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HHMI Taps 43 of the Nation's Most Promising Scientists

The Howard Hughes Medical Institute today announced the selection of 43 of the nation's most promising biomedical scientists as new HHMI investigators.

“We are committed to providing these scientists—and the nearly 300 scientists who are already part of HHMI—with the freedom and flexibility they need in order to make lasting contributions to mankind,” said Thomas R. Cech, HHMI's president. “We want and expect them to be daring.”

HHMI chose the 43 scientists through a nationwide competition that began in 2004 when the Institute asked approximately 200 universities, medical schools, and institutes to nominate candidates who demonstrated exceptional promise within 4 to 10 years of their becoming independent scientists. More than 300 individuals were nominated.

“These scientists are on the rapidly rising slope of their careers and have made surprising discoveries in a short period of time,” said Cech. “We have every reason to believe that they will use their creativity to extend the boundaries of scientific knowledge for many years to come.”

The 32 men and 11 women are drawn from 31 institutions nationwide, representing traditional biomedical research disciplines, as well as engineering, physics, chemistry, and computer science. Three host institutions—Colorado State University in Fort Collins; Stowers Institute for Medical Research in Kansas City, Missouri; and the University of North Carolina at Chapel Hill—are joining the HHMI program for the first time.

The subjects of interest to these scientists encompass the cellular and molecular components of neural circuits; infectious diseases and the agents that cause them; blood vessel formation; the activity of single molecules and the implications for human disease; and the role of prehistoric bacteria in shaping the environment.

David A. Clayton, vice president and chief scientific officer of the Institute, said the new competition allows HHMI to respond to new areas of scientific interest and emerging fields.

“The scientists we identified through this competition are impossible to pigeonhole into traditional categories—and that is good news for HHMI and for the future of research in the life sciences,” said Clayton. “By my estimation, about 20 percent of them are drawn from the physical sciences, including chemistry and physics. And while nearly a quarter of these researchers are in the burgeoning field of neuroscience, it’s fair to say that we expect the impact of their work to be felt across the full spectrum of biological research.”

Cech said the selection of the new investigators means that HHMI will invest more than \$300 million in additional support for biomedical research over the next seven years. The Institute’s current annual research budget is \$416 million.

Through its flagship investigator program, HHMI currently employs 298 of the nation’s most innovative scientists, who lead Hughes laboratories at 64 institutions. These scientists are widely recognized for their creativity and productivity: more than 100 are members of the National Academy of Sciences and 10 have been honored with the Nobel Prize. Pioneering work recognized by the Nobel has shed light on the organization of the olfactory system; the structure and function of cellular channels critical to the heart and other muscles; the identification of genes regulating organ development and programmed cell death; and processes fundamental to learning and memory.

The 43 men and women selected must now be formally appointed, a process that will take up to six months. The general competition for new investigators, the first since 2000, represents a continued expansion of the Institute’s biomedical research mission. HHMI is also about to conclude the first phase of recruitment of scientists for the Janelia Farm Research Campus, the innovative technology campus scheduled to open in Northern Virginia in 2006.

The Howard Hughes Medical Institute is dedicated to discovering and disseminating new knowledge in the basic life sciences. HHMI grounds its research programs on the conviction that scientists of exceptional talent and imagination will make fundamental contributions of lasting scientific value and benefit to mankind when given the resources, time, and freedom to pursue challenging questions. The Institute prizes intellectual daring and seeks to preserve the autonomy of its scientists as they pursue their research.

A nonprofit medical research organization, HHMI was established in 1953 by the aviator-industrialist. The Institute, headquartered in Chevy Chase, Maryland, is one of the largest philanthropies in the world with an endowment of \$12.8 billion at the close of its 2004 fiscal year. HHMI spent \$573 million in support of biomedical research and \$80 million for support of a variety of science education and other grants programs in fiscal 2004.

Scientists Selected in the 2005 HHMI Investigator Competition **Susan L. Ackerman** The Jackson Laboratory, Bar Harbor, Maine **James Bardwell** University of Michigan, Ann Arbor, Michigan **David P. Bartel** Massachusetts Institute of Technology, Cambridge, Massachusetts **Bonnie L. Bassler** Princeton University, Princeton, New Jersey **Albert Bendelac** The University of Chicago, Chicago, Illinois **Ronald R. Breaker** Yale University, New Haven, Connecticut **Andrew Camilli** Tufts University School of Medicine, Boston, Massachusetts **Edwin R. Chapman** University of Wisconsin–Madison, Madison, Wisconsin **Zhijian Chen** University of Texas Southwestern Medical Center at Dallas, Dallas, Texas **Joseph DeRisi** University of California, San Francisco, San Francisco, California **Sascha du Lac** The Salk Institute for Biological Studies, La Jolla, California **Michael D. Ehlers** Duke University Medical Center, Durham, North Carolina **Evan E. Eichler** University of Washington, Seattle, Washington **K. Christopher Garcia** Stanford University School of Medicine, Palo Alto, California **Taekjip Ha** University of Illinois Urbana-Champaign, Urbana, Illinois **Gregory J. Hannon** Cold Spring Harbor Laboratory, Cold Spring Harbor, New York **Oliver Hobert** Columbia University College of Physicians and Surgeons, New York, New York **Linda C. Hsieh-Wilson** California Institute of Technology, Pasadena, California **Steven E. Jacobsen** University of California, Los Angeles, Los Angeles, California **Erik M. Jorgensen** University of Utah, Salt Lake City, Utah **Dorothee Kern** Brandeis University, Waltham, Massachusetts **Alex Kolodkin** The Johns Hopkins University School of Medicine, Baltimore, Maryland **David R. Liu** Harvard University, Cambridge, Massachusetts **Scott W. Lowe** Cold Spring Harbor Laboratory, Cold Spring Harbor, New York **Karolin Luger** Colorado State University, Fort Collins, Colorado **Liqun Luo** Stanford University, Palo Alto, California **Milan Mrksich** The University of Chicago, Chicago, Illinois **Dianne K. Newman** California Institute of Technology, Pasadena, California **Teresa Nicolson** Oregon Health and Science University, Portland, Oregon **Joseph P. Noel** The Salk Institute for Biological Studies, La Jolla, California **Olivier Pourquié** Stowers Institute for Medical Research, Kansas City, Missouri **Stephen R. Quake** Stanford University, Palo Alto, California **Shahin Rafii** Cornell University Joan and Sanford I. Weill Medical College, New York, New York **Fred Rieke** University of Washington, Seattle, Washington **Michael K. Rosen** University of Texas Southwestern Medical Center at Dallas, Dallas, Texas **Alejandro Sánchez Alvarado** University of Utah, Salt Lake City, Utah **Brenda A. Schulman** St. Jude Children's Research Hospital, Memphis, Tennessee **Geraldine Seydoux** The Johns

Hopkins University School of Medicine, Baltimore, Maryland **Kevan
Shokat** University of California, San Francisco, San Francisco, California
Thomas Tuschl The Rockefeller University, New York, New York **Rafael
Yuste** Columbia University, New York, New York **Yi Zhang** University of
North Carolina at Chapel Hill, Chapel Hill, North Carolina **Xiaowei
Zhuang** Harvard University, Cambridge, Massachusetts