



## NIBIB Mission

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 Institute is committed to integrating the physical and engineering sciences with the life sciences to advance basic research and medical care. This is achieved through: research and development of new biomedical imaging and bioengineering techniques and devices...



...with a focus on technology development.

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## NIBIB Program Directors

 R. Barish-Training Awards	 R. Corcos-Dx US, Molecular Imaging	 E. Etem-Training Awards	 R. Huxthar-Biomaterials, Micro-Biomechanics, Tissue Engineering	 S. Kratochvil-Surgical Tools, Rx US
 T. Leah-Nano-Systems, Sensors, Tissue/Heart	 G. Liu-MRI	 Y. Park-Biometrics, Image Processing, Visual Perception, and Display	 G. Peng-Simulation and Modeling	
 D. Rempel-Biomaterials, Drug Delivery, Synthetic Biology	 A. Sastre-Magnetic, Biomagneto-Bioelectric Devices, Nuclear Med	 B. Shabestari-Optical Imaging, X-ray	 M. Wolfson-Implantable Devices, Rehab Engineering, Robotics	

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## NIBIB Website

<https://www.nibib.nih.gov/>

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## NIBIB Extramural Research Areas

- Biomedical Informatics
- Delivery Systems and Devices for Drugs and Biologics
- Image-Guided Interventions
- Image Processing, Visual Perception and Display
- Integration of Implantable Medical Devices
- Magnetic, Biomagnetic and Bioelectric Devices
- Magnetic Resonance Imaging and Spectroscopy
- Mathematical Modeling, Simulation and Analysis
- Micro- and Nano- Systems; Platform Technologies
- Micro-Biomechanics
- Molecular Imaging
- Nuclear Medicine
- Optical Imaging and Spectroscopy
- Rehabilitation Engineering
- Sensors
- Surgical Tools, Techniques and Systems
- Synthetic Biology for Technology Development
- Telehealth
- Tissue Engineering
- Ultrasound: Diagnostic and Interventional
- X-ray, Electron, and Ion Beam

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## Examples of NIBIB Funding Opportunities

### Parent Announcements

- R01 Research Project Grant PA-16-160
- R21 Exploratory/ Developmental Research Grant PA-16-161
- R15 Academic Research Enhancement Award PA-16-200
- R03 Small Research Grant PA-16-162
- R41/R42 STTR Omnibus Solicitation PA-16-302
- R43/R44 SBIR Omnibus Solicitation PA-15-303
- R44 Direct Phase II SBIR Grants to Support Biomedical Technology Development PAR-14-088

R13 Support for Conferences and Scientific Meetings PA-13-347

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## Examples of NIBIB Funding Opportunities

- R01 Academic-Industrial Partnerships for Translation of Technologies for Cancer Diagnosis and Treatment PAR-15-075
- U01 Opportunities for Collaborative Research at the NIH Clinical Center (U01) PAR-15-287
- U01 Bioengineering Research Partnerships (BRP) PAR-16-116
- R01 Bioengineering Research Grant (BRG) PAR-13-137
- R21 Exploratory/Developmental Bioengineering Research Grants (EBRG) PA-16-040

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Examples of NIBIB Funding Opportunities Continued

- R01 Technologies for Healthy Independent Living PAR-14-118
- R21 Design and Development of Novel Technologies for Healthy Independent Living PAR-14-119
- R01 Image-guided Drug Delivery PAR-16-044
- R01 Development and Application of PET and SPECT Imaging Ligands as Biomarkers for Drug Discovery and for Pathophysiological Studies of CNS Disorders PAR-16-266
- R21 Rapid Assessment of Zika Virus Complications PAR-16-106

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Examples of NIBIB Funding Opportunities Continued

- R43/R44 Development and Translation of Medical Technologies to Reduce Health Disparities-SBIR RFA-EB-16-001
- R01 Turkey-US Collaborative Program for Affordable Medical Technologies PAR-15-276
- R01 mHealth Tools for Individuals with Chronic Conditions to Promote Effective Patient-Provider Communication, Adherence to Treatment and Self-Management PAR-14-180
- R21 Mobile Health: Technology and Outcomes in Low and Middle Income Countries PAR-16-292

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Examples of NIBIB Funding Opportunities Continued

- U01 Predictive Multiscale Models for Biomedical, Biological, Behavioral, Environmental and Clinical Research PAR-15-085
- U01 NIBIB Quantum Program: Technological Innovation to Solve a Major Medical or Public Health Challenge PAR-15-047
- P41 NIBIB Biomedical Technology Resource Centers PAR-13-376

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## Examples of NIBIB Funding Opportunities Continued

Brain FOAs <http://www.braininitiative.nih.gov/funding/>

BD2K (Data Science) FOAs  
<https://datascience.nih.gov/bd2k/announcements>

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## NIBIB Funding Opportunities Training and Career Development

NIBIB supports a variety of training and career development awards to individuals and institutions.

And a prize competition with VentureWell which recognizes undergraduate students for excellence in biomedical design and innovation:  
Design by Biomedical Undergraduate Teams (DEBUT)



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## NIBIB Program Directors



R. Baird-Training Awards



R. Canoy-Ox US, Molecular Imaging



Z. Ethiraj-Training Awards



R. Hinzler-Biomaterials, Micro-Biomechanics, Tissue Engineering



S. Koznick-IGI, Surgical Tools, Rx US



T. Lash-Nano-Systems, Sensors, Tissue



G. Liu-MRI



V. Pajand-Informatics, Image Processing, Visual Perception, and Display



G. Peng-Simulation and Modeling



D. Ramphal-Biomaterials, Drug Delivery, Synthetic Biology



A. Sastre-Magnetic, Biomagnetic/Bioelectric Devices, Nuclear Med



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