Message from the President

Young Hoo Kwon

Dear ISBS Members,

Greetings with spring blossoms from Denton, Texas, USA!

Since the last Newsletter, my main work has been the development of formal relationships with other biomechanics-related international societies. The European Society of Biomechanics (ESB) and the ISBS agreed on establishing an affiliation and an MOU was signed in February. Dr. Laura-Anne Furlong, our VP of Public Relations, is currently working on details of collaborative initiatives with the ESB. We are also developing a formal affiliation with Société de Biomécanique (SB). We will keep working diligently to expand our formal affiliation to more international and national societies.

This year ISBS also initiated a sponsorship and participation agreement with National Biomechanics Day (NBD) 2018 which was held world-wide on April 11. I am sure many of our members participate in this event individually and I am pleased that the Society is now formally involved in this noble cause.

This year’s election is approaching and Dr. Randy Jensen, our Secretary General, has sent out the voting ballots. Please participate in the election and cast your precious votes. If you are not running for any position this year, please consider running next year and thereafter. We need a constant inflow of young, enthusiastic, and energetic directors and VPs and this is only possible by members’
Message from the President

Young Hoo Kwon

willingness to participate in Society’s operation and decision-making process.

Reports of our officers are included in this newsletter. Please read them thoroughly and be well-versed in regards to Society’s operation and all current programs available.

Prof. Patria Hume and her team in Auckland are working hard preparing for the upcoming 36th ISBS Annual Conference (September 10-14). I am so looking forward to visiting Auckland as this will be my first visit to Aotearoa (Maori name of the Kiwi country). The deadline for abstract submission is April 23. Please submit your newest research findings to the Auckland Conference. In addition to our prestigious Geoffrey Dyson Award Lecture and a series of keynote lectures, Team AUT has come up with some innovative programs such as Wise Wizards Panel, Luncheon Round Tables, Sports Technology Forum and Showcase, Industry Playing Field, AUT Millennium Applied Program and numerous workshops. As was the case in Cologne last June, I have no doubt that the Auckland Conference will mark as one of the best conferences in the history of the ISBS.

I will attend this year’s European College of Sport Science (ECSS) Congress so hope to see some of you in Dublin, Ireland in July. If not, I will see you all in September in Auckland, the land of Maori!

Cheers,

Young-Hoo Kwon

President of the ISBS

Contributors:
Young Hoo Kwon,
Randall Jensen,
Patria Hume,
ISBS 2018 Conference Organisation Team,
Neal Smith,
Tim Exell,
Laura-Anne Furlong,
Gillian Weir.
The time for the 2018 ISBS elections is here! Following are the statements and photos of the candidates for the President Elect Position. A link to the ballot has been sent via email to all members with paid dues. Members may vote for up to 10 candidates, the voting deadline is May 12th.

**Duane Knudson**

Professor of Biomechanics in the Department of Health & Human Performance at Texas State University, USA. He received his PhD in biomechanics from the University of Wisconsin and has been an active member of ISBS. He has served several terms as VP of Publications, Director, and was elected Fellow and Life Member. He has presented 28 times at 19 ISBS conferences and published over 100 peer reviewed journal articles, 4 books, and 21 chapters on sport and exercise biomechanics. His research focuses on biomechanics of tennis, qualitative diagnosis, stretching, learning biomechanical concepts, and research quality.

**Silvio Lorenzetti**

Silvio Lorenzetti earned degrees in physics and mathematics before founding and leading the Sports Biomechanics group at ETH Zurich Switzerland. With a strong background teaching biomechanics and sports biomechanics at ETH Zurich, he is also frequently engaged as a guest lecturer elsewhere. Recently, he became the head of Performance Sport at the Swiss Federal Institute of Sport Magglingen, a department including eight different disciplines of sport science, dedicated to research, teaching and federation support in elite sport. As president, I hope to strengthen our relationship with other scientific societies and promote research and teaching to enhance health and performance.
ISBS Board of Directors Election

Randall Jensen
ISBS Secretary General

Following are the statements and photos of the candidates for the Board of Directors. A link to the ballot has been sent via email to all members with paid dues. Members may vote for up to 10 candidates, the voting deadline is May 12th.

Ian Bezodis

I am a Senior Lecturer in Sports Biomechanics at Cardiff Metropolitan University in the UK. As a member of ISBS for over ten years, I have regularly attended the Annual Conferences since 2007. I previously served on the Board of Directors from 2009-2013, and am keen to increase my service to the Society once again. I am particularly interested in promoting high-quality scientific research with elite sporting teams and organisations, and am keen to explore ways to promote and recognise this important, but often small-sample, work within the body of scientific literature. Thank you for considering my candidacy.

Neil Bezodis

I am a Senior Lecturer at Swansea University, UK. I have been an ISBS member since 2005 and received the New Investigator Award in Limerick (2009) and the Hans Gros Emerging Researcher Award in Johnson City (2014). My research primarily focusses on sprinting and rugby union and I work closely with international coaches to provide biomechanical support and conduct applied research projects. Having served on the ISBS Board of Directors and been part of several sub-committees since 2014, I hope to continue serving ISBS and help our society continue to progress and develop.

Daniel Herman

Dr. Daniel Herman is an Assistant Professor of Orthopaedics and Rehabilitation at the University of Florida, and holds both a PhD in Biomedical Engineering and a MD with specializations in Physiatry and Sports Medicine. He has served ISBS since 2007 in multiple capacities, and is currently an Associate Editor for Sports Biomechanics. As a member of the ISBS Board of Directors, Dan aims to utilize his perspective and contacts as both a sports clinician and biomechanist to increase membership and participation in ISBS, particularly among clinicians, as well as building upon the society’s strengths in programming at the annual meeting.

Ina Janssen

I completed my PhD at the Australian Institute of Sport, in collaboration with University of Wollongong (supervised by Prof. Julie Steele), and investigated the relationship between landing technique, knee loading, and jumper’s knee in volleyball players. Since 2012, I have been the sports biomechanist responsible for elite athlete testing at the Olympic Training Centre in The Netherlands. My daily work ranges from injury screening for junior handball players to testing different prosthetics for paralympic long jumpers, and measuring pedal forces in Olympic BMX- ers. I enjoy attending the ISBS congress to learn from and meet up with international colleagues.

Marcus Lee

Dr Marcus Lee heads the Sport Biomechanics department in the Singapore Sports Institute. He completed his PhD in Biomechanics and a post-doctoral research fellowship in Public Health at The University of Western Australia. He manages the Biomechanics support provided to Team Singapore coaches & athletes across a range of sports. He is interested in how vision and movement contribute to skilled action and injury prevention. His research on ACL injury prevention clinched the Best New Investigator Award at the Australian Conference of Science and Medicine in Sport. He is passionate about teaching and research, and growing Sports Science in Asia.
### ISBS Board of Directors Election

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<th>Name</th>
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<td><strong>Wen-Tzu Tang</strong></td>
<td>Wen-Tzu Tang received her doctorate degree from University of Texas, Austin in 2002, and is currently the Dean of Exercise and Health Sciences College, Professor of Graduate Institute of Coaching Science at National Taiwan Sport University (NTSU). She also has served as a sport science committee member for Taiwan National Teams for Olympic Game, Asian Game to provide sport science services since 2002. She has been members of the Board of Directors of TSBS since 2003 and the Board of Directors ISBS since 2016, and wishes to build related sport biomechanics certificate systems together to promote sport biomechanics market.</td>
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<td><strong>Gillian Weir</strong></td>
<td>Gillian completed her PhD research with Hockey Australia at the University of Western Australia and has since been working on her postdoc at the University of Massachusetts with Brooks Running Inc. She has consulted for professional Australian Rules football teams (AFL) for both performance and injury prevention and has worked as a strength and conditioning coach at a semi-professional level. She has been the ISBS student representative for the term 2016-2018 and seeks election to the board to continue work with student initiatives (writing workshops, industry exposure) and contributing to the ISBS ethos of integrating sports biomechanics research with practice.</td>
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<td><strong>Weiya Hao</strong></td>
<td>Dr. Weiya Hao is a professor of biomechanics at China Institute of Sport Science. He researches on performance enhancements and injury preventions for athletes from national teams of gymnastics, and freestyle skiing aerials, using methods of biomechanical experiments and computer simulation. He has served as Secretary General for the Chinese Associate of Biomechanics in Sports over 12 years. He was one of major organizers for ISBS2005 meeting in Beijing. He participated in recent ISBS symposiums, such as in Taipei, Johnson City, and Cologne. He wants to get more opportunities to contact with international colleagues and enhance Chinese research levels.</td>
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<td><strong>Steffen Willwacher</strong></td>
<td>As a former athlete and coach I was immediately hooked by the mission and the spirit of ISBS when attending my first conference in Porto (2011). Standing for election is a great opportunity for me to serve the community. My research covers elite and recreational sports, focusing on the interaction between human and technology. I was involved in the organization of the 2017 ISBS conference and review for Sports Biomechanics on a regular basis. As a member of the Board of Directors I’d like to address opportunities brought by new technologies (e.g. sensors) for the improvement of research and coaching.</td>
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<td><strong>Peter Sinclair</strong></td>
<td>I am currently Associate Professor of Biomechanics at the University of Sydney and Head of the Discipline of Exercise and Sport Science. Together with my postgraduate students, we’ve presented 26 papers at ISBS conferences since 2000. I have served on the board of directors for ISBS since 2016 and have attended all meetings of the society since then. A second term as director will provide continuity to the board and enable me to make a greater contribution to the running of this society.</td>
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Pedro Morouço

I remember my first biomechanics class; it was in 2000 and I got passionate about the physics behind the movement. I proceeded with the MSc and PhD focusing how to enhance swimming performance through biomechanics. In 2014 I received the NIA and got CSCS certified, aiming to bridge the gap between research and application; 2017 I got more than honored for getting the Hans Gros Emerging Researcher Award! I would like to keep being a member of the Board of Directors to actively participate in the dissemination of the Society and its journal.

Hiroyuki (Hiro) Nunome

Hiroyuki (Hiro) Nunome is currently Professor in Sports Biomechanics at Fukuoka University, ex-President of the Japanese Society of Science & Football (2012-2016), International Steering member of Science & Football and Associate editor of “Sports Biomechanics”. Hiro gained his BEd at Kanazawa University, MEd at University of Tokyo and PhD at Nagoya University. Hiro is well-known as a pioneer of Biomechanics in Soccer Kicking with many advanced publications in leading journals. Hiro’s mother tongue is Japanese but is also very fluent in English and practical in Chinese (mandarin). Hiro frequently helped conference participants from non-English spoken countries using his special ability.

John Ostarello

John Ostarello is Professor Emeritus, of Kinesiology, California State University, East Bay, U.S.A. He received his doctorate from the University of California, Berkeley. His research interest is in the integration of biomechanics and motor learning. He is a Founding member of ISBS and has been a Life Member since 1997. He served as the first Treasurer of the Society, the Secretary-General, member of the Board of Directors, member of the Awards Committee, and numerous scientific committees. He is committed to advancing the ideals of ISBS and continuing to aid the Society to function in a fair, open, and transparent manner.

Ezio Preatoni

I am a Lecturer in Biomechanics and Motor Control at the University of Bath. I completed my PhD in Bioengineering (2007) at Politecnico di Milano. I have been an active and enthusiastic member of ISBS since 2005. I have served as a Director for two terms, and contributed to the works of a number of committees, such as scientific review boards, Student Mentoring Program, impact, and New Investigator Award. I also organised and chaired an applied session at ISBS 2015 in Poitiers. My areas of research are injury prevention and movement and coordination variability.

Kelly Sheerin

I am a Physiotherapist and biomechanist who holds a Lecturing position at Auckland University of Technology, while also managing the AUT Millennium Sports Performance Clinics. As part of a consortium of New Zealand biomechanists, I have spearheaded the introduction of National Biomechanics Day initiative in NZ, attracting support funding from the government in consecutive years. I am on the organising committee of the ISBS 2018 Conference in Auckland, overseeing Industry Partnership engagement. As part of my contribution to the Board I hope to continue to grow the Society’s connections with industry, as well as foster our links with future biomechanists.
With a combination of city sophistication and world-class facilities set in a stunning natural playground, Auckland has everything we need to create an exceptional ISBS 2018 conference.

Why travel to the “land of the long white cloud”, down under? Apart from an excellent academic programme with international keynote speakers, delegates’ oral and poster presentations, we have some novel aspects that you won’t have experienced at other conferences.

In keeping with our Kiwiana theme, we will have a Wise Wizards Panel (yes, think Lord of the Rings movie) joining Associate Professor Jacqueline Alderson to answer interactive questioning from the delegates via social media feeds. Panel members are prestigious previous Geoffrey Dyson awardees, Life members, and ISBS Fellows: Professors Joe Hamill, Bruce Elliott, Juris Terauds, Walter Herzog, Patria Hume.

Following each keynote panel there will be lunch round table sessions in the main atrium. Delegates will actively participate in Luncheon Round Tables that pose questions such as “What can biomechanists do to use technology more effectively to help improve sport performance?” Information collected during these eat, meet and discussion sessions will be used to inform the creation of new initiatives for ISBS members.

The Sports Technology Forum and Showcase, and the Industry Playing Field events, will give delegates interactive experiences with new industry technology companies. The aim is for delegates to think outside their usual sphere of practice and to consider how they might work better with industry in their research, education and community service.

The AUT Millennium Applied Programme is an interactive half day of sessions delivered by High Performance Sport New Zealand (HPSNZ) and Auckland University of Technology (AUT) biomechanists, performance analysts and other biomechanics relevant sport facing practitioners. Coaches and athletes will be an integral part of these sessions. Sessions will enable you to experience the interactive model where education, research and community service (developmental to elite to masters’ level athletes) occurs in the one facility.

Professor Patria Hume FISBS—ISBS 2018 Chair

ISBS 2018 conference
AUCKLAND, NEW ZEALAND
Conference keynotes include Mounir Zok (USA), Sophia Nimphius (Australia), James Selfe (United Kingdom), Geoffrey Dyson 2018 Awardee Professor Hermann Schwameder (Austria) and Hans Gros 2018 Awardee Steffen Willwacher (Germany).

Dr Mounir Zok - Director of Technology and Innovation for the US Olympic Committee

Mounir is the Director of Technology and Innovation for the U.S. Olympic Committee. He helps bring emerging technologies to Team USA. Zok’s expertise areas of wearable technology, smart textiles and fabric, Internet of Things, artificial intelligence and cognitive computing are of interest to sports biomechanists in their goal of improving sports performance. Zok’s keynote will stimulate biomechanists to think of new ways to help improve athlete’s results with technology. Silicon Valley based, born and raised in Beirut, Mounir is a world citizen having lived and worked in UK, Italy, Spain, and USA. Mounir is passionate about sports, technology, innovation and entrepreneurship, is constantly challenging the status quo, and has 15 years’ experience in leading sports technology initiatives with the most prominent sports teams in the world. He sits on the working board of Women in Sports Technology, and advises and invests in several emerging technology companies.

Associate Professor Sophia Nimphius - Associate Professor at Edith Cowan University, Australia

Sophia leads High-Performance Services for Softball Western Australia. Previously she was the Sport Science Manager at Surfing Australia Hurley High-Performance Centre. She has received awards for her contribution to the field such as the 2017 Female Leader in Exercise & Sports Science by Exercise and Sports Science Australia, the 2016 ECU’s Vice Chancellor Staff Award for Inspirational Individual (Personal Excellence), and the 2014 NSCA Terry J Housh Outstanding Young Investigator (2014). She is a passionate advocate and mentor for women and minorities in an effort to enhance their representation in science, technology, engineering and math as well as driving to increase their representation in high-performance sport positions. Sophia’s keynote is titled: Re-evaluating what we “know” about female athletes in biomechanics research: Across the continuum from capacity to skill.

Professor James Selfe - Professor of Physiotherapy, Manchester Metropolitan University

James is Professor of Physiotherapy, Manchester Metropolitan University. In 2008 James was honoured by the Chartered Society of Physiotherapy by being awarded a fellowship for his outstanding contribution to musculoskeletal physiotherapy, particularly in the field of patellofemoral pain dysfunction. He won the UK Technology Strategy Board’s 2014 Knowledge Transfer Partnership Sports award. James will lead the ACC SportSmart Panel to discuss injury prevention from head to toe using a biomechanics perspective.

Joining James on the panel will be Isaac Carlson (ACC Senior Injury Prevention Manager), Dr Ken Quarry (NZ Rugby Senior Scientist - Biomechanist & Epidemiologist), Dr Mark Fulcher (NZ Football Medical Dr), Ms Sharon Kearney (NZ Netball Physiotherapist). The panel will be chaired by Natalie Hardaker (ACC Senior Injury Prevention Manager).
The AUT Millennium applied programme with elite biomechanists, scientists, athletes and coaches, will be a highlight of the conference.

Mr Martin Dowson from High Performance Sport New Zealand (HPSNZ) is leading the applied programme held at the AUT Millennium precinct in Albany, north of Auckland, on Wednesday 13 September with the support of AUT Millennium and HPSNZ.

The AUT Millennium precinct where the AUT Sports Performance Research Institute New Zealand (SPRINZ) is based, is also home to HPSNZ supported sports such as athletics, sailing, canoe sprint, swimming. These sports and others (cycling, rowing, snow sports etc.) will be represented in the sessions you can choose from for the AUTM applied half day. These sessions will involve practical demonstrations of aspects of analysis and/or tools used to deliver in the field to directly positively impact athletes performances on the world stage.

Each delegate will attend one common session showcasing how we – SPRINZ and HPSNZ scientists, elite coaches and athletes – work together to improve sport performance and reduce injury risk. The state of the art facilities will be used for the interactive sessions. You will then attend two out of the sessions, which you will indicate when you register:

1. Biomechanics in Canoe Racing
2. Rowing Stroke Analysis
3. Paralympic Swimming Technique Analysis and Technology Development
4. Utilising Biomechanics in Track and Field Throwing Events
5. Biomechanics of Pole vault
6. Biomechanics Related to Athlete Development
7. Resistance Training Feedback / Training Devices
8. Sprint and Strength Biomechanics
9. Running Biomechanics
10. Cycling Biomechanics - Forces and Physiology
11. The Impact of Innovation on Biomechanics
12. Sports Medicine and Biomechanics
13. Analysis in a Challenging Environment (Sailing)
14. Wearable Technology in Snow Sports Load Monitoring

Following these engaging sessions, the day will finish with the Sir Graeme Avery Event with award winning New Zealand wine and cheese, to allow for further discussion and networking. Sir Graeme Avery, a founder of AUT Millennium, will attend the event where he will receive a recognition award for his contribution to AUT Millennium and the integrated use of sport science, in particular for athletics.

Buses will transport delegates from the city centre to the venue and back therefore your registration for the applied programme (free as part of your registration) is essential.
A WORD FROM OUR PLATINUM INDUSTRY PARTNER

Alex Muir - Vicon Asia Pacific Manager

“We are truly excited about being a part of ISBS in Auckland. The spirit in which athletes, coaches, scientists and technology partners are working together means this is a unique era of collaboration in the Australasian and Asian regions. Auckland is perfectly placed to showcase these exciting times at ISBS 2018. From our sneak preview, we can confirm the organising committee are sculpting an extraordinary and intimate conference. I would recommend all ISBS’s industry partners and potential delegates to commit early; it will be a sensational conference!”

There are 12 one and a half hour workshops available.

The workshops will be held Monday 10 September at the AUT Conference Centre. Registration for the free workshops, via the conference website is essential as places will be filled on a first-registered, first-placed basis. Further details will be provided on the website as industry partners confirm their sessions.

Workshops are provided to help delegates: increase their likelihood of success in publishing in journals such as Sports Medicine (Steve McMillan, Journal Editor at Adis, SpringerNature); interact with media to be able to amplify their work (Dylan Cleaver, award-winning sports editor-at-large for the NZ Herald); improve their ability to attract and create commercialisation and funding opportunities (Dr Philip Graham-Smith, Aspire Academy, Qatar); and consider pushing their boundaries of biomechanics and sport science by embracing artificial intelligence (Dr Boris Bačić and Assoc. Prof Russel Pears, Auckland University of Technology, NZ).

What makes a successful paper – an Editor’s perspective – Steve McMillan (Springer)

From a compelling cover letter to a concise conclusion, Sports Medicine’s Co-Editor in Chief, Steve McMillan, will provide an editor’s perspective on what makes a successful paper. Sports Medicine receives over 600 submissions a year and can publish only a quarter of these ... How do the editors decide which manuscripts to send to peer review? Which manuscripts survive peer review? What details are essential to enable readers to best understand your research and allow for potential replication? What information is required from an ethical perspective? Why do word counts matter anyway?! This interactive workshop will guide you on how to produce an impressive manuscript and increase your chances of getting published in a reputable journal.

Steve McMillan is a Journal Editor at Adis, part of SpringerNature. He is currently Co-Editor-in-Chief of three journals: Sports Medicine, Sports Medicine - Open and Drug Safety - Case Reports. Steve started at Adis straight out of university, having completed an MSc in Sport & Exercise Science in 2005. Prior to becoming a Journal Editor, Steve gained experience as a Medical Writer, involved in reporting on and critically evaluating clinical drug trials, and as a writer/editor of newsletters in the fields of drug safety and pharmacoeconomics. Outside of work, Steve enjoys spending time with his young family.
AI challenges – Dr Boris Bačić (Auckland University of Technology, NZ) and Assoc. Prof Russel Pears (Auckland University of Technology, NZ)

Pushing the boundaries of biomechanics and sport science also means embracing artificial intelligence (AI) to advance and augment ways in which sport is coached, played, promoted, broadcasted and commercialised. Technologies capable of capturing human motion enable the advancement of research and can create strategic differences in elite sport, which is reflected by their increasing presence in the growing market of sport gadgets, exergames and rehabilitation technologies. Data-driven machine-learning AI approaches have the potential to provide insights from data, find patterns in specific contexts, generate knowledge, validate expert’s common-sense rules, and offload support decisions and automate cognitive activities.

The workshop will provide a theoretical introduction and a set of analytical and model-designing visual tools for getting started. For those interested in Matlab or other languages, code samples will be provided. The participants will be able to use free open source software alternatives as part of hands-on exercises in a supervised lab.

Boris has multidisciplinary research interest in Computational Intelligence (CI), data analytics combined with sport science, rehabilitation, health, active life advancements and supporting technology. Russel has taught in various topics in computer science, while practicing as a consultant in the IT industry in the areas of database systems and data mining.

Commercialisation & funding – Dr Philip Graham-Smith (Aspire Academy)

This workshop will challenge delegates to identify their real areas of expertise and consider ways in which they can attract and create funding opportunities. The aim is to help academics of all ages to focus their expertise, to manage their time more effectively and to explore new avenues to make their careers more rewarding, fulfilling and hopefully less stressful. Having been a former Head of Department and Associate Head of School (Business & Engagement), Dr Graham-Smith has been in the trenches and acknowledges the increasing demands and pressures of working in academia. The workshop will help delegates to strip back the various aspects of their roles, and to examine ways in which their teaching, research, consultancy and funding expectations can be managed successfully. Phil will be reflective on his own career and share experiences of working in academia, professional sport and private industry.

Dr Philip Graham-Smith has a long and established career as a biomechanist working in academia, professional sport and private industry. He is currently Head of Biomechanics at Aspire Academy in Qatar and was formerly Head of Department and Associate Head of School for Business and Engagement at the University of Salford. He was consultant to UK Athletics, the English Institute of Sport, the footwear company FitFlops, and he is co-founder of the ForceDecks system. He is passionate about making biomechanical techniques usable and meaningful in the applied world, aligning with the ISBS 2018 ethos of ‘bridging the gap’.
Journalist Dylan Cleaver will be looking for interesting stories to highlight from the conference - so attending his workshop will provide an opportunity for you to learn how you might get your research stories covered.

**How to work with the media to amplify your work – Dylan Cleaver (NZ Herald)**

Never before has there been so much attention given to the injury toll in elite sport, with the spotlight firmly centered on head injuries and the potential for long-term cognitive damage to those afflicted. With so much important research being done in the field of sports injury, it is important to know how to work with the media to highlight it. This workshop aims to give a brief overview of the fast-changing modern media landscape. It will offer advice as to how to establish contacts in the media and how to use those contacts wisely. It will demonstrate how to get your key messages across using simple language, without dumbing down the issue. It will traverse ethical issues and, finally, what to do when the message goes wrong. Attendees will use the lessons learnt from the examples, to workshop during the session how they can work with media to amplify their work.

Dylan is an award-winning journalist who specializes in reporting on the intersection between sport and society and currently works as sports editor-at-large for Herald titles. For the past two decades he has worked for some of the biggest media companies in New Zealand. He has authored three books and has work published in an anthology of New Zealand’s best non-fiction writing. Dylan was the journalist who worked on the stories on concussion in rugby that Professor Patria Hume outlined in her 2016 Geoffrey Dyson Keynote lecture.

**Submissions of conference papers (for all oral and poster presentations)**

Please remember the **deadline to submit papers is the 23rd of April** (midnight NZ Time). Remember these are 4-page papers.

**PLEASE NOTE this deadline will NOT be extended** (as some other conferences do), as aspects of the organisation depend on the academic programme, and the number of registered delegates. This will ensure the quality half day tours, delegate pack items, conference beverages, can be confirmed and purchased ahead of the conference opening.
Kaihāpai Dr Valance Smith, leads the ISBS 2018 Conference manaakitanga

Auckland University of Technology (AUT), Sports Performance Research Institute New Zealand (SPRINZ), High Performance Sport New Zealand (HPSNZ), AUT Millennium (AUTM), Auckland Tourism Events and Economic Development (ATEED), are proud to host the conference. In the spirit of manaakitanga, we look forward to welcoming you to Auckland, New Zealand, with open hearts and open minds. Manaakitanga is the Māori word for hospitality, kindness, generosity or support - the process of showing respect, generosity and care for others.

ISBS delegates will have the chance to experience New Zealand’s unique indigenous Māori culture, in a city that is also one of the most multicultural in the world.

The conference will be hosted in the new award winning Sir Paul Reeves Building at the Auckland University of Technology in downtown Auckland. The AUTM applied programme, that is a fully integrated part of the conference, will be held at the AUT Millennium campus.

Our selection of conference products for the delegate package is based on the items being taken home from the conference by delegates, rather than discarded. A range of food and drink stations will be positioned within the exhibition areas.

CONFEREECE SOCIAL FUNCTIONS — INCLUDED IN YOUR REGISTRATION

- Monday 10 September - Opening reception and industry partners’ playing field
- Tuesday 11 September - Students Marae and hangi night
- Tuesday 11 September - VIP night for keynotes, invited speakers, ISBS Fellows and ISBS conference paper reviewers, and industry partners
- Wednesday 12 September – Sir Graeme Avery event – AUT Millennium
- Thursday 13 September – ½ day social tours: Marae and hangi (non-student delegates as they experience this on the Tuesday student event) or Sky Tower and city walk
- Friday 14 September - Closing banquet and kapa haka performance

STUDENT MARAE & HANGI NIGHT AND MENTOR BREAKFAST

All student delegates will be invited to attend a unique cultural experience. ISBS 2018 Student Night will take place on Tuesday 11th September, at the AUT Ngā Wai o Horotiu Marae (Māori meeting grounds). A hangi (food cooked in the ground) and cultural experience will be provided by AUT kapa haka group Titahi ki Tua.

The student mentor programme will include a breakfast networking meeting on the Tuesday morning.
Enora Le Flao, ISBS 2018 Conference secretary, provides advice to delegates and their partners

PRE-AND POST-CONFERENCE TRAVEL AND TOUR OPTIONS

We have teamed up with the AUT travel agent and Tourism New Zealand to arrange some custom-made personal tour packages, which you can enjoy either before or after the conference.

Examples are:
- Auckland and Northland Golf itinerary
- Auckland – Queenstown itinerary
- Auckland Rotorua Queenstown itinerary
- Marlborough fact sheet
- Queenstown fact sheet and tour
- Rotorua itinerary
- Hobbiton tour

Partners attending the conference may wish to participate in the following half-day tours (additional cost)

- Auckland Jet Boat Tours — [https://www.aucklandjetboattours.co.nz/](https://www.aucklandjetboattours.co.nz/)
- Bungy jumping, Auckland Harbour Bridge climb, Sea Kayaking, Waiheke wine tour etc.

For more information or to book your tours and travel please contact Orbit World Travel email: aklevents@orbit.co.nz

GYM ACCESS

For all conference delegates and partners, we offer a NZ$20 week membership to our AUT City Campus gym. You will be able to purchase gym membership when you register.
KIWIANA OPENING RECEPTION & INDUSTRY PARTNER PLAYING FIELD EVENTS

The Kiwiana opening will include interactive events and games, and “Kiwi” items of note. The industry partners are actively involved in the conference, providing workshops, interactive events, games, and support of conference activities and delegate eco-friendly items.

VICON Darts Interaction Programme

The ISBS2018 conference Platinum Industry Partner, VICON, has supported a world first Darts Biomechanics Programme with AUT SPRINZ.

Graeme Lowe (The Doctor Pro Circuit darts player) has had regular biomechanics analysis and technique interventions from March to August 2018 leading up to the ISBS2018 conference in Auckland.

At the ISBS2018 Kiwiana & Industry Partner Playing Field opening reception interactive event, Graeme will be on stage showing his technique. A video will play on the large atrium screen showing Graeme’s biomechanics programme work over the six months, and his improvement in performance via the use of applied biomechanics.

Graeme will also be throwing the winning darts at the ISBS2018 Jigsaws to select the winners on the night (each delegate gets a jigsaw piece in their delegate bag, and puts their piece into one of the 12 jigsaws, which is then mounted on the dart board for Graeme to throw at with his right hand, left hand, and then blind folded. The ISBS President, Vicon CEO, and ISBS2018 delegates will also throw darts to help determine prize winners as the puzzles are completed.

We look forward to you engaging with our additional industry partners during the playing field events including:
Brian Russell, founder of Zephyr Technology, recently returned to New Zealand from America, will be chairing the sports performance innovation forum.

SPORTS PERFORMANCE INNOVATION FORUM AND INTERACTIVE SHOWCASE

Auckland University of Technology, AUT Millennium, Auckland Tourism Events and Economic Development, High Performance Sport New Zealand and Callaghan Innovation have partnered to establish the Human Performance Innovation Centre. Five key areas provide opportunities for research through the centre: materials (textiles and composites), data, devices, nutrition and cognition. For example, AUT Start-up Avice has developed a wearable that measures changes in muscle density, to enhance and speed up muscular development. The technology motivates you with real-time feedback. www.avicewearables.com.

Presenters in the Friday forum and showcase will include Professor Thor Besier, co-founder of IMeasureU, who will overview the process of taking the biomechanics load measurement idea to commercialisation.

Delegates will then have the opportunity to interact during the showcase session with the latest sport and digital performance innovations and materials that are coming to market.

POP-UP NZ STORES AND AUT RESEARCH TESTED PRODUCTS

To showcase how AUT research units work with industry in product testing, there will be a daily pop-up store (e.g. Skinergenics by Carissa Hawes, NZ made range of organic skincare products) and products supplied (e.g. Chainui tea and “famous in Australia and NZ” Anzac Biscuits) during the conference.

Internationally renowned New Zealand Sileni wines will be provided during conference events. In ancient Greece the Sileni were companions of Dionysus, the god of wine, vineyards and theatre. When there was something to be celebrated, the Sileni were always on hand to encourage enjoyment of delicious food, great wine and social interaction. Named in their honour, Sileni Estates produces a range of wines made to be great collaborators, with a talent for enhancing flavours and textures.

EXAMPLE AUTM APPLIED SESSIONS

Applied Swimming Biomechanics - A demonstration of velocity and drag measures during active swimming. Synchronised data and video will then be used to determine possible interventions and feedback.

Cycling Biomechanics - Forces and Physiology - Provide a brief introduction on how pedalling style/technique can influence energy cost and joint loads along with a lab based assessment.

Utilising Biomechanics in Track and Field Throwing Events – A practical demonstration of 3-d Biomechanical analysis and how it can be used to improve throws performance.

The Impact of Innovation on Biomechanics – A practical demonstration of some biomechanical innovations that HPSNZ have undertaken and how they have impacted performance.

Sprint and Strength Biomechanics – An interactive session looking at the practical use of force plates around sprinting performance and rehabilitation.

ISBS 2018 SOCIAL MEDIA PROGRAMME AND STUDENT REPRESENTATIVE

SPRINZ PhD student Josh McGeown is leading the conference social media programme (i.e. @ISBS2018; #ISBS2018). Josh is also the local conference organising committee student representative, ensuring the academic and social events will be outstanding experiences for the student delegates.
With applications currently being received for this year’s New Investigator Awards, and final decisions having been made on the recipients of the 2018 Hans Gros Emerging Researcher Award and Geoffrey Dyson Award, it only remains for me extend to you the invitation to propose candidates for the following awards:

- The Geoffrey Dyson Lecture (2019 Conference)
- Life Member of ISBS
- Fellow of ISBS

All of these awards are extremely prestigious, and I would ask you to think carefully about any colleagues you may thing would be deserving of these awards. Those of you who are longstanding members of the Society will understand the criteria for these awards. Those of you newer to the society may wish to familiarise yourself with the criteria required for nomination of these awards at [https://isbs.org/awards](https://isbs.org/awards) and also for information on how to apply.

Please forward any nominations you would like me to consider to n.smith@chi.ac.uk by Friday 30th April 2018. Only nominations forwarded by this date will be considered by the ISBS awards Committee for 2018.

Successful candidates will be announced at the 36th International Conference on Biomechanics in Sport in Auckland, New Zealand (10-14 September 2018)

**Geoffrey Dyson Award**

The prestigious Geoffrey Dyson Lecture is an invited presentation given by scientists who have made an outstanding contribution to the Society, and to our field. This year, the lecture will be given by Professor Hermann Schwameder. Hermann has held Professorships at Karlsruhe Institute of Technology and currently the University of Salzburg. His research scope is impressive and includes, for example, Sport Performance and Injury, Sports Medicine, Technology, and Clinical biomechanics. He has worked Olympic Sports (Ski Jumping, Amputee Athletics), manufacturers (Adidas) and contributed significantly to clinical and health related research (Obesity, ACL research). In 2004 Professor Schwameder became President Elect, followed by the Presidency between 2005-2007 and Past Presidency 2007-2008. His term of office was productive, characterised by a supportive, out-facing and transparent structure and included the hosting of the 24th ISBS Awards 2018

*Neal Smith*  
**ISBS Vice President (Awards)**
ISBS conference in Salzburg in 2006. He has developed a highly-regarded research group at the University of Salzburg and this can be evidence by the quality of the students and researchers that emerge under his leadership. Professor Schwameder’s research philosophy of “bridging the gap between theory and practise” match, in every way, the criteria for this prestigious ISBS research award.

**Hans Gros Emerging Researcher**

We are pleased to announce that after a very competitive round of voting, this year’s Hans Gros award goes to Steffen Willwacher from the Institute of Biomechanics and Orthopaedics, German Sport University Cologne, with a talk entitled ‘Sports equipment: How the transformation from passive to digital systems opens new doors and puts new demands on sports biomechanists’

The digital transformation of almost every aspect of our lives is probably the most radical change observed in human history. As part of this revolution, almost every piece of sport equipment can be instrumented with sensor technology now or in the future. The massive amount of data that can be generated by these systems can be utilized to help athletes to optimize their movement technique and load management and also offers great opportunities to perform research studies on a much larger scale, with a much better temporal resolution. Nonetheless, the widespread rise of digital feedback and measurement systems needs careful consideration of comparability, reliability and validity issues and puts new demands on the skills of sports biomechanists. During my talk I would like to highlight these challenges in a systematic way using examples coming from my own scientific work. This includes examples from instrumented starting blocks and reaction detection systems, sensor equipped running shoe insoles that monitor load and performance variables of their users and finally load monitoring systems used in team sports. I will discuss issues arising from the use of different sensor technologies and technical constructions, issues of comparing the results of novel systems with the existing body of knowledge in our field and challenges arising in data reduction and reporting. From this, I will briefly derive requirements for the education of sports biomechanists to allow for keeping up with and making ideal use of the opportunities involved in the transformation of sports equipment into digital systems.
Dear ISBS student members

As we approach ISBS 2018 in Auckland, it is time to promote the annual student mentor programme that runs alongside our annual conference. The programme presents an excellent opportunity for student members of ISBS to meet with experts in our field during dedicated mentoring sessions. Students that have taken part in the mentoring programme in previous years have recommended it as a very useful and enjoyable part of ISBS (See October Newsletters from 2013 - 2017).

The conference in Auckland promises to include a number of exciting student-focused events, such as the new round-table lunch discussion. This year’s mentor programme will take place during breakfast of the second day of the conference. We do our best to match students research interests with those of their mentor. Mentors that take part in the programme come from a range of biomechanical backgrounds and are happy to discuss topics such as your research, career aspirations or just to share their experience with you.

**How to take part:**

Participation in the student mentor programme is free of charge. If you would like to be part of the programme, select the option during the on-line registration process for ISBS 2018. The deadline for registering for the mentor programme is 11th June, which is the early registration deadline.

Priority will be given to student members that are new to the programme but we will endeavour to include students that have taken part in previous years if possible (priority based on registration date).

I look forward to seeing you in Auckland

Tim Exell
ISBS Vice President (Research and Projects)
NEW GRANTS FOR FULL MEMBERS!

Following the addition in recent years of grants to support student members of ISBS and the success of the Student Mini Research Grant, last year I was delighted to announce two new grants for full ISBS members: The Internship Grant and the Researcher Mobility Grant, both of which will be available again in 2018. These grants have been developed to support the research activities of full ISBS members, in particular those that are in the early stages of their career or are returning from a career break. Brief information relating to all three grants are provided over the next two pages. Full details of the grants and application processes are available under the ‘Grants’ tab of the website: www.isbs.org/grants

The Student Mini Research Grant is open to final year undergraduate students and postgraduate students and is available to fund biomechanics research projects in an environment that provides strong mentorship from an established researcher. The grant is designed to assist the student in the early stages of their professional development to encourage the pursuit of biomechanics research.

Funds Available

ISBS funds up to two awards per year, each award may be up to €1000 and is available to fund research for up to one year in duration.

Applications in one or more of the following areas are encouraged:

- Sports / Exercise biomechanics  
- Paediatric/ gerontology exercise biomechanics
- Development of biomechanical methods/ instrumentation
- Fundamental movement biomechanics  
- Sports engineering
- Biomechanics of injury prevention and rehabilitation in sport / exercise

Eligibility

The applicant must be supervised by an established researcher who is a current ISBS member. The student’s supervisor is expected to administer the funding.

Students must be enrolled as a final year undergraduate or a graduate student at the time of application.
The Internship Grant will provide funds to pay an intern student to assist with the research of a full ISBS member. The purposes of the internship are to: 1) support full ISBS members (particularly early career researchers in their research activities by providing student internship support and 2) foster the intern student’s interest in biomechanics research and provide them with an opportunity to become familiar with research techniques and collect data under the guidance of an established researcher.

Funds Available / Allowable Costs

Up to two grants are available. The amount paid will be €250 per week for students living away from home or €150 per week for students living at home for 4-8 weeks and is administered by the Host Institution. Other research expenses are not payable.

Duration / Eligibility

Projects should be achievable in 4-8 weeks – students should be working on a specific project and details of what is intended to be achieved within the time frame is required at application. Students should currently be enrolled as an undergraduate or taught masters student (PhD students are not eligible as intern students).

The Researcher Mobility Grant will provide funds to support full ISBS members (1 ECR and 1 developing researcher) to travel to an established ISBS member’s or applied organisation’s lab. The purpose is to allow the applicant to learn new techniques, collect data, develop research skills, bridge the gap between research and practice and build collaborative sports biomechanics networks. Visits may be to a research lab or applied organisation that utilises sports biomechanics (e.g. National Governing Body or footwear/equipment manufacturer).

Funds Available / Allowable Costs

Up to €2000 each to support travel costs and accommodation/ subsistence.

Full anticipated costings and details of other current financial support to be provided with application.

Duration / Eligibility

Visits are for a duration of 4-8 weeks.

ECRs should be less than 3 years post-PhD graduation (not including verified absence due to sickness, maternity, paternity). Developing Researcher, >3 years post-completion of PhD.

Applicants must be current members of ISBS in good standing and with a minimum of one year’s membership.
The Sport and Exercise Science department here at AUT covers a broad range of topics encompassing sports performance and well being. Biomechanics research topics including: lower limb injury biomechanics, running and cycling mechanics, as well as injury prevention and rehabilitation. A large proportion of the biomechanics projects take place at the one of a kind AUT Millennium facility in the sport science labs; which will also serve as the site for the applied sessions and Sir Graeme Avery event. Post-graduate Sport and Exercise Science students have opportunities to get involved with High Performance Sport New Zealand for their projects to work with international calibre athletes to gain work experience and take their research straight from the lab to the field. My research and PhD will focus on optimising sport-related concussion assessment and rehabilitation strategies in collaboration with New Zealand Rugby.

Auckland is a world class city with incredible natural wonders at your fingertips. The majority of the conference will be held at the AUT City campus located in the central business district (CBD) of Auckland. Spend your free time indulging in world-class food and wine, designer shopping, take a bike ride along the waterside, or walk to the top of Mount Eden, a dormant volcano, for a gorgeous view of the city and harbour. Coffee lovers rejoice, Kiwi coffee culture is unmatched, you can find a quality cup of coffee at cafes all over the city.

I would also like to extend an invitation to all students attending ISBS 2018 to join our Student Night for a taste of traditional Maori culture and cuisine on Tuesday September 11th at 7 pm. The Student Night will take place at the AUT (Māori meeting grounds) where a traditional Maori haka and cultural experience will be delivered and hangi (food cooked under the ground) will be provided. Please come appropriately dressed to the Marae. Men should at least wear dress pants and a tidy shirt, while women should wear either a knee length skirt or tidy dress pants. You will remove your shoes upon entering the Marae. We have also made arrangements for Wednesday the 12th at the AUT Vesbar to get to know other students and delegates over a few drinks.

Looking forward to seeing you in Auckland this September!
Update from VP Public Relations

Laura-Anne Furlong

Society Sponsors

As always, we thank our society sponsors – Kistler, Sensix, and Vicon – for their ongoing support of ISBS. They provide important support to the mission of ISBS through provision of high quality products to members and financial support to the society, and we encourage you to consider these vendors when purchasing your lab equipment.

Affiliated societies

ISBS has recently formalised our affiliation with both the European Society of Biomechanics and Société de Biomécanique. This represents an exciting development for all and we look forward to working closely with these learned societies to grow the discipline of sports biomechanics. This is in addition to our continued association with the International Society of Biomechanics, who we have worked with to ensure our conferences in North America in summer of 2019 run consecutively. This will facilitate members of both societies to attend both events in late July and August, as well as the pre-ISB conference symposia.

National Biomechanics Day 2018

Members will have received emails about the recent National Biomechanics Day initiative, which was held on April 11th 2018. This is the third running of this now international event, which aims to expand the influence and impact of biomechanics on our society by expanding awareness of biomechanics among the general public. Many events are targeted at young people, in particular teenagers, but a key aim of NBD is to engage the general public with our discipline and showcase what an exciting, relevant, scientific discipline we work in. As a result, events will take a variety of shapes and forms, from schools visiting biomechanics labs and engaging in citizen science experiments, to delivery of public lectures and online biomechanics scavenger hunts.

ISBS is a proud sponsor of this event and several members registered events on the NBD website (http://nationalbiomechanicsday.asbweb.org/#) . Most events ran on April 11th, but the team at University of Bath (including ISBS director Ezio Preatoni) kicked off what is becoming an International Biomechanics Month with a fantastic outreach event showcasing the excellent applied research their team conducts in Rugby Union on March 17th. Events are running through to the end of April which still leaves some time to get organised!

If you hosted an event, please send through details and images of your event to me via email (L.A.M.Furlong@lboro.ac.uk) for inclusion in our October ISBS newsletter. In addition, don’t forget to check out the ISBS Twitter feed where we released the videos entered in our very competitive ISBS Two Minute Tweet video competition. Special mentions to our winners: Stephanie Blair (Victoria University, Australia), Bjorn Bruhin (Swiss-Ski and ETH Zurich, Switzerland) and Cat Shin (English Institute of Sport, UK). We are already looking forward to next year’s competition, plenty of time to get recording and planning your entry!
**Short Communications**

**ISBS Student Rep**

**Become the next ISBS Student Rep!**

We will be appointing a new student representative for the term 2018-2020 at the conference in Auckland this year. This is a great opportunity for student members to be the voice of the ISBS student body and contribute to the society’s ethos and goals. Keep an eye on your inbox/social media - the current student representative Gillian Weir will be sending out the call for nominations in May.

**Who’s eligible?**

1. Student member of ISBS in good standing at time of appointment.
2. More than 12 months into graduate study – there is no restriction on penultimate year students expressing interest in the position as the role can overlap with the first year post-terminal degree.
3. The priority for selection of a candidate is finding a suitable, interested, motivated individual who will be a good, fair ambassador for the student members of the society.

**ISBS Student Writers Retreat**

**Gillian Weir,**  
**ISBS Student Representative**

ISBS Writers Retreat - How to write for Sports Biomechanics

We will be holding a one day workshop on Sunday the 9th in Auckland prior to the conference. This workshop will encompass how to write a manuscript specifically tailored to Sports Biomechanics.

Sessions will include:

- The art of writing a scientific paper and the application to Sports Biomechanics (hypothesis writing, structure, discussion writing, application of your research).
- How to best present your data in tables and figures. Tips and tricks.
Dear members,

The ISBS annual membership fee is collected for each calendar year. There is a renew option in our [membership management and payment system](https://www.isbsociety.org/membership) which can allow you to renew for 1 and 3 years. We kindly like to invite all of you to update your affiliation and postal address. After renewal, or if you already have an ongoing membership, your data is transferred to Taylor and Francis on a weekly basis for the access of the Journal Sports Biomechanics.

If you have any questions, please feel free to ask! Thanks for renewing and updating your profile!

Train hard but smart,

Silvio sl@ethz.ch
Treasurer of the International Society of Biomechanics in Sport
ISBS Officers & Directors
ISBS Officers

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Texas Women's University, USA

Past President: Gareth Irwin
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### ISBS Officers & Directors

### ISBS Directors

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<td><strong>Neil Bezodis</strong>&lt;br&gt;St Mary’s University, UK</td>
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