KESSLER FOUNDATION RESEARCH CENTER

NEUROPSYCHOLOGY POST-DOCTORAL TRAINING PROGRAM

THE NEUROPSYCHOLOGY AND NEUROSCIENCE RESEARCH LABORATORY

NEUROPSYCHOLOGY POST-DOCTORAL FELLOWSHIP TRAINING PROGRAM

TABLE OF CONTENTS

Neuropsychology Post-Doctoral Training Program

OVERVIEW OF THE PROGRAM

The Post-Doctoral Fellowship Program in Neuropsychology is administered through the Department of Physical Medicine and Rehabilitation at the University of Medicine and Dentistry of New Jersey (UMDNJ) -New Jersey Medical School, in close collaboration with the Kessler Foundation Research Center. 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 Neuropsychology, which meets postdoctoral training criteria established by Division 40 (Neuropsychology) of the American Psychological Association (APA), is designed to provide advanced research and clinical training for post-doctoral fellows in neuropsychology. 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 UMDNJ.

THE NEUROPSYCHOLOGY AND NEUROSCIENCE LABORATORY

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, anterior communicating artery aneurysm, and stroke. The laboratory conducts collaborative research with over 25 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 and Rehabilitation Research, The National Multiple Sclerosis Society and the Henry H. Kessler Foundation.

Mission Statement of the Lab

The mission of the Neuropsychology and Neuroscience Laboratory is to provide training and research in the areas of cognitive neuroscience and behavioral neuropsychology. In addition, the NNL seeks to provide training to developing rehabilitation researchers thereby encouraging growth in the field. As in previous years, the NNL has continued to be 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. Research in the laboratory examines neuropsychological deficits associated with a variety of clinical populations, including

individuals who have experienced aneurysms of the anterior communicating artery (ACoA), stroke, multiple sclerosis (MS), Chronic Fatigue Syndrome (CFS), and Traumatic Brain Injury (TBI). The laboratory conducts collaborative research with numerous individuals locally, nationally and internationally.

History of the Lab

The NNL was initiated in 1990 and in the ensuing years has published over 300 articles, abstracts, and book chapters, and has made over 250 professional presentations. Current grant funding for the laboratory includes: multi-year grants (R01, K23) from the National Institutes of Health (NIH); a Training Program Grant from the National Multiple Sclerosis Society; an Advanced Multidisciplinary Training Program Grant from the National Institute on Disability and Rehabilitation Research (NIDRR); as well as several multi-year and pilot research grants from the National MS Society.

Current Lab Members

Nancy D. Chiaravalloti, Ph.D. - Director
Jean Lengenfelder, Ph.D. - Assistant Director of Neuropsychology
Glenn Wylie, D. Phil. - Assistant Director of Neuroscience
Helen Giangrante, Ph.D. - Research Scientist
Lauren Strober, Ph.D. - Research Scientist
James Sumowski, Ph.D. – Research Scientist
Yael Goverover, Ph.D. - Visiting Scientist
Gerald Voelbel, Ph.D. - Visiting Scientist
Denise Krch, Ph.D. - Postdoctoral Fellow
Victoria Leavitt, Ph.D. - Postdoctoral Fellow
Nancy B. Moore, M.A. - Research Manager
Angela A. Smith, M.A. - Research Coordinator
Brandon Agostini, M.A. - Research Assistant
Heather Alexander, B.A. - Research Assistant
Aparna Arjunan, B.S. - Research Assistant
Alison Binder, B.A. - Research Assistant
Amanda Cohen, B.A. - Research Assistant
Amy Grossman B.S. - Research Assistant
Mary Slome, B.A. - Research Assistant
Adam Staffaroni, B.S. - Research Assistant
Christine Zakrzewski, M.A. - Research Assistant

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

Active Research Areas

- Multiple Sclerosis - The Laboratory's work in multiple sclerosis challenges the current view on the cause of memory impairment in MS. A paper from the NNL, published in 1994, 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). More recent 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 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 emotionality, personality, psychophysiology and everyday functioning.

- Traumatic Brain Injury - The Laboratory conducts several lines of research in the area of traumatic brain injury (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) to examine brain abnormalities and cognitive functioning in TBI, done in collaboration with UMDNJ and Rutgers University. Research is also being conducted in the assessment and treatment of cognitive impairments in TBI and the functional application to rehabilitation.

- Anterior Communicating Artery (ACoA) and Amnesia - The Laboratory has been studying the amnestic syndrome observed in individuals who have suffered aneurysms at a very specific area of the brain (anterior communicating artery). What is so intriguing about this work is that the areas of the brain that have been identified over the past 100 years as critical for amnesia *are not* impaired in this population. Thus, the NNL's work is playing an integral role in forming a new understanding about the cerebral representation of human memory. Collaborative mechanisms for the study of amnesic patients who have basal forebrain, diencephalic, or mesial-temporal lobe damage have been established with the Brigham Young University and Rutgers University.

- Functional Neuroimaging - Members of the Laboratory 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 auditory processing, working memory, learning and recall in MS, TBI and ACoA. This work is conducted in collaboration with UMDNJ (Department of Radiology) and Rutgers University in Newark. Key resources include the Kessler Foundation Research Center Neuropsychology and Neuroscience Laboratory which houses a neuroimaging laboratory consisting of 3 data analysis workstations, 2 for functional neuroimaging analysis and 1 for optical tomography analysis, and 3 neuroimaging dedicated laptops. The lab also houses a fully functional near-infrared optical (NIRS) tomography system. NIRS is a functional neuroimaging system which allows for measuring functional cerebral activity in a noninvasive manner.

PROGRAM STRUCTURE AND RESOURCES

Didactic Curriculum

Because there are a multitude of educational opportunities at Kessler Foundation Research Center, UMDNJ, 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 and rehabilitation, several of the experiences are mandatory.

Required of all fellows:

1. Fellows Didactics Seminar- This bi-monthly meeting is attended by all UMDNJ and Kessler Foundation Research Center post-doctoral fellows and includes:
   - Faculty lectures on a variety of rehabilitation and research topics.
   - Presentations on professional issues and ethics.
   - Fellows are expected to lecture on special topics of relevance to their individual training program.

2. NNL Lab Meeting- Weekly meeting for all NNL members.
   - Presentations and discussions on a variety of topics specific to neuropsychology.
   - Forum for all NNL 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 UMDNJ and Kessler Foundation Research Center 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.

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 populations including; TBI, MS, stroke and cerebrovascular disease, systemic illness (i.e., lupus, lyme), neurotoxicity, tumor, learning disabilities, ADD, 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 will additionally receive direct and group supervision from other members of the laboratory or other faculty, depending on the specific requirements of the individual training program 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. The majority of supervision comes from licensed psychologists with a background in clinical neuropsychology, but occasional supervision from non-psychologist clinical or research faculty 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

UMDNJ offers a comprehensive benefit package including a University-sponsored group health plan, paid accrued vacation, sick time, and UMDNJ holidays/personal days. Additionally, fellows may attend graduate courses at the Graduate School of Biomedical Sciences. Salary is commensurate with NIH guidelines.

http://grants.nih.gov/grants/guide/notice-files/NOT-OD-10-047.html

Mentorship

The Neuropsychology Post-Doctoral Training Program is one of several training programs at UMDNJ/ Kessler Foundation Research Center 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 Research Center, in close collaboration with UMDNJ, has responded to these needs by providing advanced training of post-doctoral M.D.'s and Ph.D.'s. The UMDNJ/ Kessler Foundation Research Center collaboration has awarded a series of training grants from the NIH, the Rehabilitation Services Administration, the National Multiple Sclerosis Society, the NIDRR, the Henry H. 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 clinical expertise of Kenneth Kutner, Ph.D. 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.

Information Systems Technology

Research initiatives are sustained by a sophisticated network of computers and support peripherals linked through a common Ethernet network. High-speed switches and dual-speed hubs provide 10, 100 and 1000 MB connectivity to the Kessler Foundation Research Center local area network (LAN), which in turn provides general desktop Internet access via a 1.5Mbps T1 connection. The Kessler Foundation Research Center facility is 100% tested for 100MB Ethernet. The LAN includes over 110 workstations in the research laboratories, the Medical Library, the Kessler Conference Center, and the Education offices. The dedicated 1.5Mbps T1 connection provides high-bandwidth connectivity for web sites, web-based services, and specialized Research connectivity needs such as X-Windows connectivity to affiliated University laboratories, and desktop video conferencing for “tele-rehabilitation” and virtual presence research. This secure high-bandwidth connection also supports other advanced uses of data communications not supported by standard Internet Firewall configurations.

Over 500 Gigabytes of RAID 5 storage is dedicated to research endeavors at Kessler Foundation Research Center. A heterogenous network supports the Administrative and Research functions. Windows NT servers side-by-side with Unix servers and are supplemented by storage-area-network (SAN) devices and Unix-based internet appliances. Central print services are provided by network attached high-volume/high-speed LaserJet (5Si, 8000, 4050, 4100) printers, enhanced with additional memory and full PostScript compatibility. Tektronics by Xerox Phaser 6200, 8200, and Hewlett-Packard Color Laserjet 4500 printers provide networked full-color printing support. Dedicated servers provide central application support, including anti-virus, group scheduling, statistics (SPSS), archiving, spam protection, e-mail and web services. Printing capacity is augmented by numerous local desktop printers, all centrally managed and supported.

Throughout the research areas are workstations configured to provide optimal support for advanced data management and analysis. The individual laboratories benefit from central equipment specification, procurement, installation, configuration and on-demand technical support. Most workstations run Windows XP/2000/NT using TCP/IP, to access the network and the internet. Business functions are standardized on the Microsoft Office suite of applications. A PowerMac is available for Apple compatibility. The Internet, electronic mail, and Intra-net web services are accessible from all stations. Several stations are designated "general access" and are available to support temporary workers, students, collaborators, and visitors. The general access workstations include a flatbed scanner, full Internet connectivity, and statistical analysis software. Each year approximately 20% of the network workstations are upgraded to state-of-the-art machinery. All systems are fault-tolerant, with uninterruptable power supplies and remote server alerting and monitoring.

Technical Support:: Kessler Foundation Research Center staff and affiliated researchers receive on-demand technical support from a full-time Systems Support Specialist and a senior Network Engineer under the supervision of a Director of Information Systems and Technology (IST). A degreed biomedical engineer, the Director completed a 4 year research fellowship in multidisciplinary rehabilitation research, is active in the rehabilitation engineering profession, and participates actively in the design and development of

rehabilitation research grants, programs, and projects utilizing advanced technologies. The IST group provides everything from basic PC maintenance, repair and troubleshooting to desktop application support and advanced coding of interactive websites and promotional materials for dissemination of information via the World Wide Web.

Internet and Web Resources: The IST group at Kessler Foundation Research Center created and manages RehabTrials.org, a web resource dedicated to world-wide rehabilitation research and specifically controlled clinical trials in medical rehabilitation. RehabTrials maintains relationships with virtually every major web resource in clinical trials and rehabilitation, and engages in cooperative projects with other centers and institutions. Research staff at Kessler Foundation Research Center enjoy a work environment infused with Internet applications, web-based dissemination strategies, and collaborative involvement in the emerging rehab research communities on the web. The IST group collaborates closely with the Henry H Kessler Foundation, whose mission is to broadly support physical rehabilitation, as well as the Kessler Institute for Rehabilitation.

All researcher staff are required to disseminate research findings and otherwise participate in the Kessler Foundation Research Center Internet programs by providing accurate and timely information for inclusion in the various Kessler Foundation Research Center sponsored web sites and collaborating sites. The Information Systems and Technology unit provides a full-time Web Specialist for graphic and web page design services, page preparation with HTML, Javascript and PHP coding, and team support for full web site services, from concept through publication.

COLLABORATIONS

Collaborating Departments at UMDNJ

- 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 UMDNJ-University Hospital has close ties to the Kessler Institute, 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.

- The Department of Radiology. The Radiology department provides critical elements in supporting functional neuroimaging research. Primary among these resources is access to two 1.5 Tesla GE Signa MRI scanners equipped with Echo-planar imaging capability. A PET scanner has also been added to the Department. Additional resources include computing resources, lab facilities and administrative support.

- 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.

Collaborating Centers

- Veterans Administration New Jersey Health Care System: Researchers at VANJHCS conduct both human and animal studies in collaboration with researchers at KESSLER FOUNDATION RESEARCH CENTER. 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 Neurobehavioral Unit also conducts fertility studies in conjunction with some KESSLER FOUNDATION RESEARCH CENTER researchers.

- 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 RESEARCH CENTER and UMDNJ's Department of Physical Medicine and Rehabilitation.

- The University Heights Center for Advanced Imaging. A high-powered (3-Tesla) functional magnetic resonance imaging (fMRI) scanner that provides detailed pictures of specific areas of brain activity is enabling UMDNJ and Rutgers University-Newark researchers to significantly advance neurological research, and better understand and develop potential treatments for brain injury and for devastating neurological diseases such as MS, Alzheimer's, and autism. The fMRI scanner is the centerpiece of the University Heights Center for Advanced Imaging. One of only a handful of such scanners being used nationwide, this fMRI scanner is housed at the UMDNJ's campus in Newark, and is jointly owned by Rutgers-Newark and UMDNJ.

- Rutgers University- Newark. The major units of Rutgers University involved in the post-doctoral training are the Psychology Department and Center for Molecular and Behavioral Neurosciences. Researchers at KESSLER FOUNDATION RESEARCH CENTER have a maintained an extensive collaborative relationship with individuals from the Psychology Department at Rutgers. Research with individuals in the Psychology Department has involved the use of cognitive psychological methods, language comprehension, neural mechanisms underlying reasoning, and short-term memory. 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), to examine basic neuronal mechanisms underlying adaptive behavior in animals and humans, including higher cognitive functions such as speech, language and cognition.

Research Collaborators

Randall Barbour, Ph.D.; Anna Barrett, M.D.; Bharat Biswal, Ph.D.; Diego Cadavid, M.D.; Bruce Caplan, Ph.D.; Gordon Chelune, Ph.D.; Douglas Chute, Ph.D.; Stuart D. Cook, M.D.; Bruce Diamond, Ph.D.; Elie Elovic, M.D.; Jonathan Fellus, M.D.; Mark Gluck, Ph.D.; Oded Gonen, Ph.D.; June Halper, MSN, ANP, FAAN; Frank Hillary, Ph.D.; Ramona Hopkins, Ph.D.; Mark Johnston, Ph.D.; Jeffrey Kreutzer, Ph.D.; Gudrun Lange, Ph.D.; David Livingston, S.D.; Allen Maniker, M.D.; Catherine Myers, Ph.D.; Benjamin Natelson, M.D.; Charles Prestigiacomo, M.D.; Albert Rizzo, Ph.D; Timothy Salthouse, Ph.D.; Lana Tiersky, Ph.D.; Joan Toglia, Ph.D.; David Tulsky, Ph.D.; Leo Wolansky, M.D.

ADDITIONAL INFORMATION

Former Research Fellows and Current Placement

Juan Carlos Arango-Lasprilla, Ph.D.: Assistant Professor, Department of Physical Medicine & Rehabilitation, Virginia Commonwealth University, Richmond, VA

Deborah Bryant, Ph.D.: Adjunct Assistant Professor of Psychology, Rutgers University, Newark, NJ

Nancy D. Chiaravalloti, Ph.D.: Director, Neuropsychology & Neuroscience Research Laboratory, Kessler Foundation Research Center, West Orange, NJ; Associate Professor, Department of Physical Medicine & Rehabilitation, UMDNJ-New Jersey Medical School, Newark, NJ

Christopher Christodoulou, Ph.D.: Assistant Professor, Department of Neurology SUNY at Stony Brook, NY

Heath Demeree, Ph.D.: Assistant Professor, Department of Psychology, Case Western Reserve University, Cleveland, OH

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

Ruby Engel, Ph.D.: Full-time parent.

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, Ph.D.: Adjunct Professor, Nassau Community College, Garden City, NY

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

Susan Johnson, Ph.D.: Associate Professor, Department of Psychology, University of North Carolina at Charlotte, NC

Jessica Kalmar, Ph.D.: Associate Research Scientist, Department of Psychiatry, Yale University, New Haven, CT

Gudrun Lange, Ph.D.: Associate Professor, Department of Psychiatry and Radiology, UMDNJ-New Jersey Medical School, Newark, NJ

Jean Lengenfelder, Ph.D.: Assistant Director of Neuropsychology, Neuropsychology & Neuroscience Laboratory, Kessler Foundation Research Center, West Orange, NJ; Assistant Professor, Department of Physical Medicine & Rehabilitation, UMDNJ-New Jersey Medical School, Newark, NJ

Yali Li, M.D.: Attending Physician, Southside Hospital, Brain Injury Unit, Bay Shore, NY

Nancy Madigan, Ph.D.: Clinical Neuropsychologist, Boston, MA

Amanda O'Brien, Ph.D.: Full time parent.

Maria T. Schultheis, Ph.D: Associate Professor, Department of Psychology & School of Biomedical Engineering, Science & Health Systems, Drexel University, Philadelphia, PA

Marla Shawaryn, Ph.D.: Psychologist, Moss Rehabilitation Center, Philadelphia, PA

Lana Tiersky, Ph.D.: Associate Professor, Fairleigh Dickinson University, Teaneck, NJ

*Gerald Voelbel, Ph.*D.: Assistant Professor, Occupational Therapy Department, New York University, New York, NY

Sample of Publications from the NNL

Arango, 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.

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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.

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DeLuca, J., Johnson, S.K., & Natelson, B.H. (1997). Sudden vs gradual onset of chronic fatigue syndrome differentiates individuals on cognitive and psychiatric measures. Journal of Psychiatric Research, 31, 83-90.

DeLuca, J., Gaudino, E. A., Diamond, B. J., Christodoulou, C., & Engel, R. (1998). Acquisition and storage deficits in multiple sclerosis. Journal of Clinical and Experimental Neuropsychology, 20, 376-390.

Demaree, H., DeLuca, J., Gaudino, E.A., & Diamond, B.J. (1999). Speed of information processing as a key deficit in multiple sclerosis: Implications for rehabilitation. Journal of Neurology, Neurosurgery, and Psychiatry, 67, 661-663.

Diamond, B.J. & DeLuca, J. (1996). Rey-Osterrieth Complex Figure test performance following anterior communicating artery aneurysm. Archives of Clinical Neuropsychology, 11, 21-28.

Diamond, B.J., DeLuca, J., Johnson, S.K., & Kelly, S.M. (1997). Verbal learning in anterior communicating artery aneurysm and multiple sclerosis patients: Performance on the California Verbal Learning test. Applied Neuropsychology, 4, 89-98.

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Lengenfelder, J., Schultheis, M.T., Al-Shibabi, T., Mourant, R. & DeLuca, J. (2002). Divided attention and driving: A pilot study using virtual reality technology. Journal of Head Trauma Rehabilitation, 17, 26-37.
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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. Ph.D. candidates planning dissertation research on topics relevant to neuropsychology are also encouraged to apply.
- 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, 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 or resume
3. copy of graduate transcripts for current students and recent graduates
4. copies of publications or manuscripts that illustrate your research work
5. three letters of recommendation

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