

September 2018

ISB *Now*



September
2018

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List of new members - September 2018

By Glen Lichtwark | September 2018

Dr. Ravikumar Varadarajan, United States
Ms. Maryam Tilton, United States, Pennsylvania State University
Dr. Sanjay Sarkar, United States, Concordia University, St. Paul
Mr. Ryan Alcantara, United States, University of Colorado Boulder
Dr. Mark Timmons, United States, Marshall University
Dr. Gerald Scheirman, United States
Dr. Robert Simon, United States
Ms. Azadeh Nasser, Australia, Menzies Health Institute
Youngmin Chun, United States, University of Idaho
Prof. Tae Soo Bae, Republic of Korea, Jungwon University
Dr. Sejin Kong, Republic of Korea, LS Networks Co., Ltd.
Dr. Jeicheong Ryu, Republic of Korea, Korea Orthopedics & Rehabilitation Engineering Center
Dr. Chang-Yong Ko, Republic of Korea, Rehabilitation Engineering Research Institute of KCOMWEL
Dr. Carlos Ojeda, Peru, Universidad de Piura
Gaura Saini, United States
Mr. Omar Gatti, Italy, Bikeitalia
Ms. Caryn Urbanczyk, United Kingdom, Imperial College London
Ms. Mashaer Alyami, United States
Prof. Hyung-Soon Park, Republic of Korea
Dr. David Mitton, France, Univ Lyon -IFSTTAR
Ms. Rabia Osman, South Africa, North West University
Dr. Cecilia Severin, United States, University of Arkansas for Medical Sciences
Mr. Karl Grainger, United Kingdom
Ms. Holly Rittenberry, United States, University of Oregon
Dr. Yong Seol Jeong, Republic of Korea
Prof. Gwangmoon Eom, Republic of Korea, Konkuk University
Dr. Wiebe de Vries, Switzerland, Swiss Paraplegic Research
Ms. Megan Smidebush, United States, Mississippi State University
Jacob Hinkel-Lipsker, United States, California State University, Northridge
Dr. Monica Armengol, United Kingdom, University of Reading
Ms. Megan Ross, Australia, The University of Queensland
Ms. Baaba Otoo, Canada, University of Calgary
Mr. Peter Letch, United Kingdom
Ms. Sol Lim, United States, University of Michigan
Prof. Sung Min Kim, Republic of Korea

Call for Abstracts: HWBI Symposium together with IFSSH/IFSHT 2019

By Glen Lichtwark | September 2018

Call for Abstracts: HWBI Symposium together with IFSSH/IFSHT 2019

Hand and Wrist Biomechanics International (HWBI) will hold its next biomechanics symposium in conjunction with the [14th IFSSH & 11th IFSHT Triennial Congress](#) during June 17-21, 2019 in Berlin,

Germany. The 2019 IFSSH & IFSHT Congress will combine the international (IFSSH & IFSHT), European (FESSH & EFSHT) and German national (DGH & DAHTH) congresses and HWBI for hand surgeons, therapists, and bioengineers in one major event. All are invited to submit biomechanics abstracts now through **September 30, 2018**. Abstracts are submitted using the IFSSH/IFSHT online platform (click [here](#)) and choose the topic “Miscellaneous” (reserved for HWBI Symposium for Hand/Wrist Biomechanics). Learn more ([HWBI](#), [IFSSH](#), [IFSHT](#)).

International Shoulder Group meeting

By Glen Lichtwark | September 2018

The International Shoulder Group hosted their biennial meeting on August 12-13th at Mayo Clinic in Rochester, MN, USA. Meeting Chairs Missy Morrow, PhD (Mayo Clinic) and Meghan Vidt, PhD (Penn State) welcomed 80 participants from 9 countries to the Mayo Clinic campus for 2 days of shoulder-focused research discussion that featured dynamic keynote presentations by Katherine Saul, PhD (North Carolina State University), Lori Michener, PhD, PT, ATC, FAPTA (University of Southern California) and Jonathan Barlow, MD (Mayo Clinic). The dynamic program spanned the topics of the rotator cuff, wheelchair mobility, sports, arthroplasty, function & pain, methods & modeling, and muscle. Generous support of the meeting was provided by ISB, NIH (R13 AR074270), Motion Monitor and APDM. Awards were given to 8 presenters:

- Student Podium 1st place: Joseph Mozingo (Mayo Clinic)
- Student Podium 2nd place: Angelica Lang (University of Saskatchewan)
- Student Poster 1st place: Kate Spitzley (University of Oregon)
- Student Poster 2nd place: Constantine Nicolozakes (Northwestern University)
- Translational Research Podium 1st place: Joshua Leonardis (University of Michigan)
- Translational Research Podium 2nd place: Justin Staker, PhD, PT, OCS, SCS (University of Minnesota)
- Innovative Research Podium 1st place: Andreas Kontaxis, PhD (Hospital for Special Surgery)
- Innovative Research Podium 2nd place: Antonia Zaferiou, PhD (Rush University)

ISB Tutorials in Calgary 2019

By Glen Lichtwark | September 2018

ISB tutorials precede our biannual congresses and aim to cover topical areas in biomechanics. They are targeted to wide audience from students to scientists at all career stages. In Calgary 2019, tutorials will be given by four distinguished scientists.

Professor **Saija Kontulainen** from College of Kinesiology, University of Saskatchewan will give tutorial on bone strength and physical activity. Tutorial given by Professor **Benno Nigg** from University of Calgary will challenge the conventional paradigms for running shoe biomechanics. Professors **Tim Derrick** (Iowa State University) and **Stacey Meardon** (East Carolina University) will give a tutorial on the standardization of reporting kinetic data in biomechanics.

What statistics should I use?



Associate Professor **Todd Pataky** from Kyoto University Graduate School of Medicine will give tutorial on Statistics and Biomechanics. Prof. Pataky will review the history of applied statistics and its uses in biomechanics. The roles of classical, modern and computational statistics and machine learning will be highlighted along with some key examples from the biomechanics literature. Increasingly popular analysis techniques will be reviewed including: functional data analysis, principal components analysis and statistical parametric mapping. Frequentist vs. Bayesian perspectives will be considered, and key statistical controversies will be discussed.

XXVIII Congress of the International Society of Biomechanics 2021 Announcement

By Glen Lichtwark | September 2018

The ISB Council is pleased to announce the venue for the XXVIII Congress of the International Society of Biomechanics in 2021 will be Stockholm. The conference will be chaired by representatives from The School of Sport and Health Sciences (Prof Toni Arndt), The Royal Technical College (Lanie Gutierrez Farewik) and the Karolinska Institute (Li Felländer-Tsai).



The organisers look forward to bringing updates on the conference organisation in the coming years!

Student's Corner September 2018 by Melissa Boswell

By Glen Lichtwark | September 2018

World Congress of Biomechanics Student Event

We enjoyed a nice student mentoring event at the World Congress of Biomechanics. Below are a few photos from the event with great views of Dublin. Thank you to the mentors and students who attended! I am looking forward to all of the student events at the ISB 2019 Congress in Calgary!



Available Student Grants

There are grants available to ISB Student Members including:

1. **The Matching Dissertation Grant program (MDG):** There will be several competitive grants of \$US2500 awarded for doctoral dissertation research (*due December 15, 2018*)
2. **The International Travel Grant program (ITG):** In order to allow student members to travel abroad to experience science in other countries and cultures, and to build up international collaborations we will offer several grants of up to \$US2500 for travel related to biomechanics research (*due December 15, 2018*)
3. **The Congress Travel Grant program (CTG):** Will be offered in 2019 for the XXVII ISB Congress in Calgary, Canada (*due December 20, 2018*)

Additional information and applications can be found [here](#).

Other grants especially for students can be found at the [ISB website](#).



Biomechanics on our Minds (BOOM) Podcast

We have newly released episodes of Biomechanics on Our Minds (BOOM) listed below! It is available for free on [SoundCloud](#) and on iTunes. You can email us with ideas for biomechanics topics, what you would like to hear about, or to share a “research fail” on the podcast at isb.studentrepresentative@gmail.com.

- **Episode 6: Biomechantronics** - An interview with Professor Steve Collins features the latest research in the field of biomechatronics, with a focus on the design of exoskeletons and their integration into the real world and the future of robotics with biological applications.
- **Episode 7: Having a Blast - Survivability Research and Learning to Adapt** - In this episode we discuss recent findings in running shoe advantages using statistics and large scale running data. We interview Professor Reuben Govender and Professor Emeritus Gerald Nurick from the University of Cape Town Blast Impact and Survivability Research Unit. Learn the importance of adapting your research to local needs and about current research on blast impacts.
- **Episode 8: Blood, Sweat, and Bones - The Foundations of Good Beginnings** -We chat with Professor Jacque Cole on her research on the osteovascular system and its importance to our health. She also talks about what it has been like starting a research lab as a new professor.



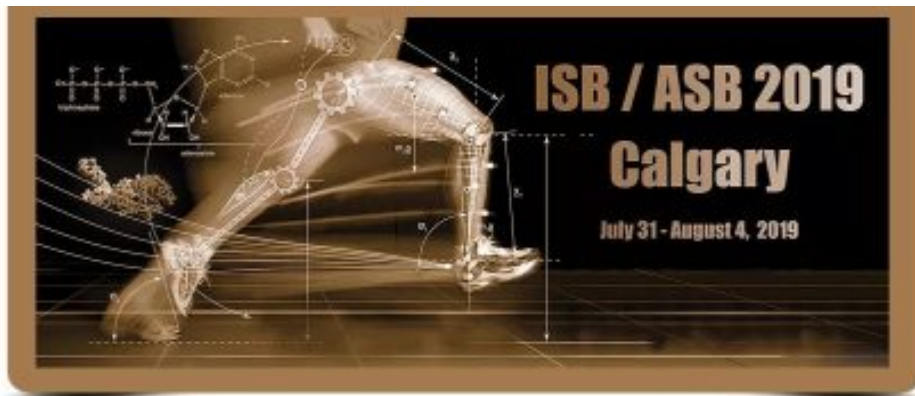
Connect with ISB on Social Media

Keep up to date with ISB by liking our [ISB Facebook Page](#), joining the [Student Members Facebook Page](#) and following [ISB on Twitter](#)! If you have any feedback, comments, suggestions or questions please feel free to contact me at isb.studentrepresentative@gmail.com.

Kind Regards, Melissa Boswell (ISB Student Representative)

ISB-ASB 2019 Calgary

By Glen Lichtwark | September 2018



323 days to the opening of the ISB-ASB 2019 conference in Calgary, July 31st, 2019.

The organization of ISB-ASB 2019 is progressing well. Dozens of people stepped forward to organize symposia, invited and keynote speakers have been invited, and the final program starts to take shape.

Wherever I travel, people tell me that ISB-ASB 2019 is on their calendar. Please put it on your calendar too.

The Canadian Society for Biomechanics, even though not a conference year for them, have committed resources and support to help us, and Canada, to make the conference an unforgettable success. My thanks go to the CSB and their executive for selflessly and generously support us in our exciting endeavor.

The Sponsorship and exhibition planning has gone well under the leadership of Sandro Nigg. If you have any questions regarding exhibition space, sponsorship of the conference, specific events, hotel accommodation or travel arrangements, feel free to contact Sandro at Sandro.Nigg@ucalgary.ca

I am pleased to announce that **Delsys**, and Devi de Luca, stepped forward to become the **Gold Sponsor** for ISB-ASB 2019. Their generous support of ISB in general over the past decade, and the 2019 conference in particular, is hereby graciously acknowledged.

It is never too early to announce important dates; here are some that you might want to add to your calendar. Please note in particular that the **January 31st abstract deadline** is a hard deadline and there will be **no extension**:

Abstract submission commences:	November 1, 2018
Registration commences:	November 1, 2019
Abstract submission deadline:	January 31st, 2019 [no extension]
Early registration deadline:	May 15 th , 2019
Footwear Satellite Symposium:	July 28-30, 2019 [Kananaskis Delta Hotel]
Muscle mechanics satellite Symposium:	July 27-29, 2019 [Canmore Nordic Centre Lodge]
ISB-ASB conference dates:	July 31-Aug 4, 2019 [Calgary Convention Centre]

We have prepared an official ISB-ASB 2019 advertisement power point slide. Please contact Sandro Nigg if you would like one to show the next time you give a presentation in your local seminar group, at a national conference, or as an invited speaker at an international scientific gathering. We want the 2019 conference to be inclusive, and would love to welcome people from across the globe to this primary biomechanics research event in 2019.

The ISB-ASB conference is for you! We encourage you to contact us should you have any questions that are not answered on our website or any suggestions you may have for the conference: www.isb2019.com.

323 days! I cannot wait to welcome you in Calgary, at 1000 m altitude. The city with the fastest speed skating oval, the greatest outdoor show (Stampede), the most beautiful mountains and National Parks, and a city where it can be 30°C one day, and then snow overnight. You just never know what will happen to you here. But whatever happens in Calgary stays in Calgary. Be ready for a scientific adventure.

Walter Herzog

(ISB 2019 Conference Chair)

First Call for nominations for the ISB President-Elect and ISB Executive Council Elections 2019-2021

By Glen Lichtwark | September 2018

Every two years ISB members elect a new President-Elect and Executive Council. The Executive Council members are elected for a 2-year term, with a maximum of three terms, and represent countries from throughout the world and various scientific areas within biomechanics. The Executive Council meets every year and provides leadership for the continued development of the Society and oversees the many on-going activities that are performed by Council appointed sub-committees, including activities in

Economically Developing Countries, student grants, and student awards. The President-Elect is responsible for coordinating the proposals for the 2021 ISB Congress and will become President in 2019.

As according to the ISB Operating codes, it is my duty as Past-president to serve as Chair of the Nominating Committee as well as solicit nominations for President-Elect and Executive Council Members from the ISB membership; 9 and 6 months prior to the biennial conference.

Typically, there are 3 to 4 vacant positions on the Executive Council and the President-Elect position is open and must be filled.

I therefore encourage you to nominate individuals from the ISB membership for both the executive council positions and president-elect position. All nominations must be agreed to by the person being nominated. Self-nominations must be endorsed by a current member of the executive council or an ISB Fellow. Nominations should consist of the name of the individual and a brief biography (no more than 250 words) and emailed to me at a.cresswell@uq.edu.au

Once nominations have been received an anonymous ballot will be administered by the ISB Treasurer approximately 3 months prior to the biennial congress.

Please note that all President and Executive Council members are unpaid and are required to cover their own costs for travel and accommodation to the annual council meetings.

Please note: We want to make sure that the ISB Council is equitable and diverse and represents the interests of all members.

Andrew Cresswell
Past President

President's Blog September, 2018 by Joe Hamill

By Glen Lichtwark | September 2018

With the summer in the Northern Hemisphere almost over, many of the conferences held by other organizations are also complete. I attended the American College of Sports Medicine, the World Congress of Biomechanics and the American Society of Biomechanics annual meeting. Now, I am on my way to Lanzhou, China to attend the Chinese Association of Sports Biomechanics meeting. Each of these symposia were excellent and as expected, presented biomechanics in a very favorable light.

At the World Congress of Biomechanics in Dublin, Ireland, ISB had a plenary session and sponsored several other sessions. Toni Arndt was the plenary speaker for ISB and gave an excellent presentation on tendon and ligament biomechanics. The talk was presented in a room that accommodated 900 and every seat in the room was filled. The other ISB sessions were likewise very well attended.

At the WCB, ISB had a conversation with the executive of the WCB to determine how we could work together to promote biomechanics worldwide. This meeting was very positive and ISB expects to have a prominent role in the next WCB congress in Taiwan in 2020.

The ASB meeting was held at the Mayo Clinic in Rochester, Minnesota. Once again, many ISB members were present. The conference was interesting in that the oral presentations were 5 minutes long instead of the normal 10 minutes. It meant that the speakers had to be very organized to present all of their data.

I want to remind everyone that the next ISB Congress will be held in Calgary, Canada in 2019. This is the second time that the ISB Congress has been held in Calgary. The Congress executive, led by Walter Herzog and Benno Nigg, will, as usual, present an excellent congress. I urge all ISB members to try to make it to Calgary. It will certainly be an event worth attending.

Lastly, please take care keep well.

Joseph Hamill, Professor Emeritus
President, International Society of Biomechanics