NIH Announces New Transformative R01 Funding Program

The National Institutes of Health (NIH) intends to invest more than $250 million over the next five years to foster bold and creative investigator-initiated research through a new transformative R01 (T-R01) Program. While R01 grants support the bulk of mainstream NIH investigator-initiated efforts, the structure and review of R01 proposals can discourage submission of the most bold, creative, and risky research proposals. In response to these challenges, the NIH has created the T-R01 Program.

"The T-R01 Program will pilot novel approaches to peer review to facilitate identification and support of the most ground-breaking, high impact research and augment the existing Pioneer and New Innovator Awards programs," said NIH Director Elias A. Zerhouni, M.D.

The purpose of the T-R01 Program is to support exceptionally innovative, original or unconventional research that will allow investigators to seize unexpected opportunities and cultivate bold ideas regardless of the anticipated risk. T-R01 funding will support inventive and innovative studies intended to transform current paradigms in biomedical or behavioral sciences. The TR01 program is a trans-NIH effort coordinated by the Office of Portfolio Analysis and Strategic Initiatives (OPASI) as part of the NIH Roadmap for Medical Research.

"The new TR01s follow years of discussion as to how to encourage thinking outside of the box. This new mechanism is designed to encourage the generation of new scientific paradigms or the disruption of old ones," said Alan Krensky, MD, director of OPASI.

The NIH aims to achieve T-R01 program goals by supporting original studies that will:

- Forge the synthesis of new paradigms for biomedical or behavioral sciences.
- Reflect an exceptional level of creativity in proposing bold and ground-breaking approaches to fundamental problems.
- Promote radical changes in a field of study with a profound impact in other scientific areas.
- Be evaluated by new procedures being piloted by the NIH Center for Scientific Review (CSR) (http://cms.csr.nih.gov) that are distinct from the traditional NIH peer review process.

"Conventional wisdom says that R01 applications of this sort are 'dead on arrival.' The hope is that the T-R01 Program will liberate scientists to unveil extraordinary ideas and approaches, and that novel review and support procedures will select the best for funding," offered Keith R. Yamamoto, PhD, University of California, San Francisco, and co-chair of the Advisory Committee to the Director Working Group on Enhancing Peer Review (http://enhancing-peer-review.nih.gov) at NIH.

The NIH encourages T-R01 applications from scientists from all disciplines relevant to the NIH mission,
including the biological, behavioral, clinical, social, physical, chemical, computational, engineering, and mathematical sciences. Areas of highlighted need that have been identified through an NIH strategic planning process include:

- Science of Behavior Change
- Protein Capture
- Functional Variation in Mitochondria
- Complex 3-D Tissue Models
- Acute to Chronic Pain Transition
- Pharmacogenomics

Applications for new five-year grants are now being accepted. Review criteria will focus on a project’s transformative potential. The NIH plans to fund the first cohort of T-R01 awards in 2009, and hopes to announce the T-R01 program again in 2010 if funds are available. Additional information about the Transformative R01 Program is available at: [http://www.nihroadmap.nih.gov/grants/index.asp](http://www.nihroadmap.nih.gov/grants/index.asp)

The NIH Roadmap for Medical Research, launched in 2004, is a series of initiatives designed to address fundamental knowledge gaps, develop transformative tools and technologies, and/or foster innovative approaches to complex problems. Funded through the NIH Common Fund, these programs cut across the missions of individual NIH Institutes and Centers (ICs) and are intended to accelerate the translation of research to improvements in public health. OPASI, in collaboration with all NIH ICs, oversees programs funded by the Common Fund. Additional information about the NIH Roadmap and Common Fund can be found at [http://nihroadmap.nih.gov](http://nihroadmap.nih.gov). Additional information about OPASI can be found at [http://opasi.nih.gov](http://opasi.nih.gov).

The Office of the Director, the central office at NIH, is responsible for setting policy for NIH, which includes 27 Institutes and Centers. This involves planning, managing, and coordinating the programs and activities of all NIH components. The Office of the Director also includes program offices which are responsible for stimulating specific areas of research throughout NIH. Additional information is available at [http://www.nih.gov/icd/od/](http://www.nih.gov/icd/od/).

The National Institutes of Health (NIH) — *The Nation's Medical Research Agency* — includes 27 Institutes and Centers and is a component of the U.S. Department of Health and Human Services. It is the primary federal agency for conducting and supporting basic, clinical and translational medical research, and it investigates the causes, treatments, and cures for both common and rare diseases. For more information about NIH and its programs, visit [www.nih.gov](http://www.nih.gov).