

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

#### www.ismpb.org

# Message from the President

The start of 2021 has been a time for reflection, in very many ways. This past year, we have got used to doing things in very different ways, and these changes have impacted almost every aspect of our lives. As individuals, I am sure we have been reflecting on this. I have thought about what I have missed, but I have also reflected on what changes have turned out to be positive. I believe that this has been the same for our Society. Since this time last year, many of our plans have changed and were changed quite rapidly. Cancelling the workshop in Stockholm, postponing our Colorado meeting and moving to online activities has been challeng-However, this has meant that we ing. have had to explore how we can do things in new and innovative ways. For me, nothing will replace face-to-face conferences, and I very much look forward to ICAMPAM 2022 in Colorado. However, when and as we move out of the current crisis, we will blend our old "normal" activities with continually evolving new ways of connecting and enhancing our activities.

This brings me onto our plans for our first virtual conference, ICAMPAM 2021, Since the last newsletter we have now firmed-up dates, and we are now open for abstract submission. around a series of wide-ranging keynote about this in upcoming publications and presentations, representing the spectrum of core activities, and a few talks taking out of our comfort zone. In addition, all presented poster abstracts will now be published in a special issue of our journal. Another new feature of this conference there will be a debate on a "hot" topic. Further details will be tweeted, emailed and featured on our website. At this stage, I would like to acknowledge and thank Marina Mancini, who has been coordinating our plans for ICAMPAM 2021.

A few weeks ago, we had another very successful webinar given by Rick Troiano. We are now looking to host fur-



ther webinars, and in this newsletter, we have put out a call seeking ideas, and organisers, for other webinars to be given throughout the year. So please let us know if you have suggestions. This is going to be a new feature for enhancing our engagement with each other.

We have all experienced various periods of lockdown restrictions, to different degrees. We know how challenging this has been for research and the impact these restrictions have on our patterns of physical behaviour and health. Measurement of these behavioural changes, and finding novel ways to measure these behaviours within lockdown conditions, have become even more critical and certainly more challenging. By addressing these challenges, we will further advance the techniques for measurement of free-living physical be-The meeting will centre haviour. I am sure we will hear a lot more presentations.

> At this point, I want to take this opportunity to thank the Board for all the work they have undertaken this past year. It has been an extraordinary year, and the challenges of this year have been met by the Board and the committee members' with an extraordinary effort. I would also like to take this opportunity to welcome Esther Smits as our new Newsletter Editor!

> I look forward to meeting you online in the near future, but can't wait until we can meet face-to-face again.

#### **Malcolm Granat**

Newsletter

## January, 2021

Follow us on

SOCIAL MEDIA



#### **WEBSITE**

**KEEP UP TO DATE ON OUR WEBSITE** 

http://www.ismpb.org/

#### CONTRIBUTIONS CONTACT:

	ESTHER SMITS:	E.Smits@uq.edu.au
--	---------------	-------------------

MIRIAM CABRITA: M.Cabrita@rrd.nl

#### IN THIS ISSUE

Message from the President	
Member Profile	2
Journal Update	3
Virtual ICAMPAM 2021	4
ISMPB Webinar series	5
ISMPB Around the World	6
Opportunities	7
Member activit	8
Social media activity	9
Membership	10

# Member Profile Andrea Wendt

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

I am a Brazilian researcher from Pelotas, a university city with 343,132 inhabitants. My first contact with the physical activity field was during my under-grad in Physical Education at the School of Physical Education at the Federal University of Pelotas (UFPEL). My interest in the area started while taking the subjects of physical activity and health and epidemiology. As an undergrad student, discovering the relevance of physical activity in public health motivated my research career. Thus, when I finished my under-graduation course, I decided to start a Master's course at the Post Graduate Program of Epidemiology at UFPEL. During this Master's course, I studied social support for physical activity in a population-based sample of older people. This study was also my first accelerometer data collection. Shortly after the Master's course (2014), I started my Doctoral degree in the same institution, working with birth cohorts. I joined the Accelerometry Research Group (GEPEA - Grupo de Estudos e Pesquisas em Acelerometria) in the same year. During my doctoral course, I studied the effects of physical activity on sleep outcomes across the life-course. Currently, I am in a postdoc position at the Center of Equity in Health. During this time, my interests expanded beyond physical activity, including using public datasets to monitor the health of the Brazilian population, sleep health, and inequalities in health.

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

The pandemic situation stopped any data collection. On the other hand, this time seems to be appropriate to work with secondary data or reanalysis. Currently, I am involved in a series of re-analyses from birth cohort accelerometry based on raw data. The objective of these re-analyses is to include variables to assess 24h patterns. This process is part of a broader research project headed by Prof. Inácio Crochemore-Silva, aiming to analyze the effects of the complete movement spectrum in health outcomes for different ages. I am also working on papers about physical activity inequalities using data from the National Health Surveys (with Brazilian population) and the Global School-based Student Health Survey (GSHS).

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

In the last few years, evaluations of new devices and scripts for objective measurement of physical activity have improved the understanding and the benefits of movement to health. In addition, studies on 24h patterns have recently increased the link between physical activity and sleep. Studies have shown that the effect of physical activity and the combination with sleep and rhythm variables play an essential role in health.



This knowledge about how the 24h patterns and/or specific behaviors affect individuals' health may help plan strategies and healthy lifestyle interventions.

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

Unfortunately not, but I would like to. In the last few weeks, I was happy to learn that ISMPB is interested in expanding the network to low and middle-income countries with low representativeness. I believe that proactive initiatives of contacting researchers from this part of the world will make ISMPB better known in these countries and consequently increase participation in events.

# How do you think ISMPB could work best in your region?

I think the ISMPB has low visibility in Brazil, but I believe that recent initiatives to create links with Brazilian researchers may increase its reach. Regional or remote events may strengthen the access of researchers to ISMPB. In addition, ISMPB events, including speakers from low and middle-income countries showing different physical activity measurement contexts, might be an excellent gateway to divulgation. At last, special prices adequate to low- and middle-income countries that do not provide relevant funding to researchers may also improve the dissemination of ISMPB in these areas.

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

I would see an increased membership of ISMPB exchanging experiences across different contexts and countries with diversified events and strategies to increase the participation of low- and middle-income countries. Furthermore, lack of human resources and funding limit research in low and middle-income countries. Thus, evaluation and use of subjective measures, many times undervalued, are still necessary to monitor physical activity in different populations and might be a topic of interest to be further developed within the ISMPB.

# Journal for the Measurement of Physical Behaviour Volume 3, Issue 4 (December 2020)

### **ORIGINAL RESEARCH**

- <u>Physical activity tracking wristbands for use in research with older adults: An</u> <u>overview and recommendations.</u> Alana Weisberg, Alexandre Monte Campelo, Tanzeel Bhaidani and Larry Katz
- Where to place which sensor to measure sedentary behavior? A method development and comparison among various sensor placements and signal types.
   Roman P. Kuster, Daniel Baumgartner, Maria Hagströmer and Wilhelmus J.A. Grooten
- <u>Fast and robust algorithm for detecting body posture using wrist-worn accelerometers.</u> Marcin Straczkiewicz, Nancy W. Glynn, Vadim Zipunnikov and Jaroslaw Harezlak
- <u>Equivalency of sleep estimates: Comparison of three research-grade accelerometers.</u> Tatiana Plekhanova, Alex V. Rowlands, Tom Yates, Andrew Hall, Emer M. Brady, Melanie Davies, Kamiesh Khunti and Charlotte L. Edwardson
- <u>Bidrectional Day-to-Day associations of reported sleep duration with accelerometer measured physical activity</u> and sedentary time among Dutch adolescents: An observational study.
   Nathalie Berninger, Gregory Knell, Kelley Pettee Gabriel, Guy Plasqui, Rik Crutzen and Gill Ten Hoor
- <u>Comparison of energy expenditure and step count measured by ActiGraph accelerometers among dominant and nondominant wrist and hip sites.</u>
  Kayla J. Nuss, Nicolas A. Hulett, Alden Erickson, Eric Burton, Kyle Carr, Lauren Mooney, Jacob Anderson, Ashley Comstock, Ethan J. Schlemer, Lucas J. Archambault and Kaigang Li
- <u>Towards automatic modelling of volleyball players' behavior for analysis, feedback, and hybrid training.</u> Fahim A. Salim, Fasih Haider, Dees Postma, Robby van Delden, Dennis Reidsma, Saturnio Luz and Bert-Jan van Beijnum
- <u>Validation of Garmin Fenix 3 HR fitness tracker biomechanics and metabolics (VO<sub>2</sub>max).</u> Bryson Carrier, Andrew Creer, Lauren R. Williams, Timothy M. Holmes, Brayden D. Jolley, Siri Dahl, Elizabeth Weber and Tyler Standifird
- <u>Remote monitoring of cancer patient participation in a 12-week online yoga study: Challenges and directions for future research.</u>
  Ryan Eckert, Jennifer Huberty, Heidi Kosiorek, Shannon Clark-Sienkiewicz, Linda Larkey and Ruben Mesa

### REVIEW

• <u>Accuracy of wearable trackers for measuring moderate- to vigorous intensity physical activity: A systematic review and meta-analysis.</u> Jessica Gorzelitz, Chloe Farber, Ronald Gangnon and Lisa Cadmus-Bertram

For ISMPB Members:

Click here to login to member area of the ISMPB website



Click here to access your online subscription to the journal





# **CALL FOR POSTERS!**



Open: January 25, 2021



No fee for abstract submission



Win poster awards!



Get published in a special issue of JMPB!



Close: April 2, 2021 (23:59 CDT)

## **Main themes**

- Applications
- Technology & Algorithm Development
- Measurement and Analysis

Click here to learn more about sub-themes and submission guidelines Another

successful

Webinar!

### **ISMPB WEBINAR SERIES**

### 3-4 PM EST (9-10 PM CET)

## "NHANES 2011-2014 Physical Activity Monitor data – now FREE!"

### **SPEAKER**

January 28th, 2021



**Richard P. Troiano, Ph.D.** CAPT, U.S. Public Health Service NIH Program Director, Risk Factor Assessment Branch of the Epidemiology and Genom <sup>Which</sup> dataset are you going to access? #NHANES of Cancer Control and Po account for the sample design!! Thanks for an

**Description:** Dr. Troiano worked with <sup>interesting overview</sup> devices in the survey to obtain object activity-related movement and sleer will be dedicated to the release of th

After the successful fall webinar series last year, we are happy to share that our first webinar of 2021 reached **150 live viewers** and had ±300 registrations Dr. Troiano talked about how the data were acquired and cleaned, what is in the files and how to access them. There is still time to watch the full recording (for members and non-members; available until March 3, 2021)! https://ismpb.org/webinars



Do you have good ideas for our 2021 WEBINAR series?

### We would like to hear from you!

To focus on continuing to connect our community, ISMPB will be supporting various webinars throughout the year. These webinars will offer insight to our community. Let us know if you have any suggestions for webinars that might be of interest!

Contact: Martina Mancini (mancinim@ohsu.edu)

## ISMPB AROUND THE WORLD

## Highlighted region: Middle East and North Africa



As part of our Diversity, Equity and Inclusion activities, we would like to highlight an underrepresented geographical region in the newsletter. For this issue, we have interviewed **Saud Abdulaziz Alomairah** who represents the Middle East and North Africa region. Saud is a faculty member at the Saudi Electronic University in Saudi Arabia.

# Can you tell us about current work regarding the measurement of physical behaviour in your region (issues and/or accomplishments)

Saud: The research work of physical activity (PA) in the Eastern Mediterranean Region (EMRO) is low<sup>1</sup>. Consequently, measurement of PA and physical behaviour is still immature. There is inequality of the research activities, as rich counties in the region were conducting more studies regarding PA in the last two decades. However, the amount of the research from 1990 and onwards increased noticeably in the region<sup>1</sup>. In general, I think one of the important issues regarding the work of the measurement of physical behaviour in my region is a lack of large national studies or national surveillance monitoring systems that use objective measurements.

# How have you personally been involved in the measurement of physical behaviour in your region?

Saud: Currently, I am doing my PhD at the University of Copenhagen, Denmark. My project involves the measurement of physical behaviour among Danish pregnant women. When I finish my PhD, I will go back home (Saudi Arabia) and apply what I have learned. I will collaborate with senior researchers in my country to conduct more research in physical behaviour/activity measurement. As EMRO countries are way better now in conducting PA research than a few decades ago, and with the advancement of objective tools to measure physical behaviour, I believe the researchers in the region can catch up soon.

### How can ISMPB support researchers in your region?

Saud: I believe ISMPB can play a major role in bringing researchers from different backgrounds and disciplines together to create a community of researchers with the same interest. ISMPB can promote and advocate for objective physical behaviour measurement and drive the focus of research towards this area. In EMRO, there are gaps to be filled in terms of measurement of physical behaviour and by sharing expertise from around the world and it's network, ISMPB will enhance our work as researchers in the region.



<sup>1</sup> Ramírez Varela et al., 2021. <u>https://doi.org/10.1186/s12966-020-01071-x</u>

## **OPPORTUNITIES**



# Interested in joining a committee?

- ⇒ ICAMPAM SCIENTIFIC COMMITTEE
- ⇒ COMMUNICATIONS AND SOCIAL MEDIA COMMITTEE
- ⇒ JOURNAL COMMITTEE
- ⇒ ISMPB ACTIVITIES COMMITTEE
- ⇒ NOMINATIONS COMMITTEE

https://ismpb.org/committees

## RECENT PUBLICATIONS IN PHYSICAL BEHAVIOR MEASUREMENT

Pereira et al. International Journal of Behavioral Nutrition and Physical Activity (2020) 17:133 s://doi.org/10.1186/s12966-020-01033-3

PLOS ONE

International Journal of Behavioral Nutrition and Physical Activity

#### RESEARCH

Efficacy of the 'Stand and Move at Work' multicomponent workplace intervention to reduce sedentary time and improve cardiometabolic risk: a group randomized clinical trial

Mark A. Pereira<sup>1\*</sup>, Sarah L. Mullane<sup>2</sup>, Meynard John Lapore Toledo<sup>2</sup>, Miranda L. Larouche<sup>2</sup>, Sarah A. Rydell<sup>1</sup>, Brenna Vuong<sup>3</sup>, Linda H. Feltes<sup>4</sup>, Nathan R. Mitchell<sup>1</sup>, Junia N. de Brito<sup>1</sup>, Kristina Hasanaj<sup>2</sup>, Neil G. Carlson<sup>1</sup> Glenn A. Gaesser<sup>2</sup>, Noe C. Crespo<sup>5</sup>, J. Michael Oakes<sup>1</sup> and Matthew P. Buman<sup>2\*</sup>



RESEARCH ARTICLE

**BMC** Public Health



Prevalence and correlates of adherence to the combined movement guidelines among Czech children and adolescents

Lukáš Rubín<sup>1,2</sup>, Aleš Gába<sup>11</sup>O, Jan Dygrýn<sup>1</sup>, Lukáš Jakubec<sup>1</sup>, Eliška Materová<sup>1</sup> and Ondřej Vencálek<sup>2</sup>



G OPEN ACCESS 🖻 PEER-REVIEWED RESEARCH ARTICLE

Accelerometer output and its association with energy expenditure in persons with mild-to-moderate Parkinson's Brenda Jeng 📧 வ, Katie L. J. Cederberg 🛐, Byron Lai 📷, Jeffer E. Sasaki 🚳, Marcas M. Bamman 📷, Robert W. Moti 🚳

Published: November 11, 2020 • https://doi.org/10.1371/journal.pone.0242136



Sedentary Behavior and Diabetes Risk Among Women Over the Age of 65 Years: The OPACH Study



JOURNAL

Clinical Investigation

Article

John Bellettiere<sup>1,2</sup> ft, Michael J. LaMonte<sup>3</sup>, Genevieve N. Healy<sup>4,5,6</sup>, Sandy Liles<sup>1,2</sup>, Kelly R. Evenson<sup>7</sup>, Chongzhi Di<sup>8</sup>, Jacqueline Kerr<sup>1</sup>, I-Min Lee<sup>9</sup>, Eileen Rillamas-Sun<sup>8</sup>, David Buchner<sup>10</sup>, Melbourne F. Hovell<sup>2,11</sup> and Andrea Z. LaCroix<sup>1</sup>

## Quantifying Reliable Walking Activity with a Wearable Device in Aged Residential Care: How Many Days Are Enough?

ืÅ™ERICAN GERIATRICS SOCIET

Stefanick PhD, Yuzheng Zhang MS, Andrea Z. LaCroix PhD ... See fewer authors A

with Incident Falls in Older Women

Accelerometer-Measured Sedentary Patterns are Associated

Dori E. Rosenberg PhD, MPH 🕿, Eileen Rillamas-Sun PhD, MPH, John Bellettiere PhD, Michael LaMonte PhD, David M. Buchner MD, MPH, Chongzhi Di PhD, Julie Hunt PhD, Stephen Marshall PhD, Marcia

Christopher Buckley <sup>1,2</sup>, Alana Cavadino <sup>3</sup><sup>(0)</sup>, Silvia Del Din <sup>2</sup><sup>(0)</sup>, Sue Lord <sup>4</sup>, Lynne Taylor <sup>3</sup><sup>(0)</sup>, Lynn Rochester <sup>2,5</sup> and Ngaire Kerse <sup>3,\*</sup>



Guidelines





AGS

6

### World Health Organization 2020 guidelines on physical activity and sedentary behaviour

Fiona C Bull 🧿 ,<sup>1,2</sup> Salih S Al-Ansari,<sup>3</sup> Stuart Biddle,<sup>4</sup> Katja Borodulin,<sup>5,6</sup> Matthew P Buman , <sup>7</sup> Greet Cardon, <sup>8</sup> Catherine Carty, Jean-Philippe Chaput <sup>1</sup>/<sub>2</sub>, <sup>11</sup> Sebastien Chastin <sup>1</sup>/<sub>2</sub>, <sup>12</sup> Roger Chou, <sup>13</sup> Paddy C Dempsey, <sup>14,15</sup> Loretta DiPietro, <sup>16</sup> Ulf Ekelund <sup>(6)</sup>, <sup>17,18</sup> Joseph Firth, <sup>19,20</sup> Christine M Friedenetick,<sup>21</sup> Leandro Garcia,<sup>22</sup> Muthoni Gichu,<sup>23</sup> Russell Jago o,<sup>24</sup> Peter T Katzmarzyk,<sup>25</sup> Estelle Lambert o, <sup>26</sup> Michael Leitzmann,<sup>27</sup> Karen Milton o, <sup>28</sup> Francisco B Ortega,<sup>29</sup> Chathuranga Ranasinghe,<sup>30</sup> Emmanuel Stamatakis ©,<sup>31</sup> Anne Tiedemann,<sup>32</sup> Richard P Troiano ©,<sup>33</sup> Hidde P van der Ploeg,<sup>34,35</sup> Vicky Wari,<sup>36</sup> Juana F Willumsen<sup>1</sup>





### MEMBERSHIP

#### For MEMBERS:

Please check if you receive ISMPB emails, and that they are not going to your **SPAM folder**. Make sure that the email address: lauren@podiumconferences.com is marked as **SAFE senders** list.

## **ISMPB MEMBERSHIP**

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

The current ISMPB membership term runs from October 1, 2020 to September 30, 2022.

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

- Reduced registration rates at meetings/conferences (incl. ICAMPAM)
- Access to online JMPB
- Join committees
- Vote on Society matters and elections
- Join and create global network
- **Quarterly newsletter**

Fees:	
Category	Dues
Student	\$75
Regular / Post Doc	\$150
All dues are in <u>USD</u>	

ii

Newsletter ISMPB www.ismpb.org

www.facebook.com/ISMPB.org

https://twitter.com/ismpb\_org