

The John Hopkins Behavioral Neurology and Neuropsychiatry Fellowship Program



Mission Statement:

The Behavioral Neurology and Neuropsychiatry Fellowship Program at the Johns Hopkins School of Medicine is jointly organized by the Departments of Neurology and Psychiatry. The fellowship provides training and supervision in clinical and research activities in Behavioral Neurology and Neuropsychiatry, consistent with the guidelines established by the United Council for Neurological Subspecialties (UCNS). The aim of the fellowship is twofold: (1) to impart to the Behavioral Neurology and Neuropsychiatry fellows clinical competencies in the assessment and management of patients with neurologically-based cognitive, behavioral and emotional problems; and (2) to provide basic understanding and competency to conduct clinical research in Behavioral Neurology and Neuropsychiatry.

Introduction:

The Johns Hopkins Behavioral Neurology & Neuropsychiatry Fellowship Program is a two year clinical/research program. Each year 1-3 fellows are recruited.

Collaborative clinical and research programs between the departments include Alzheimer's disease, Epilepsy, Frontotemporal dementia, Huntington's disease, Multiple Sclerosis, Parkinson's disease, Stroke, and Traumatic Brain Injury. Both departments have numerous NIH and foundation grants, as well as industry-sponsored studies. Several books and a quarterly monograph written by JHU clinicians are currently available to the lay public and to physicians.

The Johns Hopkins Departments of Neurology and Psychiatry operate at two sites, the East Baltimore (Johns Hopkins Hospital) campus and the Bayview campus. The fellow will have the opportunity to work and to attend conferences held at both sites. The locations are 3.5 miles apart and are linked by a convenient shuttle service.

The Johns Hopkins Behavioral Neurology (BN) and Neuropsychiatry (NP) Program is fully accredited by the UCNS. It is an Equal Opportunities Program.

Historical Background:

The program in Neuropsychiatry has a long history at Johns Hopkins. Clinical and research activities in Neuropsychiatry were initiated by Marshall Folstein in the 1970s under the mentorship of Paul McHugh. The Geriatric Service was founded and developed further by Peter Rabins in 1978. The Neuropsychiatry Service was founded by Constantine Lyketsos in 1993. The Division of Geriatric Psychiatry and Neuropsychiatry was founded in 2002 with the merger of the Geriatric Psychiatry and Neuropsychiatry Services.

The program in Behavioral Neurology also has a long history at Johns Hopkins. Clinical and research activities were initiated by Barry Gordon in the 1980s, with the founding of the Cognitive Neurology / Neuropsychology group. The initial focus was on memory and language disorders. The faculty interested in cognitive neurology has steadily grown over time. The faculty now includes individuals with research interests in a wide variety of cognitive processes and disorders, including: aging and Alzheimer's disease, autism, cerebellar function, epilepsy, and vascular disease. The Division of Cognitive Neuroscience was established in 2003, in recognition of the expanding activities in this area.

Core Curriculum:

- The purpose of the BN & NP Fellowship Program is to hone clinical skills in Behavioral Neurology and Neuropsychiatry, and to provide fellows with two years of supervised experience in the field.
- Fellows always work under the supervision of faculty members.
- Fellows work regularly in the outpatient clinics and may work for 2 months/year in the geriatric psychiatry/neuropsychiatry inpatient unit or neurology inpatient unit

Year One:

The goal of the first year in the BN & NP Fellowship is to gain competency in assessment and management of the patients with brain diseases who have cognitive, behavioral and emotional problems. In addition to regular didactics, fellows rotate through several subspecialty clinics. These clinics specialize in Alzheimer's Disease, Epilepsy, Frontotemporal dementia, Geriatric Psychiatry, Huntington's disease, Memory disorders, Movement Disorders, Neuroimmunology (e.g., Multiple Sclerosis), Stroke, and Traumatic Brain Injury.

Year Two:

The goal of the second year is to consolidate clinical skills and integrate clinical knowledge into a research enterprise. The fellow will choose a specialized research area of interest and will spend a significant portion of time involved in a focused area of research under the mentorship of a faculty member. In addition, other educational activities, clinical work, and didactic sessions will also continue during this year.

Didactic Program

A wide range of clinical conferences and didactics are available. A specific didactic program will be devised for each fellow. The opportunities include:

1. Daily Morning Report, Division of Medical Psychology
2. Weekly Grand Rounds, Department of Psychiatry
3. Weekly Grand Rounds, Department of Neurology
4. Weekly Epilepsy Conference.
5. Bi-weekly Movement Disorder Video Conference
6. Monthly Cognitive Neurology Seminar
7. Monthly Medical Psychology Seminar
8. Monthly Dementia Consortium Lecture
9. Monthly Dementia Care Grand Rounds
10. Annual Dementia Retreat

Core Faculty & Research Activities in the Behavioral Neurology and Neuropsychiatry Fellowship Program:

All fellows are encouraged to participate in ongoing research activities. A brief outline of the core faculty members' research interests is listed below. Faculty members are listed in alphabetical order by last name.

Dr. Marilyn Albert, Ph.D., is Professor of Neurology, with a joint appointment in the Department of Psychiatry and Behavioral Sciences. She is the Director of the Division of Cognitive Neuroscience in the Department of Neurology and Co-Director of the Johns Hopkins Alzheimer's Disease Research Center. Her major research interests are in the area of cognitive change with age, disease-related changes of cognition (with a particular focus on Alzheimer's disease) and the relationship of cognitive change to brain structure and function, as assessed through imaging and genetics.

Dr. Betty Black, PhD, is Assistant Professor of Psychiatry and Behavioral Sciences. Research interests include investigation of needs and unmet needs for mental health care in the elderly, their quality of life and the ethical aspects of research with the cognitively impaired. Dr. Black has experience using both quantitative and qualitative research methods, expertise in the development of questionnaires, and a background in implementing community-based research studies.

Dr. Jason Brandt, Ph.D., is Professor of Psychiatry and Behavioral Sciences, with a joint appointment in the Department of Neurology. Dr. Brandt is the Director of the Division of Medical Psychology and the Cortical Function Laboratory. He is also on the Senior Faculty of the Copper Ridge Institute. Dr. Brandt's research focuses on amnesia and other memory disorders, Alzheimer's disease, Huntington's disease and improved methods for neuropsychological assessment.

Dr. Nathan Crone, MD., is Associate Professor of Neurology. He is Co-Director of the Behavioral Neurology and Neuropsychiatry Fellowship Program. His research interests are focused on developing electrophysiological recordings (ECoG) as a new technique for functional brain mapping in epilepsy patients and comparing this with electrocortical stimulation mapping and fMRI. In particular, he is studying event-related high gamma activity (60-200 Hz) during somatosensory, auditory, motor, language, and attention tasks.

Dr. Argye Hillis, MD, MA, is Professor of Neurology, with a joint appointment in Physical Medicine and Rehabilitation. She is Executive Vice-Chair in the Department of Neurology; Director of the Neurology Residency Program and Co-Director of the Cerebrovascular Division. Dr. Hillis conducts clinical research, focusing on impaired language and spatial attention after stroke and focal dementias, such as primary progressive aphasia, corticobasal degeneration, and posterior cortical atrophy. Much of her research utilizes magnetic resonance perfusion imaging to study changes in blood flow associated with changes in cognitive function after acute stroke and during early recovery.

Dr. Deirdre Johnston, M.D., is Assistant Professor of Psychiatry. Dr. Johnston's research interests include care of the frail elderly at home. She is Principal Investigator on the Maximizing Independence at Home (MIND) study, which seeks to determine if providing pro-active, home-based care to persons with dementia and their caregivers allows them to maintain a greater degree of function and independence, and whether it affects use of acute care services.

Dr. Adam Kaplin, M.D., Ph.D., is Assistant Professor of Psychiatry and Behavioral Sciences, with a joint appointment in the Department of Neurology. Dr. Kaplin's research interest is in the biological basis of immune-mediated depression and cognitive impairment, through basic science laboratory research, neuroimaging and clinical trials. He is the consultant for the Neuroinflammatory Psychiatric Consultation Service, where patients with CNS autoimmune diseases (e.g. Multiple Sclerosis, Transverse Myelitis) are evaluated. He is also Principal Psychiatric Consultant to the Johns Hopkins Multiple Sclerosis and Transverse Myelitis Centers.

Dr. Hochang Lee, M.D., is Assistant Professor of Psychiatry and Behavioral Sciences and Associate Director of Research Development in the Department of Psychiatry. Dr. Lee's research interest is in identification of reducible risk factors for late life mental disorders. His current research projects are on investigation of early and mid-life depression as a reducible risk factor for late life cognitive impairment, and the role of pre-surgical intracranial stenosis as a potential risk factor for post-coronary artery bypass surgery cognitive impairment. Other interests include the neuropsychiatric aspects of restless legs syndrome, and cross-cultural geropsychiatric issues for Asian-Americans.

Dr. Constantine Lyketsos, M.D., MHS, is the Elizabeth Plank Althouse Professor of Alzheimer's Disease Research and Professor of Psychiatry and Behavioral Sciences, with a joint appointment in the Department of Mental Health in the Bloomberg School of Public Health. He is also Chair of the Johns Hopkins Bayview Psychiatry Program. Dr. Lyketsos' research interests are in neuropsychiatric aspects of dementia (e.g., depression, agitation, delusions), including their nosology, impact, and treatment. He is conducting a series of translational projects investigating biomarkers (both blood and brain imaging based) with specific applications in Alzheimer's disease therapeutics.

Dr. Laura Marsh, M.D., is Associate Professor of Psychiatry and Behavioral Sciences, with a joint appointment in the Department of Neurology. Dr. Marsh is Director of the Clinical Research Program in the Morris K. Udall Parkinson's Disease Research Center. Dr. Marsh's research interests are in clinical studies and clinical trials aimed at improving the recognition, characterization, and treatment of neuropsychiatric disturbances in Parkinson's disease.

Dr. Quincy Miles, P.hD., is Instructor in the Department of Psychiatry and Behavioral Sciences. Dr. Miles' research interests are in the evaluation of psychiatric morbidity in the long-term care setting. These include the study and evaluation of quality of life in

individuals with dementia, the impact of dementia and depression on the development and course of functional disability in older adults, and the epidemiology of aging.

Dr. Michelle Mielke, P.hD., is Instructor in the Department of Psychiatry and Behavioral Sciences. Dr. Mielke's research interests include identifying blood-based biomarkers of Alzheimer's disease progression, and in evaluating vascular factors across the lifespan as risk factors for cognitive impairment and dementia.

Dr. Zoltan Mari, M.D., is Assistant Professor of Neurology. Dr. Mari's research interests include dystonia physiology, using intraoperative recordings during DBS surgery; use of botulinum toxins in dystonia; and clinical trials in Parkinson's disease for disease modifying agents.

Dr. Richard O'Brien, M.D., Ph.D., is Associate Professor of Neurology, and Chair of the Johns Hopkins Bayview Neurology program. Dr. O'Brien's clinical work focuses on dementia of all types including Alzheimer's disease, vascular dementia and dementia with Lewy Bodies. Dr. O'Brien's basic research focuses on how nerve cells change in response to injury and experience.

Dr. Chiadi Onyike, M.D., M.H.S., is Assistant Professor of Psychiatry and Behavioral Sciences. Dr. Onyike is the Director of the Frontotemporal Dementia Clinic. His research interests include the spectrum of cognitive and behavioral disorders seen in Amyotrophic Lateral Sclerosis and Frontotemporal dementia. He is also interested in the special needs of sufferers of presenile dementias and their carers, as well as issues related to expressions of intimacy and sexuality in dementia.

Dr. Peter Rabins, M.D., M.P.H., is Professor of Psychiatry and Behavioral Sciences. Dr. Rabins is the Director of the Division of Geriatric Psychiatry and Neuropsychiatry. His research interests include end-of-life care for persons with dementia, measuring quality of life in dementia, consent issues in dementia research, the study of factors influencing the detection and progression of dementia in the community, and the testing of a model of care for persons with dementia living in the community.

Dr. Vani Rao, M.D. is Assistant Professor of Psychiatry and Behavioral Sciences. She is the Director of the Brain Injury Program and Director of the Behavioral Neurology and Neuropsychiatry Fellowship. Dr. Rao's research interests are mood and behavioral problems in brain injury, specifically traumatic brain injury and stroke. Her current research projects include determination of risk factors for depression after traumatic brain injury (TBI), investigating neuroanatomical correlates of post-TBI depression and clinical trials in post-stroke anxiety.

Dr. Paul Rosenberg, M.D., is Assistant Professor of Psychiatry and Behavioral Sciences. Dr. Rosenberg is the Director of the Memory Center at Bayview. His research interests are mood and behavior disorders in Alzheimer's disease. His current projects are focused on depression as a risk factor for developing MCI and Alzheimer's disease, PET

imaging of neuroinflammation, peripheral blood markers of neuroinflammation, and treatment of neuropsychiatric symptoms of Alzheimer's disease.

Dr. Adam Rosenblatt, M.D., is Associate Professor of Psychiatry and Behavioral Sciences. Dr. Rosenblatt is Director of Neuropsychiatry for the Division of Geriatric and Neuropsychiatry and directs the inpatient neuropsychiatry service and the Neuropsychiatry and Memory Clinic at Johns Hopkins Hospital. He is also Clinical Director of the Huntington's Disease Center and Principle Investigator of the Maryland Assisted Living Study. His largely clinical research concerns dementia, long-term care, and Huntington's disease and involves both observational and interventional trials.

Dr. Ned Sacktor, M.D., is Associate Professor of Neurology, with a joint appointment in the Department of International Health at the Johns Hopkins School of Public Health. Dr. Sacktor's research focuses on the epidemiology, clinical characterization, and treatment of HIV dementia. He has evaluated the effect of antiretroviral therapy on HIV-associated cognitive impairment, and is developing new screening tools for HIV dementia for use in both national and international settings. Dr. Sacktor has also evaluated laboratory and neuroimaging surrogate markers for HIV dementia.

Dr. Martin Steinberg M.D., is Assistant Professor of Psychiatry and Behavioral Sciences. Dr. Steinberg's main interest is in the epidemiology and phenomenology of neuropsychiatric symptoms in dementia. He is the senior clinical physician of the Cache County Study on Memory, Health and Aging, which longitudinally follows a cohort of dementia participants in a community setting. He is also interested in exploring the cognitive, functional and neuropsychiatric benefits of a physical exercise program for subjects with dementia who reside in Assisted Living.

Stipend:

The Behavioral Neurology and Neuropsychiatry fellowship program will follow the stipend guidelines set up by the Johns Hopkins School of Medicine. The stipend for the year 2007-2008 is \$55,000. In addition, fellows will also receive individual health insurance coverage and malpractice coverage.

Who is eligible to apply? *

The Behavioral Neurology and Neuropsychiatry fellowship program will follow the guidelines set up by the UCNS. Accordingly, only candidates who have graduated from either a United States (US) or Canadian accredited neurology or psychiatry residency program are eligible to apply.

Interested candidates should send the following documents to either the Director or the Associate Director of the fellowship program, at the address below:

1. Curriculum Vitae
2. Personal Statement (1 page) indicating short and long-term goals.
3. Three letters of recommendation.

* The Hopkins BN&NP Fellowship is accredited by UCNS, not by ACGME.

Contact Address:

Vani Rao, MD
Director, Behavioral Neurology and Neuropsychiatry Fellowship
Assistant Professor of Psychiatry
Division of Neuropsychiatry & Geriatric Psychiatry
Department of Psychiatry and Behavioral Sciences
Johns Hopkins University School of Medicine
550 N. Broadway, Suite 308
Baltimore, MD 21205
phone: 410-955-6158
fax: 410-614-8042
e-mail: vrao@jhmi.edu

Nathan E. Crone, M.D.
Associate Director, Behavioral Neurology and Neuropsychiatry Fellowship
Associate Professor of Neurology
Divisions of Epilepsy, Clinical Neurophysiology, and Cognitive Neuroscience
The Johns Hopkins Hospital
600 N. Wolfe St., Meyer 2-147
Baltimore, MD 21287
phone: 410-955-6772
FAX: 410-614-8042
email: ncrone@jhmi.edu