Development, Inc.</td>
<td>919/677-0102, ext 515</td>
</tr>
<tr>
<td>Chiodo, Anthony, MD</td>
<td>University of Michigan</td>
<td>734/763-0971</td>
</tr>
<tr>
<td>Chiu, Chung-Yi, PhD</td>
<td>Chung-Yi Chiu, PhD</td>
<td>217/244-6435</td>
</tr>
<tr>
<td>Condon, John</td>
<td>Innovative Design Labs, Inc.</td>
<td>612/251-6560</td>
</tr>
<tr>
<td>Cook, Judith A., PhD</td>
<td>University of Illinois at Chicago</td>
<td>312/355-1696 (V), 312/422-0706 (TTY)</td>
</tr>
<tr>
<td>Cook, LaWanda H., PhD</td>
<td>Cornell University</td>
<td>607/255-2928</td>
</tr>
<tr>
<td>Corrigan, John D., PhD</td>
<td>Ohio Valley Center for Brain Injury Prevention and Rehabilitation</td>
<td>614/293-3830</td>
</tr>
<tr>
<td>Cully, Julisa</td>
<td>University of Massachusetts Boston</td>
<td>617/287-4323</td>
</tr>
<tr>
<td>D'Souza, Clive R., PhD</td>
<td>The Regents of University of Michigan</td>
<td>734/763-0542</td>
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<tr>
<td>Dagmar Amtmann, PhD</td>
<td>University of Washington Office of Research</td>
<td>206/543-4741</td>
</tr>
<tr>
<td>Dalal, Kevin, MD</td>
<td>University of Miami</td>
<td>305/243-3575</td>
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<td>Daunhauer, Lisa, ScD</td>
<td>Colorado State University</td>
<td>970/491-6917</td>
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<td>Davies, Daniel K.</td>
<td>AbleLink Technologies, Inc.</td>
<td>719/592-0347</td>
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<td>Davis, Maryann, PhD</td>
<td>University of Massachusetts Medical School</td>
<td>508/856-8718</td>
</tr>
<tr>
<td>de Jong, Jim</td>
<td>University of Missouri at Columbia</td>
<td>800/949-4232 (V/TTY, in IA, KS, MO, and NE)</td>
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<td>DeCarlo, Dawn K., OD</td>
<td>The University of Alabama at Birmingham</td>
<td>205/325-8114</td>
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<td>DeRuyter, Frank, PhD</td>
<td>Duke University</td>
<td>919/684-6271</td>
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<td>Ding, Dan, PhD</td>
<td>University of Pittsburgh</td>
<td>412/822-3684</td>
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<td>Dobryakova, Ekaterina, PhD</td>
<td>Ekaterina Dobryakova</td>
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<td>Dreer, Laura E., PhD</td>
<td>University of Alabama at Birmingham</td>
<td>205/325-8681</td>
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<td>Durfee, Edmund, PhD</td>
<td>Regents of the University of Michigan</td>
<td>734/615-6720</td>
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Dutta, Alo, PhD, CRC
Southern University and A&M College
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Dyson-Hudson, Trevor, MD
Kessler Foundation
973/324-3576 ........................................... 3-34

Ehrlich-Jones, Linda, PhD, RN
Rehabilitation Institute of Chicago (RIC)
312/238-0743 ........................................... 3-59

Eisenstein, Amy, PhD
Rehabilitation Institute of Chicago (RIC)
312/238-0743 ........................................... 3-59

Ellison, Marsha, PhD
University of Massachusetts Medical School
508/856-2816 ............................................... 1-17

Eskow, Karen, PhD
Towson University
410/704-2238 ............................................... 4-5

Esselman, Peter C., MD
University of Washington
206/744-3140 ............................................... 3-23

Fabian, Ellen, PhD
TransCen, Inc.
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Farkas, Marianne, ScD
Trustees of Boston University
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Frieden, Lex, LLD
The Institute for Rehabilitation and Research (TIRR)
713/520-0232 ............................................... 7-9, 7-14

Froehlich-Grobe, Katherine, PhD
The University of Texas Health Science Center at Houston
214/648-1054 ............................................... 3-74

Foulds, Richard A., PhD
New Jersey Institute of Technology
973/596-3335 ............................................... 5-15

Gao, Ni, PhD, LCSW
Rutgers, The State University of New Jersey
856/566-2770 ............................................... 1-30

Farrell, Todd, PhD
Liberating Technologies, Inc.
508/893-6363 ............................................... 5-58

Felder, Elizabeth R., PhD
University of Miami
305/243-3575 ............................................... 3-27

Field-Fote, Edelle, PhD
Shepherd Center, Inc.
404/603-4274 ............................................... 3-28

Fisher, Nadine M., EdD
State University of New York (SUNY) at Buffalo
716/829-6724 ............................................... 3-66

Fletcher, Valerie
Institute for Human Centered Design, Inc.
617/695-1225, ext. 226 ...................................... 7-3

Foley, Susan, PhD
University of Massachusetts Boston
617/287-4317 ............................................... 1-4

Forrest, Gail, PhD
Rutgers New Jersey Medical School and Kessler Foundation
973/324-3550 ............................................... 8-23

Gibran, Nicole, MD
University of Washington
206/744-3140 ............................................... 3-23
Gibson, Paul
Advanced Medical Electronics Corporation
763/515-5360 ...................................................5-59

Glang, Ann E., PhD
Children’s Hospital Medical Center
513/636-3370 ........................................... 2-37, 3-9

Gordon, Wayne A., PhD
Icahn School of Medicine at Mount Sinai
212/824-8372 ...................................................3-45

Gower, Wendy Strobel,
Project Director
Cornell University
607/255-6751 ................................. 1-20, 7-4

Graves, Daniel E., PhD
University of Louisville Research Foundation, Inc.
502/582-7443 ...................................................3-30

Groah, Suzanne L., MD
MedStar Research Institute
202/877-1196 .....................................................3-3

Gross, Judith M.S., PhD
University of Kansas
785/864-7601 ...................................................1-27

Grossi, Teresa, PhD
The Trustees of Indiana University
812/855-4070 ...................................................1-15

Hall, Allison, PhD
University of Massachusetts Boston
480/264-7215 ...................................................1-5

Hammel, Joy, PhD, OTR/L
The Institute for Rehabilitation and Research (TIRR)
713/520-0232 ...................................................7-14

Hammond, Flora M., MD
Indiana University
317/329-2106 ...................................................3-41

Hanks, Robin A., PhD
Wayne State University
313/745-9763 ...................................................3-65

Hanzal, Brian
Moai Technologies, LLC
612/481-8723 ...................................................5-52

Harbour, Wendy S., PhD
Syracuse University
315/443-1288 ...................................................2-17

Hargrove, Levi, PhD
Rehabilitation Institute of Chicago (RIC)
312/238-1315 ...................................................5-13

Harkema, Susan, PhD
University of Louisville Research Foundation, Inc.
502/582-7443 ...................................................3-30

Harniss, Mark, PhD
University of Washington
206/685-0289 ...................................................6-14

Harris, Gerald F., PhD
Marquette University
414/288-0698 ...................................................5-25, 8-31, 8-32

Harrison-Felix, Cynthia, PhD
Craig Hospital
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Hart, Tessa, PhD
Albert Einstein Healthcare Network
215/663-6153 ...................................................3-48

Heinemann, Allen W., PhD
Northwestern University
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Heitzman-Powell, Linda, PhD
University of Kansas Center for Research, Inc.
913/321-3143, ext. 2603 ................................... 2-14
Heller, Tamar, PhD
The Board of Trustees of the University of Illinois
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Hendricks, D.J., PhD
West Virginia University Research Corporation
304/293-7186, ext. 160 ......................................1-33

Herndon, David, MD
University of Texas Medical Branch
409/770-6731 ..................................................3-19

Hewitt, Amy K., PhD
University of Minnesota
612/624-6328 ...................................................2-6

Hoffman, Jeanne M., PhD
University of Washington
206/221-6511 ..................................................3-37, 3-53, 3-76

Honeycutt, Todd, PhD
TransCen, Inc.
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Hornby, T. George, PT, PhD
Rehabilitation Institute of Chicago (RIC)
312/238-4864 ..................................................3-6

Houtenville, Andrew J., PhD
University of New Hampshire
603/862-4004 ..................................................1-9, 4-3

Huang, He (Helen), PhD
North Carolina State University
919/515-5218 ...................................................5-39

Hudson, Lesley M.
Shepherd Center, Inc.
404/603-4274 ..................................................3-28

Hughes, Rosemary, PhD
University of Montana
406/243-2898 ...................................................2-33

Jayaraman, Arun, PhD
Rehabilitation Institute of Chicago (RIC)
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Jette, Alan M., PT, PhD
Boston University Medical Center
617/638-1985 ...............................................2-15, 3-31, 8-19

Johansson, Jennifer
Liberating Technologies, Inc.
508/893-6363 ...................................................5-57

Johnson, Ebonee, PhD, CRC
Southern University and A&M College
225/771-2325 ...................................................1-28

Johnson, Kurt, PhD
University of Washington
206/543-3677 ..................................................6-13, 6-14, 6-16

Johnson-Greene, Douglas E., PhD
University of Miami
305/243-8472 ...................................................3-40

Jones, Erica C., MPH
Public Health Institute
510/285-5600 (V/TTY) .........................................7-12

Jones, Robin A.
University of Illinois at Chicago
312/996-1059 ...................................................7-7

Kaelin, Daryl, MD
University of Louisville Research Foundation, Inc.
502/582-7443 ...................................................3-30

Kale, Kaustubh
AventuSoft LLC
954/399-3335 ...................................................5-55

Kalpakjian, Claire Z., PhD
University of Michigan
734/763-0153 ...................................................3-63, 8-22
Kamps, Debra M., PhD
University of Kansas Center for Research, Inc.
913/321-3143, ext. 2603 ..................................2-14

Kaye, H. Stephen, PhD
University of California, San Francisco
415/502-7266 .....................................................2-3

Kazis, Lewis, ScD
Trustees of Boston University
617/414-1418 ...................................................2-15

Keating, Thomas, PhD
Assistech Systems, LLC
541/342-3763 ....................................................2-44, 5-40

Kennedy, James, PhD
Washington State University
509/368-6971 ...................................................2-19

Kirkwood, Michael, PhD
Children’s Hospital Medical Center
513/636-3370 ....................................................3-9

Kirshbaum, Megan, PhD
Through the Looking Glass
800/644-2666 (toll-free voice) .........................2-13

Kirshblum, Steven, MD
Kessler Foundation
973/324-3576 ....................................................3-34

Klodnick, Vanessa Vorhies, PhD, LCSW
773/844-7380 .....................................................8-5

Kording, Konrad, PhD
Rehabilitation Institute of Chicago (RIC)
312/238-1315 ....................................................5-13

Kowalske, Karen, MD
The University of Texas Southwestern Medical Center
214/648-2240 ....................................................3-22

Kozma-Spytek, Linda
Gallaudet University
202/250-2795 (V/Video) ......................................5-6

Kramer, Jessica M., PhD
Trustees of Boston University
617/353-2702 .....................................................2-26

Krause, James S., PhD
Medical University of South Carolina
843/792-1337 ....................................................1-23, 3-10, 3-70, 3-72

Krch, Denise, PhD
Kessler Foundation
973/342-3559 ....................................................5-37

Kreutzer, Jeffrey S., PhD
Virginia Commonwealth University
804/828-3704 ....................................................3-52, 8-28

Kuiken, Todd, MD, PhD
Rehabilitation Institute of Chicago (RIC)
312/238-1315 ....................................................5-13

Kundu, Madan M., PhD, CRC, NCC, LRC
Southern University and A&M College
225/771-2325 ....................................................1-28, 2-25

Lammertse, Daniel P., MD
Craig Hospital
303/789-8220 ....................................................3-26

Landau, Steven
Touch Graphics, Inc.
800/884-2440, ext. 1 ........................................5-53

Lane, Joseph
University at Buffalo,
The State University of New York
716/204-8606, ext. 211 ....................................6-8
Larson, Sheryl, PhD
Regents of the University of Minnesota
612/624-6024 ............................................... 2-31, 2-32

Lee, Julia, PhD
Rehabilitation Institute of Chicago (RIC)
312/238-0743 .................................................3-59

Lenker, James, PhD
University at Buffalo, The State University of New York
716/829-5899 ...................................................5-16

Light, Janice C., PhD
The Pennsylvania State University
814/863-2010 ...................................................5-22

Lightner, Michael, PhD
University of Colorado Denver
303/503-8396 ...................................................5-5

Lipsey, Jim, PE
Rehabilitation Institute of Chicago (RIC)
312/238-1568 ...................................................5-30

Lopes Costa, Silvana, PhD
973/204-1342 ...................................................8-8

Lord, Sarah E., PhD
Trustees of Dartmouth College
603/448-0263 ...................................................1-18

Lu, Weili, PhD
Rutgers, The State University of New Jersey
908/889-2453 ...................................................1-29

Lui, John, PhD
The Board of Regents of the University of Wisconsin System
608/262-2137 ...................................................1-13

Lund, Shelley, PhD, CCC-SLP
University of Wisconsin-Milwaukee
414/229-4945 ...................................................5-43

Lynn Gerber, N., MD
American Institutes for Research (AIR)
919/918-2306 ...................................................6-7

Magaña, Sandra M., PhD
The Board of Trustees of the University of Illinois
312/355-4537 ...................................................2-4, 2-23

Mahshie, James, PhD
The George Washington University
202/994-2052 ...................................................5-29

Mann, William C., PhD
University of Florida
352/273-6883 ...................................................8-12

Marino, J. Ralph, MD
Thomas Jefferson University
215/955-6579 ...................................................3-35

Mason, Ben, PhD
University of Kansas Center for Research, Inc.
913/321-3143, ext. 2603 ......................................2-14

Mason, Rose, PhD
University of Kansas Center for Research, Inc.
913/321-3143, ext. 2603 ......................................2-14

Matrone, Kathe, PhD
University of Washington
425/771-7436 ...................................................7-13

May, Michael
Sendero Group, LLC
530/757-6900 ...................................................5-45

McDonald, Craig M., MD
Regents of the University of California at Davis
916/734-2923 ...................................................8-10

McDonnell, Michele Capella, PhD
Mississippi State University
662/325-2001 ...................................................1-8

Principal Investigators
C-10
McGwin, Gerald, PhD  
The University of Alabama at Birmingham  
205/325-8114  

McKelvey, Miechelle  
University of Wisconsin-Milwaukee  
414/229-4945  

McLain, Amie B., MD  
The University of Alabama at Birmingham  
205/934-3330  

McMillen, Janey Sturtz, PhD  
3-C Institute for Social Development, Inc.  
919/677-0102, ext. 531  

Meade, Michelle A., PhD  
Regents of the University of Michigan  
734/615-6720  

Mitchell, Helena, PhD  
Georgia Institute of Technology  
404/385-3367  

Mitzner, Tracy L.  
Georgia Tech Research Corporation  
404/894-1413  

Molton, Ivan, PhD  
The University of Washington  
206/543-3602  

Moore, Corey L., RhD  
Langston University  
405/530-7530  

Morse, Leslie R., DO  
Spaulding Rehabilitation Hospital  
617/573-2913  

Mullen-Gonzalez, Michelle G.  
Rutgers, The State University of New Jersey  
908/889-2513  

Mulroy, Sara, PhD  
Rancho Los Amigos National Rehabilitation Center  
562/401-7541  

Nash, Mark, PhD  
The University of Miami  
305/243-3628  

Neumann, Dawn, PhD  
Trustees of Indiana University  
317/329-2188  

Nicholson, Joanne, PhD  
Trustees of Dartmouth College  
603/448-0263  

Norweg, Ann, PhD  
Rehabilitation Institute of Chicago (RIC)  
312/925-7286  

Nosek, Margaret A., PhD  
Baylor College of Medicine  
713/799-5086  

Novack, Thomas A., PhD  
The University of Alabama at Birmingham  
205/934-3283  

O'Neill, John, PhD  
Kessler Foundation  
973/324-8387  

Odum, Mark X.  
HeiTech Services, Inc.  
800/346-2742, ext. 1112  

Oscar, Suman, PhD  
The University of Texas Medical Branch  
409/770-6731  

Oschwald, Mary, PhD  
Portland State University  
503/725-9602  

Principal Investigators  
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Ostmeyer-Kountzman, Katrina, PhD
Integrated Behavioral Technologies, Inc.
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Ottenbacher, Kenneth J., PhD, ORT
The University of Texas Medical Branch at Galveston
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Brandeis University
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University of Pittsburgh
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Rehabilitation Institute of Chicago (RIC)
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New York University School of Medicine
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Rehabilitation Institute of Chicago (RIC)
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<td>Medical University of South Carolina</td>
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<td>University of Richmond</td>
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<td>Schneider, Jeffrey C., MD</td>
<td>Spaulding Rehabilitation Hospital</td>
<td>617/952-6220</td>
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<td>University of Montana</td>
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Principal Investigators

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Shafi, Shahid, MD  
Baylor Research Institute  
214/265-2607 ...................................................3-50

Sherer, Mark, PhD  
The Institute for Rehabilitation and Research (TIRR)  
713/799-7007 ...................................................3-51

Sims, Edward  
Vcom3D, Inc.  
321/710-4841 ...................................................5-47

Smith, Roger O., PhD  
University of Wisconsin-Milwaukee  
414/229-6803 (V)  
414/229-5628 (TTY) .........................................5-44

Snethen, Gretchen, PhD  
Temple University  
215/204-2748 ...................................................2-39

Sohlberg, McKay, PhD  
Children’s Hospital Medical Center  
513/636-3370 ...................................................3-9

Sprigle, Stephen, PhD  
Georgia Institute of Technology  
404/385-4302 ...................................................5-7

Stafford, Rachael  
Meeting the Challenge, Inc.  
800/949-4232 (V/TTY, in CO, MT, ND, SD, UT, and WY) ...........................................7-11

Stancin, Terry, PhD  
Children’s Hospital Medical Center  
513/636-3370 ...................................................3-9

Steinfeld, Aaron, PhD  
Carnegie Mellon University  
412/268-6346 ...................................................5-20, 5-26

Steinfeld, Edward, ArchD  
University at Buffalo, The State University of New York  
716/829-5899 ...................................................5-16, 5-17

Stone, John, PhD  
The Research Foundation of SUNY on behalf of the University at Buffalo  
716/829-6739 ...................................................6-9

Suarez-Balcazar, Yolanda, PhD  
The Board of Trustees of the University of Illinois  
312/413-0117 ...................................................8-17

Sulewski, Jennifer, PhD  
University of Massachusetts Boston  
617/287-4356 ...................................................2-28

Swanson, Jeffrey W., PhD  
Duke University  
919/682-4827 ...................................................2-35

Szlachcic, Yaga, MD  
Rancho Los Amigos National Rehabilitation Center  
562/401-7541 ...................................................3-25

Tate, Denise G., PhD  
University of Michigan  
734/763-0971 ...................................................3-33, 8-22

Taylor, H. Gerry, PhD  
Children’s Hospital Medical Center  
513/636-3370 ...................................................3-9

Taylor, Heather B., PhD  
The Institute for Rehabilitation and Research (TIRR)  
713/797-5908 ...................................................3-75

Tewey, Elizabeth  
New Editions Consulting  
703/356-8035, ext. 119 ...................................6-19

Principal Investigators  
C-14
Ticha, Renata, PhD
Regents of the University of Minnesota
612/624-6024 ...................................................2-32

Vanderheiden, Gregg C., PhD
University of Wisconsin-Madison
608/263-5788 ...................................................5-23

Vogler, Christian, PhD
Gallaudet University
202/250-2795 (V/Video)..............................5-6

Wade, Shari L., PhD
Children’s Hospital Medical Center
513/636-3370 ........................................... 2-36, 3-9

Wagner, Amy K., MD
University of Pittsburgh
<body>412/648-6666 3-49

Walker, Janet, PhD
Portland State University
503/725-8236 .....................................................2-9

Waynor, William, PhD
Rutgers, The State University of New Jersey
908/889-2453 ...................................................1-29

Wegener, PhD, Stephen
Johns Hopkins University
410/502-2441 ....................................................3-62

Wehman, Paul, PhD
TransCen, Inc.
301/424-2002, ext. 230 .................1-12, 1-16, 1-24

Weissling, Kristy
University of Wisconsin-Milwaukee
414/229-4945 ..................................................5-43

Westbrook, John, PhD
American Institutes for Research (AIR)
512/391-6517 .................................................6-10, 6-11, 6-12

White, Glen W., PhD
The University of Kansas
785/864-4095 (V)
785/864-0706 (TTY).................................2-5, 2-24

Wills, Howard, PhD
University of Kansas Center for Research, Inc.
913/321-3143, ext. 2603 .........................2-14

Wilson, Josephine F., DDS, PhD
Wright State University
937/775-1484 ............................................... 1-21, 1-32

Worobey, Lynn, PhD
University of Pittsburgh
412/648-6979 ...................................................5-28

Yanos, Philip T., PhD
John Jay College of Criminal Justice
212/237-8773 ...................................................2-34

Yao, Jun, PhD
Northwestern University
312/908-9060 ....................................................5-31

Yeates, Keith O., PhD
Children’s Hospital Medical Center
513/636-3370 .....................................................3-9

Zafonte, Ross D., DO
Spaulding Rehabilitation Hospital
617/573-2913 ...................................................3-32

Zhang, Li-Qun, PhD
Northwestern University
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