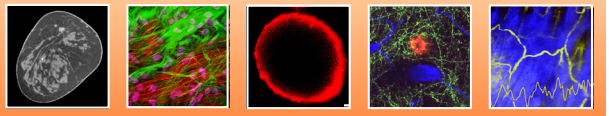
DIVISION OF INTERDISCIPLINARY TRAINING

TRANS-NIH PROGRAMS



National Institute of Biomedical Imaging and Bioengineering — National Institutes of Health

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NIH National Institute of Biomedical Imaging and Bioengineering

Introduction

Today, more than ever, the National Institutes of Health's (NIH) Institutes, Centers, and Offices are working together in new ways, and leveraging their unique strengths and resources. These collaborations can be formal or informal, and may involve sharing financial resources, materials, or specimens. Often, it is sharing actual scientific expertise. By maximizing resources, these trans-NIH initiatives serve to advance medical research in all disease areas and across the basic, translational, and clinical research continuum

Big Data to Knowledge (BD2K)

BD2K is a trans-NIH initiative established to enable biomedical research as a digital research enterprise, to facilitate discovery and support new knowledge, and to maximize community engagement. The following funding opportunities are offered in support of 4 major aims: 1) to facilitate broad use of biomedical digital assets by making them discoverable, accessible, and citable, 2) to conduct research and develop the methods, software, and tools needed to analyze biomedical Big Data, 3) to enhance training in the development and use of methods and tools necessary for biomedical Big Data science, and 4) to support a data ecosystem that accelerates discovery as part of a digital enterprise.

- NIH Big Data to Knowledge (BD2K) Initiative Research Education: Massive Open Online Course (MOOC) on Data Management for Biomedical Big Data (R25)
  This funding announcement seeks applications for the development of a Massive Open Online Course (MOOC) that covers a comprehensive set of topics related to the management of biomedical Big Data.
  http://grants.nih.gov/grants/guide/rfa-files/RFA-LM-15-001.html

- NIH Big Data to Knowledge (BD2K) Initiative Research Education: Open Educational Resources for Sharing, Annotating and Curating Biomedical Big Data (R25)
  This funding announcement seeks applications for the development of curriculum modules that can be used by librarians and other information specialists to prepare researchers, graduate students and research staff to be full participants in the global community that maintains and accesses digitally-stored biomedical Big Data.
  http://grants.nih.gov/grants/guide/rfa-files/RFA-LM-15-002.html

- Predoctoral Training in Biomedical Big Data Science (T32)
  This funding announcement seeks applications for graduate training programs in Big Data Science, for the expressed purpose of training the next generation of scientists who will develop computational and quantitative approaches and tools needed by the biomedical research community to work with biomedical Big Data in the biomedical sciences.
  http://grants.nih.gov/grants/guide/rfa-files/RFA-HG-14-004.html

- Revisions to Add Biomedical Big Data Training to Active Institutional Training Grants (T32)
  This funding announcement seeks to allow revisions (competitive supplements) to add a Big Data Science track to active T32 institutional training grants for the expressed purpose of training the next generation of scientists who will develop computational and quantitative approaches and tools needed by the biomedical research community. http://grants.nih.gov/grants/guide/rfa-files/RFA-HG-14-005.html

- Revisions to Add Biomedical Big Data Training to Active NLM Institutional Training Grants in Biomedical Informatics (T15)
  This funding announcement seeks to solicit revisions (competitive supplements) to add a Big Data Science track to active T15 institutional training grants for the expressed purpose of training the next generation of scientists who will develop computational and quantitative approaches and tools needed by the biomedical research community.
  http://grants.nih.gov/grants/guide/rfa-files/RFA-HG-14-006.html

- Mentored Career Development Award in Biomedical Big Data Science for Clinicians and Doctorally Prepared Scientists (K01)
  The objective of this NIH Mentored Research Scientist Development Award (K01) is to provide salary and research support for a sustained period of "protected time" (3-5 years) for intensive research career development under the guidance of an experienced mentor, or sponsor, in biomedical Big Data Science.
  http://grants.nih.gov/grants/guide/rfa-files/RFA-HG-14-007.html

- Courses for Skills Development in Biomedical Big Data Science (R25)
  This funding announcement encourages the development of creative educational activities with a primary focus on Courses for Skills Development. http://grants.nih.gov/grants/guide/rfa-files/RFA-HG-14-008.html

- Open Educational Resources for Biomedical Big Data (R25)
  This funding opportunity announcement encourages the development of creative educational activities with a primary focus on Curriculum or Methods Development. http://grants.nih.gov/grants/guide/rfa-files/RFA-HG-14-009.html

- Additional information at: http://bd2k.nih.gov

BRAIN Initiative

- BRAIN Initiative: Development, Optimization, and Validation of Novel Tools and Technologies for Neuroscience Research (SBIR) (R43/R44)
  The purpose of this funding opportunity announcement (FOA) is to support the development of novel tools and technologies through the Small Business Innovation Research (SBIR) program to advance the field of neuroscience research including 1) tools to facilitate the detailed analysis of complex circuits and provide insights into cellular interactions that underlie brain function, 2) proof-of-concept testing and development of new technologies and novel approaches for large scale recording and manipulation of neural activity, at or near cellular resolution, at multiple spatial and/or temporal scales, in any region and throughout the entire depth of the brain, and 3) iterative refinement of such tools and technologies with the end-user community with an end-goal of scaling manufacture towards reliable, broad, sustainable dissemination and incorporation into regular neuroscience practice. - See more at: http://grants.nih.gov/grants/guide/pa-files/PAR-15-091.html

- BRAIN Initiative Fellows: Ruth L. Kirschstein National Research Service Award (NRSA) Individual Postdoctoral Fellowship (F32)
  The purpose of the BRAIN Initiative Fellows (F32) program is to enhance the research training of promising postdoctorates, early in their postdoctoral training period, who have the potential to become productive investigators in research areas that will advance the goals of the BRAIN Initiative. - See more at: http://grants.nih.gov/grants/guide/rfa-files/RFA-MH-17-250.html

- BRAIN Initiative: Research Career Enhancement Award for Investigators to Build Skills in a Cross-Disciplinary Area (K18)
  This funding opportunity announcement (FOA) invites applications for mentored career enhancement (K18) awards in research areas that are highly relevant to the NIH BRAIN Initiative. This career enhancement program will support development of research capability for the BRAIN Initiative, with specific emphasis on cross-training independent investigators in a substantively different area of neuroscience, neuroethics, or in a quantitative and physical discipline (e.g., physics, chemistry, engineering, computer science, mathematics); and vice versa, cross-training independent investigators trained in a quantitative or physical discipline proposing to gain in-depth training in a high-priority area of neuroscience. - See more at: https://grants.nih.gov/grants/guide/rfa-files/RFA-DA-17-022.html

The Brain Research through Advancing Innovative Neurotechnologies® (BRAIN) Initiative is part of a new Presidential focus aimed at revolutionizing our understanding of the human brain. By accelerating the development and application of innovative technologies, researchers will be able to produce a revolutionary new dynamic picture of the brain that, for the first time, shows how individual cells and complex neural circuits interact in both time and space. Long desired by researchers seeking new ways to treat, cure, and even prevent brain disorders, this picture will fill major gaps in our current knowledge and provide unprecedented opportunities for exploring exactly how the brain enables the human body to record, process, utilize, store, and retrieve vast quantities of information, all at the speed of thought.

NIH Blueprint for Neuroscience

NIH Blueprint Diversity Specialized Predoctoral to Postdoctoral Advancement in Neuroscience (D-SPAN) Award (F99/K00)
The purpose of the NIH Blueprint Diversity Specialized Predoctoral to Postdoctoral Advancement in Neuroscience (D-SPAN) Award is to support a defined pathway across career stages for outstanding graduate students who are from diverse backgrounds underrepresented in neuroscience research. - See more at: http://grants.nih.gov/grants/guide/rfa-files/RFA-NS-17-009.html

Enhancing Neuroscience Diversity through Undergraduate Research Education (ENDURE) funds collaborative neuroscience research partnerships between undergraduate institutions and graduate neuroscience research training programs.

Additional information at
http://neuroscienceblueprint.nih.gov.

NIH Common Fund (Roadmap)

NIH Director's Early Independence Awards allow exceptional early-career researchers to omit postdoctoral training and establish independent research programs.
http://commonfund.nih.gov/earlyindependence/index

NIH Director's New Innovator Awards support innovative proposals from early-career researchers with the potential for high impact on biomedical research.
http://commonfund.nih.gov/newinnovator/index

NIH Director's Pioneer Awards complement NIH's traditional, investigator-initiated grant programs by supporting individual scientists of exceptional creativity, who propose pioneering – and possibly transforming approaches – to major challenges in biomedical and behavioral research.
http://commonfund.nih.gov/pioneer/index

NIH Director's Transformative Research Awards are created specifically to support exceptionally innovative and/or unconventional research projects that have the potential to create or overturn fundamental paradigms.
http://commonfund.nih.gov/TRA

Additional information at
http://commonfund.nih.gov.