



## **MEDIA RELEASE**

For Immediate Release

### **Research that helps explain muscle regeneration is recognized with Canadian award**

Michael Rudnicki to receive Till & McCulloch Award

**September 10, 2014** – Research findings that outline the critical role a single protein, Pax7, plays in the ability of muscle stem cells to regenerate and repair—or in its absence, contribute to muscle atrophy—has been identified as the most impactful stem cell paper written by a Canadian researcher in the past year. Dr. Michael Rudnicki, Senior Scientist and Director of the Sprott Centre for Stem Cell Research at the Ottawa Hospital Research Institute, and Scientific Director of the Stem Cell Network, has been selected for the 2014 Till & McCulloch Award in recognition of his contribution to global understanding of muscle stem cells and muscle development. Dr. Rudnicki will accept the award and present a lecture entitled “Molecular regulation of muscle stem cell function” as part of the Till & McCulloch Meetings, Canada’s premier stem cell conference.

Dr. Peter Zandstra, Chief Scientific Officer at the Centre for Commercialization of Regenerative Medicine (CCRM) and professor at the University of Toronto, former winner of the Till & McCulloch Award, and member of the selection committee, said that the selection was made, in part, because Dr. Rudnicki’s research will help steer future research into understanding and treatment of muscle injuries or disease. “Dr. Rudnicki’s contributions in muscle development and regeneration have made him a world leader in this field,” says Dr. Zandstra. “His work in muscle stem cells has opened the doors to the development of new treatments for a range of illnesses and diseases, such as muscular dystrophy and obesity. He is eminently deserving of this award.”

Of significance in the selected research paper, which was published in the *Proceedings of the National Academy of Sciences* on October 8, 2013, was the confirmation that the presence of the Pax7 protein is critically important to a muscle stem cell’s ability to regenerate and repair tissue in adults. Previous research by Dr. Rudnicki, and others, had shown that Pax7 was important for muscle development early in life, but there has been some debate over the protein’s role in the muscle stem cells of adults. This research not only puts this debate to rest, but also demonstrates how important it is to have a healthy pool of muscle stem cells at any age, and especially when faced with injury or disease.

This award comes on the heels of another paper authored by Dr. Rudnicki, just released this week, which demonstrates that our muscle’s ability to repair damage decreases as we age. This decrease is due to changes that reduce the number of muscle stem cells available to divide into

new muscle tissues. Taken together, the papers suggest new avenues of research that could help adults minimize muscle deterioration and its effects as they age.

The Till & McCulloch lecture will take place in Ottawa, Ontario, on Wednesday, October 29, 2014 at 9:50 a.m. at the Westin Ottawa hotel.

The Stem Cell Network established the Till & McCulloch Award in honour of Canadians Drs. James Till and Ernest McCulloch, whose pioneering work established the field of stem cell research. The Till and McCulloch Award is presented each year by the Stem Cell Network, as part of the Till & McCulloch Meetings. The Award is given to one researcher in Canada, who is nominated through a public process. The Selection Committee chooses the awardee based on what is determined to be the year's most influential peer-reviewed article by a Canadian stem cell researcher.

Additional background on the Till & McCulloch Award, and a list of previous winners, is available at: <http://bit.ly/aYUdmr>

#### **About the Till & McCulloch Meetings**

The Till & McCulloch Meetings are Canada's premier stem cell research event. As the only conference of its kind in Canada, the Till & McCulloch Meetings provides a forum for the exchange of ideas and research among Canada's leading stem cell scientists, clinicians, bioengineers and ethicists, as well as representatives from industry, government, health and NGO sectors from around the world. The Stem Cell Network and the Centre for Commercialization of Regenerative Medicine are pleased to be co-hosting the 2014 Meetings, which will be held in Ottawa, Ontario October 27-29, 2014. [www.tillandmcculloch.ca](http://www.tillandmcculloch.ca)

#### **About the Stem Cell Network**

The Stem Cell Network, established in 2001, brings together more than 120 leading scientists, clinicians, engineers, and ethicists from universities and hospitals across Canada. The Network supports cutting-edge projects that translate research discoveries into new and better treatments for millions of patients in Canada and around the world. Hosted by the University of Ottawa, the Stem Cell Network is one of Canada's Networks of Centres of Excellence funded through Industry Canada and its three granting councils. [www.stemcellnetwork.ca](http://www.stemcellnetwork.ca)

#### **About the Centre for Commercialization of Regenerative Medicine (CCRM)**

CCRM, a Canadian not-for-profit organization funded by the Government of Canada's Networks of Centres of Excellence program and six academic partners, supports the development of technologies that accelerate the commercialization of stem cell- and biomaterials-based technologies and therapies. A network of academics, industry and entrepreneurs, CCRM aims to translate scientific discoveries into marketable products for patients. CCRM launched in Toronto's Discovery District on June 14, 2011. CCRM is hosted by the University of Toronto. [www.ccrm.ca](http://www.ccrm.ca)

#### **Papers noted:**

- von Maltzahn J, Jones AE, Parks RJ, **Rudnicki MA**. "Pax7 is critical for the normal function of satellite cells in adult skeletal muscle." *Proceedings of the National Academy of Sciences*. 2013 Oct 8;110(41):16474-9.

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