

Fact Sheet

National Institute of Biomedical Imaging and Bioengineering

DIVISION OF INTERDISCIPLINARY TRAINING



NIBIB CONTACT

Dr. Richard Baird
Director
Division of Interdisciplinary
Training
301-435-6686
bairdri@mail.nih.gov

www.nibib.nih.gov



Introduction

The mission of the National Institute of Biomedical Imaging and Bioengineering (NIBIB) is to improve health by leading the development and accelerating the application of biomedical technologies. The NIBIB supports the research communities of biomedical imaging and bioengineering, and encourages the integration of the biological and physical sciences to advance human health by improving the quality of life and reducing the burden of disease.

In an effort to attract bright, young, and talented researchers into the activities of the institute, the NIBIB develops new training initiatives in the biomedical imaging and bioengineering fields. These programs are designed to fill critical gaps in the career continuum, increase the number of clinician scientists in biomedical research, and enhance the participation of underrepresented populations. Training a new cadre of interdisciplinary researchers at the intersection of the biological and physical sciences is an important component of the Institute's mission.

Ruth L. Kirschstein National Research Service Awards (NRSA)

NRSA support provides stipends to predoctoral students while they work toward research degrees and to postdoctoral fellows while they obtain research experience in a mentor's laboratory.

- **T32 – Institutional Research Training Awards** support focused and broad-based predoctoral and/or postdoctoral research training programs in biomedical imaging and bioengineering. They also support research training for medical residents and interdisciplinary training integrating the biological and physical sciences (see HHMI-NIBIB Interfaces Initiative).
- **T35 – Short-term Institutional Research Training Awards** support focused research training in biomedical imaging and bioengineering for bioengineering and medical students.
- **F31 – Individual Predoctoral Fellowships to Promote Diversity in Health-Related Research** provide up to two years of support for research training leading to the PhD (or equivalent) degree for individuals from underrepresented racial and ethnic groups, individuals with disabilities, and individuals from disadvantaged backgrounds.
- **F32 – Individual Postdoctoral Fellows** provide up to three years of postdoctoral training support for qualified individuals who have received the PhD (or equivalent) degree.

Pathway to Independence (PI) Awards (K99/R00)

These awards, consisting of a mentored training (K99) and independent research (R00) phase, are designed to shorten the path between postdoctoral training and research independence and to increase the number of new NIH investigators.

Career Development Awards

Career development awards provide salary and laboratory support for individuals who are completing their postdoctoral training and are changing research fields or need protected research time during critical periods of their careers.

For PhDs and MD/PhDs:

- **K01 – Mentored Research Scientist Development Awards** provide PhD (or equivalent) researchers with up to five years of mentored research support as they transition to research independence.
- **K25 – Mentored Quantitative Research Career Development Awards** provide up to five years of mentored research support to individuals with quantitative backgrounds but little experience in biology or medicine who wish to refocus their research on basic or clinical biomedical research.

For MDs:

- **K08 – Mentored Clinical Scientist Development Awards** provide clinician scientists with up to five years of mentored research support as they transition to research independence.
- **K23 – Mentored Patient-Oriented Research Career Development Awards** provide clinically trained professionals with up to five years of mentored patient-oriented research support as they transition to research independence.
- **K24 – Mid-career Patient-Oriented Research Career Development Awards** provide established clinically trained professionals who are actively engaged in patient-oriented research up to five years of support to serve as mentors for new clinical investigators.

Summer Training Opportunities

- The **Bioengineering and Bioinformatics Summer Institutes (BBSI)**, jointly supported by the NIBIB and the National Science Foundation (NSF), support summer programs that provide undergraduate and early graduate students in the biological and physical sciences with interdisciplinary didactic and research experiences.
- The **Biomedical Engineering Summer Internship Program (BESIP)** provides undergraduate biomedical engineering students an opportunity to participate in cutting-edge biomedical research projects at NIH laboratories.

Conference/Meeting Awards (RI3)

RI3 Awards help support national conferences and scientific meetings that significantly impact the state of scientific fields relevant to the NIBIB mission. Priority is given to applications that encourage the attendance and participation of students, trainees, and members of underrepresented groups.

Academic Research Enhancement (AREA or RI5) Awards

AREA Awards provide up to three years of support for biomedical research conducted by faculty and students at academic institutions that have not been major recipients of NIH research awards. Institutional eligibility can be verified at grants.nih.gov/grants/funding/area.htm.

NIBIB Grant Supplements

- **Research Supplements to Promote Clinical Resident Research Experiences Awards** provide a one to two-year research opportunity during residency or fellowship training to clinician scientists in NIBIB-relevant mission areas.
- **Research Supplements to Promote Diversity in Health-Related Research Awards** support students, fellows, and early-career faculty from underrepresented racial and ethnic groups, individuals with disabilities, and individuals from disadvantaged backgrounds.
- **Research Supplements for Career Re-Entry Awards** enable talented fellows and early-career faculty with high research potential to re-enter an active research career after time off to attend to family responsibilities.

Interagency Training Opportunities

- The **Interfaces Initiative for Interdisciplinary Graduate Research Training**, a partnership between NIBIB and the Howard Hughes Medical Institute (HHMI), is training interdisciplinary scientists at the interface between the biological and physical sciences. Phase I, funded by HHMI, established new interdisciplinary training programs. Phase II, to be funded by NIBIB in 2009, will provide student support for recently established interdisciplinary programs.
- The **UMBC Meyerhoff Scholarship Program**, supported by NIBIB through the NSF Louis Stokes Alliances for Minority Participation (LSAMP) program, provides undergraduate research training to individuals from underrepresented racial and ethnic groups interested in science, technology, engineering, and mathematics (STEM).

- The **NIBIB-NIST Postdoctoral Program**, jointly supported by the NIBIB and the National Institute of Standards and Technology (NIST), provides two years of research support for co-mentored postdoctoral fellows undergoing research training at the NIH and NIST.

NIH Blueprint for Neuroscience

The **Blueprint for Neuroscience Research** is a framework designed to enhance cooperative activities among the NIH Institutes and Centers that support research on the nervous system. Recent Blueprint training-related initiatives have included:

- **Neuroscience Training Awards** support broad-based predoctoral training in the neurosciences and interdisciplinary training in neuroscience imaging, neurobiology of disease, and computational neurobiology.
- **Course Development Awards** support course development on diseases that affect the nervous system.

Additional information is at neuroscienceblueprint.nih.gov.

NIH Roadmap for Medical Research

The **Roadmap for Medical Research** is a trans-NIH set of initiatives focused on three themes: [New Pathways to Discovery](#), [Research Teams of the Future](#), and [Re-engineering the Clinical Research Enterprise](#). Recent Roadmap training-related initiatives have included:

- **NIH Director's Pioneer Awards** and **NIH Director's New Innovator Awards** support innovative, pioneering research with high potential impact from established and new investigators.
- **Clinical Translation Service Awards** support clinical and translational science centers, providing **Predoc-toral Clinical Research** and **Multidisciplinary Research Career Development** training programs.
- **Interdisciplinary Training Awards** support broad-based integrated interdisciplinary research training programs in basic and clinical research.
- **Curriculum Development Awards** support the development of courses to train interdisciplinary scientists.

Additional information is at nihroadmap.nih.gov.

NIBIB Contacts

Please contact NIBIB program staff with questions or concerns about training awards or the application process. We welcome the opportunity to speak with potential applicants to the Institute's training programs.

Richard Baird, PhD
Director, DIDT
301-435-6686
bairdri@mail.nih.gov

Zeynep Erim, PhD
Program Director, DIDT
301-435-6686
erimz@mail.nih.gov

Sonal Sampat, BS
Biomedical Engineer, DIDT
301-451-4784
sampats@mail.nih.gov