

NIBIB CONTACT

Dr. Meredith Temple-O'Connor
Acting Director
Division of Interdisciplinary Training
301-451-4772
e-mail: templem@mail.nih.gov

www.nibib.nih.gov

Introduction

The National Institute of Biomedical Imaging and Bioengineering leads the development and application of emerging and breakthrough biomedical technologies based in the physical and engineering sciences. This research agenda will dramatically advance the Nation's healthcare by improving the detection, management, understanding and, ultimately, the prevention of disease.

Training a new cadre of interdisciplinary researchers is an important component of the Institute's mission. Through training workshops and conferences, the NIBIB solicited input from extramural and intramural scientific communities regarding important needs and issues to be considered in the development of future training initiatives.

In an effort to draw bright, young, talented researchers into the activities of the Institute, NIBIB is developing new training programs in the biomedical imaging and bioengineering fields. The Institute's proactive approach is to develop creative and flexible opportunities that will fill critical gaps in the career continuum, while also enhancing the participation of under-represented populations.

National Research Service Awards (NRSA)

NRSA support provides a stipend to pre-doctoral students while they work toward their research degrees or to postdoctoral fellows while they obtain additional research experience in a mentor's laboratory.

- ◆ **F32 – Individual Postdoctoral Fellowships** provide up to three years of postdoctoral training support for qualified individuals who have received a Ph.D., M.D., or equivalent degree.
- ◆ **F33 – Individual Senior Fellowships** provide the opportunity for experienced scientists to make major changes in the direction of their research careers, to broaden their research capabilities, or to enlarge their command of an allied research field.
- ◆ **T32 – Institutional Training Grants** are awarded to institutions with strong research programs to support a designated number of pre- and/or postdoctoral fellows.
- ◆ **F31 – Individual Predoctoral Fellowships for Minority Students and for Students with Disabilities** provide up to five years of support for research training leading to the Ph.D. or equivalent.
- ◆ **F31 – Ruth L. Kirschstein National Research Service Awards for Individual Predoctoral Fellows** provide up to five years of support for research training leading to the Ph.D. or equivalent. The focus of this program is on doctoral students who have passed their qualifying (or equivalent) exams.

Career Development Awards

Career development awards provide salary and laboratory support for individuals who have completed their postdoctoral training, or who need time to perform research during critical periods of their careers.

- ◆ **K01 – Mentored Research Scientist Development Awards** provide Ph.D. or other comparable researchers with support for three to five years of mentored research experience in order to transition into independence.
- ◆ **K02 – Independent Scientist Awards** provide for three to five years of salary support for independent scientists who can demonstrate the need for a period of intensive research focus as a means of enhancing their research careers. Evidence of independent, peer-reviewed support is required.
- ◆ **K08 – Mentored Clinical Scientist Development Awards** provide clinician scientists with support for three to five years of mentored research experience to pursue research careers.
- ◆ **K23 – Mentored Patient-Oriented Research Career Development Awards** provide clinically trained professionals with support for three to five years of mentored research experience to pursue patient-oriented research careers.
- ◆ **K24 – Midcareer Investigator Awards in Patient-Oriented Research** provide support for established investigators who are actively engaged in patient-oriented research and who serve as mentors for new clinical investigators.



- ◆ **K25 – Mentored Quantitative Research Career Development Awards** provide three to five years of support for a mentored research experience. This program targets individuals with quantitative scientific and engineering backgrounds with little to no experience in biology or medicine who wish to focus their research on basic or clinical behavioral and biomedical research.

Research Supplements

- ◆ **Research Supplements for Under-Represented Minorities** are supplemental awards to an existing NIBIB grant. They are designed to attract under-represented minorities to pursue careers in biomedical research and the health related sciences. Eligibility extends from the high school level to established research faculty.
- ◆ **Research Supplements for Individuals with Disabilities** are supplemental awards to an existing NIBIB grant. They are designed to encourage individuals with disabilities to pursue careers in biomedical research and the health related sciences. Eligibility extends from the high school level to established research faculty.
- ◆ **Research Supplements for Career Re-Entry** are designed to encourage talented individuals with high potential to re-enter an active research career after time off to attend to family responsibilities.

Other NIBIB Training Opportunities

- ◆ **NIH/NSF Bioengineering and Bioinformatics Summer Institutes Program** was developed to attract quantitative science majors to biomedical careers. The 10-week program is targeted to junior and senior undergraduates and early graduate students, and provides them with interdisciplinary bioengineering or bioinformatics research and education experiences.
- ◆ **Biomedical Engineering Summer Internship Program** is a partnership between NIH, the NIH Foundation, and the Whittaker Foundation. This 10-week summer program provides undergraduate biomedical engineering students an opportunity to participate, under the mentorship of world-class scientists, in cutting-edge biomedical research projects at NIH laboratories.
- ◆ **NIH/NIST Joint Postdoctoral Program** is a partnership between NIST and the NIH to support postdoctoral fellowships. The goal is to

cultivate a scientific work force competent in both the biological and the physical sciences. Each Postdoctoral Associate will have two Advisers, one at the NIH and one at NIST, and the Associate is expected to spend time at both the NIH and the NIST laboratories during the course of the two-year award.

NIH Roadmap Opportunities

The NIH Roadmap is a series of far-reaching initiatives designed to build on the progress in medical research achieved through the recent doubling of the NIH budget. The Roadmap focuses on three main areas: new pathways to discovery, research teams of the future, and re-engineering the clinical research enterprise. Initiatives in the training arena include:

- ◆ Meetings and Networks for Methodological Development in Interdisciplinary Research
- ◆ Training for a New Interdisciplinary Research Workforce
- ◆ Short Programs for Interdisciplinary Research Training
- ◆ Curriculum Development Award in Interdisciplinary Research
- ◆ Multidisciplinary Clinical Research Career Development Programs

Additional information on NIH Roadmap initiatives can be found at <http://nihroadmap.nih.gov>.

Looking to the Future

Several new and exciting training programs are under development at the NIBIB. Watch the NIBIB training website for additional information on programs for medical residents and young investigators.

NIBIB Contacts

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

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