

ISMPB

International Society for the
Measurement of Physical Behaviour



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WWW.ISMPB.ORG

Newsletter ISMPB

December
2016

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Message from the president

In September 2016 The Lancet published a new Physical Activity Series. This series focuses on interventions that are capable of increasing levels of physical activity in a range of populations. One of the recommendations was that physical inactivity should become an actively monitored risk factor in clinical medical practice and in surveillance systems. I fully agree with that recommendation, but I also think that there are some important issues that have been overlooked. Current projects in the field of physical behaviour measurement are characterized by the variety in, measurement devices, measurement protocols, outcomes and even the terminology we use. This hinders

comparison of results, data exchange, and scientific progress. Currently there are several initiatives that aim at some degree of standardization. The ISMPB aims to do everything it can to promote and support these activities. ICAMPAM 2017 can and will provide a stage for them. Seize the opportunity!

Hans Bussmann



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Highlight

Patty S. Freedson

By Charles Matthews

This is a cliché'd phrase, but Patty really was an "early adopter" of two of the major new development in "exercise science" as it was called in the 1980s.

She is of course best known for her work in ambulatory monitoring, which I don't need to say much about, but would note that her first paper that monitored humans in the field was published in 1981 (she's not old, just way ahead of the game).

Gilliam TB, Freedson PS, Geenen DL, Shahrarar B. *Physical activity patterns determined by heart rate monitoring in 6-7 year-old children*. MSSE 1981;13(1):65-7.

The 2nd area is that Patty recognized as important in its early days was the link between physical activity and public health. While much of the exercise science community at the time was focused on human performance and basic physiology, Patty clearly recognized the emergence of exercise and physical activity as a critical element of better public health, and she is/was/has been a long-time supporter of this effort, including being on the Planning Board for the landmark Surgeon General's Report on Physical Activity and Health (1996).

While this element of her work is less often recognized, her broad world view regarding the importance of physical activity in public health has had a major impact on many of her trainees/students over the years, me included.

"Patty has been an amazing mentor to so many students, helping them establish their own careers in the field. Future generations at UMASS don't know what they will miss!!"
- - Cheryl Howe

Another unique element of Patty's career, I think, is her consistently practical approach to translating knowledge about exercise physiology/exercise science/ kinesiology to the public for the greater good. Again, while she is best known for ambulatory monitoring, she also had a strong influence on the development of field-based fitness tests that were designed to facilitate walking for exercise in the population (i.e., Rockport Walk Test). Again, taking her scientific knowledge and translating it to help the public be more active, fit, and healthy.

Kline G, Porcari J, Hintermeister R, Freedson P, Ward A, McCarron R, Ross J, Rippe J. *Estimation of $\dot{V}O_{2max}$ from a 1-mile track walk, gender, age, and body weight*. MSSE 1987;19:253-59.



Patty's Career Stats

- Faculty in Kinesiology at University of Massachusetts since 1981
- Department Chair from 2006-2015
- Professional Service
 - NEACSM & ACSM
 - Nat'l Academy of Kinesiology
 - AAHPERD
 - Council on Physical Fitness and Sports Science
- Honors (12)
 - Distinguished Achievement Award, ASPE
 - Outstanding Accomplishments in Research and Creative Activity Award (UMass)
 - ACSM Citation Award

"Two things come to mind about Patty when I think of her, first was she was the first researcher to call me after CSA was sold to MTI back in 2001. And I always think of 1951 counts, which pretty much launched ActiGraph!"
- - John Schneider



UMass Amherst
Physical Activity and Health Lab

Votes are in!

Hopefully you have now noticed that ISMPB has a new logo! One of the key parts of communicating who we are as a society is to have recognisable branding. Board members went through an iterative process to narrow the possibilities down to two different styles, and two different colours. These were then put to the members for their vote, with the final choice being the logo you now see. The circles on the logo are meant to represent the 24-hour day, the different behaviours we undertake during the day, as well as the global reach of the society. The moving person highlights the physical behaviour component. You would have also seen that the concepts of the ISMPB logo have been used to create the logo for ICAMPAM 2017. I look forward to seeing the ISMPB brand being promoted far and wide!



ISMPB



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

























Scientific Committee

1. Yukitoshi Aoyagi
2. Søren Brage
3. Bronwyn Clark
4. Stewart Trost
5. Ulrich Ebner-Priemer
6. William (Bill) Haskell
7. Charles Matthews
8. Alex Rowlands
9. Nicky Ridgers
10. Dana Wolff-Hughes
11. Richard (Rick) Troiano
12. Malcolm Granat
13. Catrine Tudor-Locke
14. Jorunn L Helbostad
15. Alison Cernich
16. Wendy Nilsen
17. Alan Donnelly
18. Rebecca Spencer
19. Ulf Ekelund



Abstract Submission is Open!

Symposia Submission

Submission: Closed

Symposia will focus on specific themes and would be followed by a moderated discussion. Each will have 3 - 4 presentations that address the central theme. A symposia session would not exceed 75 minutes. We would be expecting to have a total of 2 or 3 symposia during the meeting. Submissions open until the 13th of December 2016.

The call for free papers and pre-workshop submissions for ICAMPAM2017 is now open.

ICAMPAM2017 will have three scientific tracks and related themes:

1. **Technology and Algorithm Development**
 - a. Device Development
 - b. Algorithm Development
2. **Measurement & Analysis**
 - a. Sleep Research
 - b. 24-Hour Activity Cycle
 - c. Consumer Devices
 - d. Research Devices
 - e. Big Data/Data Mining
3. **Measure Applications**
 - a. Clinical Applications
 - b. Real-World Applications
 - c. Special Populations
 - d. Consumer Devices in Research
 - e. Multimodal Assessment

Pre-conference workshops Submission

Deadline: Dec 20th

Pre-conference workshops are designed for a smaller number of participants, and should involve interactive features (e.g. data analysis, open discussion, demonstrations etc.) having a high level degree of participant involvement. The length of these would be either 2-3 hours or 3-4 hours. Submissions open until the 20th December 2016.

Oral and Posters

Deadline: Dec 31st

Abstracts submitted should indicate presentation format: oral, poster or either. Please note there is a charge is \$25USD for each submission with a maximum submission of 2 per submitter. Submissions open until the 31st December 2016.

www.ismpb.org/abstract-submission/

FAST FACTS

63,374

Population of Bethesda, MD (as of April 2013)

7

Great Hikes near Bethesda, MD.

<http://www.alltrails.com/us/maryland/bethesda>



Best Trails in Bethesda, MD



Keynote Speakers

An exciting line-up of keynote speakers, including:



Bjorn Eskofier, PhD
Assistant Professor,
Digital Sports Group
Friedrich-Alexander University



Jennifer Hicks, PhD
Director, Mobilizer Center
Stanford University



Mike McConnell, MD
Professor, Stanford Medicine
Verily Life Sciences

We will also have three keynote speakers who are leading accelerometer-based activity monitoring in Very Large Cohorts

UK Biobank study



Nick Wareham, PhD
Professor, University
of Cambridge

German National Cohort Study



Matthäus Vigl, PhD
German Institute of
Human Nutrition

NIH Precision Medicine Initiative

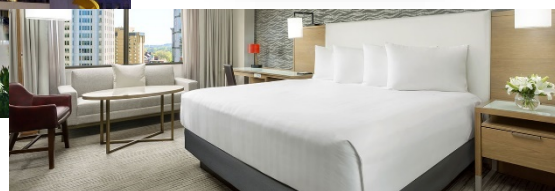
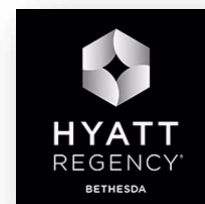
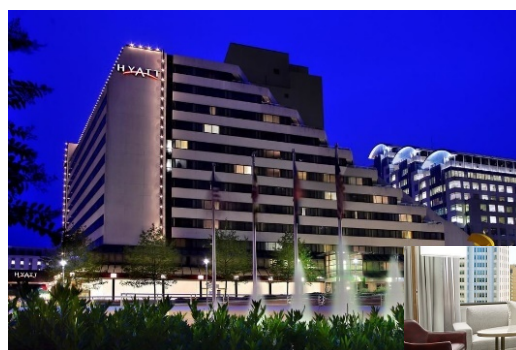


James McClain, PhD
NIH Program Director

Conference Accommodations

Hyatt Regency Bethesda

- Rooms at a preferential rate
- Within walking distance of the conference venue
- Book your room using the conference code available on our website.



ICAMPAM 2017 is now only 6 months away!

This is your meeting so please post, tweet, and forward information about the meeting through your various channels.

Member profile

by Sjaan Gomersall

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

I completed my undergraduate in Physiotherapy, Honors and PhD all in the same institution (University of South Australia; and mostly on 2 floors of the same building!). Therefore, after completing my PhD I decided to accept a post-doctoral research position in a different state in Australia at The University of Queensland working with a new research group. Although this was challenging, it was fantastic to meet new people, form new collaborations and learn new skills. After 3.5 years in the research only position I decided to accept a position as a Lecturer in Physiotherapy at The University of Queensland, which involves both teaching and research.

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

There are many challenges to objectively measuring PA in wheelchair users and the transition from subjective to objective methods has been a significant advancement and a lot of excellent research is being done to try to refine these methods.

Tell us about a current project you are working on.

I am currently working with one of my PhD students on measurement of physical activity in wheelchair users. Having done all my previous research in ambulant populations, this has been a challenging experience which I have learnt a lot from so far.

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

I have attended the last 2 ICAMPAM conferences (Amherst 2014 and Limerick 2016). I also attended the ICAMPAM AGM this year. The ICAMPAM conference is one of my favorite on the conference circuit – it is a small conference, but incredibly well attended and there is ample opportunity to talk with leading experts in the field because of this. The opportunity to only talk about methods of measurement for four days is also an incredible luxury for a researcher that is interested in this!

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

It would be great to have some workshops between conferences on data processing/analysis as the field is moving forward so quickly there are big leaps and bounds in 2 years between conferences!



Recent Publications

Gomersall, SR., Ng, N, Burton, NW, Pavey, TG, Gilson, ND, Brown, WJ (2016) *Estimating physical activity and sedentary behavior in a free-living context: a pragmatic comparison of consumer-based activity trackers and ActiGraph accelerometry*. Journal of Medical Internet Research, 18 9: e239.1-e239.12.

Gomersall, SR, Maher, C, English, C, Rowlands, AV, Dollman, J, Norton, K, Olds, T. (2016) *Testing the activitystat hypothesis: a randomised controlled trial*. BMC Public Health, 16 .

IS THERE ANYTHING YOU WANT TO FOLLOW UP WITH SJAAN

S.GOMERSALL1@UQ.EDU.AU

What have our members been up to?

Identifying adults' valid waking wear time by automated estimation in activPAL data collected with a 24 h wear protocol

Elisabeth A H Winkler¹, Danielle H Bodicoat^{2,3},
Genevieve N Healy^{1,4,5}, Kishan Bakrania^{2,3}, Thomas Yates^{2,3},
Neville Owen^{1,4,6,10,11}, David W Dunstan^{1,2,4,7,8,9,11,12}
and Charlotte L Edwardson^{2,3}

Measuring gait with an accelerometer-based wearable: influence of device location, testing protocol and age

Silvia Del Din¹, Aodhán Hickey¹, Naomi Hurwitz¹,
John C Mathers², Lynn Rochester¹ and Alan Godfrey¹

Wrist-independent energy expenditure prediction models from raw accelerometer data

Alexander H K Montoye^{1,4}, James M Pivarnik²,
Lanay M Mudd², Subir Biswas³ and Karin A Pfeiffer²

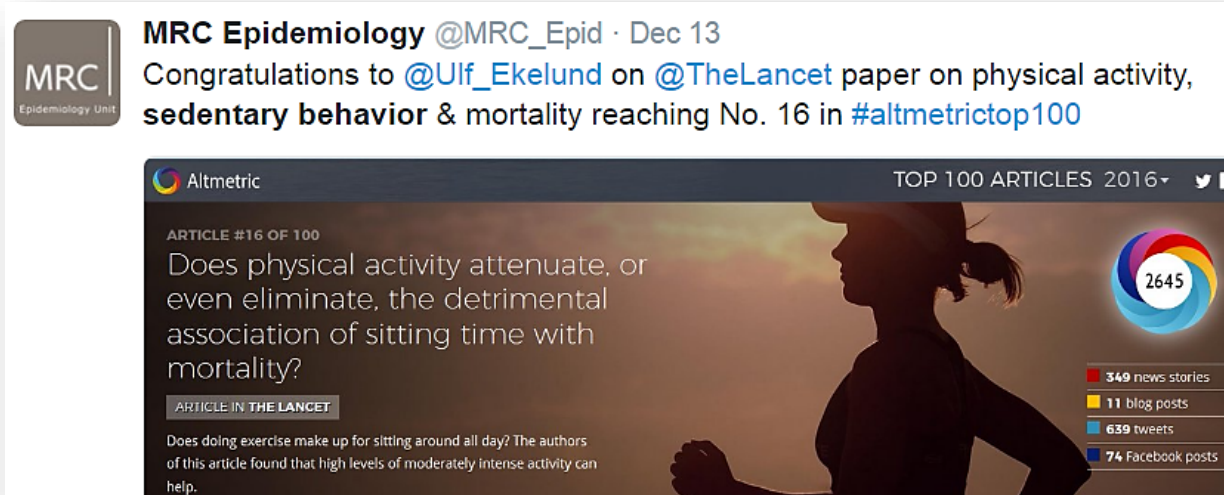
Novel technology to help understand the context of physical activity and sedentary behaviour

Adam Loveday^{1,2,3}, Lauren B Sherar^{1,2}, James P Sanders^{1,2},
Paul W Sanderson¹ and Dale W Esliger^{1,2}

Accelerometer-measured dose-response for physical activity, sedentary time, and mortality in US adults¹⁻³

Charles E Matthews,⁴ Sarah Kozey Keadle,⁴ Richard P Troiano,⁵ Lisa Kahle,⁷ Annemarie Koster,⁹ Robert Brychta,⁸
Dane Van Domelen,¹⁰ Paolo Caserotti,¹⁰ Kong Y Chen,⁸ Tamara B Harris,¹¹ and David Berrigan⁶

What's up in social media...



ActiveLivingResearch @AL_Research · Dec 5
 Improving measure of PA, #sedentary behavior & context for epidemiological studies & interventions in older adults. bit.ly/2gZ6FLh



Wearable Gear @WearableGearHQ · Nov 26
 Wearable technology that monitors sedentary behavior under-represented in #wearabletech #IoT soco.space/4ax-6J



Medtronic, Fitbit ink CGM and physical activity data...

Medtronic (NYSE:MDT) said today it partnered with Fitbit to integrate CGM data alongside physical activity data in Medtronic's iPro2 myLog mobile application. The partn... massdevice.com

PenningtonBiomedical @PBRCNews · Dec 10

Great story from @WAFB on kids' physical activity in our country & our efforts to improve childhood health: bit.ly/2g7Mq9V



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.

What are some of the benefits for members?

- Register for Society Meetings at reduced registration rates
- Support a new, young and independent Society
- Become connected with leading experts in the field
- Opportunity to get involved as an ISMPB Committee member
- Vote in annual elections for the Board of Directors
- Stand for election to the Board of Directors
- Eligible for student awards at the Society Meetings (best oral and best poster)
- Access to online resources and conference proceedings
- Opportunity to post news and information on related events

Member Categories

Regular / Post Doc Members

Open to any person who is engaged in research related to areas of interest of the Society (US\$100)

Student Members

Open to any student enrolled in degree granting programs at institutions of higher education (US\$65)

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

Newsletter
ISMPB

www.ismpb.org

www.facebook.com/ISMPB.org

https://twitter.com/ismpb_org

