



## RESIDENCY TRAINING IN CLINICAL NEUROPSYCHOLOGY INDIANA UNIVERSITY SCHOOL OF MEDICINE



### Departments of Psychiatry & Neurology

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Neuroscience Center

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## About Us

### *Our Program*

Our Clinical Neuropsychology Residency Program began in 1997 with a mission to educate and train doctoral-level psychologists in brain-behavior relationships and the competent and ethical practice of clinical neuropsychology. Our residency has been APPCN-affiliated since 2005 and is staffed by 9 faculty neuropsychologists (6 adult, 3 pediatric, 5 ABCN board certified) from the Departments of Psychiatry and Neurology. Clinical training follows an apprenticeship-type model and involves both outpatient and inpatient settings. Didactic experiences occur throughout training. Residents have the opportunity to develop a scholarly project for presentation internally or at national meetings. Research opportunities are available through several ongoing projects.

### *Our Medical Center*

Indiana University School of Medicine has partnered with Indiana University Health (IU Health) to create a not-for-profit, comprehensive health care system that operates 19 hospitals and includes over 3,500 physicians statewide. Our residents see patients in these Indianapolis-based IU Health facilities which have been ranked in the top 1% of hospitals nationally by US News and World Report: Methodist Hospital, Riley Hospital for Children, and University Hospital. The IU Health partnership provides a rich training environment for our residents.

### *Welcome to Indianapolis!*

Indianapolis, the 14<sup>th</sup> largest city in the country, is located in the “Crossroads of America.” Indy is home to six distinct cultural districts and enjoys a healthy arts community with internationally recognized orchestra and ballet companies. The city has one of the 10 largest parks within the metropolitan area with a lake for sailing and kayaking. Everything you need is minutes away from center city, from bustling night life on Broad Ripple Avenue, to the arts district on Mass Ave. You can explore the Indianapolis Children’s Museum, the largest children’s museum in the world, as well as the Indianapolis Museum of Art, one of the country’s oldest art museums on 152 acres of beautiful gardens and grounds. For sports enthusiasts, Indianapolis provides professional events for every season with the Indianapolis Colts, Indiana Pacers, Indiana Fever, Indianapolis Indians, and IndyCar racing at the iconic Indianapolis Motor Speedway. From the Indianapolis Zoo and White River Gardens, to the Indianapolis Symphony Orchestra at Conner Prairie, Indianapolis has something for everyone. Read more [here](#).



## The Residency Experience

### Program Description

Adult and pediatric programs are based in the IU Health Neuroscience Center on the north edge of the Indiana University School of Medicine campus.

The two-year residency is supported by the Departments of Psychiatry and Neurology. The program is structured to follow the Houston Conference on training and education in neuropsychology ([Archives of Clinical Neuropsychology](#) 1998; 13:157-248) and is affiliated with the Association for Postdoctoral Programs in Clinical Neuropsychology (APPCN).



Clinical training follows an apprenticeship model. Residents see outpatients (and a few inpatients) with a range of medical, neurologic, and psychiatric disorders and assume more clinical autonomy in management of cases as training progresses. By collaborating with faculty in their ongoing research projects, residents are able to develop a research project for presentation internally (Case Conference or Departmental Grand Rounds) or externally (e.g., INS, AACN, APA Division 40, or NAN).

A range of didactic experiences occur throughout the residency, including: lectures, case conferences, departmental grand rounds, brain cutting, clinicopathologic conference, hospital rounds, observation of neurology clinic, observation of neurosurgical procedures, and readings and literature reviews.

### Clinical Teaching

Our residents instruct graduate students from several local universities, including IUPUI, University of Indianapolis, IU Bloomington, and Ball State University, as well as interns from the in-house APA-approved Clinical Psychology internship. Our residents also instruct medical students and residents as they rotate through our service.

### Community Education

Residents can give presentations to community organizations on clinical syndromes and neuropsychological assessment (e.g., Alzheimer Association, Brain Injury Association).

### **Clinical Service - Adult Track**

Our residents on the adult track see patients in two outpatient locations. Two are traditional outpatient neuropsychology clinics (one based in the Department of Psychiatry and the other in the Department of Neurology) receiving referrals from clinical departments within IU Health and the surrounding community. These patients have a range of conditions including concussion/traumatic brain injury, Alzheimer disease, Lewy Body disease, frontotemporal degeneration, multiple sclerosis, stroke, brain tumor, brain infection, epilepsy, occupational exposures, cancer, chronic kidney disease, and psychiatric disorders. Residents will have direct roles in clinical interview, testing, report writing, and feedback to patient, family, and referral source.

Residents on our adult track also get limited experience with inpatient consultations from medical, surgical, and psychiatric services.

Across all sites, residents should expect to see between 3-4 consultations per week. Supervising faculty: Maurissa Abecassis, Courtney Johnson, David Kareken, Dan Rexroth, Gwen Sprehn, and Fred Unverzagt.

### **Clinical Service - Pediatric Track**

Our residents on the pediatric track see children and adolescents in outpatient and inpatient locations via the Department of Neurology. A range of referral sources (pediatric neurology and psychiatry, oncology, developmental pediatrics, genetics, neurosurgery, physical medicine and rehabilitation) and disorders are encountered including: seizures/epilepsy, concussion/traumatic brain injury, stroke, cancer (brain tumor and leukemia), chromosomal abnormalities, spina bifida, neurofibromatosis, transplant, learning disability, and ADHD. In addition, residents have the opportunity to consult on the Rehabilitation Unit at Riley Hospital for Children and with the multidisciplinary neuro-oncology clinic.

Again, residents will have direct roles in clinical interview, testing, report writing, and feedback to patient, family, and referral source. Across all sites, residents should expect to see between 3-4 consultations per week. Supervising faculty: Liz Begyn, Rachel Jensen, and Brenna McDonald.



## Program Faculty

### **Frederick W. Unverzagt, PhD, ABPP/ABCN**



Director, Clinical Neuropsychology Residency Program

Website: [Frederick Unverzagt - Professor of Psychiatry](#)

### **David A. Kareken, PhD, ABPP/ABCN**



Co-director, Clinical Neuropsychology Residency Program

Website: [David Kareken - Professor of Neurology](#)

### **Daniel F. Rexroth, PsyD**



Director, Neuropsychology Clinic in Psychiatry

Website: [Daniel Rexroth - Assistant Professor of Psychiatry and Neurology](#)

### **Gwen C. Sprehn, PhD, ABPP/ABCN**



Director of Clinical Services, Neuropsychology Clinic in Neurology

Website: <http://iuhealth.org/find-a-doctor/physician/63787/>

### **Brenna C. McDonald, PsyD, MBA, ABPP/ABCN**



Director, Pediatric Neuropsychology Program

Website: [Brenna McDonald - Associate Professor](#)

### **Elizabeth L. Begyn, PhD, ABPP/ABCN**



Director of Clinical Services, Pediatric Neuropsychology Clinic

Website: <http://iuhealth.org/find-a-doctor/physician/68751/>

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**Courtney B. Johnson, PhD**



Director, Neurobehavioral Treatment Program

Co-director, Older Adult Mental Health Clinic

Staff, Neuropsychology Clinic in Psychiatry

Website: <http://psychiatry.medicine.iu.edu/faculty-listing/courtney-johnson-ph-d-hspp/>

**Rachel M. Jensen, PsyD**



Staff, Pediatric Neuropsychology Clinic

Website: <http://medicine.iu.edu/neurology/faculty/rachel-jensen/>

**Maurissa Abecassis, PhD**



Staff, Neuropsychology Clinic in Neurology

Website: <http://iuhealth.org/find-a-doctor/physician>

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## Clinical Supervision

Faculty members see every patient seen by the resident. Supervision is 2 to 5 hours per week.

Early in the residency, the resident observes the faculty member conduct the diagnostic interview. The resident will then administer the testing. The resident will draft a report including history of the present illness, other history, behavioral observations, test results, diagnosis, comment, and recommendations. In a collaborative process, the faculty member and the resident will finalize the report. The resident will observe any verbal feedback of the results to patient and referral source.

As competence progresses, the resident leads the diagnostic interview and then staffs the case with the faculty presenting HPI, current working diagnoses, and plan for evaluation. The faculty member offers input as needed and the evaluation continues under the direction of the resident. The resident drafts a report and it is finalized during a supervision session. The faculty member observes the resident's feedback to patient and referrer. Residents also train and supervise graduate students.

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## Didactics

1. Formal instruction and certification in administration and scoring of neuropsychological tests (first month of residency).
2. Neuropsychology Case Conference. Weekly, 1.5 hours. Residents practice fact finding in the style of ABCN board certification, attend professional development seminars, and participate in neuroanatomy and neurobehavioral syndrome reviews.
3. Neuropsychology Seminar Series - Monthly - 1.5 hour. Lectures and guided readings on 24 topics covering all major adult and pediatric neurobehavioral disorders.
4. Functional Neuroanatomy and Neurobehavioral Syndromes short course. 6 hour sequence offered by Neuropsychology faculty to neuropsychology residents, psychiatry residents, and psychology interns.
5. Medical Neuroscience Wet Labs for anatomy instruction (3 sessions, 6 hrs total in the laboratory).
6. Training in the Protection of Human Subjects (IUPUI module).
7. Training in Compliance (initially on hire and periodically as required by the School).
8. Clinical Neuroscience Grand Rounds. Weekly during the academic year, 1 hour.
9. Psychiatry Grand Rounds. Weekly during the academic year, 1 hour.
10. Pediatric Neurology Rounds. Weekly during the academic year, 1 hour.
11. Pediatric Brain Tumor Board. Twice monthly during the academic year, 1 hour.
12. Neurology clinic shadow or inpatient rounds. Once during the residency.
13. Neurosurgical procedure observation. Once or twice during the residency.
14. Clinicopathologic Conference and brain cuttings. Twice annually, ½ - 1 hour.
15. Older Adult Mental Health Clinic Didactic. Optional multidisciplinary weekly didactic (Co-directed with geriatric psychiatrist, Dr. Daniel Bateman) including educational component (e.g., journal club, topical presentation) on geriatric care and case presentation from clinic (i.e., compilation of clinical interview and neuropsychological testing), 1 hour.

## Research

Based on individual interest, initiative, and knowledge base, the resident can participate in one or more of these research activities during the residency:

- Randomized clinical trial of effect of exercise and cognitive training on mental abilities in people with MCI. Cognitive and Aerobic Resilience for the Brain, CARB (R01 AG045157), PI: Fred Unverzagt, PhD
- Longitudinal data from a multi-center clinical trial of a cognitive intervention for older adults. Advanced Cognitive Training for Independent and Vital Elderly, ACTIVE (U01 NR04508), PI: Fred Unverzagt, PhD
- Longitudinal data on risk factors for progression of MCI in primary care. Risk Factors for Conversion to Dementia, (R01 AG026096), PI: Fred Unverzagt, PhD
- Cross-sectional cognitive data on quality of life among long-term breast cancer survivors, Quality of Life in Younger Breast Cancer Survivors (American Cancer Society, RSGPB04-089-01-PBP), PI: Vickie Champion, DNS, RN, FAAN; Co-I: Fred Unverzagt, PhD
- Longitudinal data from a large, cross-national study on prevalence, incidence, and risk factors of Alzheimer disease. Indianapolis-Ibadan Dementia Project (R01 AG09956), PI: Kathleen S. Hall, PhD; Co-I: Fred Unverzagt, PhD
- Longitudinal data from a large registry of Alzheimer disease patients and matched healthy controls. Indiana Alzheimer Disease Center (P30 AG10133), PI: Andy Saykin, PsyD; Co-I: Fred Unverzagt, PhD
- Industry-sponsored, clinical trial efficacy rating for Alzheimer disease. Co-I: Daniel F. Rexroth, PsyD
- Functional neuroimaging of addiction, obesity, and reward-related behavior (R01 DK085601, R21 AA018020, R01 AA017661, P60 AA007611), PI: David A. Kareken, PhD
- Functional neuroimaging of children and adults with TBI, epilepsy, and leukemia (U54 071598, R01 HD047242, Partnership for Pediatric Epilepsy Research, American Cancer Society, Indiana Spinal Cord and Brain Injury Research Fund), PI: Brenna C. McDonald, PsyD, MBA; Co-I: Gwen C. Sprehn, PhD
- MRI and PET imaging studies of cognitive disorders of aging and breast cancer chemotherapy (R01 CA101318, R01 AG019771), PI: Andrew J. Saykin, PsyD; Co-I: Brenna C. McDonald, PsyD, MBA
- Neuropsychological findings in hemorrhagic stroke. Advanced Imaging of Ongoing Vasculopathy in Intracerebral Hemorrhage (ADVANCE) – CGSI Young Investigator Award in Clinical-Translational Research, Co-I: Gwen Sprehn, PhD
- Neuropsychological findings in epilepsy. Stereotactic Laser Ablation for Temporal Lobe Epilepsy Site (SLATE), Co-I: Gwen Sprehn, PhD

## • Evaluations

### Evaluation of Resident

Formal reviews occur at months 6, 12, and 24 of the residency. Residents complete an activity log for clinical service and didactic attendance. Each clinical supervisor rates the resident's knowledge base and professional practice on structured rating forms. The training director meets with the resident to review the activity log and faculty ratings.

### Program Evaluation

Clinical rotations, scope and frequency of didactics, supervisor availability and quality, and research offerings are reviewed at regular meetings of the Residency Training Committee.



## Resident Practice Competencies

Upon completion of the residency, the resident will display these competencies:

1. Detailed knowledge of neurobehavioral syndromes and psychiatric diagnoses.
2. Working knowledge of major neurological disorders.
3. Working knowledge of functional neuroanatomy.
4. Working knowledge of neurologic and radiologic diagnostic procedures.
5. Working knowledge of the indications of the major classes of neurologic and psychiatric medications.
6. Ability to take a comprehensive history including: history of the present illness, prior medical and psychiatric history, family history, and social history. Knowledge of when a collateral interview is necessary.
7. Ability to observe and report on behavioral characteristics of the patient based on interview contact.
8. Ability to develop differential diagnoses based on the interview.
9. Ability to select a neuropsychological assessment approach that is responsive to the interview presentation and context of referral.
10. Ability to administer, score, and interpret cognitive, motor, sensory, affect, and personality tests including appreciation of factors to consider in interpreting a patient's performance and the selection of a proper norms.
11. Ability to formulate a diagnostic impression that integrates history and examination findings.
12. Ability to specify appropriate recommendations for further work-up, treatment, and follow-up.
13. Ability to generate a consultation note that communicates findings and recommendations effectively.
14. Ability to operate effectively in a multidisciplinary environment and to know the roles of other professional providers and the role of neuropsychology within that framework.
15. Understanding of the common ethical dilemmas that arise in neuropsychological consultation and awareness of a process to work to a resolution of these dilemmas.

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## **Policies, Salary & Benefits**

### **Policies**

All policies are based on the [IUSOM GME Resident Handbook](#). Program-specific interpretations are included. These guidelines were developed in the context of the Residency as a professional training program. As with any professional activity, experience gained during residency is typically related to time and effort expended.

### **Salary**

Resident salary is \$35,000 per year.

### **Benefits**

Benefits offered at no cost to residents include: family health insurance, vision and dental insurance, life insurance, disability insurance, and malpractice insurance. Campus parking will also be provided at no cost.

### **Time Off**

In Year 1, our residents receive 15 paid days off and 3 days off for professional development (e.g., conferences, EPPP) that do not count against paid time-off (PTO). In Year 2, residents receive 20 paid days off and 5 days off for professional development. These days are in addition to the standard IU holidays.

## Application Procedures

### Requirements

- Doctoral candidates from APA-approved programs in clinical or counseling psychology preferred.
- APA-approved internship preferred.
- Applicants must participate in the APPCN-affiliated National Matching Service.

### Application

1. Cover letter.
2. Current CV.
3. Three (3) letters of recommendation.
4. Copies of graduate and undergraduate academic transcripts (copies issued to student are acceptable).
- 5. All materials must be received by December 31.**
6. Please send application materials as attachments in an email to Fred Unverzagt at [funverza@iupui.edu](mailto:funverza@iupui.edu)

or via physical mail to:

Frederick W. Unverzagt, PhD  
Training Director, Clinical Neuropsychology Residency  
Department of Psychiatry  
Indiana University School of Medicine  
IU Health Neuroscience Center  
Goodman Hall  
355 W 16<sup>th</sup> Street, Suite 2800  
Indianapolis, IN 46202

### Notification and Contract

Applications will be reviewed and, based on the review, interviews will be arranged either on-site or at the February INS meeting. Our residency program is APPCN-affiliated and participates in the National Matching Service for selection of neuropsychology residents. Matched candidates will receive formal contracts issued from the Indiana University School of Medicine, Office of House Staff Affairs.