



Massachusetts Life Sciences Center Awards Second Round of New Investigator Grants

Center Awards nearly \$1.4 million to support seven young scientists working on cutting-edge life sciences research

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Waltham, MA – The Massachusetts Life Sciences Center today announced the awarding of \$1,380,256 in New Investigator Research Matching Grants. The Center’s New Investigator Grants support innovative life sciences research at Massachusetts colleges and universities. Seven investigators will receive grants of up to \$100,000 per year for a two-year period. The grants will be matched dollar-for-dollar by each scientist’s research institution, creating a total new investment of nearly \$2.8 million toward life sciences research in the Commonwealth.

This is the Center’s second round of New Investigator Grants. The first round, announced in July 2008, awarded \$3.1 million for a three-year period to eleven new investigators across the Commonwealth. Research institutions participating in the first round of grants included the University of Massachusetts campuses in Amherst and Lowell, Harvard Medical School and the Massachusetts Institute of Technology. The Center has thus far invested a total of \$12 million in scientific research matching grants, matched dollar-for-dollar by academic institutions and company sponsors, creating a total pool of \$24 million to support life sciences research in the Commonwealth.

“Through the New Investigator Grant Program, the Massachusetts Life Sciences Center promotes scientific innovation that will improve the human condition while advancing the careers of these talented new investigators,” said Dr. Susan Windham Bannister, President & CEO of the Center. “We are confident that the work of these young scientists will improve the quality of life in Massachusetts, create jobs, and contribute to medical and scientific knowledge throughout the world.”

“After a rigorous review process by myself and other members of the Center’s Scientific Advisory Board, we recommended these projects as holding great potential for scientific advancement while opening up new opportunities for job creation and growth,” said Dr. Harvey Lodish, Chair of the MLSC Scientific Advisory Board, Member of the Whitehead Institute for Biomedical Research, and Professor of Biology and Professor of Bioengineering at MIT. “By investing in the next generation of researchers, we are investing in the future of scientific innovation in our state.”

One of the recipients of the first round of New Investigator funding last year is Dr. Iain Cheeseman, affiliated with MIT’s Whitehead Institute. “The biggest challenge in starting my own lab has been making sure that we are not limited by availability of funding,” said Cheeseman. “Securing funding is a huge challenge, and this grant from the Life Sciences Center has transformed our ability to be scientists, and to focus on doing good work and recruiting talented people. It has also encouraged other funders to look at my work for potential investment. This support has made an enormous difference for us, and this program is an incredibly smart thing for Massachusetts to be doing.”

Another round-one recipient is Dr. Jesse Mager, Assistant Professor in the Animal Science Department at the University of Massachusetts at Amherst, who is conducting research in the field of developmental epigenetics. “This award has allowed me to pursue avenues I otherwise would not have been able to pursue as a new investigator, and to be fairly ambitious in my goals,” said Mager. “This grant has jump-started my research in a way that has allowed me to move forward aggressively. It’s great to be in a place where there is state support for research in addition to the traditional sources of federal research funding,”

The seven second-round recipients announced today are:

Dr. Jeffrey Bailey (UMass Medical School) -- \$100,000 per year for two years

Dr. Jeffrey Bailey will continue his research with dissecting the role of human copy number variation in severe malaria. There is still little known about the genetic mechanisms that allow some people to exhibit resistance to malaria. Dr. Bailey will design methods and then use them to determine if differences in the number of copies of various genes or DNA segments are related to malarial resistance. Techniques developed will be applicable to diseases other than malaria.

Dr. Christopher Gabel (Boston University Medical Center) -- \$100,000 per year for two years

Dr. Gabel will explore neural regeneration in *C. Elegans* using femtosecond laser surgery and advanced optical neurophysiology. Currently, modern medicine is ineffective in promoting neural regeneration after traumatic brain and spinal cord injury. Dr. Gabel will apply novel biophysical techniques and the powerful genetic system of nematode worms to studies of neural regeneration.

Dr. Sun Hur (Immune Disease Institute, Children's Hospital) -- \$100,000 per year for two years

Dr. Hur's long-term goal is to elucidate the molecular mechanism by which a particular gene, RIG-I, recognizes viral RNAs and activates the immune response. The mechanistic understanding gained from the proposed research will provide a foundation to investigate other innate immune receptors and to develop drugs that can efficiently activate the innate immune response. Such drugs will have a broad and positive impact on the general public health by aiding in the prevention or treatment of infection by many viruses.

Dr. Raul Mostolovsky (Mass General Hospital) -- \$100,000 per year for two years

Dr. Mostolovsky will study the SIRT6 protein which modifies histones. Histones are integral parts of the chromosomes and are involved in gene activity. His goal is to understand the role of chromatin in glucose metabolism, and the potential link between metabolism, DNA repair and cancer.

Dr. Mark Niedre (Northeastern University) -- \$180,256 over the next two years

Dr. Niedre hopes to develop an instrument that will detect non-invasively very rare cells circulating in the blood. He anticipates that such an instrument will have many applications, e.g., study of the development of metastatic cancer, study of blood stem cell mobilization, and testing of novel compounds that induce mobilization of stem cells into the blood.

Dr. Konstantina Stankovic (Mass Eye and Ear Infirmary) -- \$100,000 per year for two years

Dr. Stankovic's goal is to investigate the significance of a novel finding that the auditory nerve secretes a pro-survival molecule at extremely high levels and to explore the therapeutic implications of this finding. She hopes to develop a method for treating hearing loss due to neural degeneration.

Dr. Satoshi Yoshida (Brandeis University) -- \$100,000 per year for two years

Dr. Yoshida hopes to understand how yeast cells maintain the integrity of their cell walls during environmental stress. Because cell walls are unique to fungi but are not found in human cells, the process of wall construction and maintenance in fungi provides an attractive target for anti-fungal therapies.

About the Massachusetts Life Sciences Center

The Massachusetts Life Sciences Center is a quasi-public agency of the Commonwealth of Massachusetts tasked with implementing the Massachusetts Life Sciences Act, a ten-year, \$1 billion initiative that was signed into law in June of 2008. The Center's mission is to create jobs in the life sciences and support vital scientific research that will improve the human condition. This work includes making financial investments in public and private institutions that are advancing life sciences research, development and commercialization as well as building ties between sectors of the Massachusetts life sciences community. For more information, visit www.masslifesciences.com.

About the New Investigator Grant Program

The New Investigator Solicitation seeks to spur innovative new research and advance the careers of new investigators who are working on cutting-edge life sciences research at Massachusetts research institutions. For more information on the program, visit <http://www.masslifesciences.com/grants/invest.html>

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