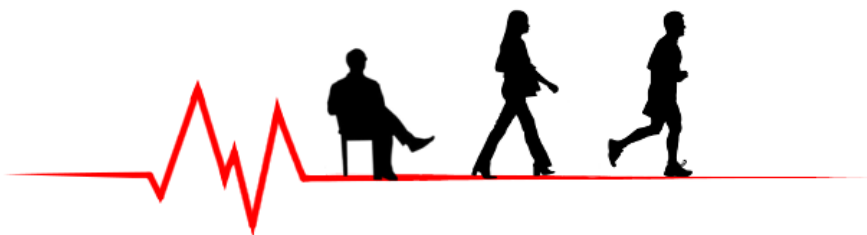


ISMPB

International Society for the
Measurement of Physical Behaviour



WWW.ISMPB.ORG

Newsletter ISMPB

September,
2016

Message from the president



The ISMPB Statutes are listed on the ISMPB society website. One of the articles includes the obligation to have a General Membership Meeting (GMM) every year. This obligation is due to the Dutch Law – our Society is legally registered in the Netherlands – and seems not to be very practical given that we have a bi-annual conference. This is partially true in that the GMM that is held during our

ICAMPAM conferences will always have a more prominent status compared to the between-conference GMM's. However, besides the legal requirement I feel it is important to have a GMM every year: it forces the Board to reflect on its functioning and on the goals we defined previously. In addition, it's essential that the Board is regularly accountable to the Membership, and the GMM is the only formal moment at which the Membership and Board can hold free discussions. For me a close link between the Board and the members is a crucial starting point, to avoid the frequently occurring real or perceived gap between the leadership and the community it represents. Therefore, I strongly encourage you to participate in the online webinar GMM scheduled for September 28th.

Hans Bussmann

PUT IT IN THE CALENDAR
GENERAL MEMBERSHIP MEETING
WEDNESDAY, SEPT 28TH
15H00 TO 16H00 CENTRAL
EUROPEAN TIME

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Member profile

by Kim Clevenger

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

I started doing research to fulfill the requirements of an undergraduate honors program at Ohio University. Dr. Cheryl Howe was the only faculty member taking on undergraduates at the time, so despite not knowing if I really liked children, I began working in her lab. I was immediately hooked. I got to play games like a kid, but also use gadgets and do science experiments. I stayed to complete my master's degree there because I loved the research we were doing, the interdisciplinary approach, and the fact that Dr. Howe let me bounce all of my crazy ideas off of her. I was able to work at The Diabetes Institute, which gave me some clinical insights and experience with adult populations, then moved on to start my PhD at Michigan State University with Dr. Karin Pfeiffer.

Tell us about a current project you are working on

I am starting a study that aims to provide locational context to preschoolers' school

day physical activity. We are using GPS to see where they play outdoors, but we will also use the Bluetooth proximity tagging feature of Actigraph accelerometers to (hopefully) see where children spend their time indoors. With this information, we can not only assess if the quality of the school and the provision of certain equipment promotes activity overall, but we can tell specifically where children are playing and any differences by age, sex, or weight status.

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

Although direct observation will always be able to provide us additional context of physical activity, technology is advancing very quickly and this will allow us to use tools like Bluetooth or RFID proximity tagging, GPS receiver units, or visual computing technology to track where people are physically active without as much time commitment and missing data.

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

I attended ICAMPAM in Ireland. Not only did it make me want to be a part of the ISMPB community, but demonstrated how important small, focused conferences were



for me to truly learn about the direction our field is heading.

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

I would like to have a student representative who could assist in organizing and connecting students at the meetings, recruit more student members, and campaign for a student travel award.

IS THERE ANYTHING YOU WANT TO FOLLOW UP WITH KIM

cleven18@msu.edu

A word from the membership committee

Warm greetings from the Membership Committee!

As you will have seen, the 5th ICAMPAM conference will be hosted by the National Institutes of Health in Bethesda from 21-23rd June 2017. Preparations have begun for that conference, and we are currently identifying some ISMPB member events to be held during that time. As always, we are keen to hear what events members would be interested in, whether they be networking sessions, mentoring discussions early career researcher workshops. We have also begun to plan our first ISMPB webinar – stay tuned!

If you haven't already, please follow us on Facebook (<https://www.facebook.com/ISMPB.org/>) and Twitter (@ismpb_org) to receive information about ISMPB and links to the latest measurement publications with the area of physical behaviour. In addition, don't forget to join our ISMBP general membership meeting on Wednesday 28th September, 3-4pm Central European Time. This will be an ideal opportunity for you to share your thoughts about our new society.

Nicky Ridgers

Chair, Membership Committee

Highlight

Journal of Physical Activity and Health: Supplemental Issue

New Data for an Updated Youth Energy Expenditure Compendium



Stephen Herrmann (pictured left top) and Karin Pfeiffer (left below) were Guest Editors for the supplemental issue of the Journal of Physical Activity and Health. Herrmann is with the Children's Health Research Center, Sanford Research, Sioux Falls, SD. Pfeiffer is with the Dept of Kinesiology, Michigan State University, East Lansing, MI.

See their Introduction in the journal at:

<http://journals.humankinetics.com/doi/pdf/10.1123/jpah.2016-0405>

Comment

The original Youth Compendium has been cited extensively since published in 2008. The compendium was used for a variety of purposes including scoring physical activity questionnaires and diaries. It is fantastic to see a concerted effort to update the compendium including increasing the age range to include early childhood, reviewing the literature published since 2008, and providing an opportunity for grey literature that was sitting in labs across the world to be published in the special edition of JPAH.

Kate Ridley



ICAMPAM 2017 Update

From Malcolm Granat

Plans for ICAMPAM 2017 are proceeding apace. The Scientific Committee has now been formed and this Committee has been actively engaged in discussing the details of the scientific programme. The programme promises to be exciting and wide ranging, incorporating new topics and developments, ranging from device and algorithm development to big cohort studies and most things in between. Further details of our programme and keynote speakers will be available soon.

We are also very excited about the location. Bethesda is a 30-minute public transport ride from Washington DC, a place unlike any other. Washington has monuments and memorials, eclectic

neighbourhoods and a huge range of world-class museums as well as true local flavour. It is truly a premier destination.

Dates for your diary:

- Oral & Poster Submissions Accepted: Between 10th October - 12th December, 2016
- Conference Registration Opens: Early 2017
- Early Registration Deadline for the Conference: 17th April, 2017
- Final Registration Deadline for the Conference: 29th May, 2017

KEEP UP TO DATE ON OUR WEBSITE
<http://www.ismpb.org/2017-bethesda/>

What have our members been up to?

OUR MEMBERS HAVE BEEN BUSY PUBLISHING

Here is a sample of the excellent research that has been published.

Members in bold

Alan Godfrey, **Alan Bourke**, Silvia Del Din, Rosie Morris, **Aodhán Hickey**, **Jorunn L Helbostad**, Lynn Rochester. *Towards holistic free-living assessment in Parkinson's disease: unification of gait and fall algorithms with a single accelerometer*. Presented at the 38th Annual International Conference of the IEEE Engineering in Medicine and Biology Society, Orlando, Florida. Conference: on 16-20 August 2016 https://www.researchgate.net/profile/Alan_Godfrey/publication/302434917_Towards_holistic_free-living_assessment_in_Parkinson's_disease_unification_of_gait_and_fall_algorithms_with_a_single_accelerometer/links/576a5c1508aec0ee7bcoe23e.pdf

Bai J, Di C, Xiao L, Evenson KR, LaCroix, AZ, Crainiceanu CM, **Buchner, DM**. (2016) *An Activity Index for Raw Accelerometry Data and Its Comparison with Other Activity Metrics*. PLoS ONE 11(8): e0160644. doi:10.1371/journal.pone.0160644 <http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0160644#sec001>

Calum F Leask, Marlene Sandlund, Dawn A Skelton, Emmanuelle Tulle, **Sebastien FM Chastin**. *Modifying Older Adults' Daily Sedentary Behaviour Using an Asset-based Solution: Views from Older Adults*. <http://www.aimspress.com/aimsph/2016/3/542>

Crouter SE, Salas C, Wiecha J. *Effects of an afterschool community center physical activity program on fitness and body composition in obese youth*. J Sports Sci. 2016 Jul 19:1-7. [Epub ahead of print] <http://www.ncbi.nlm.nih.gov/pubmed/27433781>

Josef Kröll, Jörg Spörri, Christian Kandler, **Benedikt Fasel**, Erich Müller, Hermann Schwameder. *Kinetic and kinematic comparison of alpine ski racing disciplines as a base for specific conditioning regimes*. Presented at the 33rd International Conference of Biomechanics in Sports, Poitiers, France, June 29 - July 3, 2015. Coaching and Sports Activities. <https://ojs.ub.uni-konstanz.de/cpa/article/view/6526>

de Müllenheim PY, Dumond R, Gernigon M, Mahé G, Lavenu A, Bickert S, **Prioux J**, **Noury-Desvaux B**, **Le Faucheur A**. *Predicting metabolic rate during level and uphill outdoor walking using a low-cost GPS receiver*. J Appl Physiol (1985). 2016 Jul 8:jap.00224.2016. doi: 10.1152/jappphysiol.00224.2016. [Epub ahead of print] <http://www.ncbi.nlm.nih.gov/pubmed/2740255>

Cassim Ladha, Silvia Del Din, Kianoush Nazarpour, **Aodhán Hickey**, Rosie Morris, Michael Catt, Lynn Rochester, Alan Godfrey. *Toward a*

low-cost gait analysis system for clinical and free-living assessment. Presented at the 38th Annual International Conference of the IEEE Engineering in Medicine and Biology Society, Orlando, Florida. Conference: <http://embc.embs.org/2016/> 16-20 August 2016.

https://www.researchgate.net/publication/302435817_Toward_a_low-cost_gait_analysis_system_for_clinical_and_free-living_assessment

Aldrich H, Jankowski C, **Lyden K**, Gance-Cleveland B. *Objective physical activity measurement for a child with special health care needs*. J Pediatr Nurs. 2016 Jul 10. pii: S0882-5963(16)30093-8. doi: 10.1016/j.pedn.2016.05.007. [Epub ahead of print] [http://www.pediatricnursing.org/article/S0882-5963\(16\)30093-8/abstract](http://www.pediatricnursing.org/article/S0882-5963(16)30093-8/abstract)

Nelson MB, Kaminsky LA, Dickin DC, **Montoye AH**. *Validity of Consumer-Based Physical Activity Monitors for Specific Activity Types*. Med Sci Sports Exerc. 2016 Aug;48(8):1619-28. doi: 10.1249/MSS.0000000000000933. <http://www.ncbi.nlm.nih.gov/pubmed/27015387>

Nagaraj Hegde, Matthew Bries, **Edward Sazonov**. *A Comparative Review of Footwear-Based Wearable Systems*. Electronics 2016, 5(3), 48; doi:10.3390/electronics5030048 <http://www.mdpi.com/2079-9292/5/3/48>

Farooq M, **Sazonov E**. *A Novel Wearable Device for Food Intake and Physical Activity Recognition*. Sensors (Basel). 2016 Jul 11;16(7). pii: E1067. doi: 10.3390/s16071067. <http://www.ncbi.nlm.nih.gov/pubmed/27409622>

Lim J1, **Schuna JM Jr**, Busa MA, Umberger BR, **Katzmarzyk PT**, Van Emmerik RE, Tudor-Locke C. *Allometrically Scaled Children's Clinical and Free-Living Ambulatory Behavior*. Med Sci Sports Exerc. 2016 Jul 27. [Epub ahead of print] <http://www.ncbi.nlm.nih.gov/pubmed/27471783>

Gammon C, **Pfeiffer KA**, Pivarnik JM, Moore RW, Rice KR, **Trost SG**. *Age-Related Differences in OMNI-RPE Scale Validity in Youth: A Longitudinal Analysis*. Med Sci Sports Exerc. 2016 Aug;48(8):1590-4. doi: 10.1249/MSS.0000000000000918. <http://www.ncbi.nlm.nih.gov/pubmed/27433962>

Duncan MJ, Vandelanotte C, **Trost SG**, Rebar AL, Rogers N, Burton NW, Murawski B, Rayward A, Fenton S, Brown WJ. *Balanced: a randomised trial examining the efficacy of two self-monitoring methods for an app-based multi-behaviour intervention to improve physical activity, sitting and sleep in adults*. BMC Public Health. 2016 Jul 30;16:670. doi: 10.1186/s12889-016-3256-x. <http://www.ncbi.nlm.nih.gov/pubmed/27473327>

Pavey TG, Gilson ND, **Gomersall SR**, **Clark B**, **Trost SG**. *Field evaluation of a random forest activity classifier for wrist-worn accelerometer data*. J Sci Med Sport. 2016 Jun 23. pii: S1440-2440(16)30108-6. doi: 10.1016/j.jsams.2016.06.003. [Epub ahead of print] <http://www.ncbi.nlm.nih.gov/pubmed/27372275>

Literature

What's new in the world of physical activity measurement? We hear from one of the ICAMPAM 2015 prize winners



Assessing television viewing in novel ways

Our poster at ICAMPAM investigated the concurrent validity of electrical energy monitoring and wearable camera images as measures of TV viewing time. Participants TV sets were fitted with a small device which measured the electrical energy consumed with participants simultaneously using an automated capture wearable camera. Energy usage data showed the TV was switched on for an average of 202 minutes per day; however, on average, a TV was visible in only 90 minutes of images with a further 46 minutes of images with the participants identifiable in their living room but a TV not visible in the image. The remaining camera images were un-codeable due to a lack of identifying features (e.g. a picture of a ceiling). The discrepancy between energy monitoring and wearable camera TV time may be due, in part, to participants slouching whilst seated, leaving the camera facing upwards rather than outwards. Conversely, energy monitoring can assess when the TV is switched on but not when it is being watched per se. This suggests that neither of these two measures is a particularly valid means of assessing TV viewing time. Our lab has now invested in some eyeglasses based cameras which are able to assess gaze and may

therefore be able to solve some of these issues. Assessing TV viewing time, or screen time more generally, is currently exceptionally difficult to accomplish in the field but, as is always the way with technology, novel devices may emerge that can solve this problem in the coming years.

Adam Loveday

Have something to share?

Each issue of the newsletter will contain a list of selected recent publications, a profile of a current member and other information and announcements will be included as they develop. The newsletter will be published four times a year. If you are interested in having your article profiled for the literature scan or being the profiled member, or if you have anything that you would like to share with the ISMPB community, please contact:

Nicky Ridgers (nicky.ridgers@deakin.edu.au); Cheryl Howe (howec@ohio.edu); or Bronwyn Clark (b.clark3@uq.edu.au)

General Membership Meeting

Agenda

Wednesday September 28, 2016.

Online webinar and will run from 15h00 to 16h00 Central European Time.

Agenda Items:

- Welcome
- Background
- Minutes of last GMM
- Membership
- Board
- Annual Report
- Financial Report
- ICAMPAM 2017
- Planned activities 2016-2017

REGISTRATION DETAILS FOR THE ISMPB
GMM WILL BE EMAILED TO MEMBERS

*Have your say in the future of ISMPB.
All members are encouraged to register for the meeting.
Opinions and input from members is crucial to the future of our society.*

What's happening for ISMPB on social media?

International Society for the Measurement of Physical Behaviour
2 September at 17:20 · 🌐

Check out recent research from ISMPB members! <https://t.co/eTEUnBcns>

act	Mean (SD)	AC (1 sec)	Mean (SD)	AC (LFE)
61 (3.03)	0.42 (5.06)			4
20 (5.69)	2.21 (9.20)			3
33 (7.66)	4.53 (12.29)			6
153 (9.73)	12.15 (19.79)			11
57 (13.55)	29.69 (25.22)			33
88 (19.78)	43.49 (19.41)			48
62 (10.37)	24.61 (16.15)			29
30 (13.30)	31.02 (19.45)			26
80 (15.06)	42.02 (15.59)			46

An Activity Index for Raw Accelerometry Data and Its Comparison with Other Activity Metrics

Accelerometers have been widely deployed in public...
OW.LY/IFZU303ONY4

Like Comment Share

1 share

Did you know: Social media can increase the impact of your research, help you network with colleagues and keep up with developments in your area as they occur.

ismpb Retweeted

Scott Duncan @DrScottDuncan · Sep 1
New research shows sit-stand desks increase energy expenditure by 7.8% with no loss in productivity: ncbi.nlm.nih.gov/pubmed/27515973

ismpb Retweeted

activPAL @activpal · Aug 10
Predictive Validity of a Thigh-Worn Accelerometer METs Algorithm in 5- 12 year old Children tinyurl.com/houuqfb @TonyOkely @Ulf_Ekelund

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/>

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