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Neglected Global Diseases Initiative



a place of mind
THE UNIVERSITY OF BRITISH COLUMBIA

NGDI-UBC Newsletter

July, 2012

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NGDI Member News

[Dr. Robert Hancock's Peptide Work May Lead to New Treatment Approach to Malaria](#)

Anti-inflammatory agents developed by UBC microbiologist Robert Hancock, used in combination with anti-malarial drugs, have been shown to boost survival rates of severe malaria by as much as 50 per cent.



Malaria kills up to one million people worldwide every year, particularly children under five and pregnant women, who often develop severe clinical symptoms such as brain damage and multiple organ failure. Up to 25 per cent of severe clinical malaria cases are fatal even with access to the best health care, partly because the parasite triggers inflammation that damages vital organs.

In a study published in the May 24 edition of the journal *Science Translational Medicine*, scientists from the Walter and Eliza Hall Institute (WEHI) in Australia showed that innate defense regulator (IDR) peptides prevented inflammation in the brains

of mice with malaria and improved their survival.

IDR peptides were developed by Prof. Hancock and colleagues at UBC as part of an \$8.7-million Grand Challenges in Global Health grant led by UBC microbiologist Brett Finlay. The peptides have since been licensed for animal health and approved by Cystic Fibrosis Canada for pre-clinical development as an anti-inflammatory for CF lung infections.

Hancock says the findings support an approach to treating infections called host-directed therapy – intended to target the host and not the parasite. “One of the major challenges we have in treating infections with antibiotics is that the microbes can evolve and become resistant to the treatment,” says Hancock, Canada Research Chair in Pathogenomics and Antimicrobials and a co-author of the study.

“IDR peptides enhance beneficial aspects of the initial immune response, while dampening harmful inflammation,” says co-author Louis Schofield from WEHI. “IDR peptides are also relatively cheap to produce and easy to use, making them a good option for medical treatments in developing countries.”

To visit the Hancock Laboratory: click [here](#).

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[Lead NGDI Project Oral Amphotericin B Receives \\$1.1 million as HIV treatment](#)

A drug delivery system developed through the University of British Columbia's Neglected Global Diseases Initiative and licensed to [iCo Therapeutics Inc.](#) will receive \$1.1 million from the National Research Council of Canada (NRC) for clinical development as a treatment for HIV patients.



The oral drug delivery system of Amphotericin B (Amp B) was originally developed by UBC Pharmaceutical Sciences Profs. Kishor and Ellen Wasan to address challenges associated with existing formulations in treating individuals with visceral leishmaniasis in the developing world.

Recent studies have shown that Oral Amp B can enhance the efficacy of existing HIV therapies such as highly active anti-retroviral therapy (HAART).

While HAART has been successful in managing and stabilizing HIV in patients, the virus can persist by slowly replicating in tissue and blood. These long-lived HIV reservoirs enable long-term persistence of the infection and constitute a major roadblock to the complete eradication of HIV.

Amp B has now been shown to be efficient in “flushing” the virus from the reservoirs and enhancing the effectiveness of existing therapies.

“We are excited about the potential that oral Amp B may have as a treatment for HIV and thank the National Research Council of Canada and iCo Therapeutics for supporting this important technology,” says Kishor Wasan, professor and Associate Dean of research and graduate studies in the UBC Faculty of Pharmaceutical Sciences. “This funding represents a significant leap forward in the clinical development of the oral formulation of Amp B.”

“The development of the Oral Amp B technology has profound implications in the quest to find a cure for HIV,” says Andrew Rae, president and CEO of iCo Therapeutics. “We are looking forward to collaborating with UBC and NRC-IRAP on this program and the continued development of the Oral Amp B system.”

The Oral AmB project is also featured in the summer issue of UBC Trek Magazine

<http://trekmagazine.alumni.ubc.ca/2012/springsummer-2012/features/the-business-of-invention/>.

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WelTel Retain: Promoting Engagement in pre-ART HIV care through SMS

Dr. Richard Lester and the WelTel team have been awarded a **\$545,361** grant over 3 years from the US National Institutes of Health.

The program’s long-term research goal is to capitalize on the almost ubiquitous use of cellular phones to implement a sustainable mHealth service that improves health outcome and engagement in care. In Kenya (WelTel Kenya1), a weekly short message service (SMS) text message led to improved ART adherence and viral load suppression. This study, WelTel Retain, will evaluate the effect of WelTel on retaining pre-ART patients in care and determine the cost effectiveness of the intervention.

Specific Aims:

- 1) To determine if the WelTel SMS intervention improves patient retention in the first stage of HIV care.
- 2) To determine whether the WelTel SMS intervention improves 12-month retention.
- 3) To evaluate the cost-effectiveness of the WelTel SMS intervention.

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Maternal-Infant Microbiome and Immunity (MIMI) Network

Dr. Tobias Kollman, and co-investigators Dr. Gregory Gloor, and Dr. Gregor Reid have received a three year funding award from the CIHR Network Catalyst – Infection and Immunity program. The \$600,000 will establish the Maternal-Infant Microbiome and Immunity Network (MIMI).

This network is centered on how the microbiome and immune system interact in the mother and child, as the mother is the initial source of the child’s microbiome. MIMI will formalize the collaboration of three groups with expertise in maternal health and probiotics, and DNA sequencing and data analysis. By bringing these groups with complementary expertise together, MIMI will amplify each group’s strength, build research capacity in the field of microbiome analysis, and to transfer knowledge and thus inform maternal and child health policy.

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UBC research receives \$2.9 million to improve nutrition of rural Cambodian women and children

The University of British Columbia and Helen Keller International of Cambodia have received \$2.9 million from the Canadian International Food Security Research Fund (CIFSRF) for research to increase and diversify food production and nutrition for small, rural households in Cambodia.

The study, led by UBC researchers **Tim Green** and Judy McLean, will examine how farmers can combine aquaculture and home gardens to produce more affordable and nutritious food and gain the tools they need to improve agricultural practices and nutrition.

“Homestead food production has long been promoted as a means to improve nutrition, food security, and livelihoods of poor rural farmers, although a better evidence base is needed,” says Green, who leads the Cambodian study with co-investigator McLean, both from UBC’s Faculty of Land and Food Systems. “Our project in rural Cambodia will be the first to rigorously evaluate the actual impact of women-centered homestead food production models, which will include fish ponds.”

Cambodia produces enough rice to feed its population but maternal and child under-nutrition remains high due to a lack of crop diversity and shortage of nutrient-rich food.

In this project, 600 households, largely headed by women farmers, will raise small nutritious fish for their families in the same ponds as large fish, which will be sold for income. Combined with vegetable and fruit production, the project is expected to help reduce anemia and under-nutrition in a country where one-third of childhood deaths are directly related to under-nutrition and poor feeding practices. It should also increase household food security and incomes.

“We expect that the results of this project can be effectively scaled up and adopted for broader use throughout Asia,” says IDRC President David Malone. “This is very much in keeping with IDRC’s commitment to research that supports development through the practical application of science.”

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NGDI News

Centre for Drug Research and Development Receives Continued BC Government Support

In late June, NGDI Partner, CDRD received funding of \$29 million for life sciences work.

“British Columbia is recognized as a leader in life sciences research in part because of our government’s support,” said Health Minister Michael de Jong. “\$29 million will be invested at The Centre for Drug Research and Development to make a difference to British Columbians and beyond as development in drug therapies can have worldwide benefits. As well, \$10 million will go toward Genome British Columbia to support cutting-edge genomics research right here at home.”

The funding includes \$29 million for The Centre for Drug Research and Development (CDRD), which builds on a previous investment of \$25 million in the centre. The funding will support the centre's five-year plan and its goal of bringing new drug therapies to the market, benefiting patients and families.

"The provincial government has always been a critical and very supportive partner for us, and this investment will further help us advance the work we do in translating academic health research into viable investment opportunities for the private sector, and ultimately into new therapies for patients," said Karimah Es Sabar, CDRD president and CEO. "On behalf of CDRD, I would like to thank the B.C. government for their continued support."

The B.C. government is committed to investing in health research which will benefit future generations. Since 2001, the provincial government has demonstrated this commitment with an investment of more than \$850 million in organizations such as the Vancouver Prostate Centre, the Michael Smith Foundation for Health Research, six Leading Edge Endowment Fund chairs, Genome BC, and the Centre for Drug Research and Development.

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NGDI Work Study Student Raquel Baldwinson develops NGDI database

The NGDI welcomes Raquel as the summer work study student. Raquel is a Master's student in the English Language program, specializing in an interdisciplinary program called "Studies in the Rhetoric of Health, Illness and Medicine". Raquel is working on the development, coordination and funding of an interdisciplinary library database that acts as a research-hub for the multi-disciplinary academic community that does work in neglected global diseases.



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Funding Opportunities

Mitacs Globalink is currently accepting research projects from Canadian faculty for summer 2013.

Mitacs is offering professors at Canadian universities the opportunity to work with exceptional undergraduate students from India, China, Brazil, and Mexico during a 12-week research project in summer 2013. We will advertise internationally, review applications and help select students who best fit your project requirements. Mitacs also oversees all logistical aspects of the visit, including visa, medical insurance and accommodation. Globalink is open to top senior undergraduate students with a minimum GPA of 8 out of 10 (or equivalent), as well as strong letters of recommendation.

There is no financial commitment required from the supervising professors. We do, however, ask that you are available to work with the student during their stay.

This program is open to all disciplines so we encourage research project submissions not only from the STEM disciplines, but also Health Sciences, Business, Social Sciences, Arts and Humanities. We would like to bring students from a variety of disciplines to Canada to take part in this unique opportunity and experience.

Deadlines

- Professor projects are due on **July 31, 2012**

- Student applications due on September 30, 2012
- Decisions announced by January 1, 2013

Professor project submissions should include the following

- A description of the research project
- Details on the role of the student in the research including the expected learning outcomes
- Any specific skills or areas of knowledge required for the student to effectively carry out the research

For more information Mitacs Globalink Program: <http://www.mitacs.ca/globalink>

To submit a research project please go the following link: Submission page: www.mitacs.ca/2013-globalink-faculty-application

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To Host European Scholars/Researchers/Post-Doctoral Fellows at UBC

Marie Curie International Incoming & Outgoing Fellowships

Deadline: **16 August 2012** (17:00 Brussels local time)

All fields of research of interest to the EU are eligible for funding.

Below is information regarding career fellowships - incoming & outgoing - offered by the European Commission for scholars, research staff and/or post-doctoral fellows. The EU Marie Curie People program is designed to help create long-term collaborations and mutually beneficial cooperation between Europe and Canada. Fellowships are for a minimum of 12 months.

Salary: EUR 38,000 (\$52K) for early-stage researchers to EUR 87,500, (\$120K) for experienced researchers

Mobility Allowance: EUR 700/mo (\$950) or EUR 1000/mo (\$1300) with family obligations (includes travel, relocation, family expenses, language courses,

Research/Knowledge Transfer: EUR 800 (\$1000)/month for research consumables, conferences, journals, memberships.

Amount of funding varies on experience, family situation, & host country. Currency conversions are estimates only.

For details of this opportunity:

<http://ec.europa.eu/research/participants/portal/page/people?callIdentifier=FP7-PEOPLE-2012-IOF>

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Grand Challenges Canada, Stars in Global Health: Round 4

Request for Proposals

Grand Challenges Canada announces *Stars in Global Health* Request for Proposals. This unique program enables innovators in low- and lower-middle-income countries and Canada to develop their **bold idea with big impact** to improve global health conditions.

Awards are initially valued at \$100,000 CAD for up to 12-18 months to demonstrate proof of concept of the idea.

Upon successful review of proposals at 12-18 months after the initial award is granted, scale-up grants of up to \$1 million CAD with potential linkages to private sector investments may be awarded.



The deadline for proposals is September 5, 2012 3:00 p.m. EDT.

Previous examples have included:

- A low-cost prosthetic knee that has the potential to be mass-produced and distributed to amputees in the developing world.
- An inexpensive water filter made from the modified protein (keratin) in poultry feathers to remove arsenic from drinking water in India.
- A \$1000 digital X-ray detector to cost-effectively, accurately and rapidly detect tuberculosis (TB) in underserved populations.

Proposals must include a two-minute video explaining the target global health problem, the proposed solution, and why it is a creative, bold and innovative approach. The purpose of the video is to engage the public in global health and demonstrate the creativity of innovators. These videos will be posted on the Grand Challenges Canada website for public viewing and comment.

For more information about the *Stars in Global Health* Request for Proposals and eligibility criteria, please click [HERE](#)

Grand Challenges Canada would also like to hear from you via twitter.

To reach them on specific topics:

- Global Health: [@PeterASinger](#) and [@AbdallahDaar](#)
- Stars in Global Health: [@KenSSimiyu](#)
- Women's and Children's Health: [@KarleeSilver](#)
- Global Mental Health: [@Pamela_Kanellis](#)
- Point-of-Care Diagnostics: [@RLackman](#)
- Scaling Bold Ideas to Big Impact: [@TaylorAndrew1](#)

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IDRC call for concept notes project SEARCH -Strengthening Equity - Capacity building in eHealth

Website: <http://bit.ly/MoxG0I>

".....IDRC's Governance for Equity in Health Systems (GEHS) program is pleased to announce a call for concept notes.

The focus of the call is on how and when technology can contribute toward strengthened and more equitable health systems in low-and middle-income countries (LMICs).

The Deadline for submissions is 12:00pm EST July 20, 2012

The overarching objective of the Strengthening equity through applied research capacity building in eHealth (SEARCH) project is to support LMIC-based researchers in carrying out rigorous and useful research on how and when eHealth can influence the functioning of health systems to improve health outcomes, and ultimately, contribute to reducing health inequities.

Key research areas

- Theory, methodology, or framework development
- Participation, accountability, and transparency
- Enterprise architecture and interoperability

- Modelling and operations research to generate evidence for decision-making
- Subnational, national, and global policy processes

Key eligibility criteria

The principal applicant must be a citizen or permanent resident of a LMIC with a primary work affiliation at a LMIC-based institution.

Value and duration

A total amount of approximately CAD 2.5 million will be invested in successful grant proposals over a period of three years. Each grant will range from CAD 100,000 to CAD 400,000 for a time period between 24-36 months.

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Save the Date

Gairdner Symposium 2012

Date: Monday, October 22, 4– 6pm

Location: Life Sciences Centre, Lecture Theatre 2 (LSC 2), UBC, 2350 Health Sciences Mall

Don't miss this opportunity to listen to two dynamic and high profiled researchers at the 2012 Gairdner Vancouver Symposium.

This **free public lecture** will feature:

[Dr. William Kaelin](#) [2010 Canada Gairdner International Award Recipient],

and

[Dr. Jeffrey Ravetch](#) [2012 Canada Gairdner International Award Recipient]

Download the poster here:

<http://www.cmmt.ubc.ca/sites/default/files/Gairdner2012SymposiumVancouver%20June%2014.pdf>

More information about the symposium can be found at <http://www.cmmt.ubc.ca/events/2012/06/2012-gairdner-symposium-oct-22-2012>

More information about the Gairdner Foundation can be found at <http://www.gairdner.org/>

For questions or more information please contact Seetha at skumaran@cmmt.ubc.ca

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Human Early Learning Partnership Fall Research Expo

HELP is excited to announce the date for our 2012 Fall Research Exposition. Please mark your calendars and join us on October 24th, 2012.

Last year's Research Exposition connected the dots across the first 10 years of HELP's research. This year, we will focus on the future, highlighting emerging child development research at HELP. We will highlight:

- [Monitoring Child Rights](#)
- [The Middle Years Development Instrument \(MDI\)](#)
- [Child Development Trajectories](#)

The full day event will comprise of a morning keynote session, hosted by Dr. Clyde Hertzman, which will explore the three research streams. It will continue with a number of afternoon workshops on HELP research topics, offering participants an opportunity to examine the research streams in more depth, exchange ideas and build skills.

Details, including workshop topics and registration instructions, will be announced in the late summer.

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Second Global Symposium on Health Systems Research: Inclusion and Innovation Towards Universal Health Coverage

31 October- 3 November 2012 - Beijing, People's Republic of China

Website: <http://bit.ly/LiL5It>

Marketplace and Satellite session registrations remain open until August 15, 2012

Health Systems Global, the new society for health systems research that will be launched at the Symposium Preliminary list of 9 suggested thematic working groups, to be discussed at the general members' meeting in Beijing at the global symposium (3 Nov 2012):.

1. **The Health Systems Researcher:** This group focuses on transforming and scaling up the education and training of health professionals, addressing metrics, standards and curriculum development. What does it take to become a health systems researcher? What training materials and courses are needed and are available?
2. **Methods to Measure Health System Performance:** This group will explore current methodological debates in the field of health systems research. Topics could include developing new theoretical and methodological approaches to the study of innovation; evaluation, methodologies currently being used to measure equity; and conducting systematic reviews of health systems research.
3. **Mentoring Young Researchers:** A working group focusing on those under 40 that will support abstract development and help young researchers with their research/article writing Young researchers will organize their own session at symposia and be in touch throughout the year on issues they select.
4. **Priority-setting in Health:** A working group to look at health policies, models and theories related to setting priorities and taking decisions, and the role of the community in decision-making. Practical experiences will also be shared and discussed.
5. **Health Systems and the Law:** This working group will address the legal aspects of health systems. Key issues could include legal constraints to task-shifting in the health-care workforce, patient rights and the legal structure of health care centres and organizations.
6. **Fragile States:** This working group will look at health systems and fragile states. How do health systems function in such settings and how are they best rebuilt? What is the relationship between national and international players?
7. **Universal Health Insurance and Health Care Financing:** This working group will continue the debate about how best to achieve universal access including risk protection and what are the barriers. Who pays and how much?
8. **Knowledge Translation:** Studying and evaluating knowledge transfer and exchange in public policy-making and program environment.

9. **Urban Health:** This working groups aims to look at how to redress inequities in the urban space. For the first time in history, the majority of the world's population lives in cities, almost all of this growth will occur in cities of the developing world and overwhelmingly, among the urban poor. The group aims to galvanize research and policy attention towards the heath-related needs of the urban poor, with particular attention to the underlying social determinants of inequities