

## SAC Link Osteoporosis Canada's Scientific Advisory Council

## Summer 2014

## Osteoporosis Canada Launches New Exercise Recommendations

New multicomponent exercise recommendations combine muscle strengthening and balance training as a means of reducing falls and resulting fractures for people living with osteoporosis

People with osteoporosis, and those at risk of developing it, can prevent bone loss, fractures and falls by combining specific types of exercises, says new recommendations that Osteoporosis Canada has recently released.

The group unveiled **Too Fit to Fracture: exercise recommendations for individuals with osteoporosis or osteoporotic vertebral fracture** at the Canadian Physiotherapy Association's (CPA's) Annual General Meeting. It focuses on multicomponent exercise programs that combine muscle strengthening and balance training.

Professor Lora Giangregorio from the University of Waterloo developed the recommendations with an international group of experts. They recommend that aerobic physical activity should be combined with balance and strength training.

"Strength training exercises are key to maintaining strong bones and increasing muscle strength," says Professor Giangregorio. "There is clear evidence that performing challenging balance exercises can reduce falls, especially if performed most days of the week. We propose a shift away from aerobic-only exercise regimes to those that emphasize strength training and balance training in addition to aerobic training, to achieve the greatest health benefits."

Falls remain the leading cause of hip fractures among older adults, causing 63 to 83 per cent of hip and non-vertebral fractures and about 45 per cent of vertebral fractures.

"With the release of this work, Osteoporosis Canada is providing clear recommendations, informed by the best available evidence, regarding the most effective exercises to help reduce the risk of falls and osteoporotic fractures," states Dr. Famida Jiwa, President and CEO Osteoporosis Canada.

Individuals with osteoporosis can learn how to move safely. Individuals at high risk of fracture should consider consulting a physical therapist with expertise in osteoporosis in order to design and execute an exercise program that reduces the risk of fracture.

"Osteoporosis Canada's new recommendations will help physiotherapists and physical therapists design exercise programs that can help reduce the risk of fracture," says Helen Johnson, chair, CPA Senior's Health Division. "Many Canadians with osteoporosis avoid exercise because they are afraid of falling. Knowing that programs have been designed with these guidelines in mind will also help individuals remove barriers to exercise."

The new recommendations include expert opinions on how to move safely during every day activities, to avoid the risk of falls or spine fractures. Changes in posture, combined with changes in bone strength, can increase the risk of spine fracture. Poor alignment can be improved with exercises that target muscles important for posture.

#### **SAVE THE DATES!**

#### **SAC Webinar**

The SAC Update Webinar scheduled for July 16th has been postponed until the fall. Details to follow later this summer.

#### **ASBMR Breakfast 2014**

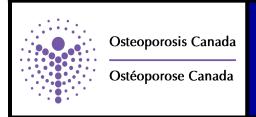
OC will be hosting a breakfast at ASBMR. It is planned for Saturday Sept. 13th at 6:30 AM at the Hilton Room 339. Please RSVP to Kerry if you plan to attend kgrady@osteoporosis.ca

#### **COI Forms**

Please watch your mail box for the 2014/2015 Conflict of Interest forms to be signed and returned to Kerry.

#### **Nominations**

If you have interest in serving on one of the OC Committees—Guidelines, Research, Nominations—please drop Kerry a note. New members are required for a number of committees.



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## **Osteoporosis Canada Research Awards**

#### **CaMOS 2014 Award Winner**

#### Dr. Andy Kin On Wong



Dr. Andy Kin On Wong holds an Honours Bachelor of Science Co-op in Biology and Pharmacology and a Doctor of Philosophy in Medical Sciences at McMaster University. He completed his doctoral thesis under the supervisor of Dr. Jonathan D. Adachi on bone quality quantification using peripheral quantitative computed tomography (pQCT) and magnetic resonance imaging (MRI) scanners and is the coleader of the CaMOS Bone Quality Study (<a href="http://bqs.camris.ca">http://bqs.camris.ca</a>). He is now completing his post-doctoral fellowship with Dr. Angela MW Cheung at the Osteoporosis Program of the University Health Network (<a href="http://www.osteoconnections.com">http://www.osteoconnections.com</a>), where he is dovetailing this Bone Quality project with one focused on Muscle Quality. With this OC-CaMOS Fellowship, Andy will be dedicated to his project entitled

"The CaMOS Muscle Quality and Frailty Study", which will examine both bone and muscle in men and women across six cities in Canada to link these outcomes to the CaMOS frailty index, through collaboration with Drs. Courtney Kennedy and Alexandra Papaioannou. Andy will continue to follow these participants for the next five years and exercise advanced longitudinal statistical techniques to study the trajectories of concurrent musculo-skeletal and frailty changes with aging. This fellowship award will also afford Andy the opportunity to study unique analysis techniques for longitudinal data abroad and bring back the knowledge to better execute these analyses. Through the many projects that Andy has led, he has developed expertise in the discovery of new imaging outcomes and has trained in epidemiological analyses while working with data derived from CaMOS, MrOS and SOF study cohorts. Andy currently collaborates with over 20 investigators in Canada, a number of international, government and industrial partners on advancing the musculoskeletal health of aging older adults.

#### **Tim Murray 2014 Award Winners**

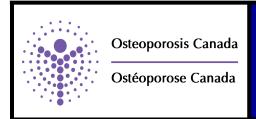
#### **Angel Ong**



"It is with great honour to be a recipient of the Osteoporosis Canada Tim Murray Award. This award will facilitate my PhD training by supporting my travel to Houston, Texas, to attend the full ASBMR 2014 Annual Meeting this fall."

As the research dietitian of a randomized clinical trial at the McGill University Health Centre Research Institute (MUHC), Angel is excited to present the final results of their pilot study which examined the effect of dietary and supplemental calcium on vascular and bone health in postmenopausal women. In addition to the dissemination of the results, this award will also give her the opportunity to attend and to participate in different educational sessions, including symposia, plenary lectures and poster presentations by peers and experienced researchers at the ASBMR Annual Meeting. These learning opportunities will provide a fundamental skillset for Angel's PhD training as well as future research work. Moreover, she looks forward to this great opportunity of meeting other students and potential mentors with

similar research interests from all across North America, Europe, and Asia.



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#### **Tim Murray 2014 Award Winners**

#### Nooshin Khobzi Rotondi



Nooshin Khobzi Rotondi is a junior epidemiologist with a PhD from the University of Western Ontario. She is a Research Coordinator at the Mobility Program Clinical Research Unit at St. Michael's Hospital under the supervision of Dr. Dorcas Beaton. Nooshin is interested in health services and systems research, with a focus on methodological issues related to study design, survey research and complex statistical analysis. She has recently become interested in osteoporosis research and the impact of bone health on individual's well-being. Nooshin is drawn to the variety and complexity of methodological work in this area, particularly measurement sciences. As a Tim Murray Award recipient, she will use the funding to learn more about osteoporosis and bone health issues more broadly, and to enhance her statistical skills to include methods relevant for osteoporosis research. Specifically, Nooshin is working on a study evaluating fracture risk assessment tools –the Fracture Risk Assessment Tool (FRAX) and the updated tool of the Canadian Association of Radiologists

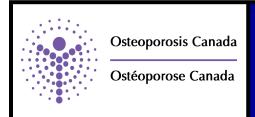
and Osteoporosis Canada (CAROC). The aim is to understand the agreement between FRAX and CAROC among post-fragility fracture patients at St. Michael's Hospital. The Tim Murray Award will allow Nooshin to present her work at an international conference, thereby helping her to build connections with other researchers and experts in osteoporosis research. Attending a conference specific to fragility fractures will provide her with many learning opportunities beyond her experiences at St. Michael's Hospital.

#### Jordan Albaum



Jordan Albaum is completing his Master's training in pharmacoepidemiology and health services research at the Leslie Dan Faculty of Pharmacy, University of Toronto, with research focus in the area of glucocorticoid (GC) induced osteoporosis. GCs are among the most widely prescribed drugs for conditions such as rheumatoid arthritis and chronic lung disease. However, chronic oral GC therapy is the leading cause of secondary osteoporosis, resulting in rapid bone loss and increased fracture risk. Using healthcare administrative data (medical and pharmacy claims) in Ontario, Jordan has examined trends in osteoporosis management (bone mineral density testing and/or osteoporosis treatment) among community dwelling seniors treated with chronic oral GC therapy, by indication and over time. With the funding generously provided through the Tim Murray Short-Term Training Award, Jordan will complete his thesis research and present his findings at the 2014 American Society for Bone and Mineral Research (ASBMR) annual conference in Houston,

Texas. The ASBMR conference is held annually to advance basic science, translational and clinical research in the area of bone health. This premier international conference attracts over 5000 academics, clinicians and industry representatives from almost 60 countries. Jordan says: "By attending this conference, I will gain exceptional insight into leading osteoporosis research, and network with world renowned bone researchers. Through this experience, I hope to continue to refine my research skills and gain additional insight in the area of osteoporosis so that I can contribute to the advancement of osteoporosis research in Canada."



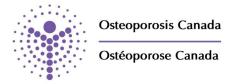


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## Broken Bone?

## OSTEOPOROSIS.CA/ATF

- Information about Pain
   After a Broken Bone
- What to Expect from Some Specific Fractures
- Self-Help Guidelines for Day-to-Day Activities
- Videos on How to Safely do Everyday Activities
- When the Pain Persists



CALL 1-800-463-6842



#### You Can Make A Difference!

Every day, two million Canadians live with osteoporosis.

Every day, Canadians fall and break a bone due to this disease.

Every day, lives are devastatingly altered as a result of these broken bones.

Every day, this cycle can be prevented!

Today, You can make a difference!

Visit <u>www.osteoporosis.ca/donate</u>

Questions? Comments?
Contact; Kerry Grady MHSc, RD
416-696-2663 x2264
kgrady@osteoporosis.ca

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