## Overview of NIBIB Research Areas and Funding Opportunities

## National Institute of Biomedical Imaging and Bioengineering



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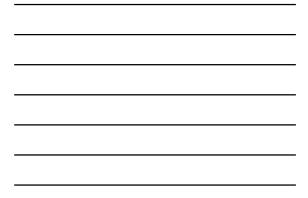


# **NIBIB Mission**

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...











## **NIBIB Extramural Research Areas**

Biomaterials
Biomedical Informatics
Delivery Systems and Devices for Drugs and

 Derivery Grant State Stat Magnetic Sesonance Imaging and Spectroscopy •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 Developmen •Telehealth •Tissue Engineering •Ultrasound: Diagnostic and Interventional •X-ray, Electron, and Ion Beam

...with a focus on technology development.

#### **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

...with a focus on technology development.

#### **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

#### 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

...with a focus on technology development.

#### 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

...with a focus on technology development.

### 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

## Examples of NIBIB Funding Opportunities Continued

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

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

...with a focus on technology development.

## 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)





