

Newsletter of the Australian Institute for Musculoskeletal Science (AIMSS)

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My AIMSS Associate Professor Itamar Levinger Program Director: Sarcopenia - Clinical

My name is A/Prof Itamar Levinger and I am the new Program Director-Sarcopenia Clinical at AIMSS. I am a Heart Foundation Future Leader Fellow at the Institute of Sport, Exercise and Active Living (ISEAL), Victoria University and also an Honorary Principal Research Fellow, Department of Medicine, Western Health, Faculty of Medicine, Dentistry and Health Sciences, The University of Melbourne.

I am an Accredited Exercise Physiologist (AEP) and my clinical and research areas include exercise rehabilitation for patients with cardiovascular and metabolic disease. In recent years my research focused on the cross-talk between the skeleton, skeletal muscle and the cardiovascular systems (mechanistic, pre-clinical and clinical studies) and in particular the role the skeleton may play in insulin resistance/type 2 diabetes, cardiovascular disease and osteosarcopenia. Recently, my research team has received grants from: Diabetes Australia (DARP), to explore whether osteocalcin, released by bones, can be used as a novel avenue to prevent or minimise loss of muscle mass, and the development of insulin resistance in mice; from ESSA, Tom Penrose Community Service Grant, to explore the interaction between circulating osteoprogenitor (COP) cells and osteocalcin in older-adults with sarcopenia; and from the Heart Foundation (Vanguard grant) to explore a novel approach for exercise rehabilitation that can be utilised in older adults with chronic heart failure. My research team and I are committed to high quality research and the establishment of new collaborations nationally and internationally.



From our Director



AIMSS is online

Social media and the web have become the most important and accessible tools to facilitate communication and networking worldwide. With so many regular accomplishments and events happening at AIMSS, a well-established communication strategy is pivotal. Therefore, our Management Committee decided to invest some resources in developing a fully refurbished and re-designed web page for the Institute.

Thanks to our Deputy Director Prof. Alan Hayes (who led this project until publication last October) and our Manager Gwen and our web designer Esther Johnson, our Institute has now a beautiful webpage with comprehensive information about our research programs and ongoing projects. Our website attracts our visitors with complete profiles of our leading members, while also inviting the community to participate in our clinical trials or to make a donation to our programs. In just two months, the traffic to our website has gone from 50 visitors/month to more than 1,500 visitors last October.

As the second component of our strategy, we have created our own Twitter and Facebook accounts, which are led by James Sorensen and Michael McLaughlin respectively. These two important tools are being used to promote our accomplishments while also inviting our followers to participate in and/or promote our clinical trials. In addition, our Youtube stream channel will be launched soon.

When you have some time, please visit us at www.aimss.org.au or follow us on Twitter (@AIMSS research) and Facebook (@aimsscience). We will always have something interesting to share with you!

Prof. Gustavo Duque – Director AIMSS

Our Team Member of the Month



Merima Murthadozic, is the Clinical Trial Coordinator for the University of Melbourne, and is responsible for the overall management and coordination of pharmaceutical clinical trials undertaken through Western Health, AIMSS and the University of Melbourne.

Her role involves preparing and obtaining ethical approval, recruiting study participants, conducting study related activities, monitoring participants and closely collaborating with clinicians and pharmaceutical companies to assist in achieving results that add to scientific knowledge. Beginning her career in Psychology, Merima is a knowledgeable Project Manager/Coordinator, with over 7 years expertise contributing to the successful completion of primary health programs and global clinical trials. Outside of work, Merima is a mum of two boys, and in 2018 will be ticking off another item of her 'to do list' by commencing an MBA. She hopes to pursue managerial roles in the near future.

Paper of the Month

Acute exercise alters skeletal muscle mitochondrial respiration and H2O2 emission in response to hyperinsulinemic-euglycemic clamp in middle-aged obese men. Trewin AJ, Levinger I, Parker L, Shaw CS, Serpiello FR, Anderson MJ, McConell GK, Hare DL, Stepto NK. PLoS One. 2017 Nov 21;12(11):e0188421.

In obese, older and sedentary men, acute exercise modifies skeletal muscle mitochondrial respiration and H2O2 emission responses to hyperinsulinemia in a respiratory state-specific manner, which may have implications for metabolic diseases involving insulin resistance.



AIMSS Seminar Series

October: Prof Koen Milisen: Implementing falls prevention strategies: inspiring examples from Flanders (Belgium)".

November: Prof Manuel Montero-Odasso: Frailty and cognitive impairment in older adults: Fellow travellers or partners in crime?"



Profs Duque & Montero-Odasso and International visiting fellows, Sonia & Esther from Spain and Genesis from Mexico

Our Collaborator of the Month



Prof. Cedric Anweiler of Centre Hospitalier Universitaire d'Angers

Geriatrician, recently elected Dean of Medicine at the University of Angers (France), Prof. Anweiler has strong ongoing collaborations with our members.

Areas of collaboration include multiple aspects of vitamin D in the musculoskeletal system, frailty, and sarcopenia. He is a co-investigator in several ongoing trials at AIMSS.

The most recent publication from Prof. Anweiler in collaboration with AIMSS was: Vitamin D and walking speed in older adults: Systematic review and meta-analysis. Annweiler C, Henni S, Walrand S, Montero-Odasso M, Duque G, Duval GT. Maturitas. 2017 Dec;106:8-25.

AIMSS Seed Grants

Four Seed Grants were awarded to our members to support our local research projects at AIMSS.





James Sorensen: 2017 Seed Grant Recipient

Prof.Tissa Wijeratne: 2017 Seed Grant Recipient

AIMSS 2017 Seed Grant Recipients

\$15,000 to Prof Tissa Wijeratne, Dr Ebrahim Bani Hassan, Dr Lakshman Singh. "Stroke, Stroke-Mimic and Transient Ischemic Attack (TIA): Associations with inflammatory biomarkers, osteosarcopenia and cognitive impairment – a pilot and feasibility study".

\$10,000 to Prof Kulmira Nurgali, Prof Gustavo Duque, Prof Alan Hayes, Shilpa Sharma, Rhian Stavely. "Inflammatory Bowel disease- associated osteoporosis identification of mechanisms and therapeutic targets".

\$ 10,000 to James Sorensen, Dr Emma Rybalka, Prof Alan Hayes. "How do common childhood regimes induce life long skeletal muscle dysfunction and wasting when administered to paediatric mice?".

\$10,000 to Prof John Hamilton, Prof Keith Lim, and Dr. Cecil Hor. "Analysis of synovial fluid and peripheral blood samples from patients with rheumatoid arthritis, using patients with osteoarthritis as controls".