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Ragon Institute Investigator Receives \$100,000 Grant from Gates Foundation
Grand Challenges Explorations Grant *will forward ground-breaking research in Global Health and Development*

Boston, MA, April 28, 2011 – The Bill & Melinda Gates Foundation today announced the winners of Round 6 of its [Grand Challenges Explorations](#) initiative. Daniel G. Kavanagh, Ph.D., a member of the faculty at the [Ragon Institute of MGH, MIT, and Harvard](#), is one of 88 recipients of these \$100,000 grants which fund research to benefit global health and development.

[Grand Challenges Explorations](#) (GCE) funds scientists and researchers worldwide to explore ideas that can break the mold in how we solve persistent global health and development challenges.

“GCE winners are expanding the pipeline of ideas for serious global health and development challenges where creative thinking is most urgently needed. These grants are meant to spur on new discoveries that could ultimately save millions of lives,” said Chris Wilson, director of Global Health Discovery at the Bill & Melinda Gates Foundation.

To receive funding, Dr. Kavanagh and other Grand Challenges Explorations Round 6 winners demonstrated in a two-page online application a bold idea in one of five critical global health and development topic areas: polio eradication, HIV, sanitation and family health technologies, and mobile health.

The project supported by this award—“Identification of candidate markers of HIV latency”—will develop new methods to detect and characterize rare cells that are latently infected with HIV in patients on antiretroviral drug treatment.

Current medical technology offers no practical method to cure HIV infection. The best available treatment for HIV infection is a mixture of antiretroviral drugs that suppress viral replication. Although this treatment can very effectively reduce viral load and improve patient health, it cannot eliminate HIV from the patient’s body. As a result, HIV almost always rebounds to pathogenic levels when antiretroviral drugs are discontinued. Understanding what makes latently-infected cells different from normal healthy cells will allow scientists to develop new drugs that can permanently eliminate HIV from the body and affect a true cure of HIV infection.

Research in the Kavanagh lab is focused on ways in which viruses interact with the immune system, particularly on “tricks” that viruses use to avoid detection and elimination by adaptive immune responses. Understanding how viruses escape from immune control can lead to rational design of new drugs and immunotherapies.

Dr. Kavanagh has a Ph.D. in Molecular Microbiology and Immunology from Oregon Health Sciences University, and received postdoctoral training at The Rockefeller University and at Harvard Medical School. He has current appointments as Instructor in Medicine at Harvard Medical School, Assistant in Immunology at the Massachusetts General Hospital, and as a faculty member at the Ragon Institute.

Applications for [Grand Challenges Explorations Round 7](#) will be accepted through May 19, 2011.

ABOUT GRAND CHALLENGES EXPLORATIONS

[Grand Challenges Explorations](#) is a US\$100 million initiative funded by the Bill & Melinda Gates Foundation. Launched in 2008, Grand Challenge Explorations grants have already been awarded to nearly 500 researchers from over 40 countries. The grant program is open to anyone from any discipline and from any organization. The initiative uses an agile, accelerated grant-making process with short two-page online applications and no preliminary data required. Initial grants of \$100,000 are awarded two times a year. Successful projects have the opportunity to receive a follow-on grant of up to US\$1 million.

ABOUT THE RAGON INSTITUTE

The Ragon Institute of MGH, MIT and Harvard was established in 2009 with a gift from the Philip T. and Susan M. Ragon Foundation, creating a collaborative scientific mission among these institutions to harness the immune system to combat and cure human diseases. The primary initial focus of the institute is to contribute to the development of an effective AIDS vaccine. The Ragon Institute, which is administratively based at Massachusetts General Hospital, draws scientists and engineers from diverse backgrounds and areas of expertise across the Harvard and MIT communities and throughout the world, in order to apply the full arsenal of scientific knowledge to understanding mechanisms of immune control and immune failure and apply these advances to directly benefit patients. For further information, visit <http://www.ragoninstitute.org/index.html>

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