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***POSTDOCTORAL RESIDENCY¹ PROGRAM IN
ADULT AND PEDIATRIC CLINICAL NEUROPSYCHOLOGY***

**Division of Neuropsychology
Department of Neurology
Medical College of Wisconsin²
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**Member Program of the Association of Postdoctoral Programs in Clinical Neuropsychology
(APPCN)**

**The Neuropsychology Residency Program is accredited in Clinical Neuropsychology by the Office of Program Consultation and Accreditation/Commission on Accreditation (CoA) of the American Psychological Association Commission on Accreditation;
750 1st Street NE
Washington, DC 20002
202-336-5979**

<http://www.apa.org/ed/accreditation/>

Department website: www.mcw.edu/departments/neurology

¹ The term "residency" is used here in place of "fellowship" to better convey the breadth of training provided in the specialty of clinical neuropsychology, and to follow labeling conventions established by the Houston Conference policies.

² The Medical College of Wisconsin is an Affirmative Action/Equal Opportunity Employer.

Our Institution

The Medical College of Wisconsin (MCW) Mission: We are a distinguished leader and innovator in the education and development of the next generation of physicians, scientists, pharmacists and health professionals; we discover and translate new knowledge in the biomedical and health sciences; we provide cutting-edge, collaborative patient care of the highest quality; and we improve the health of the communities we serve.



This year, MCW is celebrating its 125th anniversary of the institution's founding. MCW is a major national research center, and is the largest research institution in the Milwaukee metro area and 2nd largest in Wisconsin.

MCW providers practice at three major affiliates – The Froedtert & Medical College of Wisconsin regional health network, Children's Hospital of Wisconsin, and the Zablocki VA Medical Center. There are approximately 1,650 MCW physicians as well as more than 800 nurse practitioners, physician assistants and other healthcare practitioners that provide care to our patients. In addition, there are 1,400 students pursuing MD, PhD, MS and MPH degrees. For more information visit [MCW FACTS 2018](#).

Froedtert Hospital, the primary adult hospital, is a Level 1 Trauma Center and nationally recognized academic medical center. Froedtert is a 500-bed facility that delivers advanced medical care and state of the art treatment and technology. Froedtert & MCW are at the forefront of new technology and care in many areas, including cancer, heart and vascular diseases, brain injury and disorders, spinal cord injury, transplant, limb reattachment, gastrointestinal diseases, diabetes, epilepsy, and women's health. In 2016, Froedtert Hospital and MCW ranked as one of the top four academic medical center in the nation as well as 1 of 5 nationally to be recognized for excellence in outpatient care. **Children's Hospital of Wisconsin (CHW)** is the principal pediatric hospital affiliate of MCW. CHW is a Level 4 Epilepsy Center and was the 3rd pediatric hospital to receive the designation Diagnostic Imaging Center of Excellence. CHW also ranks among the best in the nation by US News and World Report in specialties that include Neurology and Neurosurgery, Cancer and Cardiology. CHW has also been listed among the 20 most innovative Children's Hospitals by Parent Magazine in 2018. CHW has one of the few Level 1 trauma centers in the country that is devoted to pediatric patients. MCW physicians are on staff at the **Clement J. Zablocki VA Medical Center**, a major hospital affiliate of MCW since 1946.

MCW invests significantly in expanding its community mission to build strategic community-academic partnerships that have the greatest impact on Wisconsin's most critical health needs. MCW faculty and staff, along with approximately 600 community organizations, partner in more than 2400 community outreach activities.

Our Program

The Division of Neuropsychology was founded in 1979 and is located at the Medical College of Wisconsin in the Hub for Collaborative Medicine (HCM) building that was recently completed and occupied in December 2017. Neuropsychology, one of three Divisions in the Department of Neurology, is directed by Sara J. Swanson, PhD, ABPP and consists of six adult and five pediatric neuropsychologists; the clinical background and research interests of the faculty are presented below. The Training Director is Amy K. Heffelfinger, PhD, ABPP, The Education Coordinator is Jenny Her. The Division also includes psychometrists who provide training and supervision in test administration, scoring, and testing logistics, graduate-level practicum students who participate in evaluation and testing, and other dedicated support staff who are responsible for scheduling, checking insurance, and billing procedures.



The Division of Neuropsychology offers two-year postdoctoral residencies in pediatric and adult neuropsychology. The residency program begins and ends around the first of July (September 1st if internship concludes end of August). The goals and objectives are listed below in Table 1. Education and evaluations are competency-based. The purpose of the training program is to provide doctoral-level psychologists with sufficient clinical and research competencies to practice independently in the specialty of clinical neuropsychology. Our postdoctoral training program is a member of the Association of Postdoctoral Programs in Clinical Neuropsychology (APPCN; *The Clinical Neuropsychologist*, 1993, 7, 197-204) and adheres to the Houston Conference (HC) standards (*Archives of Clinical Neuropsychology*, 1998, 13, 160-166) for specialty training in clinical neuropsychology. The program is accredited by the American Psychological Association. The HC education plan “is predicated on the view that the training of the specialist in clinical neuropsychology must be scientist-practitioner based, and may lead to a combined, primarily practice, or primarily academic career (p. 1).” As applied to clinical neuropsychology, the scientist-practitioner model envisions an integration of science and practice at all levels of training, including both programmatic and competency-based components. The model recommends a sequence of education and training that begins at doctoral and internship levels, and concludes in postdoctoral residency, that is designed to enable independent practice in the specialty of clinical neuropsychology. Our residency provides a full-time training experience that is designed to complete the sequence of education and training necessary for independent practice in the specialty of clinical neuropsychology. The program builds on the knowledge and skills acquired in graduate and internship levels by providing advanced instruction and supervised clinical, research, and teaching experiences designed to achieve the HC exit criteria, i.e., advanced understanding of brain-behavior relationships and advanced competencies in the neuropsychological evaluation, treatment and consultation to patients and professionals in the specialty of clinical neuropsychology. It is a goal for graduates of our program to be eligible for licensure and certification in clinical neuropsychology by the American Board of Professional Psychology.

The primary method of training is experiential, by providing clinical service, consultation, teaching, and accomplishing scholarly projects. Our training also integrates the fundamentals of basic and cognitive neuroscience, neural development, neuropathology, and neuropsychology through didactics so as to produce advanced knowledge about neurobehavioral systems and behavioral manifestations of pathological states. The program stresses a flexible battery approach to neuropsychological assessment that is tailored to addressing referral questions and clinical issues uncovered during the interview, generating meaningful recommendations, and working closely with referring professionals in development of a treatment plan. Typically multiple cognitive domains are

assessed in varying levels of depth, depending on the nature of the clinical issues, the severity of deficit, and the adequacy of patient compliance and tolerance. In some populations, a short battery or a fixed battery approach is used to efficiently answer referral questions or as part of a multidisciplinary clinical research protocol. Brief but thorough and informative clinical reports that speak to the referral question are written. Consultation to inpatient services and outpatient medical clinics is emphasized. Intervention is primarily focused on educational/therapeutic feedback provided to patients and caregivers about neuropsychological findings and diagnostic conclusions, and translation of assessment conclusions into meaningful recommendations and referrals. Opportunities for more extended therapy are also available.

Residents in neuropsychology are provided with a number of didactic (about 5 hours per week) and clinical educational experiences (about 24-30 hours per week). Within the division, residents participate in weekly neuropsychology seminar, journal club and case conference. Shared educational exercises with residents in neurology include epilepsy case conference, neuro-oncology case conference, and neurology grand rounds. Clinical training is divided into adult and pediatric tracks, and residents are recruited to one or the other. This division facilitates mastery of the set of advanced knowledge and skills considered necessary for independent practice in clinical neuropsychology with adult or pediatric populations.

Residency in Adult Neuropsychology:



Clinical Locations:

- Froedtert Hospital, 9200 W. Wisconsin Avenue, Milwaukee WI 53226
- Clement J. Zablocki VA Medical Center, 5000 W. National Avenue, Milwaukee WI 53295

The adult neuropsychology residency emphasizes assessment of the full range of neurobehavioral disorders including dementia, confusional states, primary amnesia, attentional disorders, aphasic disorders, and frontal lobe disorders, among other focal brain disorders of both the dominant and nondominant hemisphere. Common clinical populations include head trauma, primary dementias, seizure disorders, brain tumors, multiple sclerosis, stroke, learning disabilities, Attention-Deficit/Hyperactivity Disorder, hydrocephalus, and pseudoneurologic and somatoform disorders. The majority of referrals come from departments of neurology, neurosurgery, psychiatry, and geriatrics on the campus of the Milwaukee Regional Medical Center, in addition to geriatric, general medicine, Herma Heart, and organ transplant programs on campus. Also, occasional referrals are received from regional colleges, attorneys, disability insurance companies, and private practice physicians and psychologists. The Neuropsychology Division maintains an active involvement in the Neurology department's clinics for memory disorders, Comprehensive Epilepsy Surgery program, multiple sclerosis, neuro-oncology, movement disorders, amyotrophic lateral sclerosis, and participates in multidisciplinary clinics for traumatic brain injury, deep brain stimulation, Interdisciplinary Memory Assessment Program, and normal pressure hydrocephalus. Neuropsychology faculty and residents conduct intracarotid amobarbital testing and clinical functional magnetic resonance imaging for determination of hemispheric representation of language and memory functions in epilepsy surgery candidates. Faculty and fellows conduct intra-operative mapping during awake tumor surgeries using NeuroMapping. Training is provided through sequential assignment to four clinical rotations, in addition to routine responsibilities for assisting with inpatient consultation services. The four rotations are:

- 1) ***Memory Disorders:*** The goal of this rotation is to develop a working knowledge of common neurological and psychiatric disorders affecting memory function and aid in differential neurobehavioral diagnosis of different types of dementia. Residents also become independent in the consultation and disposition planning of patients presenting with memory complaints. Residents will work alongside faculty and memory disorder's neurologists

in the Interdisciplinary Memory Assessment Program (IMAP) clinic, conduct outpatient memory disorder's evaluations and provide inpatient and outpatient work-ups for normal pressure hydrocephalus.

- 2) ***Comprehensive Epilepsy Service***: In the epilepsy rotation, residents develop a working knowledge of common seizure disorders, the effects of seizures on cognition, and how neuropsychological assessment can be used to assist in selection of patients for surgical treatment of their epilepsy. Residents also learn to conduct and interpret intracarotid sodium amytal testing and functional magnetic resonance imaging (fMRI) for lateralizing language and memory and predicting cognitive outcome after epilepsy surgery.
- 3) ***General Clinical Service***: In this rotation, residents develop a working knowledge of common developmental, neurological and psychiatric disorders that are associated with impairments in cognitive and emotional capacities. Residents in this rotation become independent in the neuropsychological assessment, differential neurobehavioral diagnosis, consultation and disposition planning of patients presenting with a variety of acquired and developmental conditions.
- 4) ***TBI / Medicolegal Evaluation Service***: The training goals of this rotation are to 1) obtain a working knowledge of the evaluation, triage and treatment of adult patients during the first few weeks and months following traumatic brain injury, and 2) learn the role of the neuropsychological evaluation in medicolegal cases involving civil, criminal, and disability issues for individuals claiming impairments in cognitive and emotional functions. Residents in this rotation work in the multidisciplinary Mild Traumatic Brain Injury Clinic, which provides evaluation, triage and treatment to adult patients during the first few weeks and months following injury. The aim is to assist patients with returning to work and school, and their pre-injury lifestyle. The Clinic is staffed by psychiatry and neuropsychology.

Inpatient training experience is obtained at Froedtert Hospital. These evaluations are conducted to aid in differential diagnosis of neurobehavioral syndromes and for determining competency for medical decision making.

In addition to these four primary rotations, there is opportunity to participate in several specialty clinics. The ***Neuro-Oncology Cognitive (NOC) Clinic*** provides evaluation of brain tumor patients at the time of diagnosis but prior to treatment in order to establish a neurocognitive baseline. These patients are then followed throughout their treatments and for some time afterwards to monitor for potential tumor and/or treatment related effects on cognitive and emotional functioning and to assist in treatment planning. In addition to brain tumor patients, patients with other forms of cancer are seen in the clinic for evaluation and treatment planning. The clinic is staffed by a neuropsychologist who works closely with a group of neuro-oncologists, radiation oncologists, medical oncologists, and neurosurgeons. The ***Normal Pressure Hydrocephalus (NPH) Clinic*** provides testing to aid in differential diagnosis of NPH and to assess for cognitive change prior to and following spinal taps and lumbar drain procedures. This information is used to aid in determining which patients will benefit from shunting. For patients who proceed to shunting, testing is repeated prior to and following the neurosurgical intervention. This clinic employs a collaborative team including a neurologist, neuropsychologist, physical therapist for gait assessments, and neurosurgeon. The fellow on the Memory Disorders rotation manages the NPH evaluations. The ***Deep Brain Stimulation (DBS) Clinic*** involves evaluation of patients who are considered candidates for DBS treatment for movement disorders. The aim of these evaluations is to identify any cognitive or psychiatric issues that may increase risk for poor outcome with DBS. The clinic also performs post-operative testing to establish neuropsychological outcome and assist with continued treatment planning as needed. Our neuropsychologists work as part of a multidisciplinary team that consists of neurology, neurosurgery, psychology, psychiatry, nursing, and rehabilitation.

Approximately 65% of clinical work is outpatient and the remaining inpatient. Currently there are four residents in the adult track.

Residency in Pediatric Neuropsychology:



Clinical Locations:

- Children's Hospital of Wisconsin, 8920 W. Connell Court, Milwaukee WI 53226

The Pediatric Neuropsychology residency offers the opportunity to acquire and refine neuropsychological assessment, diagnostic, and consultation skills in pediatric populations from 0-18 years of age. Clinical emphases are in epilepsy, brain tumors and some systemic childhood cancers, neurosurgical cases, early childhood development, genetic disorders, sickle cell disease, traumatic brain injury, hydrocephalus, spina bifida, congenital heart disease, organ transplant, Attention-Deficit/Hyperactivity Disorder, Specific Learning Disorder, and Autism Spectrum Disorder. The Division is actively involved with the Children's Hospital of Wisconsin (CHW), a teaching hospital for the Medical College of Wisconsin that also is located on the campus of the Milwaukee Regional Medical Center. In addition to completing neuropsychological assessments for general outpatient referrals, residents participate in primary rotational assignments that include:

- 1) **The Comprehensive Epilepsy Program:** Emphasis on children who may be candidates for resective surgery to treat intractable epilepsy. Residents participate in intracarotid amobarbital (Wada) testing for determination of laterality in language and memory functions and in the multidisciplinary epilepsy conference that includes neurology, neurosurgery, and radiology. There may also be opportunities to observe fMRI language mapping and magnetoencephalography (MEG).
- 2) **The Preschool and Infant Neuropsychological Testing (P.I.N.T.) Clinic:** Provides comprehensive neuropsychological evaluations for children under 6 years of age who are referred with neurological, medical, and developmental concerns. Emphasis is on holistic evaluation of the young child, including neuropsychological function development, parent and child relationships, and psychosocial factors. This rotation includes participation in the Autism Clinic as well.
- 3) **The Neurological/Medical Rotation:** Emphasis on responding to physician referrals for evaluation of children with neurological disorders or other medical illness, such as epilepsy, brain tumors and systemic childhood cancers, neurosurgical cases, genetic disorders, traumatic brain injury, hydrocephalus, spina bifida, congenital heart disease, organ transplant, and viral encephalitis. During this rotation, the resident becomes an active participant in the Comprehensive Brain Tumor Case Conference and can shadow the Geneticist in general clinic/and or Neurofibromatosis Type 1 Clinic.
- 4) **The Acute Neuro (AcN) Rotation:** In an inpatient setting, consult, assess and monitor cognitive functioning and recovery during the acute/sub-acute phase of patients who sustained a neurological injury, particularly TBI, stroke/hemorrhage and infectious processes, as well as recommend interventions to aid ongoing cognitive recovery and support daily living skills, emotional functioning, and academic functioning following discharge. In June 2015, CHW opened a new unit with a Neuropsychological Testing room, patient rooms designed for high-def long term video monitoring, and a rehabilitation gym.

In addition to the primary rotations, pediatric residents participate in the following:

The **Neuro-Oncology Multidisciplinary Clinic** which provides consultation to brain tumor patients and parents at the time of diagnosis but prior to treatment in order to establish a neuropsychological baseline. These patients are then followed throughout their treatments and for some time afterwards to monitor for potential tumor and/or treatment related effects on cognition and emotional functioning and to assist in treatment planning. In addition to brain tumor patients, patients with other forms of cancer are seen in the clinic for evaluation and treatment planning. The clinic is attended by neurosurgery, neuro-oncology, neuropsychology, neurology, radiology, and endocrinology.

The **Autism Clinic** provides evaluations for children under the age of 6 for whom the primary question is whether or not the child has an Autism Spectrum Disorder. The assessment includes clinical interview, brief cognitive evaluation, and observation of the child in play with parents and peers. All participating providers and psychometrists participate in the observations and discussion of each patient for diagnostic clarity. The evaluation also provides detailed recommendations to help families navigate the autism treatment options.

The **Sports Concussion Clinic** allows the fellow to work with Dr. Loman in the Sports Concussion Clinic

All fellows will also conduct evaluations of **Developmental Disorders** including ADHD, Autism and Learning Disability through their fellowship. They will have opportunity to participate in **Medical Legal Evaluations** as well. Opportunity to follow patients for re-evaluation can be provided after initial evaluations of children and adolescents.

Currently, there are four resident positions in the pediatric track.

Educational, Teaching, Supervision and Leadership Opportunities

Residents are required to attend and participate in the Division's weekly Neuropsychology Seminar, Journal Club and Case Conference, and the Department of Neurology's weekly Grand Rounds. Additional opportunities include Epilepsy Case Conference, Neuro-Oncology Case Conference, Neuroradiology Conference, Physical Medicine and Rehab Conference, the annual Ethics for Psychologists course, MCW's Biomedical Statistics course, bedside neurology or neurosurgery rounds, and observations of brain cuttings and neurosurgical procedures. The resident can elect to learn more about state-of-the-art neuroimaging techniques (e.g., brain mapping, structural and functional MRI, single proton emission computed tomography, positron emission tomography, diffusion tensor imaging, MEG, and magnetic source imaging) and participate in weekly seminars and lab meetings on functional imaging. Opportunities are available for gaining familiarity with electrophysiologic diagnostic procedures, including electroencephalography, extra-operative grid mapping of eloquent cortex, evoked potentials and neuromuscular studies. The resident also will gain experience in teaching, supervising and mentoring psychology graduate students during their practica within the clinics. Faculty supervise the residents supervising the graduate students in order to help them learn how to conduct supervision. Additionally, residents often provide mentoring for the graduate students in the internship application and interview process. Finally, senior residents often take on leadership opportunities over the didactic series, addressing short term clinical problems, and are offered the opportunity to apply for competitive leadership opportunities in national neuropsychological organizations including APPCN, AACN, and SCN.

Research

Training in basic, translational and clinical research and, to a lesser extent, cognitive neuroscience is provided. Several faculty members are actively involved in the Center for Imaging Research (www.mcw.edu/CIR.htm) studying memory, language and attention functions in both healthy and clinical populations with weekly research workgroups and multidisciplinary seminars. Large databases are available from the Comprehensive Epilepsy Program (adult and pediatric), the PINT clinic, Brain Tumor, Congenital Heart Disease and effects of treatment on cognition (adult and pediatric), and Autism. Two faculty members run MCW's Brain Injury Research Program and have a number of archival datasets and ongoing projects on concussion/mild traumatic brain injury in athlete and veteran populations. There are ongoing studies of the early development of neuropsychological functions in neurological disorders, with an emphasis on attention and executive function, NPH, and DBS. The resident may collaborate on an ongoing research project or initiate an independent project. Team research is common. It is expected that this activity will lead to production of a scholarly work, such as presentation of results at a scientific meeting and publication in a peer-reviewed journal. Residents are expected to commit a minimum of 10% or 4 hours per week to their research.

Supervision and Evaluation Procedures

Supervision is provided on all aspects of the residents' clinical, research and teaching activities. Day-to-day supervisory responsibility is typically rotated among the teaching faculty so that the resident is exposed to different expertise and professional styles. Progress towards achieving competencies is evaluated every 6 months, using the MCW Evaluation Scale. Feedback for these reviews is presented in person. If the resident has not achieved the Minimum Level of Achievement, a Competency Development Plan is implemented. Formal written evaluations of rotational progress are provided on a quarterly basis with results feeding into the semiannually at the end of rotations. In addition, each resident is assigned a professional mentor during the first months of the program. The mentor learns the resident's career aspirations and education and training history, and forms a plan with the resident and the Training Director to achieve both the program goals and the resident's personal goals.

Responsibilities and Time Commitment

Residents are expected to interview and evaluate patients with neurobehavioral disorders and participate in all activities that are necessary to make an inpatient and outpatient clinical service operational (e.g., informal consultation, participation in case conferences, etc.). Participation in several didactic exercises (see above) is required. Residents are expected to make presentations in the Neuropsychology Seminar, Neuropsychology Case Conference, and Neurology Grand Rounds, and assist in the instruction and supervision of psychology practicum students. The residents are also expected to participate in some type of research activity and/or complete a scholarly exercise during their training. In the case of a few residents, a portion of the resident's salary may be supported by funded research, therefore requiring their assistance with grant-related activities. Lastly, the residents are asked to help develop the curriculum for the Neuropsychology Seminar Series and participate in the evaluation of the program through periodic evaluation of supervisors and the curriculum.

On average, clinical activities consume approximately three to four days of the week. Residents are encouraged to reserve at least a half of a day per week for research activities. The remainder of time is consumed in various didactic and informal educational activities. Weekly time requirement is about 45-60 hours.

Benefits

Residents are provided a stipend, health insurance, optional dental/vision insurance and life insurance. Residents have 15 days of vacation, 12 days sick leave, and 5 days for professional meetings annually that is non-accruing. A \$500 annual expense account is provided that may be used to purchase educational materials or attend a professional meeting. Windows PCs are available for word-processing (MS Office installed on resident office computers) and data analysis (SPSS).

Requirements of Potential Residents

Applicants with a doctoral degree in professional psychology from an APA- or CPA-approved graduate program and an APA-approved internship are considered. The program assumes that a solid foundation of general clinical knowledge and skills has been established on entry into the program. Expected knowledge includes a generic psychology core (statistics and methodology, learning, cognition and perception, social psychology and personality, biological basis of behavior, life span development, history, cultural and individual differences and diversity) and a generic clinical core (psychopathology, psychometric theory, interview and assessment techniques, intervention techniques, and professional ethics). It is also expected that residents arrive with an intermediate knowledge of brain-behavior relationships (e.g., functional neuroanatomy) and neuropsychological assessment techniques. Expected skills on entry include general assessment skills (information gathering, history taking, administration of tests and measures, interpretation and diagnosis, treatment planning, report writing, provision of feedback, recognition of multicultural issues), general treatment and interventions skills (identification of intervention targets, specification of intervention needs, formulation of an intervention plan, implementation of the plan, monitoring and adjustment to the plan as needed, assessment of the outcome, and recognition of multicultural issues), effective basic communication and consultation skills (e.g. listening, explaining, negotiating, and clarifying referral issues with patients, families, medical colleagues, and agencies, etc.), and basic research skills (identification of research questions, review of relevant literature, design of research, execution of research, monitoring of progress, evaluation of outcome, communication of results). It is also expected that residents will arrive with skills in teaching and supervision. Generally, only applicants who completed an internship that was at least 50 percent neuropsychological training are considered.

The ideal resident applicant is one with a solid foundation of general clinical knowledge and skills, coursework in lifespan neuroscience, human neuropsychology, and neuropsychological assessment, practicum and internship training in neuropsychological assessment, and enthusiasm for taking advantage of the education and training opportunities at MCW. Applicants with these credentials have had the best success in our residency program.

Application Procedures

Application involves electronic submission of a curriculum vita, a copy of graduate school transcripts, two sample reports, and three letters of recommendation. Those who have not defended their dissertation are asked to have their dissertation chair provide written verification of their expected defense prior to the start of the residency. Deadline for submission of application materials is usually mid-January prior to the start of the academic year. The Program participates in the National Match. Deadlines for ranking programs and the Match date will be published annually by National Matching Services (www.natmatch.com), the same organization that manages the match for psychology internship programs. Rules for the Match are essentially identical to those for the internship program match.

Neuropsychology Faculty



Joseph L. Amaral, Ph.D. is an Assistant Professor of Neurology. Dr. Amaral's research interests include exploring cognitive and social development in children with Autism Spectrum Disorder, with an emphasis on how contextual factors affect task performance.



Julie A. Bobholz, Ph.D., ABPP-CN is a Clinical Professor of Neurology and is board certified in Clinical Neuropsychology (American Board of Professional Psychology). Dr. Bobholz specializes in the evaluation and treatment of adults with neurological, behavioral, and developmental disorders. Her work has been presented at several national conferences and published in peer-reviewed professional journals. Dr. Bobholz also plays a leading role in the neuropsychological evaluation and research development of patients who are candidates for deep brain stimulation but also focuses much of her work with patients who have multiple sclerosis.



Lisa L. Conant, Ph.D. is an Assistant Professor of Neurology. Her research interests include cognitive functioning in pediatric epilepsy, genetic and environmental influences on aspects of cognitive development, and fMRI of speech and language functions, with a particular emphasis on dyslexia. Her work has been NIH-funded, presented at national conferences, and published in peer-reviewed professional journals.



Amy Heffelfinger, Ph.D., ABPP-CN is a Professor of Neurology, Neurosurgery, and Pediatrics, is board certified in Clinical Neuropsychology (American Board of Professional Psychology) and is the Director of the Postdoctoral Training Program. She serves on the Board of Directors and is the President for the Association of Postdoctoral Programs in Clinical Neuropsychology (APPCN). She specializes in research and evaluation of infants and preschool children with neurological, neurosurgical and emotional/behavioral disorders through the Preschool and Infant Neuropsychological Testing (P.I.N.T.) Clinic. Her current research involves the study of early development of neuropsychological function with a focus on attention and executive functioning in preschoolers, neuropsychological outcomes from pediatric brain tumors, sickle cell disease, spina bifida and autism. Consideration for impact of psychosocial and race/cultural factors is included in research. Her work has been NIMH funded, presented at national conventions, and published in peer reviewed journals.



Jennifer I. Koop, Ph.D., ABPP-CN is an Associate Professor of Neurology and Pediatrics and is board certified in Clinical Neuropsychology (American Board of Professional Psychology). She currently is the Chair of the Membership Committee for the Society for Clinical Neuropsychology and is on the MCW Committee for Professionalism. She specializes in the evaluation and treatment children with neurological, behavioral and developmental disorders, with a particular focus on epilepsy as well as cognitive development in preschool and early childhood years. She is an active member of the multidisciplinary pediatric comprehensive epilepsy program and completes intracarotid amobarbital (Wada) testing, extra- and intra-operative language mapping as needed. Her current research investigates the cognitive effects of 1) pediatric brain tumors, particularly posterior fossa tumors, 2) epilepsy, and 3) early neurological injury on the development of neuropsychological functions, especially attention. Her work has been presented at national conferences and published in peer-reviewed professional journals.



Michelle Loman, Ph.D. is an Assistant Professor of Neurology. Her background includes research focusing on the effects of early deprivation on neurodevelopment. She specializes in the evaluation and treatment of children with neurological, medical, and neurodevelopmental disorders with a particular focus on traumatic brain injury, congenital heart disease, and epilepsy. She is interested in investigating neuropsychological functioning in patients with 1) congenital heart disease, 2) traumatic brain injury, and 3) epilepsy. She is also involved in pediatric concussion research. Her work has been presented at several national conferences and published in peer-reviewed professional journals.



Michael McCrea, Ph.D., ABPP-CN is a Professor of Neurosurgery and Neurology and Director of MCW's Brain Injury Research Program. He is board certified in Clinical Neuropsychology (American Board of Professional Psychology) and is a past president of the American Academy of Clinical Neuropsychology. He currently serves on the National Football League (NFL) Head, Neck and Spine Committee and served as a panelist on the 2008 and 2012 Zurich International Consensus Conference on Sports Concussion. He is an active researcher of the acute and chronic effects of mild traumatic brain injury, with numerous publications, national and international lectures, and past and current extramural funding.



Lindsay Nelson, Ph.D. is an Assistant Professor of Neurosurgery and Neurology. Her background includes translational research in personality/psychopathology and mild traumatic brain injury (mTBI)/concussion. She is interested in psychological and neurobiological factors associated with recovery following mTBI and is involved in several ongoing projects within the Brain Injury Research Program. Her work has been presented at several national conferences and published in peer-reviewed professional journals.



Sara Pillay, Ph.D. is an Assistant Professor of Neurology. She specializes in understanding language reorganization after stroke in patients with aphasia using neuropsychological data, neuroimaging, and electrical stimulation techniques. In addition, she has interest in developing and testing language paradigms for use during intraoperative electrical stimulation mapping and electrocorticography. Her work has been presented at several national and international conferences, and published in peer-reviewed professional journals. She is currently a co-investigator in the Language Imaging Laboratory and a member of the Southeastern Wisconsin Stroke Rehabilitation Center.



Sara J. Swanson, Ph.D., ABPP-CN is the Division Chief and Professor of Neurology. She is board certified in Clinical Neuropsychology (American Board of Professional Psychology) and has served on the American Board of Clinical Neuropsychology, as a national oral board examiner, and on the American Academy of Clinical Neuropsychology board of directors executive committee. She specializes in the clinical evaluation of adults with neurobehavioral disorders, epilepsy, head trauma, normal pressure hydrocephalus, memory, somatoform and attention deficit disorders. She conducts intracarotid sodium amobarbital testing and clinical fMRI for localization of language and memory prior to epilepsy surgery. Her research interests involve the use of functional MRI in epilepsy surgery candidates and predictors of cognitive outcome after temporal lobectomy. She has published in these areas, and been a co-investigator on several NIH studies of fMRI in epilepsy, most recently the FATES (Function MRI in Anterior Temporal Lobe Epilepsy) multi-center study.



Laura Umfleet, PsyD is an Assistant Professor of Neurology. Her background includes research focusing on the investigation of various psychometric properties of the Wechsler intellectual scales, performance on selected neuropsychological measures in patient populations (e.g., memory disorders, Parkinson's disease, and multiple sclerosis), and clinical or psychometric issues relating to symptom validity testing. Other research interests include investigating normal vs. abnormal aging as well as developing research that demonstrates the value of neuropsychology. Her work has been presented at national conferences and published in peer-reviewed professional journals. Dr. Umfleet specializes in the evaluation and treatment of adults with neurological, behavioral, and developmental disorders, with specific clinical interests in mild cognitive impairment, neurodegenerative conditions, and head trauma.

Table 1: Training Goals and Objectives

Goal 1) To train residents to have foundational competencies unique to Clinical Neuropsychology but common across functional domains.

Objective A) To train residents to have foundational competencies in professionalism

Objective B) To train residents to have foundational competencies in assessment, treatment, and consultation as it relates to individual and multicultural differences

Objective C) To train residents to have foundational competencies in ethical neuropsychological practices

Objective D) To train residents to have foundational competencies in professional relationships

Objective E) To train residents to have foundational competencies with skills to critically evaluate and integrate research relevant to clinical practice

Objective F) To train residents to have foundational competencies to produce scholarly work

Goal 2) To train residents to have advanced skill in neuropsychological assessment, treatment and consultation sufficient to practice on an independent basis

Objective A) To train residents to have advanced skill in neuropsychological assessment

Objective B) To train residents to have advanced skill in neuropsychological intervention and consultation

Goal 3) To train residents to have advanced understanding of brain-behavior relationships

Objective A) To train residents to have advanced understanding of neuroanatomy and neural systems

Objective B) To train residents to have advanced understanding of neuropsychological functions

Objective C) To train residents to have advanced understanding of neuropsychological development across the lifespan

Goal 4) To provide training in teaching, supervision, and mentoring

Objective A) To provide training in teaching, supervision and mentoring

Goal 5) To educate residents regarding the business practices of Clinical Neuropsychology

Objective A) To provide education regarding insurance and billing issues, clinical productivity, and practice management

Goal 6) To educate residents regarding Psychology and Neuropsychology's governing bodies, boards, and organizations

Objective A) To educate regarding Psychology and Neuropsychology's governing bodies, boards, and organizations