

Training in Neurotherapeutics Discovery and Development for Academic Scientists

February 27 – March 2, 2013
The Hyatt Regency Bethesda
Bethesda, Maryland

Applications are being accepted until October 1, 2012

Directed by the University of California, Davis,
Johns Hopkins Brain Science Institute, Harvard NeuroDiscovery Center, Northwestern University,
in collaboration with the American Society for Experimental NeuroTherapeutics
Supported by NIH/NINDS Grant 1R25NS077582

We are happy to announce the first offering of a 3½-day course to introduce academic researchers to the principles of neurotherapeutic drug discovery and development. Participants in this short course will have ongoing access to senior faculty who will assist the trainee to achieve success in their individual drug development projects.

You will find the course useful if you would like to learn how molecules to treat disorders of the nervous system are identified and evaluated prior to entering clinical trials. The course will be especially relevant if you conduct basic neuroscience research and would like to compete for the many new translational grant opportunities that are available.

The course covers the principles of drug discovery and development, including the identification of a lead compound and IND enabling studies. The course will also address the unique challenges inherent in developing treatments for nervous system disorders and will address the particular challenges that academic neuroscientists are likely to face in planning and conducting drug discovery research. Please note, however, that the course curriculum does not address clinical trials.

Although we anticipate that most applicants will be advanced postdoctoral fellows or junior faculty members, any academic investigator who would benefit from the course is invited to apply. Both basic researchers and clinician scientists are eligible. There is no tuition or registration fee and travel expenses will be defrayed for all successful applicants. The course will be offered annually for five years.

We are excited to have the opportunity to offer this course, which we believe will help to advance the availability of new drugs for patients with neurological and psychiatric disorders. If your work would benefit from an understanding of how neurotherapeutic drugs are discovered, characterized and tested so that they can enter clinical trials, you are encouraged to apply.

Michael A. Rogawski, MD, PhD, University of California, Davis
Barbara Slusher, PhD, Johns Hopkins Brain Science Institute
Marc Glicksman, PhD, Brigham and Women's Hospital and Harvard Medical School
Karl Scheidt, PhD, Northwestern University
Course Directors

Objectives

This training program in neurotherapeutics discovery and development is an intensive 3½-day course that will provide trainees with the various knowledge elements required to discover and advance a neurotherapeutic agent to IND (FDA authorization to begin human clinical studies). Following the short course, the training program will continue for a two-year period during which students will have individualized mentoring. The training, which is designed to be applicable to diverse diseases of the nervous system, will equip students with a broad understanding of the various component steps in the neurotherapeutics drug discovery and development process. Students will learn how to identify a good drug discovery target; how to construct an assay; the elements of medicinal chemistry; how to conduct animal efficacy testing; the principals of ADME studies and safety/toxicology testing; and the steps required to prepare an IND document. In sum, students will come away with the skills to develop and coordinate a drug discovery and development effort and to work collaboratively with subject experts in each of the component areas.

Course Design

The course will combine didactic lectures with active engagement activities in which the students will be challenged to utilize the lecture material to work through their own drug discovery project plan with the guidance of the faculty.

Course Topics

Some of the topics to be covered in the course include:

- Overview of the Neurotherapeutics Discovery and Development Process
- Generating Lead Compounds
- ADME, Formulation and Non-Clinical Proof-of-Concept
- Preclinical Proof-of-Concept/Target Engagement Studies
- Toxicology, IND Enabling Studies, Preparation of the IND
- Experimental Medicine and Biomarkers
- Interacting with the FDA
- Intellectual Property
- Funding Academic Drug Discovery Research

Faculty

The course faculty is made up of the pre-eminent practitioners of neurotherapeutic drug discovery and development. They are drawn from academia, industry and government and have deep subject expertise and an enormous base of experience.

Eligibility

Applicants must have a doctoral degree in a relevant subject area (PhD, MD, MD/PhD, DO, DVM, PharmD, or equivalent). Individuals from racial and ethnic groups underrepresented in biomedical research, individuals with disabilities and women are particularly encouraged to apply.

The Application Process

Please prepare a single PDF file (a Microsoft Word document is acceptable if you cannot prepare a PDF) containing the following elements in the order shown:

1. *Application Cover Page* (see attached) with your name, title (including academic rank, if relevant), department and institution; mailing address, telephone number, e-mail address; and the title of your proposed drug discovery and development project.
2. *Brief project proposal exercise* – describe a drug discovery and development project that is of interest to you in less than two pages including figures (not required) and literature citations. Please abide by font (11 point or larger) and margin (0.5 inch) specifications that apply to NIH grant applications. The proposal may describe a project that arises from your current work (for example, an ongoing project in basic or clinical neuroscience) or it may be a new concept developed specifically for this application. Your proposed project will serve as a basis for several active engagement activities in which you will participate during the training program.
3. NIH format *biographical sketch*. (see <http://grants.nih.gov/grants/funding/phs398.html>), four pages maximum as per NIH rules. In the “personal statement” section, briefly discuss your academic preparation, research experience and include a description of the reason you would like to participate in this course and your long-term goals.
4. *Letter of support* from your department chair or your supervisor (if you are a post-doctorial fellow).

The application should be sent as an e-mail attachment to the following address: upload.Applica.i6daycekfx@u.box.com no later than Monday, October 1, 2012. Until the deadline, applications may be revised by e-mailing the new application with the identical file name. Receipt of your application will be acknowledged. A maximum of 30 students can be accommodated in the 2013 training program. Applicants not offered admission may reapply in subsequent years.

Questions? Contact Anne Mercer at ASENT by e-mail at amercer@neurotherapeuticscourse.org or by phone at 860-586-7570 x205.

APPLICATION COVER PAGE

Training in Neurotherapeutics Discovery and Development for Academic Scientists

Name	
Title	
Department	
Institution	
Address	
Telephone	
E-mail	

Project Title	
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Included in this file are the required four application submissions:

- This Cover Page
- Project Proposal Exercise (2 pages maximum)
- NIH Format Biographical Sketch (4 pages maximum)
- Letter of Support from Department Chair or Supervisor

E-mail a single PDF file to: upload.Applica.i6daycekfx@u.box.com

Signature: _____