

Office of Research Newsletter – February 7, 2014

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Part I. News and Announcements

Accelerating Medicines Partnership (AMP)

The National Institutes of Health, ten biopharmaceutical companies and several nonprofit organizations recently launched an unprecedented partnership to transform the current model for identifying and validating the most promising biological targets of disease for new diagnostics and drug development. The Accelerating Medicines Partnership (AMP) aims to distinguish biological targets of disease most likely to respond to new therapies and characterize biological indicators of disease, known as biomarkers. Through the Foundation for the NIH (FNIH), AMP partners will invest more than \$230 million over five years in the first projects, which focus on Alzheimer's disease, type 2 diabetes, and the autoimmune disorders rheumatoid arthritis and systemic lupus erythematosus (lupus).

A critical and groundbreaking element of the partnership is the agreement that the data and analyses generated will be made publicly available to the broad biomedical community. The three- to five-year, milestone-driven pilot projects in these disease areas could set the stage for broadening AMP to other diseases and conditions.

AMP has been more than two years in the making, with intense interactions between scientists in the public and private sectors, progressive refinement of the goals, strategy development support from the Boston Consulting Group, and scientific project and partnership management by the FNIH. Through this effort, AMP partners have developed research plans and are sharing costs,

expertise, and resources in an integrated governance structure that enables the best informed contributions to science from all participants.

The research highlights for each disease area are:

Alzheimer's disease

- Identify biomarkers that can predict clinical outcomes by incorporating an expanded set of biomarkers into four major NIH-funded clinical trials, which include industry support, designed to delay or prevent disease.
- Conduct large-scale, systems biology analyses of human patient brain tissue samples with Alzheimer's disease to validate biological targets that play key roles in disease progression, and increase understanding of molecular networks involved in the disease, to identify new potential therapeutic targets.

Type 2 diabetes

- Build a knowledge portal of DNA sequence, functional genomic and epigenomic information, and clinical data from studies on type 2 diabetes and its heart and kidney complications. The portal will include existing data and new data from studies involving 100,000–150,000 individuals. The rich collection of curated and collated information in this portal will provide an opportunity to identify the most promising therapeutic targets for diabetes from the growing mountain of potentially relevant data.
- Focus on DNA regions that might be critical for the development or progression of type 2 diabetes and search for natural variations in targeted populations that might predict the likelihood of success of drug development aimed at these targets.

Rheumatoid arthritis and lupus

- Collect and analyze tissue and blood samples from people with rheumatoid arthritis and lupus to pinpoint biological changes at the single cell level, to allow comparisons across the diseases and provide insights into key aspects of the disease process.
- Identify differences between rheumatoid arthritis patients who respond to current therapies and those who do not, and provide a better systems-level understanding of disease mechanisms in RA and lupus.

Highly collaborative steering committees with representation from public- and private-sector partners will be established for each disease area to oversee the research plans. The steering committees will be managed by FNIH under the direction of an AMP executive committee comprised of leaders from NIH, industry, the FDA, and patient advocacy organizations.

More at <http://www.nih.gov/science/amp/index.htm>

A Weekly Newsletter from DOE Office of Energy Efficiency and Renewable Energy (EERE): <http://apps1.eere.energy.gov/news/enn.cfm>

MARK YOUR CALENDAR

May 6-8, 2014, Wilmington, Delaware

The 16th Meeting of the Symposium on Polymers for Microelectronics

Abstract Submission Deadline Extended to February 1

More at <http://www.symposiumonpolymers.com/>

June 30-July 2, 2014, Boston, MA

CSP Symposium at ASME 2014 8th International Conference on Energy Sustainability

More at <http://www.asmeconferences.org/ESFuelCell2014/TechnicalTracks.cfm>

August 17-21, 2014, San Diego, CA

Solar Energy + Technology 2014 Symposium

More at <http://spie.org/x13194.xml>

Part II. Funding Opportunities

DOD

RFI: Novel Mechanism Based Multiple Drug Resistance Broad Spectrum Anti-Threat Bacterial Pathogens Antibiotics

https://www.fbo.gov/index?s=opportunity&mode=form&id=3c960cf4c872b861f6aae814c758c435&tab=core&_cview=0

March 5, 2014

AFRL

Research Interests of the Air Force Office of Scientific Research

<http://www.grants.gov/web/grants/view-opportunity.html?oppId=218055>

Open until superseded

Army

U.S. Army Engineer Research and Development Center (ERDC) 2014 Broad Agency Announcement

<http://www.grants.gov/web/grants/view-opportunity.html?oppId=250453>

January 31, 2015

DARPA

Big Mechanism

https://www.fbo.gov/index?s=opportunity&mode=form&id=fe17239c6586a4d6521a09ad3a7aa5b7&tab=core&_cview=0

March 18, 2014

Memex

https://www.fbo.gov/index?s=opportunity&mode=form&id=426485bc9531aacba1b01ea6d4316ee&tab=core&_cview=0

April 8, 2014

Navy

RFI: Research and Development in the Physical, Engineering and Life Sciences

https://www.fbo.gov/index?s=opportunity&mode=form&id=f71e8ab0af5744afeafd41aa885d304c&tab=core&_cview=0=

March 19, 2014

DOE

Building Energy Efficiency Frontiers and Incubator Technologies (BENEFIT) - 2014 Grant

<https://eere-exchange.energy.gov/#FoaId206d9bfc-57ae-498d-a877-aa882b004110>

Concept Paper Due Date: March 6, 2014. Full Application Due Date: April 21, 2014

Targeted Radiochemistry and Associated Technology Development for Integrated Nuclear Medicine Research and Training with Human Application: A NIH-DOE Joint Research Funding Opportunity Announcement

<http://www.grants.gov/web/grants/view-opportunity.html?oppId=251033>

April 18, 2014

NASA

NASA Centennial Challenges Program - Small Spacecraft Challenges

<https://prod.nais.nasa.gov/cgi-bin/eps/synopsis.cgi?acqid=159527>

March 31, 2014

NIH

Bioengineering Research Partnerships (BRP) R01

<http://grants.nih.gov/grants/guide/pa-files/PA-14-092.html>

May 20, 2014; September 18, 2014; May 20, 2015; September 18, 2015

Neuroimmune Signaling and Function in Substance Use Disorders (R01)

<http://grants.nih.gov/grants/guide/pa-files/PA-14-084.html>

June 5, 2014

NIDCD Research on Hearing Health Care (R01)

<http://grants.nih.gov/grants/guide/pa-files/PA-14-091.html>

June 5, 2014

NIDCD Research on Hearing Health Care (R21)

<http://grants.nih.gov/grants/guide/pa-files/PA-14-090.html>

June 16, 2014

Neuroimmune Signaling and Function in Substance Use Disorders (R21)

<http://grants.nih.gov/grants/guide/pa-files/PA-14-083.html>

June 16, 2014

Advancing Exceptional Research on HIV/AIDS and Substance Abuse (R01)

<http://grants.nih.gov/grants/guide/rfa-files/RFA-DA-15-005.html>

LOI Due Date: June 30, 2014. Application Due Date: July 31, 2014

Human Immunology Project Consortium (U19)

<http://grants.nih.gov/grants/guide/rfa-files/RFA-AI-14-007.html>

LOI Due Date: August 18, 2014. Application Due Date: September 18, 2014

DOJ

National Institute of Justice Graduate Research Fellowship Program in Science, Technology, Engineering, and Mathematics Grant

<http://www.grants.gov/web/grants/view-opportunity.html?oppId=251021>

April 28, 2014

National Institute of Justice FY 14 New Approaches to Digital Evidence Processing and Storage Grant

<http://www.grants.gov/web/grants/view-opportunity.html?oppId=251022>

April 28, 2014

DOS

Bureau of Educational and Cultural Affairs Ngwang Choephel Fellows Program Grant

<http://www.grants.gov/web/grants/view-opportunity.html?oppId=250995>

March 21, 2014

DOT

Pre-Solicitation: Federal Highway Administration 2014 Exploratory Advanced Research Program Broad Agency Announcement Notice

https://www.fbo.gov/index?s=opportunity&mode=form&id=eb2b847a4349c13205a1900dc8c74b1a&tab=core&_cview=0

Proposal Due Date TBD

USDA

National Institute of Food and Agriculture Organic Transitions Program Grant

<http://www.grants.gov/web/grants/view-opportunity.html?oppId=250868>

April 4, 2014

Please note that this bulletin is not intended to be an exhaustive listing of funding opportunities. Your input and feedback are always welcome. Please send your comments and requests to be removed from the distribution list to huangj7@rpi.edu.