

# Newsletter of the Australian Institute for Musculoskeletal Science (AIMSS)

Volume 3, Issue 4 October-December 2018









# A Note from the Deputy Director, Institute for Health & Sport, Victoria University - Professor John T. Price

Having initially come from Monash University to Victoria University as a Senior Lecturer back in July 2013, I have been privileged to see not only the growth of research at VU but also to witness the development and rapid growth of AIMSS during this time and its increasing contributions to the musculoskeletal field.

In my previous role as Director of Research within the College of Health and Biomedicine and now as Deputy Director at the Institute for Health and Sport (IHES), it has been exciting to be involved as a representative of VU, serving on the AIMSS Management Committee and now on the Advisory Council, to support the mission of AIMSS in partnership with Western Health and the University of Melbourne.

The achievements and success of AIMSS have been made possible due to the strong strategic leadership, substantial contributions and collaboration between the major stakeholders of Western Health, Victoria University and the University of Melbourne, all underpinned by excellent facilities and staff. This has been no mean achievement given the challenges that have been present within the education and research sectors over the past number of years.

My own research interests are also within the musculoskeletal field, being based around the identification of novel molecular targets in cancer metastasis, in particular, bone metastasis. This work has been supported by government, philanthropic and pharmaceutical industry sources and has been steadily progressing. Our current work involves the design and testing of novel therapeutics targeted towards these specific molecular mediators of metastasis and is a major focus of our research program at AIMSS.

The opportunities that are available to engage in true multi-disciplinary research within a hospital context, to collaborate across institutions and develop research programs that can have a significant impact on health are all aspects that will continue to benefit the staff and students from stakeholder institutions who are members of AIMSS.



## From our Director - Professor Gustavo Duque

#### "AIMSS is writing"

One of the main key performance indicators (KPI) in the research field is the number of papers published by an academic every year. Same indicator is used to Medical Research Institutes (MRI) such as AIMSS to evaluate their productivity, and to assess whether the contributions from stakeholders and donors are well invested.

This year has been outstanding in terms of the number and the impact of the papers that our members have published. On the day this column was written, 112 papers were listed in PubMed, and I am sure that there are several more in press, which have not been captured by this database. This number represents multiple accomplishments: We duplicated the number of papers published by our members in 2017 (n=53), and of course was outstandingly much better than 2014 (n=10). In addition, our calculated average impact went from 1.2 in 2015 to 4.5 in 2018, with 8 papers published in journals with an impact factor of 7 or above. Other interesting observation is that ¾ of the papers published this year were co-authored by members of at least two AIMSS stakeholders (University of Melbourne, Victoria University and Western Health). In addition, 35% of the publications were on biomedical sciences. Looking at these outstanding statistics, which are impressive for a 5-year-old MRI, I am not only proud of our members but also happy because we could demonstrate that our collaborations and effective use of our lab and clinical trials space is becoming extremely fruitful. I invite our members to continue their hard work. AIMSS will be there to support their projects and initiatives! Good science, good research, and patients will be the victims unless there is a free exchange of health information worldwide; and AIMSS is clearly helping with this information exchange.

I profit from this opportunity to wish you very Happy Holidays and a very successful, happy, and productive New Year.

# Our Team Member of the Month Solange Bernardo



My background is nursing, and I completed my degree in Angola, and completed further studies in diabetes education at Deakin University. Prior to my current role, I worked as Orthogeriatric Clinical Nurse Specialist at Royal Melbourne Hospital.

In my current role with AIMSS /Wester Health, I am a Fracture Care and Prevention Coordinator, Fracture Liaison Nurse and a co-investigator for Australian and New Zealand Hip Fracture Registry (ANZHFR).

This role is based on patient centered care and data collection. The main focuses are on identifying, investigating, assessing, implementing and evaluating the outcomes of our interventions; with the aim of closing the care gap for osteoporotic patients. As a part of this role I also coordinate the Falls and Fracture Clinic (FFC), which is a multidisciplinary clinic aiming to provide patients with comprehensive state of art assessment on the risks of falls and fractures.

I aim to support AIMSS in its clinical trials and help to promote the services that we provide to the general practitioners and wider community.

### **AIMSS Publication of the Month**

https://link.springer.com/article/10.1007/s00198-018-4719-y

"Acute continuous moderate-intensity exercise, but not low-volume high-intensity interval exercise, attenuates postprandial suppression of circulating osteocalcin in young overweight and obese adults".

Osteoporosis International

L. Parker, S. Shaw, E. Byrnes, N. K. Stepto, I Levinger

#### **AIMSS News**

Michael Bullen has been awarded the 2019 Brendan Dooley Gordon Trinca Trauma Research Scholarship for one scholarship year. The award enables the undertaking of research on Evaluation of vitamin D supplementation on fracture healing in a Vitamin D deficient paediatric population using p QCT - A randomized trial. The value of the award is \$AU 10,000.

#### **AIMSS 2018 Symposium Awards:**

BEST PODIUM PRESENTATION: Jason Talevski: "Clinical care pathways and the recovery of the quality of life and physical function after a frailty fracture: A systematic review and meta- analysis".

BEST SCIENTIFIC POSTER: Dr Jesse Zanker:

"Current evidence does not support Vitamin D supplementation to improve post stroke outcomes".

#### Our Collaborator of the Month



Robert J. Pignolo, M.D., Ph.D.

Professor of Geriatric
Medicine. Mayo Clinic U.S.A

One of my major interests is to help translate understanding of basic physiological processes towards the discovery, validation and implementation of strategies designed to advance health, function and independence of individuals into and through later life.

My research focuses on basic, translational, and clinical aspects of conditions that reflect either impaired or inappropriate osteogenesis, cell senescence, mouse models of rare bone disorders and accelerated aging, as well as histological and histomorphometric alterations with aging and bone disease. My laboratory was first to describe COP cells as hematopoietic-derivedcells with osteogenic potential that can seed inflammatory sites in clinical heterotopic ossification (HO).

As an AIMSS collaborator, Professor Duque and I have together published two recent papers further describing the scope and function of COP cells, which is also the subject of our recent NHMRC application.



Australian and New Zealand Society for Sarcopenia and Frailty Research

2018 ANNUAL MEETING • DUNEDIN, NZ • 23-25 NOVEMBER



A successful meeting was held at St David's Theatre, Otago University, Dunedin, New Zealand November 23rd-24th 2018. It was attended by international speakers and delegates from 12 countries, focusing on Sarcopenia and Frailty.

AIMSS was there with a booth and Go Sarc initiative for young investigators on sarcopenia was officially launched The ANZSSFR 2019 Conference is to be held in Sydney, NSW 22nd-23rd November 2019.

### **AIMSS 2018 Seed Grant Recipients**

Dr Sharon Brennan-Olsen - \$15,000

Occupation, inflammation and decline in lean mass:

A pooled meta-analysis cohort collaboration

Dr Craig Goodman - \$10,000

Using state-of- the-art quantitative mass spectrometry to begin to unravel the role of DJ-1 (Parkinson's Disease Protein7) in skeletal muscle: potential implications for muscle wasting and dysfunction.

A/Prof Cathy Said - \$10,000

Reducing the Burden of Stroke Through Physical Activity f or Improved Glycaemic Control

and maintenance of Bone Mass

A/Prof I Levinger - \$10,000

Bone-Muscle Interactions: Novel Approaches to Prevent Sarcopenia in Older-Adults