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HHMI Fellowship Program Expands to Help More Students Become Researchers

Spurred by the impressive quality of this year's applicants, the Howard Hughes Medical Institute is expanding a program to further the graduate science education of talented students who have worked in the labs of top HHMI scientists. These students, who were handpicked as undergraduates for their interest in research and who were inspired by their work in the lab, now will pursue doctoral degrees through the Gilliam Fellowships for Advanced Study.

The Institute is awarding nine Gilliam fellowships this year—up from five in previous years—to fund these exceptional students from groups traditionally underrepresented in the sciences or from disadvantaged backgrounds. “These students are just outstanding. We expect them to become real leaders in their fields,” said Peter Bruns, HHMI's vice president for grants and special programs. “We were impressed by the number of high quality applicants we received this year.”

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The Gilliam fellows program, which is now in its fifth year, aims to enrich science research and increase the diversity of college and university faculty members by supporting the education of top student scientists who will themselves either become professors or are committed to creating a more diverse academic community. Each Gilliam fellow receives \$44,000 in support annually for up to five years to help move them toward a career in science research and teaching.

The nine new Gilliam fellows, chosen from 31 applicants, came to science by different paths, and their scientific interests are just as diverse. For example, □ Dania Daye, who came to the United States from Lebanon, wants to design new, noninvasive imaging techniques to improve medical testing. She is a student at the University of Pennsylvania School of Medicine. □ Steven Tuyishime, a graduating senior at the University of Maryland, Baltimore County, was inspired by the prevalence of malaria in his family's homeland

of Rwanda to try to create vaccines to fight this disease. □ Growing up, Krystal R. St. Julien wanted to cure her own disease, sickle cell anemia. Her doctors and nurses in Oak Harbor, Washington, encouraged her interest in science, and now she is a doctoral student at Stanford University.

Three of the new fellows are undergraduates currently applying to doctoral programs, while the rest are already enrolled in their first year of graduate studies. Prior to being named Gilliam fellows, each student participated in HHMI's Exceptional Research Opportunities Program (EXROP), an initiative that nurtures the scientific curiosity, imagination, and dreams of some of this nation's most talented aspiring young scientists. This program is open to high-achieving undergraduate students who come from disadvantaged backgrounds or groups traditionally underrepresented in the sciences. The students are nominated by colleges and research universities that receive HHMI education grants. Last year, 55 students received focused, hands-on mentoring while working in the labs of HHMI investigators and HHMI professors.

Alumni of EXROP are eligible to apply for Gilliam fellowships. "We are excited by the opportunity we have to support the development of a diverse research and teaching population in colleges and universities," says Bill Galey, who oversees the Gilliam program as HHMI's director for graduate and medical education programs. "These students show not only academic achievement but a personal commitment to advancing access of underrepresented groups to academic science."

Part of what makes the EXROP and Gilliam programs unique is the opportunity for students from traditionally underrepresented groups to meet other students who are following the same scientific path. Each spring, EXROP and Gilliam students come together and present their research at HHMI headquarters in Chevy Chase, Maryland. The goal is to create a support network of scientists at all career stages who can help students feel comfortable in research and academia. "We are working toward creating a real community, from undergraduate to graduate and, we hope, beyond," Bruns says.

HHMI established the fellowships in 2004 in honor of the late James H. Gilliam Jr., a charter Trustee of the Institute who spent his life fostering excellence and diversity in education and science. There are currently 21 Gilliam fellows, in addition to this year's awardees.