

## **Minneapolis VA Health Care System**

### **Adult Postdoctoral Residency (Neuropsychology Emphasis): Summary and Outline**

#### Introduction & Overview

Welcome to the Minneapolis VA Health Care System (MVHCS). Postdoctoral Residency in Adult Clinical Neuropsychology! As an introduction to the neuropsychology services provided through the Minneapolis VAMC, this document summarizes the ins-and-outs of the residency and is intended to assist the transition from pre-doctoral level training to training provided at the post-doctoral level with particular emphasis in clinical neuropsychology at Minneapolis VAHCS. We hope that this outline will serve as a helpful reference during this transition and throughout the two years that comprise the training experience.

Training in neuropsychology focuses on brain-behavior relationships and integrates clinical psychology with issues related to behavioral neurology. Neuropsychological data are derived from multiple sources to assist in the evaluation and treatment of the cognitive, psychological, and behavioral deficits that may be associated with congenital, neurodevelopmental, and/or acquired brain dysfunction. Through didactic and experiential training, the resident will gain proficiencies in various neuropsychological assessment techniques and instruments, interpretation of test results, report-writing, and selected methods of intervention for problems arising directly from and/or secondary to impaired brain function. Training will expand the resident's existing knowledge of neuroanatomy, neuropathology, and related neurosciences as well as focus on the further development of consultation/liaison skills in a variety of patient populations. Clinical activities will include neuropsychological screening and assessment; provision of feedback to patient, family, and referral sources; participation in interdisciplinary team patient care meetings; and direct intervention utilizing neuropsychological principles, including patient and/or family psychotherapy and/or education. Residents will have the opportunity to obtain more in-depth training in such areas as the assessment and neuro-rehabilitation of traumatic brain injury through a national Department of Defense-Department of Veterans Affairs (DoD-DVA) longitudinal treatment and research program; cerebrovascular disease; geriatrics, including the Memory Disorders Clinic through GRECC; the Polytrauma/TBI program, chemical dependence; and the neuropsychology of schizophrenia.

The resident will have the opportunity to train under the supervision of multiple supervising staff neuropsychologists. As Director of the residency, Gregory Lamberty, Ph.D., ABPP-CN will serve as a primary supervisor and mentor for the resident. Sandra Lundgren, Ph.D., ABPP-CN, Christie Clason, Ph.D., Christian Carter, Ph.D., Kimberly Bares, Ph.D., and Anita Sim, Ph.D. will also serve as supervisors throughout the course of the residency and will augment the resident's interests in specific clinical populations. The resident will also participate in research and/or other scholarly academic activity related to neuropsychology either through collaboration with ongoing research programs or through independent research projects approved by the program supervisor, mentors, and training committee. This project should culminate in the submission of such work for professional presentation or publication.

The Neuropsychology Emphasis within our one-year accredited clinical psychology postdoctoral residency does not yet meet the full post-doctoral requirements for neuropsychology specialty since this accredited program is for only one year. However, upon successful completion of the first year, residents in the neuropsychology emphasis area enter a second year of training that will consist of more emphasis on research, supervision, didactic instruction and generally more focused training in clinical neuropsychology. The second year of training in clinical neuropsychology is not a part of our APA-accredited postdoctoral residency program, and it is not accredited. However, the first and second years, taken together, satisfy Houston Conference Guidelines for specialization in clinical neuropsychology (Houston Conference Policy Statement, 1998 and the residency has been a member of the Association of Postdoctoral Programs in

Clinical Neuropsychology (APPCN) since 2010. We are currently applying for Specialty accreditation in Clinical Neuropsychology through APA.

In accord with APA training guidelines, the residency consists of a variety of experiences that are designed to promote the resident's identity as an evolving scientist-practitioner. Upon completion of the two-year residency, it is believed that the resident will emerge as a competent, well-rounded, and very competitive clinical neuropsychologist who has the requisite training experiences to successfully pursue board certification in clinical neuropsychology. The residency consists of four main components: (I) Clinical Service, (II) Research Activity, (III) Didactics/Educational Enrichment, and (IV) Teaching/Supervision of Graduate Externs and Pre-Doctoral Interns.

## Program Goals

1. Residents will develop independent practitioner competence, both in general clinical psychology and in clinical neuropsychology, in diagnosis, psychological evaluation, and assessment in adult patients presenting with diverse psychological problems and treatment needs.
2. Residents will be competent in specified psychological interventions, both as generalists and in clinical neuropsychology, at an independent level.
3. Residents will be competent professionals in providing consultation and supervision based on principles of constructive consultative feedback, and collegial supervision based on psychological principles, to colleagues, trainees and others.
4. Residents will demonstrate professional behavior consistent with professional standards and ethical guidelines. Residents will have a mature understanding of professional ethics, as well as issues of cultural and individual diversity.
5. Residents will develop a maturing professional identity, self-directed and built upon the basis of advanced clinical knowledge and skills. Graduating Residents are prepared to function successfully as an independent scholar/practitioner appropriate for entry into the profession. They are expected to be aware of their continuing developmental professional goals (including in area of specialization) and areas needing further development, and to possess realistic career plans as evidenced by vocational or training choices to be pursued upon completion of the program.
6. Residents will be skilled in the interface between science and practice, by applying scientific knowledge to the local clinical setting, being educated consumers of empirical research, and having exposure to empirically validated treatments. Residents are expected to think critically, to evaluate the findings of research-based knowledge within the context of a broad base of practical experiences, and to engage in scholarly productivity resulting in a submission for a local or national presentation or submission of their work for publication.

## I. Clinical Service

### A. Training Environments

1. Mental Health Service Line (MHSL) – The MHSL provides outpatient and inpatient neuropsychological consultation services for a wide range of referral sources, including neurology, psychiatry, physiatry, primary care, social work, and various other entities

throughout the VA system. In the context of this broad referral network, the resident will have opportunities to work with patients presenting with a diverse set of neuropsychologically-relevant neurologic and psychiatric conditions. Neurologic conditions frequently include neurodegenerative dementias, stroke, traumatic brain injury, movement disorders, multiple sclerosis, Hepatitis C and other infectious diseases. The resident will have opportunities to participate on the Rehabilitation team (4J) and provide treatment recommendations to inpatients with histories of stroke. Psychiatric conditions frequently include post-traumatic stress disorder, major affective disorders, alcohol and polysubstance abuse, and chronic mental illnesses such as bipolar disorder. Drs. Lundgren, Clason, and Carter will provide primary supervision within the MHSL.

2. Geriatric Research Education and Clinical Center (GRECC) – The Minneapolis VAHCS GRECC is one of several national centers that provide unique integration of clinical services and research outcome data among aging veterans. In collaboration with other GRECC providers (neurologists, psychiatrists, neuroradiologists, social workers, occupational therapists), neuropsychologists inform the differential diagnostic process and provide appropriate treatment recommendations for aging veterans and their families. The GRECC also conducts ongoing research related to Alzheimer's disease and other dementias, and information collected as part of routine clinical evaluations is entered into a database for ongoing research. A regular consensus meeting is held to inform precise diagnosis with representatives from neurology, psychiatry, and neuropsychology in attendance. Other opportunities may include attendance in family care meetings and provision of psychoeducation to patients and families. Dr. Clason will provide primary consultation services for GRECC and will serve as a primary supervisor.

3. Physical Medicine & Rehabilitation (PM&R) and Polytrauma/TBI Program: Residents who rotate through the PM&R service will gain experience in working with neuro-rehabilitation populations. The two primary experiences include providing neuropsychological consultation services to the inpatient rehab unit (which includes TBI & stroke patients), as well as outpatient evaluations of veterans/active duty servicemembers from the Polytrauma /TBI program. The Minneapolis VAHCS has the unique distinction of being one of the nation's four designated Polytrauma Rehabilitation Centers (PRCs). Residents on the PM&R service will gain experience interacting and collaboratively working with an interdisciplinary treatment team, describing neurocognitive strengths and weaknesses in functional terms, developing practical recommendations for rehabilitation & discharge planning, evaluating fitness for duty, and interpreting neurocognitive test results within the context of concomitant pain, medication side effects, & musculoskeletal injuries. Drs. Lamberty and Sim will provide primary supervision.

4. Geropsychiatry Team – The Geropsychiatry Team provides psychiatric, neuropsychological, and psychological assessment and treatment interventions to veterans ages 65 and older. Most outpatients seen for services have one or more Axis I conditions in the context of multiple medical concerns, with up to one-third also showing mild cognitive decline or dementia. The resident will have opportunity to conduct comprehensive neuropsychological evaluations of outpatients, and also may provide inpatient consultation to the Extended Care Center (Wards 1D, 1E, and 1F) and Inpatient Psychiatry (Ward 1K). Primary referral questions include differential diagnosis of dementia, quantification of known/suspected brain impairment secondary to stroke and other neurological conditions, and recommendations regarding capacity for decision making and managing instrumental activities of daily living. The resident also may participate in caregiver education and support via individual and family sessions, as well as by co-facilitating the caregiver support group, and presenting at the half-day

caregiver workshops on early and middle stage Alzheimer’s disease. Additional training experiences are available conducting diagnostic intake interviews and psychological assessments, and providing empirically-supported psychotherapeutic interventions. The resident also may attend and present at the weekly Geropsychiatry Team journal club. Research and scholarly activities are encouraged and supported. Dr. Kimberly Bares will provide primary supervision for Geropsychiatry training.

5. Spinal Cord Injury & Disorder Center (SCI/D): The newly built Spinal Cord Injury & Disorder Center provides a full range of clinical services for veterans with spinal cord injuries and other conditions such as multiple sclerosis, Guillain-Barre, amyotrophic lateral sclerosis (ALS; Lou Gehrig’s disease), ventilator needs, and co-morbid traumatic brain injury. Opportunities for the resident include neuropsychological assessment with inpatients and outpatients, formulating recommendations based on these assessments to assist with rehabilitation and discharge planning, cognitive rehabilitation, psychotherapy, and participation in interdisciplinary team and family care conferences. There may also be opportunities to participate in development and refinement of educational programming for veterans and families who are coping with spinal cord injuries.

B. Supervision & Evaluation - Two hours of formal supervision will be provided by the primary supervisor each week to discuss strategies of assessment and case formulation, report writing and revision, to establish appropriate treatment recommendations, and also discuss issues that pertain to professional development. It is anticipated that the initial stage of the two-year training period will require a relatively close level of supervision, with increasing levels of autonomy throughout the two-year training period. Formal evaluations are completed each trimester to track overall development throughout the residency.

C. Test Administration, Scoring, Norming, & Report Writing

1. Test Administration and Sample Batteries- Test batteries will vary to some extent depending upon the primary supervisor’s preferences, context of assessment (forensic versus clinical), clinical status (outpatient versus inpatient), referral question, and patient characteristics (e.g., age, educational background) and limitations (e.g., receptive/expressive language, visual, motor, etc.). The following represent sample batteries comprised of core measures that are frequently administered by primary supervisors as well as relevant norms.

<u>a. General Outpatient Battery (younger adults)</u>	<u>Scoring/Norms</u>
-Clinical interview with patient	
-IMed Consent (Clinical version)	
-Finger Tapping, Grooved Pegboard	Heaton
-WAIS-IV (select subtests; see Table 1 for various versions)	WAIS-IV Manual
-WMS-IV (select subtests)	WMS-IV Manual
-California Verbal Learning Test – 2 <sup>nd</sup> Edition (CVLT-II)	CVLT-II Manual
-Conner’s Continuous Performance Test (CPT), computerized	Computer
-Paced Auditory Serial Addition Test (PASAT)	Roman et al.
-Controlled Oral Word Association Test (COWAT)	Heaton or Ruff
-Animal Naming Fluency	Tombaugh
-Boston Naming Test (BNT)	Heaton
-Trails A & B	Heaton
-Stroop Color Word Test (Golden version)	Golden
-Ruff Figural Fluency Test	Manual
-Beck Depression Inventory – 2 <sup>nd</sup> Edition (BDI-II)	Computer
-Beck Hopelessness Scale (BHS)	Computer

-Beck Anxiety Inventory (BAI)	Computer
-Porteus Maze	Porteus
-Wisconsin Card Sorting Test (WCST)	Computer
-MMPI-2 (computerized)	Computer

b. General Outpatient Battery (older adults)

Scoring/Norms

-Clinical interview with patient	
-IMed Consent (Clinical version)	
-Mini-Mental Status Examination (MMSE)	Crum et al.
-Behavioral Dyscontrol Scale (BDS)	Grigsby et al.
-Finger Tapping, Grooved Pegboard	Heaton
-Mattis Dementia Rating Scale (DRS)	DRS Manual
-Hopkins Verbal Learning Test – Revised (HVLT-R)	HVLT-R Manual
-Trail Making Tests A & B	MOANS*
-Stroop Color Word Test (Golden version)	MOANS*
-Controlled Oral Word Association Test (COWAT)	MOANS*
-Animal Naming Fluency	Tombaugh
-Boston Naming Test (BNT)	MOANS*
-Wechsler Memory Scale – Revised (select subtests)	MOANS*
-Geriatric Depression Scale (GDS)	Spreen/Strauss

\*Mayo Older American Normative Sample (see Ivnik et al.; Lucas et al.)

c. GRECC Dementia Battery (fixed)

Scoring/Norms

-Clinical interview with patient	
-IMed Consent (Clinical version)	
-Mini-Mental Status Examination (MMSE)	Crum et al.
-American National Adult Reading Test (AMNART)	Grober/Sliwinski
-WAIS-III (Digit Symbol, Block Design, Digit Span, Information)	WAIS-III Manual
-WMS-R (Logical Memory I & II)	MOANS*
-California Verbal Learning Test – 2 <sup>nd</sup> Edition (CVLT-II)	CVLT-II Manual
-Rey-Osterrieth Complex Figure (Copy and 3-minute Delay Trials)	Boone
-Controlled Oral Word Association Test (COWAT)	Heaton
-Animal Naming Fluency; Boston Naming Test (BNT)	MOANS*
-Stroop Color Word Test (Comalli/Kaplan version)	Comalli/Kaplan
-Trail Making Tests A & B	MOANS*
-Wisconsin Card Sorting Test (WCST)	Computerized
-Geriatric Depression Scale (GDS)	Spreen/Strauss

\*Mayo Older American Normative Sample (see Ivnik et al.; Lucas et al.)

d. Inpatient Battery

-Clinical interview with patient	
-IMed Consent (Clinical version)	
-Finger Tapping, Grooved Pegboard	Heaton
-WMS-R Information/Orientation	
-WAIS-IV(select subtests)	
-RBANS	RBANS Manual
-Controlled Oral Word Association Test (COWAT)	Heaton

-Trail Making Tests A & B	Heaton
-Stroop Color Word Test (Golden)	Golden
-Wisconsin Card Sorting Test (WCST)	Computer
-Executive Clock Drawing Task (CLOX)	Royall et al.

e. Compensation & Pension (C & P) Battery

-Clinical interview with patient	
-IMed Consent (Clinical version)	
-Victoria Symptom Validity Test (VSVT)	Computer
-Test of Memory Malingering (TOMM)	Tombaugh
-Rey-15 Item & Recognition Test	Boone et al.
-Finger Tapping, Grooved Pegboard	Heaton
-WAIS-IV (select subtests; see Table 1 for various versions)	WAIS-III Manual
-WMS-IV (select subtests)	WMS-III Manual
-California Verbal Learning Test – 2 <sup>nd</sup> Edition (CVLT-II)	CVLT-II Manual
-Conner’s Continuous Performance Test (CPT), computerized	Computer
-Paced Auditory Serial Addition Test (PASAT)	Roman et al.
-Controlled Oral Word Association Test (COWAT)	Heaton or Ruff
-Animal Naming Fluency	Tombaugh
-Boston Naming Test (BNT)	Heaton
-Trails A & B	Heaton
-Stroop Color Word Test (Golden version)	Golden
-Ruff Figural Fluency Test	Manual
-Beck Depression Inventory – 2 <sup>nd</sup> Edition (BDI-II)	Computer
-Beck Hopelessness Scale (BHS)	Computer
-Beck Anxiety Inventory (BAI)	Computer
-Wisconsin Card Sorting Test (WCST)	Computer
-MMPI-2 (computerized)	Computer

2. Scoring and Norming

a. Norms Manual - In addition to normative information provided through a number of comprehensive texts (Heaton et al.; Sherman et al.; Lezak et al.; Mitrushina et al.), a summary of frequently used norms will be collated in a norms manual. Norms are organized alphabetically by measure to allow for efficient identification of appropriate normative groups.

b. Computerized Scoring/Norming Programs - Select neuropsychological measures may be administered and scored automatically through computerized administration in 2G-147. At present, these include the Wisconsin Card Sorting Test (WCST) and Conner’s Continuous Performance Test (CPT). The Minnesota Multiphasic Personality Inventory – 2<sup>nd</sup> Edition (MMPI-2) and the Beck series (Beck Anxiety Inventory, Beck Depression Inventory – 2<sup>nd</sup> Edition, Beck Hopelessness Scale) may also be administered by computer. It is anticipated that a Scoring Assistant for the Wechsler Scales (SAWS), scoring assistant for CVLT-II, and scoring assistant for various Heaton measures will be secured in the near future.

c. Summary Sheets - Several summary sheet templates are available in the psychology shared drive to allow for computerized summary of individual test scores. Templates may be tailored by adding or deleting measures from batteries presented above. On occasion, patients will have a history of prior

neuropsychological evaluation, and an additional “Chronological Summary Sheet” will compare performances on the same tasks over time. Templates of these summary sheets (according to battery) are available in the shared drive.

### 3. Caveats Regarding Test Administration

a. Flexible Battery Approach - Test batteries are subject to modification depending upon patient needs (e.g., shortened if patients are obviously unable to continue), hypothesis-testing (e.g., addition of additional MAE measures or the Reitan-Indiana if aphasia is suspected), need to assess effort (e.g., patient indicates that he/she intends to pursue litigation, disability), or to ‘stretch the limits’ (e.g., addition of a GDS, WCST, PASAT, etc. if patients are doing well).

b. WAIS-IV Administration - The WAIS-III is not typically administered in its entirety, with a few exceptions (e.g., compensation/pension evaluations; questions of learning disability). Table 2 presents various versions of WAIS-III administration that may be relied upon to generate IQ and index scores. Sattler may also be relied upon to identify WAIS-III subtests that are necessary to generate an Estimated IQ score.

4. Report Writing and Distribution - The VA Psychology Professional Memo on the topic of neuropsychological assessment services (2/29/08) states: “Upon completion of all neuropsychological assessment instruments, a full written report will be generated within 7 calendar days. An explanation and/or interim report should be placed in the records [through CPRS] when expected time standards cannot be met. If the patient is currently on an inpatient service, an interim note will be made in the chart within 24 hours of testing, documenting the contact and providing preliminary results to the referring service. The same will be done for outpatients, within two working days of testing. Patients will receive verbal, individual feedback on all completed assessments (other than C & P’s or other administrative exams) unless it is determined that the patient will not benefit from the provision of feedback.”

II. Research Activity – In addition to clinical services provided, the resident is expected to participate in some amount of research during the course of the two-year training period. Examples of research projects include but are not limited to presentation of posters or papers at national or international conferences, ad hoc review of manuscript submissions, and submission of manuscripts for publication through peer-reviewed journals.

A. Posters and Papers - The resident may present posters or papers at neuropsychology conferences (e.g., International Neuropsychological Society, American Academy of Clinical Neuropsychology, Midwest Neuropsychology Group), and also write papers for publication during the two years of training. The level of research productivity varies depending upon the resident’s research interests, the complexity of study designs, and amount of time available (clinical responsibilities often being a top priority).

B. Prospective Collaborators - Numerous psychology staff conduct research on a variety of topics through the VA and the resident will be able to collaborate with staff according to their interests. For a summary of psychology staff research interests, refer to the psychology training website: ([http://www1.va.gov/minneapolis/education/psychology/staff\\_vitas.pdf](http://www1.va.gov/minneapolis/education/psychology/staff_vitas.pdf)).

III. Didactics/Educational Enrichment – The resident will have opportunity to participate in various didactic and educational seminars at Minneapolis VAMC and University of Minnesota that will complement clinical

and research activities, and support development as a board-eligible clinical neuropsychologist. These include:

A. Psychiatry Rounds – Psychiatry rounds takes place every Friday from 8:30 to 9:30 in the first floor auditorium. Lectures from outside experts, in-house staff, and clinical trainees provides for a very well-rounded discussion of various topics that pertain to psychiatric illness and treatment.

B. Neurology Rounds – Neurology rounds takes place on the second and fourth Wednesdays of the month from 12:00 to 1:00 in the...Topics include...

C. Neuropsychology Case Conference - Neuropsychology case conference takes place every Thursday from 12:00 to 1:00 in the psychology conference room (2G – 146). The purpose of the neuropsychology seminar is to provide psychology trainees and staff with an overview of: (1) fundamental principles and assumptions that underlie the practice of clinical neuropsychological assessment, (2) the central nervous system and brain neuroanatomy, and (3) neurologic and psychiatric conditions that are frequently encountered in clinical neuropsychology. These topics are explored through formal didactic lectures provided by core staff, invited experts, and trainees. A monthly journal club will also complement lectures and case presentations with relevant neuropsychology literature through group review of ‘classic’ and recent articles/texts that inform clinical neuropsychological practice. The final portion of the seminar will include ‘ABPP-style’ discussion of case studies and fact-finding sessions provided by clinical trainees and clinical staff.

D. Brain Cutting – Brain cutting takes place every Friday at 10:30 under the direction of Karen SantaCruz, M.D. Sessions provide a review of the clinical-pathological correlation of neuropathological autopsy findings for Neurology residents and medical students covering the hospital Neurology service as well as for the residents from Neurology, Neurosurgery and Anatomic Pathology who are rotating on Neuropathology. Material from the autopsy service is also provided as well as a discussion of neuroanatomy and approaches to diagnosis and treatment.

E. Neuroanatomy Course – The resident will be invited to audit a course in neuroanatomy through University of Minnesota Medical School and attend select lectures that are directly relevant to the resident’s application for board certification in clinical neuropsychology.

F. ‘Brown Bag’ Meetings – Informal brown bag meetings take place each Thursday at 11:00 in the Social Work conference room. The meetings provide a forum from staff and trainees for a discussion of topics that pertain to research projects and other issues that impact clinical practice.

G. PM&R Journal Club – Held the last Monday of every month in 4K-109 from noon-1pm. Articles focus on topics relevant to neuro-rehabilitation.

E. Psychology Didactic Series – The Didactic Seminar meets on Tuesdays from 1-2 pm and covers a range of topics related to both Clinical Psychology and the Clinical Neuropsychology Postdoctoral Programs

F. Postdoctoral Resident Seminar – The Postdoc Seminar meets on the 2<sup>nd</sup> and 4<sup>th</sup> Fridays of the month from 9:30-10:30. Topics covered are applicable to both the both Clinical Psychology and the Clinical Neuropsychology Postdoctoral Programs such as professional development, licensure, administration, ethics and clinical supervision.

#### IV. Teaching/Supervision of Graduate Externs

A. Supervision of Graduate Externs/Interns

The resident has the opportunity to supervise graduate externs/interns in their scoring, norming, and report writing for the patients they see with the supervising neuropsychologist. Prior to the externs' delivery of scores and reports to the supervising neuropsychologist, the resident checks the accuracy of their scoring and norming. Also, the resident provides preliminary feedback to the externs on their reports before they are given to the neuropsychologist.