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HHMI Commits More Than \$30 Million To Help Reverse Brain Drain, Beat Infectious Diseases

The Howard Hughes Medical Institute (HHMI) is stepping up its commitment to fostering international biomedical research with two new competitions for more than \$30 million in research grants to biomedical scientists outside the United States. Both competitions are aimed at promising researchers whose careers are still developing and who are the most likely targets of enticing job offers in more economically privileged countries.

HHMI is already well known within the United States for identifying top scientific talent and encouraging researchers to push the boundaries of science. With its international grants, the Institute applies the same principles to support scientists and science in other countries.

“It’s important to make this kind of investment in science globally because one never knows where the next great idea will come from,” says Jill Conley, director of HHMI’s international program.

For a new set of awards to be made in 2005, HHMI will provide 80 scientists with five-year grants of \$50,000 to \$100,000 annually to conduct basic biomedical research in their own countries.

In the first of the two competitions, the Institute will select 40 scientists who are on the front lines of the fight against emerging and established infectious diseases such as malaria, Chagas disease, and tuberculosis.

A second group of grants to scientists in 13 countries from the Baltics, Eastern and Central Europe, Russia, and Ukraine will encourage talented scientists to stay in their own countries, helping reverse the brain drain and build the scientific capacity of those nations.

Many countries in this region have a strong tradition of scientific research but such limited resources that scientific progress is in danger of extinction. “HHMI wants to help keep those scientific traditions alive,” Conley says.

Researchers from any country other than the United States and the United Kingdom can apply for the infectious disease grants. Scientists from Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Russia, Slovak Republic, Slovenia, and Ukraine are eligible for the regional grants. Both competitions will accept applications as well as nominations from other scientists.

In countries with limited economic resources, the impact of even a small grant multiplies in many ways, Conley explains. The money can be used to provide training opportunities for students, equipment that other scientists can share, electronic journal subscriptions, opportunities for collaboration, and travel to scientific meetings, in addition to salary support for the researcher and his or her laboratory staff. A portion of each HHMI grant is earmarked for equipment, supplies, and other support for the international scholar's home institution.

Two previous rounds of grants in 1995 and 2000 to scientists from the Baltics, Eastern and Central Europe, Russia, and Ukraine have enabled talented researchers to remain in—or return to—their home countries to do their research. An example is Tamas Freund, a Hungarian scientist. “The first HHMI grant played a major role in making a decision to stay in Hungary in spite of prestigious job offers from the West,” he says. “The second 5-year grant allowed me to build up a relatively large, well equipped, internationally competitive lab, which provides training and ideal working conditions for many graduate students, postdocs, and undergraduate student researchers.”

In HHMI's first infectious diseases and parasitology research competition in 2000, 45 scientists in 20 countries received grants to study the basic biological mechanisms underlying diseases that disproportionately affect the world's poorest people. Approximately half of the grant recipients were from developing countries. Annual meetings of the international research scholars have led to productive collaborations between researchers in less and more developed countries as far apart as Mexico and Australia.

“The impact of HHMI funding goes well beyond the research of individual scientists,” Conley says. “It actually has enabled them to affect science policy in their countries and regions.”

For example, Carlos Reinach became Secretary of Science for Brazil during his tenure as an HHMI international research scholar, and Canadian B. Brett Finlay led his country's drive to develop a SARS vaccine in 2003. Ugandan Thomas Egwang is working with his government to improve science education throughout Uganda.