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Press release **For immediate release**

A Trojan Horse in the Fight Against HIV/AIDS: A CRCHUM Researcher Receives Grand Challenges Explorations Funding from the Bill & Melinda Gates Foundation

Montreal, Quebec, Canada, November 7, 2011 – The Centre de recherche du Centre hospitalier de l'Université de Montréal (CRCHUM) announced today that one of its researchers will receive funding of 100,000 US $ through *Grand Challenges Explorations*, an initiative created by the Bill & Melinda Gates Foundation that enables researchers worldwide to test unorthodox ideas that address persistent health and development challenges. Dr. Andrés Finzi will pursue an innovative global health research project, titled *"Reverse Fusion: a new approach to eradicate HIV/AIDS*" to deliver toxic genes to HIV-infected cells and eliminate them.

Grand Challenges Explorations funds scientists and researchers worldwide to explore ideas that can break the mold in how we solve persistent global health and development challenges. Dr. Finzi's project is one of 110 applications Grand Challenges Explorations grants that was selected among more than 2,000 applications, announced today.

"We believe in the power of innovation—that a single bold idea can pioneer solutions to our greatest health and development challenges," said Chris Wilson, Director of Global Health Discovery for the Bill & Melinda Gates Foundation. "Grand Challenges Explorations seeks to identify and fund these new ideas wherever they come from, allowing scientists, innovators and entrepreneurs to pursue the kinds of creative ideas and novel approaches that could help to accelerate the end of polio, cure HIV infection or improve sanitation."

Projects that are receiving funding show promise in tackling priority global health issues where solutions do not yet exist. This includes finding effective methods to eliminate or control infectious diseases such as polio and HIV as well as discovering new sanitation technologies.

To learn more about Grand Challenges Explorations, visit www.grandchallenges.org.

Reverse fusion: delivering a Trojan horse
"In the fight against HIV infection, Highly Active Antiretroviral Therapy (HAART) has enabled patients to live longer and with a better quality of life. However, HAART quickly come against a serious obstacle: it fails to eradicate the virus; it can only reduce the viral load**.** Therefore, if antiretroviral therapy is stopped viral loads raise again, explains Dr. Finzi. The only way to cure HIV infection is to specifically eliminate all HIV-infected cells, including those where the virus remain latent. There is a need for a complementary approach that specifically eliminates all HIV-infected cells. Finzi's approach, called "Reverse Fusion," seeks to specifically target HIV-infected cells with toxic products to eradicate them. To be able to spread, HIV needs first to enter human cells. To do so, HIV has developed a unique ''key'' (envelope

glycoproteins, gp120 and gp41) that recognizes a particular ‘lock’ (receptor CD4 and co-receptors CCR5 or CXCR4) present at the surface of human cells. By modifying this "key" and the "lock", Dr. Finzi whishes to deliver a Trojan horse that will ultimately eliminate HIV-infected cells. If successful, this innovative concept will be tested in animal models before evaluating its efficacy in HIV-infected patients.

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 an opportunity to receive a follow-on grant of up to US$1 million.

About CRCHUM
www.chumtl.qc.ca/crchum.en.html

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