

American Society of Biomechanics Newsletter

Vol. 22 June 2009

www.asbweb.org

From the President Irene Davis

As I write this, many of you are recovering from the largest grant writing frenzy in the history of science. Nearly every colleague I spoke with was vying for a piece of the Stimulus Pie. The Challenge Grant program alone received over 20,000 applications for the 200 grants that will be awarded. Thus, only the top 1% of applicants will be celebrating. On one hand, this is daunting and discouraging. However, if competition is good for business, it is good for science as well. The Recovery Act of 2009 has mobilized scientists across the United States to forge new collaborations, create new initiatives and build new infrastructures. It is hard not to become energized by it all.

Speaking of being energized, your Executive Board has been hard at work this past year. We are working on a number of new initiatives related to our Strategic Plan. Regarding the annual meeting, we are partnering with ISB to host our first International Scientist Presentation this year. We are also seeking to increase our diversity by holding our first Diversity Luncheon at this year's meeting. The idea of Fellowship status in ASB recently received widespread support from the membership, and we are developing the criteria for this status. For our student members, we have developed a reciprocal agreement with the Society for Integrative and Comparative Biology (SICB) where ASB and SICB will each provide fee waivers for 5 students to attend their respective meetings. We have also created a new student travel award to help defer the cost for students to attend the annual meeting. The entire board is currently working to solicit corporate sponsorship to support student travel awards and student research awards. We are also beginning to address the areas of Standards and Best Practices and Ethical Conduct.

In terms of Advocacy, we are developing a registry of reviewers for the Center for Scientific Review. We are seeking experienced scientists who have received major federal funding and are knowledgeable about the NIH review process to serve as NIH reviewers. Please contact me at mcclay@udel.edu if you are interested.

No. 1

In order to further raise funding agencies' awareness of priorities for biomechanics research funding, a meeting is being planned at the University of Delaware for June of 2010. The meeting, *Biomechanics in Movement Science:Building Transdomain Bridges*, will feature Rick Lieber, Scott Tashman, Ton van den Bogert and David Tulsky as keynote speakers. This will be a working meeting, modeled after the 1996 NIH-sponsored workshop on Gait Analysis in Rehabilitation Medicine. Participants will develop and prioritize recommendations for biomechanics research areas which cross research domains at the cellular/tissue, joint, limb, whole body and community participation levels. These recommendations will be submitted to NIH to serve as a roadmap for future funding.

The Executive Board will be changing quite a bit this year. The Secretary-Treasurer position will be divided into two positions. We will be electing a new Secretary who will assume the responsibilities of the current Membership Chair position, from which Max Kurz will be stepping down. Andy Karduna will be leaving the Communications Chair position, and Zong Ming Li from the University of Pittsburgh will be taking his place. We will also be choosing a Treasurer-Elect this year. This has been an incredibly hard-working Board and I thank them all for their generosity of time and service.

Our annual meeting is only a few months away. There was an overwhelming response to the meeting with over 500 abstracts being submitted. I am particularly excited to preside over this meeting being held at my alma mater. The program and meeting chairs have been working tirelessly to provide a stimulating meeting with great social events. Penn State University last hosted ASB in 1979 and thus it will be a special 30-year anniversary event. It is sure to be a meeting to remember. I hope to see many of you there!



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ASB Involvement

If you are interested in becoming more active in the Society (e.g., serving on a committee or chairing a conference session), contact Max Kurz (mkurz@unmc.edu), Membership Committee Chair, with your name, address, phone/fax number, email address, and your desired involvement. This information will be included in a database which is periodically updated and distributed to the Executive Board.

Newsletter Advertising

The Editorial Board invites various businesses and corporations that have products or services of interest to members of the Society to advertise in the ASB Newsletter. Advertising space may also be purchased for job postings or other special announcements.

The current advertising rates are as follows:

| 1/4 page | \$100 |
|-----------|-------|
| 1/2 page | \$200 |
| fullpage | \$400 |
| back page | \$600 |

If you are interested in learning more about advertising in the ASB newsletter, please email William Ledoux at:

wrledoux@u.washington.edu

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All previous ASB newsletters have been converted into pdf documents and are archived on the ASB website:



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Student's Corner Becky Fellin

The summer is rapidly approaching, which means the annual ASB meeting is right around the corner. This year the American Society of Biomechanics Annual Meeting will be held at The Pennsylvania State University from August 26-29, 2009. Several new, popular events from past years year will be held again as well as a few new events. This conference should be great experience for students and there are a wide variety of activities planned.

A new program this year will be a Diversity Luncheon, for both students and professionals of all backgrounds. The informal luncheon will be held on Thursday, August 27, 2009. The luncheon will focus on discussing important aspects women and underrepresented minorities should know about their colleagues, mentors, institutions and fields of research. Additionally, the luncheon will include an open discussion of what strategies did and did not work to get ahead in research and academia.

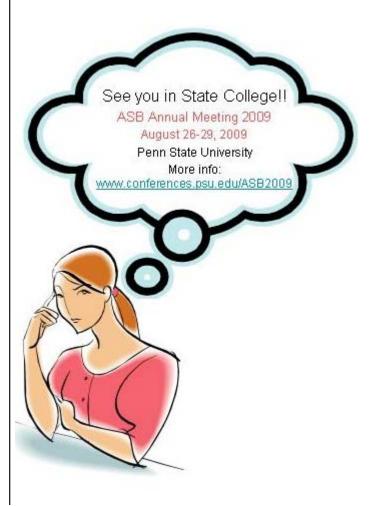
The Women in Biomechanics lunch will be held on Friday, August 28, 2009. It will be an ideal time for female students to network with other female members. Each table will have a senior female faculty member to facilitate small group discussions. I will email the students a brief description of the faculty members who will be in attendance to guide students in selecting a faculty member to sit with. We will also discuss whether the Women in Biomechanics luncheon should be continued or if it should be combined with the Diversity Luncheon.

As with last year at NACOB, we will be holding a roundtable mentoring session with a pizza dinner on Thursday evening prior to the night out on the town. This session is different from the mentor program run every year for ASB student members (see next paragraph for more details). There will be about five different topics with one or two mentors for each topic. These topics will include CV building, collaborative research, job searching and contract negotiation, developing a research program, family/

work balance. In this informal setting, students will have the opportunity to have numerous discussions with experts in biomechanics.

Another program that will be continued again this year is the mentor program. In this program, students are paired with a senior scientist. The goal is to encourage interaction between students and senior scientists in an informal setting to discuss career goals, research, or even life after graduate school. If you are interested in participating, please email me (fellin@udel.edu) by June 19 with information on your area of interest, and if there is a particular mentor you would like to be paired with. I will do my best to match students and scientists with similar backgrounds.

As the ASB meeting gets closer, be on the lookout for more emails from me. I hope to see everyone in August at Penn State!



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The Annual Meeting for the American Society of Biomechanics



The Pennsylvania State University

August 26-29, 2009 www.conferences.psu.edu/ASB2009

Meeting Chairs: John Challis and Jinger Gottschall

Program Chair: Steve McCaw

an outreach program of the College of Health and Human Development



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Education Committee Nick Stergiou

This academic year is certainly marked by the President's stimulus package which generated an unprecedented grant writing effort across the country. For whoever is dealing with the NIH, words like "challenge grant" have become part of our nightmares or our dreams for a better scientific future. Now we are trying to identify some vacation time to recover!

Make sure that part of *your* vacation will be at our annual meeting at Penn State. I have been there several times and the place is marvelous. There is a very nice golf course right next to our meeting location, the Nittany Lion Inn, with a beautiful running path around it. The campus is also quite vibrant with several nice restaurants and bars close by. Penn State has a huge cohort of laboratories and strong faculty that will be involved with our meeting. The scientific exchange is going to be outstanding. This is going to be fun and is certainly needed after the year of "the challenge grant". Your batteries will be re-charged just in time to start the next academic year and another potential tsunami of grant writing!!

Below is some news about the wonderful things that our society is doing. I am really proud to be your Education Committee Chair.

ASB Graduate Student Grand-in-Aid Program

The Grant-in-Aid program received nine applications this year. I would really encourage all of our student members to apply since the odds of funding are pretty good! This year we funded our top five applications. All applications were ranked based on background (15 pts), significance (15 pts), methods (10 pts), budget (3 pts), and candidate CV and ASB involvement (7 pts).

I would like to thank the committee members for their thorough review of the very competitive applications. The committee was: David Vaillancourt (University of Illinois at Chicago), Evangelos Christou (Texas A&M University), Jianhua (Jerry) Wu (Georgia State University), Doug Powell (University of Texas at Permian Basin) and two

student representatives, Sara Myers (University of Nebraska Medical Center) and Becky Fellin (University of Delaware). I was solely responsible for collecting and tabulating the scores.

The ASB Executive Board is pleased to announce funding for the following projects:

Elizabeth Russell, University of Massachusetts at Amherst: Can laterally-wedged insoles reduce biomechanical risk factors for knee osteoarthritis in high-risk populations?

Elizabeth Drewniak, Brown University: Effects of Cyclic Loading on the Frictional Properties and Wear of Articular Cartilage.

Liang-Ching Tsai, University of Southern California: Will subject-specific anatomic parameters improve moment prediction of an EMG-driven knee joint model?

Andrew Sawers, University of Washington: Estimation of the axis of rotation position in non-articulated energy storage and return prosthetic feet: Implications for prosthetic foot efficiency and motor control strategies in unilateral transtibial amputees.

Jooeun Song, University of Southern California: Dynamic postural control during simple and complex locomotor tasks in persons with early-stage Parkinson's disease.

The next deadline for this program is January 15, 2010. Details on the application process will be posted on the ASB website and provided in the fall newsletter.

Regional Student Meetings

The ASB Executive Board supported two regional meetings this year: the South East American Society of Biomechanics Regional Meeting at the University of Florida in Gainesville, FL and the Northwest Biomechanics Symposium at Washington State University, in Pullman, WA. It is quite encouraging that, even in a time of decreased travel and sponsorship funding, these two groups are willing to host regional meetings and promote biomechanics!

The next deadline for applications to host a regional meeting will be September 30, 2010. Maximum financial support for a meeting is \$2,000 and the ASB can support up to four regional meetings each year. A regional meeting can be hosted between December 1st and May 31st, so as not to interfere with the ASB annual meeting. For the immediate future, priority will be given to proposals coming from regions that have not previously hosted a meeting. Proposals from previously funded regions will be awarded on a first arrived, first funded basis. Sponsors of a new regional meeting should specifically include ASB in the title (i.e. Midwest regional ASB meeting). If you are interested in serving as a host, contact me ASAP and we can get your application process underway.

Tutorials/Workshops for our Annual Meeting at Penn State

I am especially excited about the tutorials and workshops that we are going to have at this year's annual meeting. As the Education Committee Chair, I worked closely with meeting co-chairs Jinger Gottschall and John Challis to line up an excellent set of topics that will make it worthwhile to arrive

in State College early. So far we have Dan Ferris from the University of Michigan who will give a workshop with significant hands-on experience on exoskeletons, and Sam Slobounov from Penn State who will provide a tutorial on using virtual reality in biomechanics. We are also planning to offer at least two more tutorials using the tremendous resources available at Penn State. As you can see, you have to get to the annual meeting early this year to attend these excellent tutorials. This is an opportunity that should not be missed!

It is not too early to plan a tutorial or a workshop for the 2010 annual meeting. I welcome your submission of names and topics for potential tutorials for 2010.

Conclusion

As I am trying to finalize another one of these grant opportunities from the stimulus monies, I am thinking about all the biomechanists and good friends that will flock to State College, the grant writing war stories that we will share, and the scientific ideas that we will debate. I can't wait. See you there, and as our Program Chair Dr. McCaw says, "bring a colleague, bring a friend, bring a student"!

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Secretary/Treasurer Paul DeVita

So far, so good...still...amazing. I have now been the Secretary-Treasurer for 20 months and the ASB is still in business. In fact, business is good, at least legally speaking. Soon after the December newsletter was released, Edwin Gray, CPA and Associates of Greenville, NC completed their review our financial records. The purpose of the review was to verify our financial status, expenditures, and records and to also identify improvements we can make in our financial records. A financial review is similar to an audit but less rigorous and less expensive. In fact, the review cost \$2,822 whereas an audit would have cost between \$5,000 and \$7,000. The bottom line from the review was this statement: "Based on our review, we are not aware of any material modifications that should be made to the accompanying financial statements in order for them to be in conformity with generally accepted accounting principles." Yahooo! As I noted previously, we remain in business.

Of course business is not as good regarding our investments, which should not be news to anyone. As of March 31, 2009, our investment portfolio with Ameriprise Financial Services totaled \$114,249 which was a decrease of 22% over the previous year. All in all, some might consider that we are loosing money at a lower rate than other organizations. Our checking account had \$33,091 as of March 31, 2009. More or less, these funds will be completely spent through the year on the usual suspect(ed activitie)s including Student Grants in Aid (\$10,000), Research Travel Awards (up to \$2,000), research awards given at the annual meeting (~\$4,000), journal subscriptions for members (~\$3,000), and of course the luxurious vacations provided to the Executive Board members (priceless).

We presently have 423 regular members and 148 student members current for 2009. Our 2008 year end totals were 496 and 232 regular and student members. Most likely we will see a significant

bump in both regular and student members in the next three months because some members renew and other people join as the annual conference draws near. We also have eight emeriti members who have lifetime memberships. Doesn't this number seem low? Individuals receive Emeritus membership through the Executive Board (the Bylaws state: Emeritus Members shall be those members of the Society who are designated Emeritus Members by the Executive Board of the Society). However, the Executive Board would certainly welcome any recommendations from the general membership for potential Emeritus membership. Please feel free to recommend to me or Max Kurz, Membership Chair, individuals for Emeritus status in ASB.

The Big News from the Secretary-Treasurer's office is the move to redefine this position to that of simply Treasurer. Along with this change to the Executive Board we will be changing the Membership Chair position to the Secretary-Membership Chair position. The ASB membership just finished voting in favor of these changes. In short, we will be sliding the secretarial duties over from the S-T position to the membership chair position and making the Secretary-Membership Chair position an elected position to the Executive Board. Currently, the S-T position has substantially more work than the Membership Chair position (at least that is image I try to portray, Oh...I am so overworked...) so the Board is trying to more evenly distribute the workload among Board members. Also, Max Kurz takes much better minutes than I do so we get this extra added benefit with this re-organization...at least as long as Max is on the Board.

Please visit the ASB website (www.asbweb.org) for information on the 2009 Annual Meeting at Penn State University, the ASB Northwest Biomechanics Symposium, and other meetings endorsed by ASB, among other things. Also, please contact me if you have any questions or problems with your membership.

How surprising, I can write a mostly serious newsletter article.

Thank you for your support.

Past-President Rodger Kram

Just before the Nobel prizes are announced to the media, the Nobel Committee places a telephone call to inform the winners. In North America, the call occurs very early in the morning. As you might imagine, people are often sound asleep or even still in the pub. Here is a humorous collection of anecdotes related to "the call from Stockholm". In a similar vein, one of my last duties as Past-President is to oversee the annual ASB awards and I was honored to make a few phone calls to inform the winners of this year's awards. Somehow, "the call from Boulder" doesn't have quite the same ring to it.

This year's competition for the Borelli award was excruciatingly tough. It was very humbling to read the CVs of the nominees. As most of you know, the Borelli award is the highest honor bestowed by our Society. This award recognizes outstanding career accomplishment and is based on originality, quality and depth of the research and the relevance of their research to the field of biomechanics. This year's winner is Dr. James Ashton-Miller from the University of Michigan.

There was also an impressive slate of nominees for the Jim Hay Memorial Award for Research in Sports and Exercise Biomechanics. This year's winner is Doris Miller, Ph.D. who is an emeritus professor at the University of Western Ontario. Dr. Miller is best known for her extensive research on the biomechanics of springboard and platform diving. Her early research on amputee running mechanics is less well known, but remains influential on those of us trying to understand how Oscar Pistorius can run so fast. Although Dr. Miller claims to be retired, she is still publishing.

The lectures of Drs. James Ashton-Miller and Doris Miller will surely be highlights of the meeting at Penn State. Please see the following columns for summaries of the contributions each of these scientists has made to biomechanics, written by their award nominators.

Borelli Award Richard Hughes

James Ashton-Miller, Ph.D., will be awarded the 2009 Borelli Award of the American Society of Biomechanics at the 2009 Annual Meeting.

Since receiving his doctorate from the University of Oslo in 1982, Dr. Ashton-Miller has been very productive in musculoskeletal biomechanics. He has made significant contributions to a wide range of areas, including spinal biomechanics, falls in the elderly, aging, and anterior cruciate ligament injury prevention. Most recently, he has been at the forefront of the application of biomechanics to pelvic floor disorders in women.

He has published 166 papers in peer-reviewed journals and mentored many successful young biomechanists at the pre- and post-doctoral levels. He served as President of the American Society of Biomechanics in 2001. He is currently a Research Professor in the Departments of Mechanical Engineering, Biomedical Engineering, and Internal Medicine at the University of Michigan. He also holds the Albert Schultz Collegiate Research Professorship at the University of Michigan. Dr. Ashton-Miller gives very clear and enjoyable presentations; be sure to attend his award lecture at Penn State this August.



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Hay Award Jill McNitt-Gray

Doris Miller, Ph.D. will be the recipient of the 2009 Jim Hay Memorial Award for Research in Sports and Exercise Biomechanics from the American Society of Biomechanics.

Dr. Doris Miller is truly a pioneer in biomechanics and the world leader in diving biomechanics research. As one of the first graduates of the biomechanics research program at Penn State, she used a multisegment dynamic model to test hypotheses about the flight phase mechanics of a dive, a revolutionary approach for 1970. She is currently a Professor Emerita at the University of Western Ontario (2000).

Dr. Miller's research on diving spans four decades. She continues to demonstrate originality and depth in her research as an active member of the Performance Enhancement Team for USA Diving and as a biomechanist for the Olympic Medal Program. She has received the most prestigious awards from the diving community including the 2008 Glenn McCormick Memorial Award for Outstanding Contribution to the Sport of Diving. Her vast contributions to sports biomechanics are truly remarkable, particularly when considering in the context of limited and inconsistent funding for sports biomechanics.

We have all benefited from Dr. Miller's leadership and editorial contributions to the field. Dr. Miller was a founding member of the American Society of Biomechanics and served as ASB President (1983-1984). Doris was also a founding member of the International Society of Biomechanics and the Canadian Society of Biomechanics. Dr. Miller's career and contributions to biomechanics have continued to be exceptional and have been previously recognized by both international and national biomechanics societies.

Be sure to attend her lecture this August at the annual meeting!

Research Travel Grant 2008 Fei Liu

In January 2009, I traveled from Columbia, SC, to the State Key Lab for Manufacturing Systems Engineering (SKMSE) of Xi'an Jiaotong University (XJTU) in China with the generous financial aid of the ASB Research Travel Grant. SKMSE is one of the largest national laboratories in China with 57 full-time professors and approximately 370 graduate Professor Dichen Li leads the students. biomechanical research group at SKMSE. His group cooperates with China's most prestigious medical colleges and is focused on design and fabrication of customized knee and dental implants and design and fabrication of tissue scaffolds to repair large bone defects using rapid prototyping and rapid tool techniques (RP/RT).

Midlands Orthopaedics, p.a. is a partnership of 13 fellowship-trained physicians committed to accurate, efficient, and compassionate diagnosis, treatment, and follow-up care of the entire musculoskeletal system. We are very interested in developing our first uncemented mobile bearing Total Knee Replacement System coupled with minimally invasive instrumentation and surgical navigation. This prosthesis system can help young and active patients return to their normal lives without decreasing their physical activities. This is a challenging collaborative research opportunity for two international teams to achieve the goal of improving and preserving quality of life for patients everywhere.

During the four day visit, I was impressed with the advanced experimental facility and research environment in SKMSE. I had the opportunity to discuss potential collaborative research opportunities with Professor Li and his senior PhD students. The travel grant offered me the precious opportunity to work closely with SKMSE research teams and Xi'an Jiaotong University. I am a Chinese citizen who studied in the US and have been working in the biomechanical field in the US for about 6 years. I think that it is a great opportunity for American researchers to gain access to developments in the biomechanics field in China.

Annual Meeting 2009 John Challis & Jinger Gottschall





This year, the ASB annual conference will be held at Penn State University from August 26-29. The conference venue is the Nittany Lion Inn, which also offers accommodations. There will be 135 podium presentations running in three parallel sessions, in addition to three keynotes and award lectures. There will also be approximately 400 poster presentations.

Daily Highlights

Wednesday

- ◆ Tutorial from Dan Ferris on robotic exoskeletons for studying human locomotion
- ◆ Tutorial from Sam Slobounov on virtual reality environments.
- ♦ Tours of campus laboratories.
- Welcome Reception.

Thursday

- Diversity luncheon.
- Presentations from the winners of the best paper awards.
- ♦ Keynote from Bob Sainburg on the neural foundations of motor lateralization.
- Poster session with cash bar.
- Mentor program meeting.
- ♦ Student pub crawl!

Friday

- ♦ Past-Presidents breakfast.
- ♦ Women in science luncheon.
- ◆ The Hay Lecture.
- ♦ Keynote from Kiisa Nishikawa on comparative neuromechanics.
- Poster session with cash bar.
- ♦ Conference Banquet at Beaver Stadium (home of the Penn State football team).

Saturday

- ♦ The ASB 5K Challenge.
- The ASB Business Meeting and luncheon.
- ♦ The Borelli Lecture.
- ◆ ISB sponsored keynote from Ewald Hennig on athletic footwear.

We look forward to seeing you at the end of August.



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A View From the Blue Michelle Sabick

The two dominating themes from recent weeks seem to be the tanking economy and the potential swine flu (more appropriately called the H1N1 virus) pandemic. Between these two catastrophies, I have heard more media doomsday scenarios than I can possibly stomach. You really cannot even turn on the TV, your computer, or your cell phone without coming across more dire predictions for our impending doom. The "the sky is falling" contingent have missed one very important fact, however. A crisis can actually be an enormous opportunity, an idea which thankfully doesn't seem to be lost on the Obama adminstration.

Case in point: I just returned from a fabulous Mexican vacation at a resort that was only 15% occupied due to worries about the swine flu. The fact that so many potential tourists had canceled their (probably much needed) vacations due to worries about the swine flu was in some ways humorous to those of us who had braved the trip. First of all, it turned out not to be a very deadly strain of the virus. In addition, the area around the resort had not even experienced swine flu problems, and was more than 500 miles from the original outbreak location. After all, Mexico is a pretty big country. But, to hear the media tell it, all of Mexico was doomed by the plague of death. So, the fact that most people were not able to discern the minimal threat posed by the swine flu meant that my family and I got to enjoy an incredibly relaxing vacation free of the throngs of tourists that might otherwise have been there. What many people saw as a crisis turned out to be an excellent opportunity!

The poor economy is certainly affecting all of us in the biomechanics world. Whether you are a faculty member at a state university or a company CEO, the credit crunch and dwindling state budgets mean that you are probably being asked to give up some of your normal perks, such as traveling to conferencesor matching contributions to your retirement account. In addition, you may be facing potential salary cuts or layoffs of yourself or your

employees. Although these times are often depressing, the true "copers" will be looking for opportunities to find silver linings in the economic outlook. For example, if you have money to buy equipment or make laboratory renovations, you can get incredibly good deals right now. This is a great time to get things that you need to equip your lab or to make infrastructure changes that will improve your productivity later.

Not all sectors of the economy are down, either. First of all, there are more federal funding possibilities than ever. There may also be excellent opportunities for biomechanics researchers in green technologies such as energy scavenging, and there is certainly a need for innovative devices that will help keep medical costs down. So, although many people are lamenting the death of the US and world economies, there just might be some opportunities for biomechanists to make a difference and help solve some of the country's economic woes. What a great opportunity!



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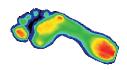
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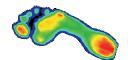
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Calendar of Events

William Ledoux

American Society of Mechanical Engineers Summer Bioengineering Conference

June 17 - 21, 2009, Lake Tahoe, California Abstract deadline - past www.asmeconferences.org/sbc2009

International Society for Posture and Gait Research

June 21 - 25, 2009, Bologna, Italy Abstract deadline - past ispgr.org/conferences/italy-2009

International Society of Biomechanics

July 5 - 9, 2009, Cape Town, South Africa Abstract deadline - past www.isb2009.org

Footwear Biomechanics Symposium

July 10 - 12, 2009, Stellenbosch, South Africa Abstract deadline - past 2009.footwearbiomechanics.org

International Society of Biomechanics in Sports

August 17 - 21, 2009, Limerick, Ireland Abstract deadline - past www.isbs2009.com

American Society of Biomechanics

August 26 - 29, 2009, State College, Pennsylvania Abstract deadline - past

www.conferences.psu.edu/ASB2009

IEEE Engineering in Medicine and Biology Society

September 2 - 6, 2009, Minneapolis, Minnesota Abstract deadline - past www.embc09.org

Medical Physics and Biomedical Engineering

September 7 - 12, 2009, Munich, Germany Abstract deadline - oral = past, poster = July 15, 2009 www.wc2009.org/World-Congress-2009/Pages/ Home.aspx

International Research Council on Biomechanics of Injury

September 9 - 11, 2009, York, United Kingdom Abstract deadline - past www.ircobi.org/conference.htm

European Society of Movement Analysis for Adults and Children

September 14 - 19, 2009, London, England Abstract deadline - past www.esmac2009london.org

International Conference on Computational Bioengineering

September 16 - 18, 2009, Bertinoro, Italy Abstract deadline - past www.iccb2009.org

Human Factors and Ergonomics Society

October 19 - 23, 2009, San Antonio, Texas Abstract deadline - past www.hfes.org/web/HFESMeetings/ 09annualmeeting.html

Orthopaedic Research Society

March 6 - 9, 2010 New Orleans, Louisiana Abstract deadline - August 31, 2009 www.ors.org

American Academy of Orthotists and Prosthetists

March 24 - 27, 2010, Chicago, Illinois Abstract deadline - July 31, 2009 www.oandp.org/meeting2010

Gait and Clinical Movement Analysis Society (JEGM 2010, Joint meeting with GCMAS and ESMAC)

May 10 - 14, 2010, Miami, Florida Abstract deadline - tba www.gcmas.org/conference

American College of Sports Medicine

June 2 - 5, 2010, Baltimore, Maryland Abstract deadline - November 2, 2009 www.acsm.org/... or http://tinyurl.com/lld9jp

International Society of Electrophysiology and Kinesiology

June 16 - 19, 2010, Aalborg, Denmark Abstract deadline - tba www.isek-online.org/up_conf.asp

NOTE: For a more comprehensive international listing, please visit ISB's website at: isbweb.org/o/content/view/40/57/

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