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Physician-Scientists Get Spark From HHMI Early Career Award

Eleven promising physician-scientists whose research interests range from obesity to childhood cancer will share a total of \$4 million from the Howard Hughes Medical Institute (HHMI).

These individuals combine a background in medicine with a commitment to basic research and are at an early stage of their academic career. The award of \$375,000 over the next five years will help them launch and develop innovative research programs at a critical stage of their careers. The grants are made to alumni of two HHMI programs for medical students through a Physician-Scientist Early Career initiative that began in 2006.

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This year scientists represent seven institutions across the country and work on a variety of pressing research questions including:

Shad Thaxton at Northwestern University in Chicago is using nanotechnology to design drugs that will prevent or treat heart and vascular disease caused by cholesterol buildup. Anne Manicone at the University of Washington in Seattle is doing research to understand lung inflammation with the goal of treating diseases, such as cystic fibrosis and emphysema. Edward Behrens at Children's Hospital of Philadelphia is studying how the immune system spurs childhood arthritis and other autoimmune diseases.

(For short profiles of all of the 2009 physician-scientists awardees, go to www.hhmi.org/news/ecps20090707_list.html.)

The Early Career Physician-Scientist awards are part of a long-term push by HHMI to increase the number of researchers who are able to translate basic science discoveries into improved treatments for patients. HHMI currently supports medical, dental, and veterinary students for one or two years of full time research training through the HHMI-NIH Research Scholars Program and the HHMI Research Training Fellowships. Alumni of these two programs may then apply for this early career award when they have completed their clinical and research training and become academic physicians. Physician-scientists are also an important part of the HHMI Investigator Program.

“We want to encourage more medical students to pursue research that can turn basic science discoveries into medical practices that can impact human health,” says Peter J. Bruns, HHMI’s vice president for grants and special programs. “This early career grant is an extra incentive for these students to continue to pursue science after a long road of research and clinical training.”

After completing medical school, physician-scientists often spend 10 years or more in training before they get their first permanent position at an academic institution. Once they do, many are under pressure to spend less time doing research and more time treating patients in the clinic. “As they begin their careers, physician-scientists often lack sufficient funding to collect enough data to develop really effective grant proposals,” says William Galey, director of HHMI’s graduate and medical education programs. “HHMI’s funding gives them that extra boost they need to get their first NIH grant. We know, for example, that half of those who received HHMI early career physician-scientist awards in 2006 have subsequently competed successfully for an NIH R01 grant.”

Since the program’s inception, HHMI has provided support to 52 physician-scientists. Many awardees use the funds—\$75,000 a year for five years—to hire a technician or purchase vital laboratory equipment, which speeds up data collection and analysis. HHMI requires that the awardees spend at least 70 percent of their time doing research.

“For these physician-scientists, we hope these grants are just the start of a long career doing research that influences public health,” Bruns says.

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The Howard Hughes Medical Institute plays a powerful role in advancing scientific research and education in the United States. Its scientists, located across the country and around the world, have made important discoveries that advance both human health and our fundamental understanding of biology. The Institute also aims to transform science education into a creative, interdisciplinary endeavor that reflects the excitement of real research.

For more information, visit www.hhmi.org/about/