KESSLER FOUNDATION

Post-Doctoral Training Program in Neurocognitive Rehabilitation and in Pediatric Neuropsychology

NEUROPSYCHOLOGY AND NEUROSCIENCE

TRAUMATIC BRAIN INJURY RESEARCH

RUTGERS
THE STATE UNIVERSITY
OF NEW JERSEY

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APPLICATION PROCESS

The initial application involves submitting a cover letter detailing your research and clinical interests, background, and training, as well as copies of your CV, graduate transcript, and representative publications or manuscripts. Following review of the completed application, appropriate candidates will be contacted and invited for a formal interview.

Applicants

- Ph.D., M.D.- Doctoral degree should be in a field relevant to neuropsychology or cognitive neuroscience. Ph.D. candidates planning dissertation research on topics relevant to neuropsychology/neuroscience are also encouraged to apply. Dissertation defense must be completed prior to beginning fellowship.
- Citizen or non-citizen national of the U.S. or lawful permanent U.S. resident.
- Excellent academic record.
- Research experience: Ph.D. candidates should be proficient in basic research skills. Strong candidates will have either publications or publishable theses. M.D. candidates should have experience with research at least on the basis of an initial project.
- An expressed interest in pursuing a career in neuropsychology, cognitive neuroscience or rehabilitation, particularly an academic or research career.

Application Instructions

In order to apply, please submit the following materials:

1. cover letter detailing research and clinical interests, background, and training
2. CV
3. three letters of recommendation
4. copy of graduate program transcripts
5. copies of publications or manuscripts that illustrate your research work

Please send your application materials to the address below:

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If at any time during this application process, you have any questions or need further information please do not hesitate to call or e-mail Dr. Chiaravalloti.
Visit us at http://www.kesslerfoundation.org

OVERVIEW OF THE PROGRAM

The Post-Doctoral Fellowship Program in Neurocognitive Research is administered through the Department of Physical Medicine and Rehabilitation at Rutgers University-New Jersey Medical School, in close collaboration with Kessler Foundation. Fellows will receive their training in either the Neuropsychology & Neuroscience Lab or the Traumatic Brain Injury (TBI) Lab at the Kessler Foundation. Additional training opportunities are provided more broadly across multiple departments, capitalizing on unique opportunities throughout the medical school and university as well as with nearby centers of excellence throughout New York and New Jersey to pursue key research or clinical training goals.

The Post-Doctoral Training Program in Neurocognitive Research, which follows postdoctoral training criteria established by Division 40 (Neuropsychology) of the American Psychological Association (APA), is designed to provide advanced research al training for post-doctoral fellows in Neuropsychology and Neuroscience. The Training Program is a participating member of the Association of Postdoctoral Programs in Clinical Neuropsychology (APPCN).

Fellows are expected to spend at least 75% of their time working on research projects starting from inception (e.g., study formulation, grant-writing, etc.) to manuscript publication. The remaining time is spent in clinical or other activities. Fellows also receive an academic appointment in the Department of Physical Medicine and Rehabilitation at Rutgers University.

KESSLER FOUNDATION

Kessler Foundation is a public charity dedicated to improving the lives of people with physical and cognitive disabilities caused by stroke, multiple sclerosis, injuries to the brain and spinal cord, and other chronic conditions. The Foundation's approach is twofold - supporting rehabilitation research through the Kessler Foundation Research Center and preparing individuals for the workplace through the Kessler Foundation Program Center. Through it's Research Center, the Foundation achieves steady scientific gains in its efforts to improve rehabilitation through the development and identification of evidence-based methods to address the many consequences of neurological injury and illness. Through its Program Center, the Foundation provides support that ensures vocational training and placement opportunities for people with disabilities in our communities.

Kessler Foundation is a non-profit medical rehabilitation research and education organization, with the primary purpose of promoting high quality rehabilitation research and development activities that will improve health, promote wellness and ultimately improve the quality of life for persons with physical and cognitive disabilities. The Kessler Foundation presently has a full-time staff of 93 individuals, with 2 locations. The first location is within the Kessler Institute for Rehabilitation - West Orange facility, containing laboratories and programs in Stroke, Traumatic Brain Injury, Outcomes and Assessment, Spinal Cord Injury, Human Performance and Movement Analysis, and Rehabilitation Engineering. The Neuropsychology and Neuroscience Lab and Traumatic Brain Injury, are also located approximately 6 miles away from the Kessler Institute in a newly redesigned suite. Kessler Foundation has an external Scientific Advisory Board, chaired by Marcus Fuhrer, Ph.D., Director Emeritus, National Center for Medical Rehabilitation Research, National Institutes of Health, which provides an objective critique of all research activity conducted at the Research Center on an annual basis. The dedication of the Kessler Foundation scientists to rehabilitation research provides broad opportunities for developing and sharing expertise in rehabilitation engineering, statistical

analysis, computer programming, database management, research dissemination, and Internet applications.

NEUROPSYCHOLOGY AND NEUROSCIENCE

The Neuropsychology and Neuroscience Laboratory (NNL) conducts research and training in the study of human cognition and its rehabilitation in clinical populations using the research approaches of neuropsychology, functional brain imaging, and cognitive neuroscience. Current research examines neuropsychological deficits associated with a variety of clinical populations, including multiple sclerosis, traumatic brain injury, spinal cord injury, and stroke. The laboratory conducts collaborative research with over 30 other individuals locally, nationally, and internationally. Fellowships have been funded through a variety of sources, including the National Institutes of Health (F32 and T32 funding mechanisms), the National Institute on Disability, Independent Living and Rehabilitation Research, The National Multiple Sclerosis Society and the Kessler Foundation. The NNL was initiated in 1990 and in the ensuing years has published over 325 articles, abstracts, and book chapters, and has made over 500 professional presentations.

The mission of the Neuropsychology and Neuroscience Laboratory is to provide training and research in the areas of behavioral neuropsychology and cognitive neuroscience. In addition, the NNL seeks to provide training to developing rehabilitation researchers, thereby encouraging growth in the field. The NNL is extremely productive in achieving the goals set out from this mission. The rate of publications, presentations at national and international conferences and graduation of trainees continues to grow and expand. The NNL has several multi-year grants to support our research and training activities.

All investigators, including graduate students, post-docs, and clinical scientists have access to a laptop.

TRAUMATIC BRAIN INJURY RESEARCH

The TBI lab conducts research examining the cognitive, affective, social, neurofunctional and behavioral effects of TBI and tests the effectiveness of rehabilitation treatments to improve quality of life for persons with TBI. Researchers develop interventions to increase a person's ability to actively participate in family and society, perform complex daily life tasks, return to work, and function independently. Research findings are published in international peer-reviewed medical journals and many of our studies are externally funded through private, state and federal agencies. Multiple modes of assessments are utilized, including neuropsychological tests, novel computerized assessments, and neuroimaging. KF is a leader of neuroimaging research, examining both neurofunctional and neuroanatomical aspects of the post-injury brain, as well as changes in functional and anatomical aspects of the brain over time and from pre to post treatment.

The TBI lab is equipped with 4 testing rooms used for patient interviews, neuropsychological testing, and interventions. Specialized computer-based programs and protocols have been developed within the lab for testing attention, working memory, language processing, and for perceptual identification priming. Numerous standardized

neuropsychological tests as well as a variety of books and journals relating to neuropsychology, neuroscience and neuroimaging are available within the lab.

Technology is an important part of the research carried out in the TBI lab. For example, many studies utilize the Foundation's 3T MRI scanner at the Rocco Ortenzio Neuroimaging Center to address questions regarding the neurofunctional effects of TBI and subsequent recovery and intervention protocols. In addition, scientists in the TBI Lab are partnering with the University of Southern California to use virtual reality technology in the assessment and treatment of cognition post-TBI. All investigators, including graduate students, post-docs, and clinical scientists have access to a laptop.

Kessler Foundation's TBI Research is nationally known as a center for excellence in TBI research and care. It is the lead site for the Northern New Jersey Traumatic Brain Injury Model System (NNJTBIS)—a collaborative effort between Kessler Foundation, Kessler Institute for Rehabilitation, University Hospital - Newark, Saint Joseph's Regional Medical Center, Morristown Medical Center, Hackensack University Medical Center and Jersey City Medical Center. TBI Model systems are federally-funded grants through the National Institute on Disability, Independent Living and Rehabilitation Research (NIDILRR) that promote collaboration through research to advance medical rehabilitation by increasing the rigor and efficiency of scientific efforts to longitudinally assess the experience of individuals with TBI. As a data collection site, Kessler Foundation follows a person from the time of injury throughout their lives in an effort to increase our understanding of recovery and long-term outcome. As such, the contributions of our research staff to the improvement in the clinical care of individuals with TBI is significant.

ACTIVE RESEARCH AREAS

Current grant funding includes: multi-year grants from the National Institutes of Health (NIH); National Institute on Disability, Independent Living and Rehabilitation Research (NIDRR); and the Department of Veterans Affairs; a Training Program Grant from the National Multiple Sclerosis Society; pilot research grants from the Kessler Foundation, a pilot grant from the Consortium of Multiple Sclerosis Center, multi-year and pilot research grants from the National MS Society, as well as several multi-year and pilot research grants from the New Jersey Commission for Brain Injury Research.

- Multiple Sclerosis - The Laboratory's work in Multiple Sclerosis (MS) challenges the current view on the cause of memory impairment in MS. Much of our pioneering work provided the first evidence that memory impairment in individuals with MS may be due to a different mechanism (i.e., impaired acquisition of information) than previously hypothesized (i.e., retrieval failure). A major focus of work in our lab has been to identify and treat the impairments of learning and memory. Research has found that controllable variables, such as distracting stimuli or a lack of time for adequate information processing, impacts information acquisition in MS. Current work is focused on cognitive rehabilitation programs to treat problems of learning and memory, as well as processing speed, in persons with MS. The NNL's work on learning and memory has significant implications for the neurocognitive rehabilitation of persons with MS. In addition to the above projects, the NNL is continuing its MS work in the areas of emotion, personality, psychophysiology, employment, medication adherence, and everyday functioning.

- Traumatic Brain Injury - Several lines of research in the area of Traumatic Brain Injury (TBI) are ongoing. In addition to ongoing research related to the NNJTBIS, Kessler Foundation researchers maintain a rich line of research crossing several topics related to TBI. One line of research involves memory deficits in individuals with more severe head injuries at the chronic stage of injury. Another area of work is in the use of neuroimaging techniques (i.e., fMRI, MRI, MRS, DTI) to examine brain abnormalities and cognitive functioning in TBI, done in collaboration with Rutgers University, Nathan Kline and Penn State University. Research is also being conducted in the assessment and treatment of cognitive impairments in TBI and the functional application to rehabilitation. Additional work includes investigations of sleep and fatigue post-TBI, the impact of culture and ethnicity on outcome following TBI, the development of a quality of life measure for caregivers of persons with TBI, and the assessment of the neural underpinnings of emotional processing deficits following TBI.

- Cognitive Rehabilitation- The laboratories are interested in investigating cognition in various populations. Understanding the impact of learning and memory impairments in individuals with neurological injuries or illnesses. Researchers are investigating how executive abilities or processing speed impact learning and memory as well as studying aging in persons with neurological illness or injuries. Rehabilitation techniques are being utilized to improve learning and memory and processing speed, as well as applying rehabilitation techniques to improve functional status. Additional research is focused on how psychological factors such as apathy, depression and cognitive fatigue effect cognition.

- Pediatric Neuropsychology- A postdoctoral fellowship in Pediatric Neuropsychology is offered jointly through Children Specialized Hospital (CSH) and Kessler Foundation. The two-year program prepares clinicians-scientists for a career in clinical research within the specialty area of pediatric neuropsychological rehabilitation. Training opportunities are provided across multiple departments at CSH and Kessler Foundation, capitalizing on unique opportunities throughout both organizations to pursue key clinical and research training goals. All fellows participate in an extensive training curriculum and didactic offerings. Multidisciplinary mentored training opportunities are individually tailored to achieve specific goals considering the fellows' prior background and interests. CSH serves children from birth to 21 years of age with special healthcare needs, including brain injury, spinal cord dysfunction and injury, premature birth, autism, developmental delays, and other health challenges in 12 locations in NJ. Therapeutic programs include physical, speech, and occupational therapy; psychology services; neurodevelopmental physician services; recreational therapy and child life, and a full complement of support services.

- Functional Neuroimaging – Scientists and mentors are currently active in several areas of investigation: clinical applications of fMRI, the use of parametric studies, the evaluation of cognitive functioning in clinical populations, and utilizing optical tomography using near-infrared spectroscopy. Our parametric studies seek to develop standardized fMRI acquisition paradigms specifically in the auditory and motor domains. Our studies of cognitive functions in clinical populations are investigating the neurofunctional correlates of information processing, working memory, learning, memory and executive abilities in MS and TBI. The lab also houses a fully functional near-infrared optical (NIRS) tomography system. NIRS is a functional neuroimaging system that provides a noninvasive and portable way to measure functional cerebral activity.

ADDITIONAL RESOURCES

The Rocco Ortenzio Neuroimaging Center (RONIC) is a core resource allowing Kessler Foundation Scientists to perform structural/functional neuroimaging studies. The RONIC is housed in a new facility that is physically connected to KF labs. It has a research-dedicated 3T scanner for inpatients, outpatients and healthy volunteers for participation in research studies.

The Office of Grants Administration (OGA) provides support for researchers in securing external support for sponsored projects and collaborations. The office reviews, negotiates, and provides administrative oversight related to proposals and the implementation of awards on behalf of KF, in compliance with all Federal, State, sponsor, and internal policies and regulations. Following award notification, the OGA continues to provide support in coordination for sponsored projects, addressing fiscal matters, and providing administrative oversight for ClinicalTrials.gov. The OGA also works closely with the IRB to ensure that all studies involving human subjects receive requisite approvals.

Information Systems and Technology (IST). KF research activities are supported and made secure by a sophisticated network of computers and support peripherals linked through a common Ethernet network. The local area network includes over 120 workstations. A dedicated, secure internet connection provides high-bandwidth connectivity for websites and web-based services; specialized research connectivity to affiliated university laboratories; and desktop video conferencing for “telerehabilitation” and virtual reality research. KF labs benefit from centralized equipment specification, procurement, installation, configuration, and on-demand technical support for advanced data management and analysis. The IST group has 5 full-time staff members who designed and manage KesslerFoundation.org, a website that describes the full spectrum of the KF’s research.

Medical Library and Patient Resource Center (MLPRC) provides resources in electronic and print formats, and supports all research and education activities of KF. The library participates in a number of local and regional interlibrary loan consortia, and is a member of the National Network of Libraries of Medicine. Other resources include access to MEDLINE, COCHRANE, OVID ACCESS LICENSE, PSYCHINFO & CINAHL via the WWW.

CURRENT SCIENTIFIC STAFF

Nancy D. Chiaravalloti, PhD	Director, NNL and TBI
Jean Lengenfelder, PhD	Assistant Director TBI
Glenn Wylie, D Phil	Associate Director NNL and Neuroimaging Center
Ekaterina Dobryakova, PhD	Research Scientist
Helen Genova, PhD	Senior Research Scientist
Denise Krch, PhD	Research Scientist
Anthony Lequerica, PhD	Research Scientist
Lauren Strober, PhD	Senior Research Scientist
Yael Goverover, PhD	Visiting Scientist
Gerald Voelbel, PhD	Visiting Scientist
Silvana Costa, PhD	Postdoctoral Fellow
Cherylynn Marino, PhD	Postdoctoral Fellow
Erica Weber, PhD	Postdoctoral Fellow
Nancy B. Moore, M.A.	Research Manager, NNL and TBI
Angela A. Smith, M.A.	Research Coordinator, NNL
Belinda Washington	Research Coordinator, TBI
Alexandra Becker	Research Assistant
Chris Bober	Research Assistant
Christopher Cagna	Research Assistant
Tiffany Chang	Research Assistant
Alex De Graaf	Research Assistant
Andrea Gagliano	Research Assistant
Alison Haight	Research Assistant
Silvio Lavrador	Research Assistant
Amy Lebkuecher	Research Assistant
Christian Lucca	Research Assistant
Erin McLean	Research Assistant
Hayley O'Donnell	Research Assistant
Dennis Tirri	Research Assistant
Denise Vasquez	Research Assistant
Sean Wallace	Research Assistant
Rebecca Zanotti	Research Assistant
Yadira Gaspard	Administrative Assistant

- John DeLuca, Ph.D. - Former NNL Director and current VP for Research & Training at Kessler Foundation, is an active mentor in the training program and PI of the Fellowship Training grant from the NMSS.

PROGRAM STRUCTURE

Didactic Curriculum

Because there are a multitude of educational opportunities at Kessler Foundation, Rutgers University, and other area centers, fellows can individualize their didactic experience according to their interests and background. However, to ensure that all fellows receive consistent and comprehensive education in the areas of neuropsychology, neuroscience and rehabilitation, several of the experiences are mandatory.

Required of all fellows:

1. Fellows Didactics Seminar- This bi-monthly meeting is attended by all Rutgers and Kessler Foundation post-doctoral fellows and includes:
   - Faculty lectures on a variety of rehabilitation and research topics. The core areas are Rehabilitation populations, Outcomes, Rehabilitation Engineering and Human performance in biomechanics.
   - Presentations on professional issues and ethics.
   - Fellows' lectures on special topics of relevance to their individual training program.

2. Lab Meetings- Weekly meeting for all lab members (NNL or TBIL).
   - Presentations and discussions on a variety of topics specific to neuropsychology, neuroscience, or TBI.
   - Forum for all members to discuss and receive feedback on new research ideas, interpretation of data, and professional issues.
   - Fellows are expected to present on topics of interest, grant proposals, and research findings.

Additionally, there is a vast array of educational opportunities available through Rutgers, Kessler Foundation and the Kessler Institute for Rehabilitation which fellows are encouraged to attend. Some didactics that fellows have typically attended include: Departmental Grand Rounds, Resident Lecture Series, Neuropsychology Speaker Series, and Cognitive Neuroscience Colloquium Series. Lectures taking place at other local institutions (e.g. Columbia University, NYU) are also available for fellows to attend.

Special efforts are made to ensure understanding of ethical standards in the practice of psychology, and to ensure all fellows' competence in professional practice relevant to cultural and individual differences and diversity. In addition to specific lectures addressing these topics in the mandatory Fellows Seminar, all fellows are expected to complete training and certification in research ethics and human subjects' protection.

Clinical Activities

Fellows are given the opportunity to pursue a variety of clinical experiences including neuropsychological assessment and consultation with both inpatient and outpatient adult and pediatric populations including; TBI, MS, stroke and cerebrovascular disease, systemic illness (i.e., lupus, lyme), neurotoxicity, tumor, learning disabilities, Attention Deficit Disorder, autism, dementia, Parkinson's Disease, geriatric conditions, and sports related injuries.

Supervision

Each fellow is assigned a primary supervisor, who works closely with them to develop an individually tailored program that serves both the broader training goals and the specific interests of the fellow. The primary supervisor will have ***at least*** weekly meetings with the fellow to assure adequate progress and address general issues that may arise in the course of training.

Each fellow is additionally assigned one or more assistive mentors, with whom he or she meets biweekly. The matching of the mentors with mentees is mutually agreed upon during the development of the fellow's initial training plan and is largely based on research interests and long-term career goals.

Fellows also receive group supervision from various scientists or other faculty, depending on the specific requirements of the individual fellowship plan and clinical or research involvement. The nature of the supervisory process is collegial and progressive, with increasing levels of responsibility expected of fellows as they pursue their program goals. For neuropsychology fellows, the majority of supervision comes from licensed psychologists with a background in clinical neuropsychology. Supervision is also provided by the research faculty and is arranged as dictated by the training goals. Each fellow's primary supervisor provides evaluation of the fellow's progress every three months with a full evaluation at the end of each year.

Benefits and Stipend

The fellowship program offers a comprehensive benefit package including a group health plan, paid accrued vacation, sick time, and holidays. Additionally, fellows may attend graduate courses at the Graduate School of Biomedical Sciences. Salary is commensurate with NIH guidelines.

https://grants.nih.gov/grants/guide/notice-files/NOT-OD-17-003.html#

Mentorship

The Post-Doctoral Training Program in Neurocognitive Research and Pediatric Neuropsychology are one of several training programs at Rutgers/ Kessler Foundation which emphasize rehabilitation research. For several years, federal task forces on rehabilitation research have stressed the need for an interdisciplinary approach, the importance of training physiatrists in research, and the need to attract skilled researchers in other fields to rehabilitation research. Kessler Foundation, in close collaboration with Rutgers, has responded to these needs by providing advanced training of post-doctoral Ph.D.'s. and M.D.'s. The Rutgers/ Kessler Foundation collaboration was awarded a series of training grants from the NIH, NMSS, NIDRR, the Kessler Foundation, and other sources.

Our aim is to nurture the research interests of young investigators in an atmosphere of enthusiasm, tempered by insistence on rigorous methodological standards and clinical relevance. Our training program consists of a mentoring team with a Primary Mentor who is formally responsible for development of a productive research-training environment for the Fellow and for submission of reports on the Fellow's progress. Additional mentors are added to the team according to the training needs of each individual fellow. Fellows experience mentorship from other researchers in the area of neuropsychology and neuroscience as well as clinical mentorship. Excellent laboratory, computational, and other scientific resources are available. The program has not only trained young investigators, but has also encouraged established investigators in other fields to conduct research relevant to rehabilitation.

COLLABORATIONS

Collaborating Departments at Rutgers University

The Department of Physical Medicine and Rehabilitation

The Department of Physical Medicine and Rehabilitation (PM&R) includes physiatry, occupational therapy, physical therapy, speech-language pathology, and therapeutic recreation. Rehabilitation services are designed to restore, improve, or maintain the patient's optimal level of functioning, self-care, self-responsibility, independence, and quality of life. In addition, the services are designed to minimize symptoms, exacerbation of chronic illnesses, impairments, and disabilities. The PM&R Department at Rutgers University has close ties to the Kessler Institute for Rehabilitation, the East Orange VA Medical Center, the Lyons VA, and Children's Specialized Hospital. The PM&R department conducts research on numerous topics including cognitive rehabilitation, spinal cord injury, sports injury, treatment of muscle spasticity, orthopedic rehabilitation, recovery of motor functioning after injury, quality of life management and rehabilitation outcome. Fellows receive an academic appointment in this department.

The Department of Neuroscience

The Neuroscience Department conducts basic and clinical research on neurological disorders, such as multiple sclerosis, neuronal and retinal regeneration, Parkinson's disease, peripheral neuropathy, obesity, violence and aggression, learning disabilities resulting from membrane anomalies, and chronic fatigue syndrome. Because of the eclectic nature of the department, some research projects are directed towards revealing the basic mechanisms of disease, while other projects focus on improving clinical therapies. This department includes the Multiple Sclerosis Diagnosis and Treatment Center. The Center provides diagnosis and treatment services for patients with known or suspected Multiple Sclerosis (MS). The Center is partially supported by the National Multiple Sclerosis Society. This is a valuable resource for Kessler because interaction with the Department of Neuroscience enables our researchers to extend their knowledge beyond neuropsychological tests and measures, and to better understand the inner workings of the brain at both functional and cellular level.

In addition to the ongoing lines of research additional departments at Rutgers University are involved in the post-doctoral training program including the Psychology Department and Center for Molecular and Behavioral Neurosciences. Researchers at Kessler Foundation have maintained an extensive collaborative relationship with individuals from the Center for Molecular and Behavioral Neurosciences (CMBN) is a research facility where neuroscience is studied at all levels, from the molecular to the behavioral. CMBN has a multidisciplinary and integrative approach to neuroscience research utilizing the latest techniques. Their research involves molecular, biological, immunological and neuroanatomical techniques, and technologies for imaging the human brain (PET and MRI/fMRI), to examine basic neuronal mechanisms underlying adaptive behavior in animals and humans, including higher cognitive functions such as speech, language and cognition.

Collaborating Centers

James J. Peters Veterans Administration Medical Center (JJPVAMC, Bronx VA)

Researchers at JJPVAMC conduct both human and animal studies in collaboration with researchers at Kessler Foundation. There is a Human Performance Laboratory in the Rehabilitation Medicine Service, including a wheelchair accessible treadmill, Quinton metabolic analyzer and stress ECG monitor, Peak Performance Analysis two-camera video gait analysis system, and Dantec Counterpoint 4-channel EMG.

The Center of Excellence for the Medical Consequences of SCI (CoE) is located on the SCI Service of the JJP VAMC. The Center has been funded by the VA RR&D Service since 2002 and employs more than 25 full-time staff, a core administrative staff and an IT officer. Dr. Bauman is the Director of the CoE which has laboratory space at Kessler and has been conducting research in collaboration with Kessler researchers since 2000.

East Orange Campus of the Veterans Administration Medical Center (VAMC)

The East Orange VAMC houses the Multiple Sclerosis Centers of Excellence. These centers are dedicated to furthering our understanding of multiple sclerosis, its impact on Veterans, and effective treatments to help manage multiple sclerosis symptoms. The center is directed by Dr. Carol Gill. Ongoing collaborations between KF and the MS Center for Excellence largely focus on testing the efficacy of interventions for deficits in cognitive functioning in persons with MS.

New Jersey Institute of Technology

The New Jersey Institute of Technology (NJIT) is the comprehensive technological university of the State of New Jersey and has, for almost a decade, been a close collaborator with Kessler Foundation and Rutgers' Department of Physical Medicine and Rehabilitation. Ongoing work in collaboration with NJIT includes the analysis of eye movements and their relationship to cognitive functioning in MS as well as the neurofunctional and neuroanatomical consequence of TBI.

Nathan Kline Institute

There is close, ongoing collaboration between researchers at The Kessler Foundation and The Nathan S. Kline Institute for Psychiatric Research (NKI). NKI is a facility of the New York State Office of Mental Health that has earned a national and international reputation for its pioneering contributions in psychiatric research, especially in the areas of psychopharmacological treatments for schizophrenia and major mood disorders, and in the application of computer technology to mental health services. Since 1952, interdisciplinary teams of distinguished NKI scientists have applied their talents and expertise to study the etiology, treatment, prevention, and rehabilitation of severe and persistent mental illnesses. Located on the grounds of Rockland Psychiatric Center in Orangeburg, New York (20 miles north of New York City), NKI receives additional operating support from federal, municipal, and private sources through the Research Foundation for Mental Hygiene. NKI has a strong academic collaboration with the Department of Psychiatry of New York University. As one of our nation's premier centers of excellence in mental health research, a broad range of studies are

conducted at NKI, including basic, clinical, and services research. All of our work is intended to improve care for people suffering from these complex, psychobiologically-based, severely disabling mental disorders.

Research Collaborators

Aubree Alexander, PhD; Tara Alvarez, PhD; Randall Barbour, PhD; A.M. Barrett, MD; Bharat Biswal, PhD; Diego Cadavid, MD; Gordon Chelune, PhD; Stuart D. Cook, MD; Bruce Diamond, PhD; Michael Dribbon, PhD; Mark Gluck, PhD; June Halper, MSN, ANP, FAAN; Frank Hillary, PhD; Joy Hirsch, PhD, Matthew Hoptman, PhD; Mark Johnston, PhD; Jeffrey Kreutzer, PhD; Gudrun Lange, PhD; David Livingston, SD; Allen Maniker, MD; Catherine Myers, PhD; Benjamin Natelson, MD; Charles Prestigiacomo, MD; Albert Rizzo, PhD; Brent Roberts, PhD; Timothy Salthouse, PhD; Yaakov Stern, PhD, Lana Tiersky, PhD; Joan Toglia, PhD; David Tulsky, PhD; Jill Wecht, EdD, Leo Wolansky, MD.

ADDITIONAL INFORMATION

Sample of Former Research Fellows and Current Placement

Juan Carlos Arango-Lasprilla, PhD: Assistant Professor, Faculty of Psychology and Education, University of Deusto, Bilbao, Spain

Deborah Bryant, PhD: Adjunct Assistant Professor of Psychology, Rutgers University, Newark, NJ

Nancy D. Chiaravalloti, PhD: Director, TBI Research and Neuropsychology & Neuroscience Research Laboratory, Kessler Foundation, West Orange, NJ; Associate Professor, Department of Physical Medicine & Rehabilitation, Rutgers University-New Jersey Medical School, Newark, NJ

Christopher Christodoulou, PhD: Assistant Professor, Department of Neurology SUNY at Stony Brook, NY

Heath Demeree, PhD: Assistant Professor, Department of Psychology, Case Western Reserve University, Cleveland, OH

Bruce J. Diamond, PhD: Associate Professor, William Paterson University, Wayne, NJ, Assistant Professor, Department of Physical Medicine and Rehabilitation, RUTGERS-New Jersey Medical School, Newark, NJ

Lawanda Ford-Johnson, PhD: Psychologist, Mental Health & Behavioral Medicine, Central Texas Veterans Health Care System, Waco, TX

Aretuola Fullam, Ph.D.: Private Practice, Ridgewood, NJ

Yael Goverover, Ph.D.- Assistant Professor, Occupational Therapy Department, New York University, New York, NY

Elizabeth Guadino, PhD: Adjunct Professor, Nassau Community College, Garden City, NY

Frank G. Hillary, PhD: Assistant Professor, Department of Psychology, Pennsylvania State University, State College, PA

Susan Johnson, PhD: Associate Professor, Department of Psychology, University of North Carolina at Charlotte, NC

Jessica Kalmar, PhD: Associate Research Scientist, Department of Psychiatry, Yale University, New Haven, CT

Gudrun Lange, PhD: Professor, Department of Psychiatry and Radiology, RUTGERS-New Jersey Medical School, Newark, NJ

Jean Lengenfelder, PhD: Assistant Director of TBI Research, Kessler Foundation, West Orange, NJ; Assistant Professor, Department of Physical Medicine & Rehabilitation, Rutgers University-New Jersey Medical School, Newark, NJ
Yali Li, MD, PhD: Attending Physician, Southside Hospital, Brain Injury Unit, Bay Shore, NY
Nancy Madigan, PhD: Clinical Neuropsychologist, Boston, MA
Margaret Schmidt, Ph.D. Clinical Psychologist, James A. Haley VAMC, Lakeland, FL
Maria T. Schultheis, PhD: Associate Professor, Department of Psychology & School of Biomedical Engineering, Science & Health Systems, Drexel University, Philadelphia, PA
Marla Shawaryn, PhD: Psychologist, Moss Rehabilitation Center, Philadelphia, PA
Lana Tiersky, PhD: Associate Professor, Fairleigh Dickinson University, Teaneck, NJ
*Gerald Voelbel, Ph*D: Assistant Professor, Occupational Therapy Department, New York University, New York, NY
Julia Coyne, PhD: Assistant Director for Child Clinical and School Psychology Training Montclair State University, Montclair, NJ
*Olga Nikelshpur, Ph*D: Psychologist at NYU Langone Medical Center, Rusk Rehabilitation, New York, NY
Joshua Sandry, PhD: Assistant Professor, Montclair State University, Montclair, NJ

Sample of Publications by fellows during or soon after fellowship completion

Arango-Lasprilla, J.C., Chiaravalloti, N.D., DeLuca, J. (2007). El perfil neuropsicologico en la esclerosis multiple (translated: Neuropsychological Profile of Multiple Sclerosis). Psicothema, 19 (1), 1-6.

Arango-Lasprilla, J.C., Rosenthal, M., DeLuca, J., Cifu, D.X., Hanks, R. & Komaraoff, E. (2007)Functional Outcomes from Inpatient Rehabilitation after Traumatic Brain Injury: How do Hispanics fare? Archives of Physical Medicine and Rehabilitation, 88, 11-18.

Chiaravalloti, N., Moore, N.B., **Nikelshpur, O.,** DeLuca, J. (2013). A Randomized Clinical Trial to Treat Learning Impairment in Multiple Sclerosis: The MEMREHAB trial. Neurology. 10;81(24):2066-72. doi: 10.1212/01.wnl.0000437295.97946.a8. Epub 2013 Nov 8.

Chiaravalloti, N. D., **Stojanovic-Radic, J.,** & DeLuca, J. (2013). The role of speed versus working memory in predicting learning new information in multiple sclerosis. J Clin Exp Neuropsychology, *35*(2), 180-191.

Chiaravalloti, N.D., Christodoulou, C., **Demaree, H.,** & DeLuca, J. (2003). Differentiating simple versus complex processing speed: Influence on memory performance. Journal of Clinical and Experimental Neuropsychology, 25, 489-501.

Chiaravalloti, N.D., & DeLuca, J. (2002). Self-generation as a means of maximizing learning in Multiple Sclerosis: An application of the generation effect. Archives of Physical Medicine and Rehabilitation, 83, 1070-1079.

Chiaravalloti, N.D., & DeLuca, J. (2003). Assessing the behavioral consequences of Multiple Sclerosis: An application of the Frontal Systems Behavior Scale (FrSBe). Cognitive and Behavioral Neurology, 16(1), 54-67.

Chiaravalloti, N.D., Demaree, H., Guadino, E.A., & DeLuca, J. (2003). Can the repetition effect maximize learning in multiple sclerosis? Clinical Rehabilitation, 17(1), 58-68.

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