

# ISMPB

International Society for the  
Measurement of Physical Behaviour



[www.ismpb.org](http://www.ismpb.org)

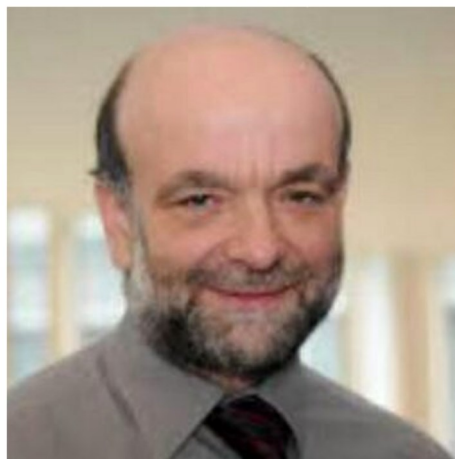
## Message from the President

The ISMPB has now reached a significant milestone with the launch of our new journal, the Journal for the Measurement of Physical Behaviour. This is your journal, and one that we would hope would be a home for the significant papers in our field. The measurement of physical behaviour continues to be an area of rapid growth, both in the numbers of output and in the breadth of developments. The journal will be another way in which the Society will be able to provide a meaningful forum for this activity.

We have now made the final decision to organise ICMAPAM 2019 in Maastricht, and the dates for this meeting have been

set (26-28<sup>th</sup> of June, with workshops on the 25<sup>th</sup>). We look forward to working with Kenneth Meijer and the members of the local organising committee.

One of the Society's main goals over the next two years is to expand our membership and engage with the growing number of researchers working in our field. We will be seeking to develop and promote other activities that will be complementary to the ICAMPAM



conferences and the Journal. As part of this expansion of activities, we will be looking to attract more of our members to become actively involved.

I would like to take this opportunity to congratulate Dr Miriam Cabrita, co-Secretary to the Board, who successfully defended her PhD dissertation last week.

Malcolm Granat

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# JMPB is accepting submissions!!

## We hear from Patty Freedson, the Editor.

We are now accepting papers for consideration for publication in **the Journal for the Measurement of Physical Behaviour** which is the new scientific journal of the International Society for the Measurement of Physical Behaviour. Our Society is dedicated to advancing the science and practice of monitoring physical behaviour and having a scholarly journal to publish our research, position papers, commentaries and best practices is an important component of our Society's mission. I decided to take on the task as the Founding Editor of our journal for two reasons:

- 1) I believed there was a need for such a journal where we would have an official peer-reviewed publication outlet to present our work;
- 2) advances in our field are likely to occur systematically by having our own journal. The timing for creation of the journal was perfect for me personally since I recently retired and I had the time to get this journal started.



and Editorial Board members.

For the journal to truly be successful, we need papers to be submitted for consideration for publication in our journal. I look forward to being busy managing the review process for you and our society.

If you have any questions please feel free to contact me via email at [psf@kin.umass.edu](mailto:psf@kin.umass.edu).

Patty Freedson, PhD  
Professor Emerita  
Editor, **JMPB**



KEEP UP TO DATE ON OUR WEBSITE  
<http://www.ismpb.org/>

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## ABOUT THE JOURNAL

- Publisher: [Human Kinetics](#)
- On-line journal (hard copies available upon request for extra charge)
- 4 issues per year
- Open access publishing possible (fees range from US\$2000 - \$2950)
- No page charges
- Web portal is open here: [https://mc.manuscriptcentral.com/hk\\_jmpb](https://mc.manuscriptcentral.com/hk_jmpb)
- 1st issue to be published in March 2018

## TOPICS

- Novel methods for sensor calibration and validation
- New sensor technology
- Analytic advances in measurement and interpretation
- New sensor-based outcomes for clinical sciences
- Applications of wearables for assessing exposure and outcomes
- Evidence-based papers leading to best practices for use of wearables in research and clinical settings

### Types of Papers:

- Experimental Studies
- Reviews
- Cross-sectional and longitudinal studies
- Brief reports
- Technical notes
- Evidence-based best practices

**Did you  
present at  
ICAMPAM?**

**Keynote and invited speakers, podium and poster presenters are encouraged to submit papers to JMPB adapted from their ICAMPAM 2017 presentations.**

# Member Profile

**Terry Boyle** Terry.Boyle@unisa.edu.au

**Everybody has a unique career path to their current destination. Can you share some of your stops along the way?**

My undergraduate degree was in exercise science, but five or so years after my degree I stumbled into epidemiology after successfully applying for a Research Assistant position on a case-control study of colorectal cancer. A few months into that job I knew I wanted to be an epidemiologist, and I was fortunate enough to then be able to do a PhD in cancer epidemiology at The University of Western Australia. After my PhD (and after more than a few unsuccessful fellowship applications) I received a NHMRC Early Career Fellowship and spent two years at the BC Cancer Agency in Vancouver and two years at Curtin University in Perth. I've recently moved to Adelaide to take up a Senior Lecturer position at the Centre for Population Health Research at The University of South Australia.

**Tell us about a current project you are working on.**

Along with colleagues in Canada (Jeff Vallance), Australia (Brigid Lynch) and the Netherlands (Maïke Sweepers, Laurien Buffart, Teatske Altenburg, Johannes Brug and Mai Chin A Paw), I'm currently involved in a project which involves pooling data from seven accelerometer-based studies of cancer survivors, conducted in Australia, Canada and the Netherlands.

Maïke Sweepers, who is a PhD student at VU University Medical Centre in Amsterdam, is currently spending six weeks with me in Adelaide to pool the accelerometer, questionnaire

and clinical data and start the first project on this dataset, which will involve investigating correlates of daily patterns of sedentary time and physical activity. There are over 1000 cancer survivors with accelerometer data in the pooled dataset so I'm really excited about this project and future projects that will utilise these data.

**What do you think are the most important research advancements in this area?**

I think the increasingly common use of accelerometers in large-scale observational cohort studies, as well as in smaller observational and intervention studies focused on specific clinical populations, is going to lead to much more detailed information about the role that sedentary and active behaviours and sleep play across the cancer continuum, from aetiological questions about cancer risk and biological mechanisms, to understanding how these behaviours can improve the quantity and quality of life of people diagnosed with different cancers.

**Have you participated in any ISMBP events? If so, can you please describe your experiences?**

I've attended the last two ICAMPAMs (Limerick and Bethesda) and have really enjoyed both conferences. They've been well organised and great fun (with the Cliffs of Moher tour and the Scavenger Hunt in DC particular highlights), and have both been great opportunities to network with both senior researchers and early career researchers. I particularly enjoyed being the official ISMPB 'tweep' (the person running the ISMPB Twitter account) at the Bethesda conference, and encourage other ISMPB members to get involved in curating the ISMPB Twitter and Facebook accounts! (see page 7)

**In the future, what would you like to see from the ISMBP?**

I'm really looking forward to the new journal, it will be a great resource to keep up with all the latest developments in this field. Accelerometry is such a fast-moving field, so going forward it would be great if ISMPB could put together some webinars about new methods for processing and analysing accelerometer data.



# NEWS

## Seniors USP study Webinar

On Wednesday 20th September [17:30 GMT+1] Glasgow Caledonian University hosted a webinar - A Recipe for Success: Exploring the ingredients of successful data collection of objective sedentary behaviour in large scale cohort - about the experience and findings of the measurement of physical behaviour (specifically sedentary behaviour) from the Seniors USP study ([www.gcu.ac.uk/seniorsusp](http://www.gcu.ac.uk/seniorsusp)). The study (funded by the UK Medical Research Council) measured sedentary behaviour objectively and through self-report from >750 older adults, all of whom were members of an existing longitudinal cohort (Lothian Birth Cohort 1936, West of Scotland Twenty-07 Study). Additionally, we

interviewed 44 older adults (across cohort, gender, SEP and amount of sitting) about their views on sedentary behaviour. The webinar content was aimed at researchers and focussed unashamedly on the methodological aspects of measuring physical behaviour.

Seb Chastin gave a brief introduction to the future of objective measurement, whilst Manon Dontje and Philippa Dall provided an overview of the methods and philosophy of objective data collection and a detailed breakdown of sources of data loss in the study. Victoria Palmer spoke about the integration of objective measurement with qualitative interviews, including using individualised feedback as a basis for a rich and meaningful conversation about sedentary behaviour. Finally Philippa Dall outlined a novel systematic approach to testing self-report methods of measuring sedentary behaviour (6 types of assessment x 3 recall periods) against objective measures, allowing general inferences to be drawn about their validity. The webinar was watched 'live' by 85 people, and the recorded version has been downloaded by a further 38 people, making a total audience of 123 so far...

If this has piqued your interest, then the webinar is available for at least another year at: <http://view6.workcast.net/ControlUsher.aspx?cpak=2760831385328224&pak=1459998852628943>

Philippa Dall

## OPENCODA

OpenCoDa is to be a website dedicated to compositional data analysis as it is applied to objectively measured physical behaviour. It will include a variety of resources including online tools for performing compositional analysis. The aim is to improve understanding of compositional analysis, and facilitate collaboration. The site is currently under construction (Duncan McGregor, Philippa Dall and Sebastien Chastin at GCU, and Javier Palarea-Albaladejo at BIOS) and contributions from other researchers with interests in the field are welcomed.

Contact: [DMCGRE203@caledonian.ac.uk](mailto:DMCGRE203@caledonian.ac.uk)







*Just released*

## YOUTH COMPENDIUM OF PHYSICAL ACTIVITIES

### Youth Compendium of Physical Activities

The Youth Compendium of Physical Activities provides a list of 196 common activities in which youth participate and the estimated energy cost associated with each activity. It can be used by a wide variety of people—including researchers, health care professionals, teachers and coaches, and fitness professionals—and in a variety of ways—including research, public health policy making, education, and interventions to encourage physical activity in youth.

<http://www.nccor.org/youthcompendium>

The Youth Compendium provides energy cost values for:

- Sedentary activities, such as lying down or watching TV
- Standing, doing household chores, and playing active video games
- Playing and participating in games and sports activities
- Walking and running



NCCOR

#### References

Butte NF, Watson KB, Ridley K, et al. *A youth compendium of physical activities: activity codes and metabolic intensities*. Med Sci Sports Exerc. 2017; doi: 10.1249/MSS.0000000000001430.

Pfeiffer KA, Watson KB, McMurray RG, et al. *Energy cost expression for a youth compendium of physical activities: rationale for using age groups*. Pediatr Exerc Sci. 2017; doi: 10.1123/pes.2016-0249.

Herrmann S, Pfeiffer KA. New data for an updated youth energy expenditure compendium: an introduction. J Phys Act Health. 2016;13(6 Suppl 1):S1-2.

McMurray RG, Butte NF, Crouter SE, et al. Exploring metrics to express energy expenditure of physical activity in youth. PLoS One. 2015;10(6):e0130869.

#### WHAT IS A YOUTH MET?

In this new Youth Compendium, energy expenditure levels are reported in youth METs. A MET, or metabolic equivalent, is a unit that represents the metabolic cost of physical activity. A youth MET (MET<sub>y</sub>) is a MET that has been adjusted to account for the unique physiological characteristics of children and adolescents. The MET<sub>y</sub> values in the Youth Compendium were derived from literature reviews, data analysis, and imputation.

## Member activity

What's new in the world of measurement? Look what our members have been up to.

### CLINICAL INVESTIGATION

#### Accelerometer-Measured Moderate to Vigorous Physical Activity and Incidence Rates of Falls in Older Women

David M. Buchner, MD,\* Eileen Rillamas-Sun, PhD,<sup>†</sup> Chongzhi Di, PhD,<sup>†</sup> Michael J. LaMonte, PhD,<sup>‡</sup> Stephen W. Marshall, PhD,<sup>§</sup> Julie Hunt, PhD,<sup>†</sup> Yuzheng Zhang, MS,<sup>†</sup> Dori E. Rosenberg, PhD,<sup>§</sup> I-Min Lee, MBBS, ScD,\*\* Kelly R. Evenson, PhD,<sup>§</sup> Amy H. Herring, ScD,<sup>††</sup> Cora E. Lewis, MD, MSPH,<sup>‡‡</sup> Marcia L. Stefanick, PhD,<sup>§§</sup> and Andrea Z. LaCroix, PhD<sup>¶¶</sup>

### Accelerometer-assessed Physical Activity in Epidemiology: Are Monitors Equivalent?

Rowlands, Alex V; Mirkes, Evgeny M; Yates, Tom; More  
Medicine & Science in Sports & Exercise. ., Post Acceptance: October 2, 2017

### RESEARCH ARTICLE

#### Impact of anatomical placement of an accelerometer on prediction of physical activity energy expenditure in lower-limb amputees

Peter Ladlow<sup>1,2</sup>, Tom E. Nightingale<sup>1</sup>, M. Polly McGuigan<sup>1\*</sup>, Alexander N. Bennett<sup>2,3\*</sup>, Rhodri Phillip<sup>2\*</sup>, James L. J. Bilzon<sup>1\*</sup>

### Identifying and sharing data for secondary data analysis of physical activity, sedentary behaviour and their determinants across the life course in Europe: general principles and an example from DEDIPAC

Jeroen Lakerveld,<sup>1</sup> Anne Luyen,<sup>1</sup> Fiona Chun Man Ling,<sup>2,3,4</sup> Marieke De Craemer,<sup>5</sup> Hidde P van der Ploeg,<sup>6</sup> Donal J O'Gorman,<sup>7</sup> Angela Carlin,<sup>2</sup> Laura Caprinica,<sup>8</sup> Joeri Kalter,<sup>1</sup> Jean-Michel Oppert,<sup>9</sup> Sebastian Chastin,<sup>10</sup> Greet Cardon,<sup>5</sup> Johannes Brug,<sup>1,11</sup> Ciaran MacDonncha<sup>2</sup>

### Classification of physical activities and sedentary behavior using raw data of 3D hip acceleration

P. Tjurin<sup>1</sup>, M. Niemelä<sup>1</sup>, M. Huusko<sup>1</sup>, R. Ahola<sup>2</sup>, M. Kangas<sup>1,3</sup> and T. Jämsä<sup>1,3,4</sup>

<sup>1</sup> Research Unit of Medical Imaging, Physics and Technology (MIPT), University of Oulu, Oulu, Finland

<sup>2</sup> Polar Electro Oy, Kempele, Finland

<sup>3</sup> Medical Research Center, University of Oulu and Oulu University Hospital, Oulu, Finland

<sup>4</sup> Department of Diagnostic Radiology, Oulu University Hospital, Oulu, Finland

## Callout for social media army!



Do you tweet, snap, post?  
Have you heard of Bitly and Bio?  
Can you tell a handle from a hashtag?  
**ISMPB needs you!**

ISMPB is looking to expand its presence in social media by having a social media group. We currently have two members tweeting and posting (thank you Terry Boyle and Sjaan Gomersall) but know there are many more members interacting with ISMPB and liking our tweets. Being involved in the social media group is likely to mean taking turns actively seeking content (the more people we have, the lower the burden for this) and providing advice on direction for expanding our social media presence.

If you are interested in being involved, contact Bronwyn Clark  
b.clark3@uq.edu.au

## What's happening for ISMPB on social media?



**ismpb**  
@ismpb\_org

Follow

Want to submit a paper to the Journal for the Measurement of Physical Behaviour? Details are now available here:

[journals.humankinetics.com/journal/jmpb](https://journals.humankinetics.com/journal/jmpb)

7:07 PM - 23 Oct 2017



**Human Kinetics**  
@Human\_Kinetics

New journal--Journal for the Measurement of Physical Behaviour--now accepting submissions!

**ismpb** @ismpb\_org

The (new) Journal for the Measurement of Physical Behaviour is now accepting submissions! More details coming soon. mc.manu...



**International Society for the Measurement of Physical Behaviour**

1 hr · 🌐

Validation of the SitFIT, a new front pocket-worn device by @paltechnologies, to measure and provide feedback on sedentary behaviour <https://t.co/K8GhZHFbQ>



Validation of a Novel Device to Measure and Provide... :  
Medicine & Science in Sports & Exercise

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**CharlotteBrakenridge**  
@CLBrakenridge

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An introduction to the BeUpstanding Champion Toolkit - a free online resource designed to help workplaces stand up, sit less and move more

[vimeo.com](https://vimeo.com)



**Save the date:**

**ICAMPAM 2019**

**June 26-28th**

**Workshops June 25th**

**Maastricht, Netherlands**



## FAST FACTS

122,397

Population of Maastricht, NL (as of 2015)

25.50€

Cost of train Amsterdam to Maastricht  
<https://www.goeuro.com/>

## Become a member of ISMPB

Who can become a member?

Membership in ISMPB is open to everyone from around the world involved in the measurement of free-living physical behaviour.

Membership fees support the mission of ISMPB in creating a vibrant community bringing together people from a wide variety of backgrounds and expertise, including researchers, clinicians, therapists, signal analysts, computational scientists and commercial companies.

Link <http://www.ismpb.org/membership/>

**Newsletter**  
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