Eligibility and Application Process

The IRFN is a 2-year program for clinician-scientists who are undergoing clinical training.

Fellows spend 30% time on IRFN activities in the first year and 70% in the second year, in coordination with their clinical training program.

Who is eligible?
- Medical residents during their final two years
- Fellows in clinical disciplines
- Clinical Psychology interns wishing to do a pre-and post-doctoral year

How to apply:
Candidates should discuss their interest in the IRFN with their director of clinical training and contact the IRFN in March of the academic year for which they are applying. Inquiries should be directed to:

Dr. Mariana Cherner
mcherner@ucsd.edu
619-543-5048

Dr. Cristian L. Achim
cachim@ucsd.edu
858-822-1879

Some of the Participating Faculty

- J.H. Atkinson, MD
- C. Benson, MD
- E. Capparelli, PharmD
- M. Cherner, PhD
- I. Everall, MD, PhD
- R. Ellis, MD, PhD
- I. Grant, MD
- R. Heaton, PhD
- T. Jernigan, MD
- M. Kaul, Ph.D.
- S. Letendre, MD

- S. Lipton, MD, PhD
- E. Masliah, MD
- T. Marcotte, PhD
- J.A. McCutchan, MD
- D. Richman, MD
- N. Schork, PhD
- D. Smith, PhD
- S. Spector, MD
- S. Strathdee, PhD
- M. Taylor, PhD
- C. Woelk, PhD

hnrp.hivresearch.ucsd.edu
www.burnham.org
Fellowship Goals

The IRFN provides training and mentoring to clinician-scientists interested in careers in neuroAIDS research.

Training experiences emphasize the interdisciplinary and translational nature of clinical problems in neuroAIDS, to prepare future scientists to tackle emerging questions in the field.

The IRFN pairs trainees with mentors from clinical and basic science backgrounds according to their research interests.

IRFN Fellows are exposed to cutting-edge scientific environments and have contact with some of the most respected neuroAIDS researchers in the world.

IRFN Fellows have access to resources at UCSD’s HIV Neurobehavioral Research Program (HNRP), UCSD’s Translational Methamphetamine AIDS Research Center (TMARC), and the Del E. Webb Center for Neurosciences, Aging and Stem Cell Research Center at the Sanford-Burnham Medical Research Institute (SBMRI).

Year 1: Research Principles Seminars

1. Organization
   - Balancing research and clinical time
   - Conceiving a project
   - Identifying clinical issues for empirical resolution

2. Institutional Review Board
   - Principles of human subjects protection
   - Applying for project approval

3. Safeguards
   - Protection for human and animal subjects

4. Ethics
   - Ethical research guidelines
   - Misconduct definition
   - Whistle-blowing
   - Academic duties
   - The role of the mentor
   - Running a research team
   - Diversity and discrimination
   - Time and stress management

5. Data
   - Responsible data management
   - Planning, creativity and design

6. Scientific Papers
   - Principles of scientific writing
   - Authorship and plagiarism
   - Conflict of interest

7. Designing Clinical Studies
   - Study designs: power, subject capacity, consent

8. Research Methodology and Statistics
   - Concepts of statistics, common analytic methods

9. Working With Industry
   - Overview and ethics
   - Consulting for industry
   - Research agreements with industry
   - Gifts from industry
   - Research material transfers
   - Clinical trials
   - Disclosure and patenting of inventions

10. Research Dissemination
    - Principles of speaking
    - Delivering research presentations

11. Grantsmanship
    - Components of a grant
    - Conceiving and writing a grant
    - Submission and the review process

Year 2: Translational Seminars in NeuroAIDS

I. HIV 101
   - Introduction to HIV/AIDS
   - Introduction to NeuroAIDS
   - Introduction to HIV Virology
   - Introduction to Antiretroviral Therapy

II. HIV Associated Neurocognitive Disorder
   - Neuropsychology of HAND
   - Neurobiology and Neuropathology of HAND
   - Neuroimaging in HAND
   - Animal Models of HAND

III. Emerging Technologies in NeuroAIDS
   - Genomics and Gene Expression
   - Metabolomics and Proteomics
   - Approaches to Bioinformatics Analysis
   - High Throughput Screening and Novel Drug Discovery

IV. Neuropsychiatric and Behavioral Issues
   - Mood and Anxiety Disorders in HIV
   - Neurobiologic Correlates of Mood Disorder in HIV
   - HIV and Substance Use
   - HIV Treatment Adherence

V. Selected Topics in NeuroAIDS
   - HIV CNS Pharmacology
   - HIV Research in Resource-limited Settings
   - Women’s Health and HIV in the Developing World
   - Assessment of HAND in Culturally Diverse Populations
   - Comorbid Conditions in HIV:
     - HCV
     - Aging
     - Metabolic Illness
   - Developmental Issues in HIV
   - To be determined according to trainee interest
   - To be determined according to trainee interest

In addition, Fellows may enroll in other training course offerings at UCSD to enhance their preparedness in specific areas. Fellows also participate in journal clubs and research meetings, as well as attend an annual retreat.