REGENERATIVE MEDICINE AND NANOMEDICINE INITIATIVE (RMNI)

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RMNI PROGRAM EVALUATION

At the request of the CIHR Scientific Council, the Regenerative Medicine and Nanomedicine Initiative is currently undergoing an evaluation led by CIHR's Evaluation Unit. The evaluation is designed primarily to provide findings on the outcomes that have resulted from RMNI activities to date. The evaluation will also provide data and analysis to inform decision-making regarding future plans for the Initiative.

Results of the evaluation are expected by calendar year end. During the evaluation period, there will be no new major funding opportunities launched by RMNI.

Researcher participation in the RMNI evaluation is critical, and members of the researcher community may be contacted by CIHR and its representatives over the course of the evaluation. Participation in the evaluation is entirely voluntary, and will have no impact on researcher eligibility to receive CIHR funding. In addition, key informants from across government, the private sector, and non-governmental organizations will also be contacted for their input.

For any questions or concerns about the RMNI evaluation, please contact Patrick MacGuire, Evaluator, CIHR Evaluation Unit (613-948-2809, patrick.macguire@cihr-irsc.gc.ca) or Joanne Tucker, Evaluator, CIHR Evaluation Unit (613-960-6215, joanne.tucker@cihr-irsc.gc.ca).

RMNI FUNDING ANNOUNCEMENT

The RMNI Team Grant Competition (2010) - Funding Results

On March 16, 2011, at the University of Toronto it was announced that seven new research projects on regenerative medicine and nanomedicine will be receiving $16 million in funding. The research projects are co-funded by the Canadian Institutes of Heath Research and the Canadian Space Agency.

Mr. Gilles Leclerc, Director General, Canadian Space Agency; Dr. Colin Carrie, Member of Parliament for Oshawa, Dr. Jane Aubin, Scientific Director of CIHR Institute of Musculoskeletal Health and Arthritis; Dr. Shana Kelley, University of Toronto; and Professor Peter Lewis, Associate Vice President (Research) at the University of Toronto

This funding will enable researchers to explore:

- Identify microlesions in multiple sclerosis, using a new tool for quantifying the cause of the disease and how well a treatment is working, Dr. Daniel Côté, Université Laval;
- Create personalized nanomedicines that silence cancer-causing genes, Dr. Petier Cullis, University of British Columbia;
- Develop microchip-based devices to analyze prostate cancer markers in blood, Dr. Shana Kelley, University of Toronto;
- Generate transplantable, insulin-producing cells from stem cells for diabetes, Dr. Timothy Kieffer, University of British Columbia;
- Develop innovative sensorimotor rehabilitation approaches for patients with spinal cord injuries or stroke, Dr. Serge Rossignol, Université de Montréal;
- Study how novel therapeutic interventions can regenerate blood vessels, Dr. Michael Sefton, University of Toronto; and,
- Develop nanotechnology-enabled image-guided methods of diagnosing and treating lung cancer and vascular diseases, Dr. Gang Zheng, University Health Network.

For the full press release: http://www.cihr-irsc.gc.ca/e/43288.html

FUNDING OPPORTUNITIES

Current CIHR Funding Opportunities can be accessed from the CIHR Funding Opportunity Database. There are currently no open RMNI Funding Opportunities due to the RMNI Program Evaluation taking place. Future funding opportunities launched by CIHR and its partners that are relevant to the RMNI community will be communicated through the RMNI Newsletter.

Collaborative Health Research Projects (CHRP) Program

The Collaborative Health Research Projects (CHRP) Program supports focused interdisciplinary collaborative research projects involving any field of the natural sciences or engineering and any field of the health sciences. Proposed research projects should be innovative and lead to health benefits for Canadians, more effective health services, and/or economic development in health-related areas. Typically, support will be for up to three years for defined projects with clear milestones and decision points.

From 2012-2015 there will be $25.275 million available in combined funding from NSERC and CIHR.

Changes to the CHRP Program for the 2012 Competition *(Notification of Intent due May 1, 2011)*

For more detail: http://www.cihr-irsc.gc.ca/e/43284.html

INTERNATIONAL REVIEW OF CIHR

As legislated by the CIHR Act, Governing Council (GC) commissioned a second comprehensive review of CIHR in 2010-2011 at its 10th year mark. On February 8-10, 2011, each Institute was reviewed by an international panel of research experts, using qualitative and quantitative indicators, to determine how well each Institute was meeting its mandate. These reports have been provided to the CIHR International Review Panel.

The full review of CIHR overall took place in Ottawa on March 30-31, 2011. The review was conducted by an eleven member International Blue-Ribbon Panel, chaired by Dr. Elias Zerhouni, the former Director of the US National Institutes of Health. The final report from these proceedings will be presented by Dr. Zerhouni at the June 2011 meeting of Governing Council. It is expected that the Panel's report will be released shortly after the June GC meeting.

For more information on the International Review of CIHR, please visit the International Review website: http://www.cihr-irsc.gc.ca/e/31680.html

IN THE NEWS – FEATURED RMNI RESEARCH

Nanomedicine

In the December 2010 edition of the New England Journal of Medicine, RMNI-funded researcher Dr. Warren Chan of the University of Toronto and his team published an articled entitled *Current Concepts: Nanomedicine*. The concept of nanomedicine is looking at utilizing the properties and physical characteristics of nanomaterials to diagnose and treat diseases at the molecular level. The article summarizes the current status of various nanomaterials in clinical use. N Engl J Med 2010;363:2434-43.

The CARS Microsopy

In the March 2011 edition of *Nature Chemical Biology,* a review article on 'Chemical contrast for imaging living systems: molecular vibrations drive CARS microscopy' was published by RMNI-funded researcher Dr. John P. Pezacki and his team. CARS (coherent anti-Stokes Raman scattering microscopy) is a high resolution imaging technique that allows for label-free visualization of biomolecular vibrations. It is particularly useful for imaging lipids and monitoring their changes to chemical or biological disturbances. There have been a number of new advances in applications of this technique which may have clinical imaging significance. Nature Chemical Biology, March 2011, Vol 7, p.137-145.

Non-toxic Nanoparticle

In the March 2011 edition of *Nature Materials*, RMNI-funded researcher Dr. Gang Zheng of the Ontario Cancer Institute, Princess Margaret Hospital and his team published findings on a new nanoparticle which is non-toxic and biodegradable. This new nanoparticle has the potential to change the way tumors are treated. The team is excited by the number of possibilities it has in clinical use. *Nature Materials*, March 2011, DOI:10.1038/NMAT2986.