

Osteoporosis Canada's  
Scientific Advisory Council

# SAC Link

## **ASBMR Breakfast 2018**

OC will be hosting a breakfast at ASBMR in Montreal. It is planned for Saturday September 29th at 6:30 AM at : Le Westin Montreal in the Palais Room.

Please RSVP to Kerry if you are planning to attend :  
kgrady@osteoporosis.ca

## **OC Annual General Meeting**

This year's AGM/Board of Directors face-to-face meeting will be held in Toronto on September 14th and 15th at the Crowne Plaza Toronto Airport Hotel, 33 Carlson Court, Toronto, ON. SAC Members are welcome to attend the AGM portion of the meeting on Saturday, September 15th 9:00AM-10:00AM.

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## **2017-2018 Osteoporosis Canada Student Research Award Winners**

### **CaMos Award Winner**

**Dr. Azita Goshtasebi, MD, MPH, PhD**

I am delighted to receive the Osteoporosis Canada-CaMos Fellowship. I graduated with a Doctor of Medicine from Isfahan University of Medical Sciences, and later with a Master of Public health and PhD in reproductive health from Tehran University of Medical Sciences in Iran. The focus of my research has been on women's reproductive health from a public health perspective. Since moving to Canada, 4 years ago, I have

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been working alongside Dr. Prior at the Centre for Menstrual Cycle and Ovulation Research studying women's reproduction and bone health especially in adolescent and premenopausal women.



The OC CaMos fellowship grant allows us to work on: "Does Peak Perimenopause Bone Mineral Density

Predict Risk for Incident Fragility Fractures?" using CaMos data over many years. I will evaluate whether those with lower BMD values just before becoming menopausal are at a greater risk of subsequent fragility fractures than those with higher BMD values. My mentors for this project are Dr. JC Prior, and Claudie Berger.

## **Ph.D. Studentship Research Award Winner Ahmed Abou-Sharkh, MSc PT**

Ahmed's Physical Therapy (PT) training has given him the building blocks for a clinical research career through course work that emphasized evidence-based practice. He is currently pursuing his PhD studies in Rehabilitation Science at McGill University. As a PT and an aspiring researcher, Ahmed's long-term goal is to become an active advocate in the promotion of healthy behaviors and to pursue an academic career with a focus on therapeutic interventions in chronic musculoskeletal conditions. The mentorship of his co-supervisors, Dr. Suzanne

Morin, an expert in osteoporosis research, and Dr. Nancy Mayo, a health outcome measurement expert, is vital to reaching his goal.

These past two years during Ahmed's PhD training, he undertook courses that helped him broaden his understanding in musculoskeletal rehabilitation and advanced research methodology. He has been a teaching assistant for research methods courses. Ahmed sees tremendous value in combining clinical experience, research methods, with active teaching and applying these skills to develop innovative research.

His current project entitled: "HIP mobile: A Community-based Monitoring, Rehabilitation and Learning e-System for patients following a Hip Fracture" has been awarded the Osteoporosis Canada's Studentship Award. Hip Mobile, an electronic monitoring and rehabilitation intervention, proposes effective strategies to enable recovery, restore independence and improve the quality of life of patients following a hip fracture. While working on the Hip Mobile study, Ahmed is also developing a knowledge tool that will aid Canadian older adults to 'Walk Well' which has been funded by the Richard



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and Edith Strauss Foundation. Concurrently working on both projects has provided him with invaluable experience of recruiting, interviewing, assessing research participants and developing ideas alongside colleagues with respect to what is needed.

Ahmed also recently presented results of his research at the annual meeting of the Canadian Geriatric Society Conference and at the CIHR Summer Program in Aging in British Columbia 2018. These opportunities allowed Ahmed to network with other trainees and interact with inspiring mentors. The Osteoporosis Canada PhD Studentship Award will provide Ahmed with support and the opportunity to further enhance his training experience in rehabilitation and in skeletal health through ongoing mentorship by Drs Morin and Mayo and continue to participate actively in their research programs.

Ahmed would like to thank Osteoporosis Canada for providing the generous funding for the project entitled "HIP mobile: A Community-based Monitoring, Rehabilitation and Learning e-System for patients following a Hip Fracture". Ahmed is extremely pleased to have received this studentship award. Not only because it will provide him and his research team support for his study but also because this award will go a long way in supporting his graduate studies in Rehabilitation Science.

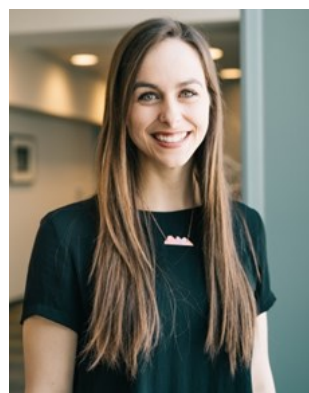
Ahmed recognizes the importance of Osteoporosis Canada's contribution by providing support and by helping build research projects in the field of muscu-

loskeletal health

## **M.Sc. Studentship Research Award Winner**

### **Leah Ferrie**

Throughout my academic career my passion for biomedical engineering, in particular tissue engineering, has evolved with my increased interaction with re-



search. In 2017 I received a Bachelor of Applied Science in Chemical Engineering with an option in biochemical engineering from Queen's University in Kingston, Ontario. Since then, I have begun my biomedical engineering master's degree at the University of

Calgary in the McCaig Institute for Bone and Joint Health under the supervision of Dr. Neil Duncan and Dr. Roman Krawetz, where I have focused my interests on the use of stem cells and biomaterials in treating bone fractures.

Given the high fracture risk and compromised bone structure in osteoporotic patients, tissue engineering is a promising approach to improve bone repair for these difficult-to-heal fractures. Despite the potential for using stem cells and biomaterials in bone fracture repair, the mechanisms through which new bone is formed are not well understood, which has caused a delay in development and translation of novel and effective therapies. The purpose of my research pro-

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ject is twofold; 1) determine the role of native and transplanted stem cells in bone fracture repair and 2) determine if mechanically pre-stimulating stem cells in a biomaterial construct will improve bone fracture healing. The outcomes of this study will provide fundamental new knowledge required for developing more effective stem cell and biomaterial therapies to treat osteoporotic-related bone fractures.

Receiving the Osteoporosis Canada M.Sc. Studentship Research Award will provide me with increased resources to innovate in my research project and contribute positively in my field. This studentship will allow me to attend and present at conferences and meetings to learn from the field's leading researchers and to be an advocate for the effective prevention and treatment of osteoporotic-related bone fractures. Being at an early stage in my career, this studentship will allow me to broaden my professional network by attending conferences, symposiums, and public events with the goal of exploring academic and industry careers in Canadian musculoskeletal research. In the long-term, I aim to contribute to making stem cell and biomaterial tissue engineering solutions a viable clinical treatment option for Canadians living with osteoporosis, so that they can lead active and healthy lives. I am sincerely grateful to have received this scholarship and believe it will help me in achieving my academic and professional goals.

## **Tim Murray Travel Award Winners**

### **Danielle Whittier**

Danielle Whittier is a PhD Candidate in the Biomedical Engineering Graduate Program at the University of Calgary. Her research aims to identify a better method to predict fragility fractures at the hip by comparing bone microarchitecture at peripheral sites of hip fracture patients with a healthy population using high-resolution peripheral computed tomography (HR-pQCT). Under the supervision of Dr. Steven Boyd and orthopaedic surgeon



Dr. Prism Schneider, Danielle has had the unique opportunity to collaborate with the newly established Fracture Liaison Services (FLS) at two Calgary medical centers. With this connection to the strategic clinical network, Danielle has had the unique opportunity to integrate this project into the standard FLS procedures, and build a foundation for future knowledge translation strategies.

The Osteoporosis Canada Tim Murray Short-Term Training Award will provide Danielle the opportunity to attend and present at the American Society for Bone and Mineral Research (ASBMR) Annual Meeting for the first time. The ASBMR annual meeting is one of the most prestigious meetings in the field of musculoskeletal research, and attending will enable

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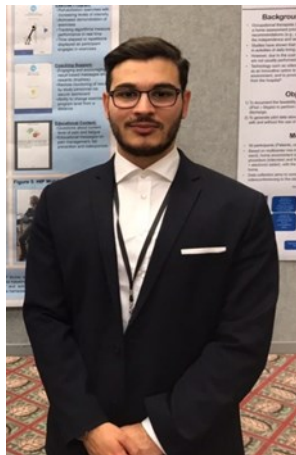
Danielle to present her preliminary findings to an international audience, receive valuable feedback from the research community, and have the opportunity to build connections early on in her career.

*"I am very grateful to be one of the recipients of the Tim Murray Short-Term Training Award. This funding will offer me invaluable experience at such a crucial stage in my academic career."*

## Chams Cherid

*"It is with immense honor to be receiving the 2018 Osteoporosis Canada Tim Murray Award. This award will facilitate my MSc training by supporting my travel to Vancouver, BC, to attend AGE-WELL's 4th Annual Conference in October."*

My research project is centered on improving acute pain management in older adults with recent fracture following discharge from the Emergency Department (ED). Risk of fractures increases with age as a result of the onset of osteoporosis and acute pain is one of the most recurrent and prevalent symptoms reported by fracture patients who present to the ED. However, failure to effectively manage acute musculoskeletal pain in older adults is common and has been associated with poor long-term outcomes such as in-



creased falls, decreased balance, low quality of life and mortality. Moreover, the hectic environment of the ED alongside inadequate teaching time on management of pain by health care providers does not equip patients with the confidence and knowledge to effectively self-manage their pain. Ergo, patients may either end up not using pain medications effectively once at home due to fear of using them inappropriately or may only use them once the pain is too intense.

Mobile-health (mHealth) technology is a field which is rising rapidly among older adults and offers new opportunities to provide tailored, interactive interventions with real-time monitoring of health status to improve self-management of acute pain in older adults with fractures. We have conducted a survey research to identify the current level of technology adoption and eHealth literacy among older adults who recently suffered a fracture. A cross-sectional analysis of the data from the self-administered survey led us to measuring the eHealth literacy of our target population and to examine the links between their sociodemographic characteristics, ownership of mobile technologies and their eHealth literacy. The survey's results suggest that the majority of older adults express an interest in using technology to improve their health and are increasingly using electronic mobile devices. They also emphasize that there is a significant adoption of mobile technology among older adults and supports the creation of an interactive mobile tool (such as a mobile app) for the management of acute pain in this population. Hav-

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ing already done poster presentations in multiple conferences, I look forward to presenting our findings at the AGE-WELL Annual conference. AGE-WELL is a national research and innovation network which focuses on creating innovative technology solutions to enhance the lives of older adults and their caregivers. This award will give me the opportunity to take part in educational events and to present the results of our study. It will allow me to engage in workshops with researchers and experts in the field and network with other students and trainees. This learning opportunity will be key in improving my training, essential skillset as a researcher and learn extensively about the different possible outcomes older adults must face. I look forward to building a network with peers and colleagues interested in harnessing the potential of eHealth and mHealth to improve fracture-associated pain management.

## **ASM Borhan**

*"I would like to express my sincere gratitude and appreciation to Osteoporosis Canada for the Tim Murray short-term training award. This award provides me the opportunity to attend an international conference and get familiar with the latest research in Osteoporosis and related fields."*

I will attend the annual meeting of the American Society for Bone and Mineral Research (ASBMR) in 2018, where I have been selected to receive a Young Investigator Award and will present my work entitled "The Long-term Impact of Incident Low-



trauma Fractures on Health-related Quality of Life of Older People: The Canadian Multi-centre Osteoporosis Study (CaMos)". While the short-term impact of incident fragility fractures on health-related quality of life (HRQL) of older people has been confirmed, we lack long-term evidence

(10 years or more). This study investigated the long-term impact of incident fragility fracture on HRQL of older people using 10-year follow-up data of CaMos, which suggested that, hip and spine fracture had persistent negative impact on HRQL of both women and men, more specifically on mobility, self-care, and ambulation. Moreover, fracture that occurred closer to follow-up measurement had significant impact on HRQL compared to fracture that occurred long before the measurement except hip. In addition, women with multiple fracture had substantial deficit on HRQL compared to women with one or no fracture. This study also indicated that, women with hip fracture never recovered to their pre-fracture level values. However, women with no spine fracture for 5 years or more regained their pre-fracture levels.

This award not only allows me to attend the ASBMR annual meeting but also provides me the opportunity to meet with world class scientists and gained knowledge from their outstanding research works.