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$18.9 Million in Grants Continue the Commitment to Founder's Vision

(St. Louis, MO) During 2007, the Directors of the James S. McDonnell Foundation awarded more than $18.9 million in grants in their ongoing program, the 21st Century Science Initiative. Founded in 1950 by the late aerospace pioneer and founder of what would become the McDonnell Douglas Corporation, the McDonnell Foundation grants reflect James S. McDonnell's belief that science and technology gives mankind the power to shape knowledge for the future while improving our lives. Since the inception of the Foundation’s 21st Century Science Initiative in 2000, more than $100 million in funding has been awarded is support of research and scholarship.

The 21st Century Science Initiative funds research in two grant types in three program areas: Bridging Brain, Mind and Behavior, Brain Cancer Research and Studying Complex Systems. In January 2007, the Foundation announced the James S. McDonnell Foundation Scholar Awards, a new grant type for the Bridging Brain, Mind and Behavior program area. The Scholar Awards represent a shift from funding an applicant’s research proposal to funding an applicant’s overall research program.

“The McDonnell Foundation continues to dedicate its funding to scientific research so scientists can continue to acquire and apply knowledge needed to address the complex problems facing ours and future generations,” said McDonnell Foundation Vice President, Dr. Susan Fitzpatrick.

The McDonnell Foundation's 2007 21st Century Science Initiative Awards are:

Scholar Awards:
In the Area of Bridging Brain, Mind, and Behavior

**Johns Hopkins University, Baltimore, Maryland**
Principal Investigator: Lisa Feigenson, $600,000 over six years.
Developmental origins of hierarchical memory representations

**Massachusetts Institute of Technology, Cambridge, Massachusetts**
Principal Investigator: Pawan Sinha, $600,000 over six years.
Learning to see in late childhood

New York University, New York, New York
Principal Investigator: Lynne Kiorpes, $600,000 over six years.
Uncovering the neural basis of developmental disability

Rutgers, The State University of New Jersey, Newark, New Jersey
Principal Investigator: György Buzsáki, $600,000 over six years.
Neuronal mechanisms of episodic memory

University of California, San Diego, San Diego, California
Principal Investigator: Pamela Reinagel, $600,000 over six years.
Linking visual behavior to neural processing in the thalamus

University of Wisconsin, Madison, Madison, Wisconsin
Principal Investigator: Jenny R. Saffran, $600,000 over six years.
Prediction as a mechanism of infant language acquisition

Collaborative Awards: Bridging Brain, Mind & Behavior

The Salk Institute for Biological Studies, La Jolla, California, in support of a collaboration,
Neurogenesis in rodents: genetic and molecular approaches to study the physiology of neurogenesis and its
behavioral effects on hippocampal memory tasks, Principal Investigator: Fred H. Gage, $4,951,749 over five
years.

New York University, New York, New York, Affect, learning and decision making, Principal
Investigators: Elizabeth A. Phelps and Trevor W. Robbins (Cambridge University), $1,737,958 over three
years.

Brain, Mind & Behavior Special Initiative:

Arizona State University, Phoenix, Arizona, for a collaborative workshop in comparative neurobiology,
model organisms and the human brain, Principal Investigator: Jason Scott Robert, $48,005 over one year.
Research Awards: Studying Complex Systems

**Cornell University, Ithaca, New York**
Principal Investigator: Stephen P. Ellner, $449,459 over three years.
Contemporary rapid evolution: dynamics and persistence in complex ecological communities

**Princeton University, Princeton, New Jersey**
Principal Investigator: Ignacio Rodriguez-Iturbe, $450,000 over three years.
Transport in river networks: a complex system perspective for biodiversity

**University of Michigan, Ann Arbor, Ann Arbor, Michigan**
Principal Investigator: Sharon C. Glotzer, $449,908 over five years.
Emergence of complex material structures from particle assembly

**The University of Pennsylvania, Philadelphia, Pennsylvania**
Principal Investigator: Joshua B. Plotkin, $449,593 over five years.
Robustness and adaptability in evolving viral populations

**University of Texas Southwestern Medical Center, Dallas, Texas**
Principal Investigator: Gürol Süel, $433,476 over five years.
Nonlinear systems dynamics in differentiation circuits

**University of Utah, Salt Lake City, Utah**
Principal Investigator: Frederick R. Adler, $346,742, over four years.
The ecology and evolution of the common cold

**Complex Systems Pilot Award:**

**Beth Israel Deaconess Medical Center, Boston, Massachusetts**
Principal Investigator: Madalena D. Costa, $125,000 over two years.
Multiscale analysis of complex biologic systems

Collaborative Awards: Studying Complex Systems

**Arizona State University, Phoenix, Arizona**, Cognitive Complexity and Error in Critical Care, ER, and Trauma, Principal Investigator: Vimla L. Patel, $4,724,573 over five years.
Research Awards: Researching Brain Cancer

**Columbus Children’s Research Institute, Columbus, Ohio**  
Principal Investigator: Jiayuh Lin, $120,000 over one year.  
Stat3 as a novel therapeutic target for glioblastoma multiforme

**Stanford University, Stanford, California**  
Principal Investigator: Matthew P. Scott, $450,000 over four years.  
Regulation of medulloblastoma by the sterol synthesis pathway

**Technion – Israel Institute of Technology, Technion City, Haifa, Israel**  
Principal Investigator: Gera Neufeld, $350,000 over four years  
The effects of Class-3 semaphorins on the development and progression of brain tumors

**Brain Cancer Pilot Awards:**

**City of Hope National Medical Center and Beckman Research Institute, Duarte, California**  
Principal Investigator: Yanhong Shi, $112,500 over one year.  
Nuclear receptor TLX and its targeting microRNAs in brain tumor stem cells

**Stanford University, Stanford, California**  
Principal Investigator: J. Martin Brown, $122,607 over one year.  
Increasing the radiocurability of GBM by inhibition of tumor vasculogenesis

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