



American Society of Biomechanics Newsletter

Vol. 19

December 2006

No. 2

www.asbweb.org

From the President

Kenton Kaufman

As you are reading this report, the college football season will be focusing on bowl games and the professional football schedule will be discussing playoffs. When I was in college I posted the following saying on my bulletin board, *"The trouble with not having a goal is that you can spend your life running up and down the field, never scoring"*. This football analogy signifies the importance of staying focused in order to achieve the goals a person has set. Likewise, an organization needs to set goals. Strategic planning determines where an organization is going, how it is going to get there, and how it will know if it got there or not.

Toward this end, the ASB Executive Board (ExB) has begun a strategic planning process for the Society. The ExB has drafted a strategic planning document over the past year. The purpose of this document is to develop and communicate a plan for the future direction of the Society. The plan is a series of multi-year goals and associated strategies which the Society is currently pursuing or will initiate in order to reach our shared objective. It is meant to serve as a link between the present and the future.

The strategic plan was announced at our annual meeting and has been posted on the ASB website (http://www.asbweb.org/html/strategic/Strategic_Plan.doc).

We are at the point where input from the ASB members is essential in order to form a consensus vision for the Society's future.

A contact person has been established for each goal. The contact list is as follows:

GOAL	CONTACT	E-MAIL
1. Annual Meeting	Francisco Valero-Cuevas	fv24@cornell.edu
2. Membership Recruitment & Participation	Max Kurz	mkurz@mail.coe.us.edu
3. Student Involvement	Katie Bieryla	kbieryla@vt.edu
4. Communication	Andy Karduna	karduna@uoregon.edu
5. Education and Outreach	Steve McCaw	smccaw@ilstu.edu
6. Standardization and Best Practices	Michelle Sabick	MSabick@boisestate.edu
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8. Financial Viability	Don Anderson	don-anderson@uoiwa.edu
9. Advocacy	Rodger Kram	rodger.kram@colorado.edu
10. Other suggestions	Kenton Kaufman	kaufman.kenton@mayo.edu

Please review the Strategic Plan and provide your thoughts. A number of you have already done so and have provided excellent comments! The ExB will compile all the comments and finalize the document in the first half of 2007. We will post a final version before the 2007 Annual Meeting and ask that you ratify the document at the annual meeting. This document will then serve to guide us into the future.

So, when you're watching a bowl game or the playoffs, grab a copy of the Strategic Plan and give it some thought. Your input is essential!





ASB NEWSLETTER volume 19, number 2

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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@mail.coe.uh.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
full page	\$400
back page	\$600
separate insert	\$600

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

wrledoux@u.washington.edu

Back Copies of Newsletter:

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

<http://www.asbweb.org/newsletters/newsletters.html>

Save the Date!

ASB Annual Meeting 2007

August 23-25, 2007

Stanford University

More info soon: www.asbweb.org

Student's Corner

Katie Bieryla

The recent ASB meeting held at Virginia Tech was a great success for students. During Friday's student meeting I had the privilege to be elected to serve as your student representative to the executive board. The meeting was attended by over 75 students. I would like to thank the four scientists for speaking to the students about the decisions they have made to advance in biomechanics. They were very helpful in answering many questions including those concerning career choices and post-doc positions. The student night out on Friday evening was attended by over 60 students. This served as a great way to meet students from other schools in an informal setting. Finally, Saturday's Women in Science luncheon was attended by approximately 60 female students. This was the first year the meeting was held at the lunch time which allowed for an extended discussion between students and senior scientists.

An important date for student members to keep in mind is January 15, 2007 as this is the due date for ASB Graduate Student Grant-In Aid applications (see p.10). The Grant-In Aid program offers research funding for small equipment items, materials and supplies, and animal or subject costs. The money cannot be used for salaries or travel. To be eligible for the award the student must be a student member of ASB or have an application pending by January 1, 2007. The executive board anticipates awarding 3-5 grants ranging from \$500 to \$2,500. For more information check the ASB website.

Also of note to students are the three regional ASB meetings coming up before next year's annual meeting. The Northeast American Society of Biomechanics Conference will be held March 30-April 1, 2007 at the University of Maryland, College Park, MD. The Southeast Biomechanics Conference will be held April 19-21, 2007 at Duke University in Durham, NC. Finally, the Northwest Biomechanics Symposium will be held May 18-19, 2007 at the University of Oregon, Eugene, OR. These meetings are great opportunities for students to present current

work ranging from pilot data to dissertation material in a smaller setting than the annual ASB meeting. The ASB website (www.asbweb.org) contains links to more information about these opportunities.

Keep in mind that the next annual meeting will be held at Stanford University, Palo Alto, CA. Student members have become increasingly more involved at the annual meetings. I hope to see this encouraging trend continue.

The mentor program will again return. Twenty-two students participated during the last meeting, and I hope this number will increase significantly. For those who do not know, the mentor program pairs students and senior scientists with similar research interests and a willingness to participate. The student meets with the mentor at the annual meeting to discuss research, explore career directions, and receive guidance. More information about the mentor program will be sent out as the meeting approaches.

I encourage student members to contact me (kbieryla@vt.edu) with ideas on ways to improve student involvement both in the organization and at the annual meeting. I look forward to serving as your student representative for the next two years.



The ASB 2006 banquet on the lawn at the Inn at Virginia Tech.

Secretary/Treasurer

Don Anderson

As of November 6, funds in our cash accounts totaled \$19,575 (up slightly from same time last year). We are eagerly awaiting a payment from the organizers of this past summer's meeting. Stefan Duma assures me that we will not lose money on the meeting (always a good thing). We presently have \$138,571 in our investment portfolio, which is up about \$8,500 from this time last year.

I anticipate needing to withdraw some cash from these investments sometime in the next few months. I would attribute this need to decreased outside support of student attendance at our Annual Meeting. In particular, the Whitaker Foundation finally closed its doors this past year, and we have relied on them underwriting reduced student registrations over the past decade. As a net result, I expect less revenue from our Annual Meeting this year than in the past few. Let's hope that I am pleasantly surprised when the figures come in, what with all the hard work of Stefan and his crew in Blacksburg.

A few specific notes to pass along... We paid out \$6,400 in awards at our annual meeting this past summer, with \$2,500 being underwritten by corporate support (thanks to Elsevier, Microstrain, Inc., and Vicon Peak). Our Borelli Award Winner (Walter Herzog) kindly donated back his \$1,500 in prize earnings, requesting that it be earmarked for support of the Hay Award. Three checks (\$6,000 total) went out in October in support of Regional Meetings for 2007.

I am happy to report to you all that we are now well into my final year as your Secretary / Treasurer, which means we are on the verge of my final Membership Dues collection. It may be a bit premature to speculate, but I think this might be the last time that we use this procedure, as we are moving towards more of this process funneling through our website and an e-commerce model. I will soon be mailing out (electronically) invoices to one and all for payment of your 2007 membership dues and subscriptions. If your email address has recently changed, save yourself some trouble, and please send along an update to my attention (don-anderson@uiowa.edu). Thanks.

Announcement

New Pricing for ASB members on *Journal of Applied Biomechanics*

You now can save 10% off the list price for a subscription to *Journal of Applied Biomechanics*, published by Human Kinetics. Previously, ASB members received \$2 off the list price, but beginning in 2007, ASB members now can get 10% off the price -- a much better deal for you.

Following are the ASB rates for one-year subscriptions to the journal:

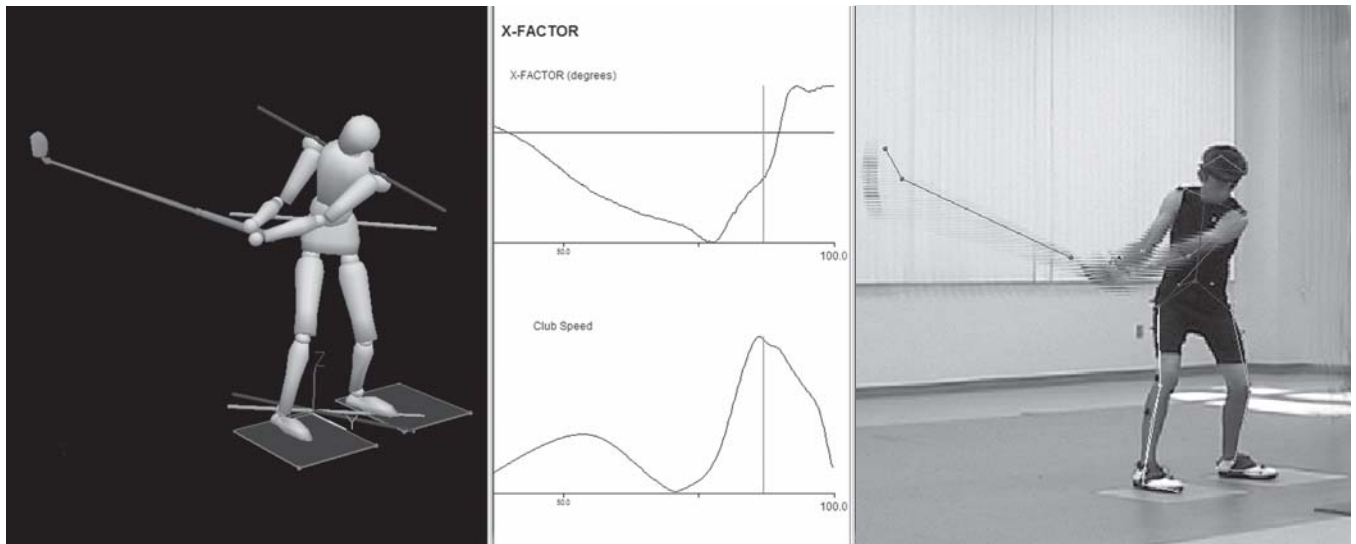
U.S.	Professionals	Students
Print-only	\$54	\$40.50
Electronic-only	\$54	\$40.50
Best Value: Print AND Electronic	\$54	\$40.50
International		
Print-only*	\$64	\$50.50
Electronic-only	\$54	\$40.50
Best Value: Print* AND Electronic	\$64	\$50.50

* Includes overseas shipping costs.

Beginning in 2007, U.S.-based ASB members can get both the print AND online editions of *JAB* for the same price as the print or online editions. Moreover, an online subscription entitles ASB members to all of the journal's back content posted on the *JAB* Web site.

To order your subscription, contact Don Anderson (don-anderson@uiowa.edu). To learn more about *JAB*, visit: www.humankinetics.com/JAB/journalAbout.cfm

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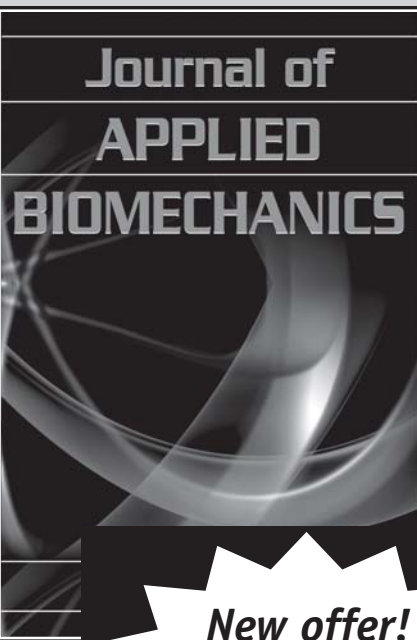


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The *Journal of Applied Biomechanics (JAB)* presents original research applying biomechanical methods to study problems related to clinical and sport science. It uniquely combines the fields of musculoskeletal and neuromuscular biomechanics through studies of gait and posture and biomechanical modeling. Each issue includes original research and technical notes that spotlight current advances and new methodologies in the field.

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New for 2007, subscribers receive both the print and online versions of the journal at the same price as either the print or online version alone!

New offer!
ASB members now get
10% off the list price of
a subscription to *JAB*.

Thomas S. Buchanan, PhD, Editor
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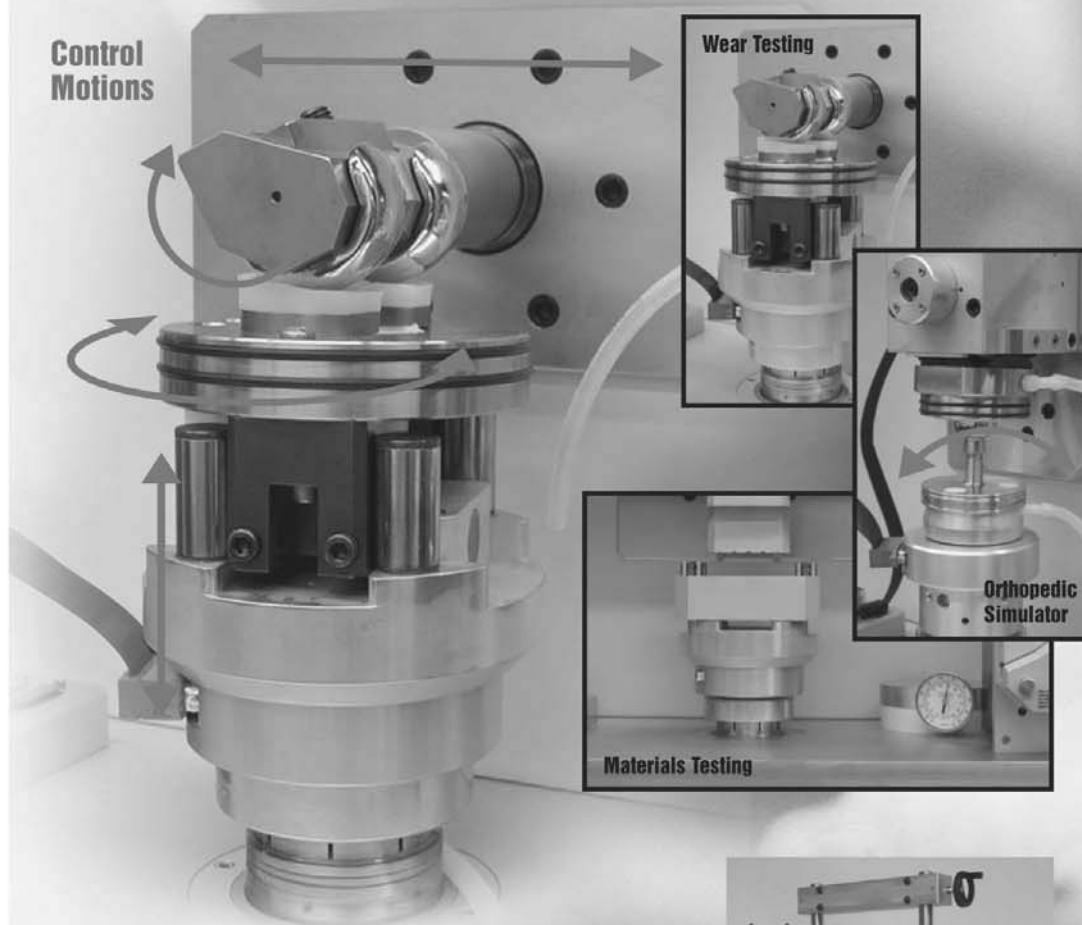
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Education Committee

Steve McCaw

The ASB meeting at Virginia Tech was a success according to the evaluations received from attendees. A summary of the results and all of the extensive written comments were distributed to the organizers to reinforce that all of their efforts were appreciated by attendees, and the feedback will be used to optimize future meetings.

One highlight of the meeting was the poster *Biomechanical Risk Estimates for Concussion in Collegiate Football Players* by Jim Funk and Stefan Duma from Virginia Tech (see page 9). Written as a sequence of ten limericks, to me it was the first time that a scientific presentation has rivaled *Beowulf* or *Paradise Lost* (the two epic poems I recall from introductory college English) or ribald rugby drinking songs for creativity.

Tutorials at the Annual Meeting

The ASB again thanks the presenters of the tutorials at the Virginia Tech meeting. Tibor Hortobágyi presented on *Transcranial Magnetic Stimulation* while Steve Messier and Paul DeVita presented on *Grantsmanship*. Both tutorials, held on Wednesday afternoon, were attended by around 25 individuals. The feedback was extremely positive for both.

Tutorial planning is underway for 2007, with one suggestion already received. I welcome your suggestions (by email) of topics and/or presenters. If your tutorial is selected by the ASB executive board, you will receive a complementary registration for the 2007 meeting. Submission deadline is January 15 to allow discussion of potential topics at the winter ASB executive board meeting.

Successful Student Sessions at the Annual Meeting

Outgoing student rep Melissa Scott-Pandorf organized a successful student luncheon at the annual meeting. The distinguished luncheon panel consisted of Drs. Scott Delp, Casey Kerrigan, Julianne Abendroth-Smith, and Janet Dufek, who regaled student attendees with personal anecdotes concerning the sometimes convoluted road traveled in

pursuit of a career in biomechanics. I thank them for taking time from busy conference schedules to provide this service to students. Congratulations to the new student rep, Katie Bieryla from Virginia Tech, elected at the meeting from a record sized slate of six candidates.

ASB Graduate Student Grant-in-Aid Program

The Grant-in-Aid program makes available to graduate students money to support research endeavors conducted as part of a degree program. The deadline for the next funding cycle is January 15, 2007. Details on the program are available on page 10 in this newsletter and also on the ASB website.

Happy Update: Regional Student Meetings

The ASB Executive Board has already approved funding for the three regional meetings ASB is able to sponsor in 2007: Northeast (University of Maryland), Southeast (Duke University) and Northwest (University of Oregon) (see details pp. 16-17). Because of the increasing popularity of serving as host for a meeting, the ASB executive board will revisit the guidelines for providing support. At present, ASB makes available a total of \$6,000 to equitably fund three regional meetings. We will consider creating formal regions within the country, and developing a process of dividing the funds among the regions to maximize the number and quality of the meetings. Details on the new guidelines will be provided in the spring newsletter.

Interesting question

As usual, the non-conference hours were bountiful at the ASB meeting as a result of the interesting conversations that are held. One informal roundtable discussion grew from the comment that scientists who write published papers are in a minority in the publishing world because they are not paid for their published work. This led to animated discussion of the question "What if an author was paid by the publisher for each citation of the paper?" which would, in short, provide a financial impact factor for an author's work. What do you feel about this question—would it help or hinder science? Send me your opinion and I may compile a summary in the future newsletter if the responses are interesting.

Until next time, keep your stick on the ice.

Biomechanical Risk Estimates for Concussion in Collegiate Football Players

Jim Funk and Stefan Duma, American Society of Biomechanics, 2006

Introduction

In the past, trauma to the head
has been studied on folks who were dead.
But smiting cadavers
yielded mostly skull fractures,
and data that had a wide spread.

In order to study concussion,
your subject must have animation.
You can't hit a man,
but a primate, you can.
And then develop a scaling relation.

The one exception is a game
where the goal is to hit and to maim.
Pellman et al.
analyzed pro football,
and reenacted the hits frame by frame.

Results from those NFL sessions,
were crunched by logistic regression.
The data we applaud,
but the risk curves were flawed,
because many exposures were missing.

Methods

A technique was lately invented
using helmets that were instrumented.
Data transmitted live
(Duma, 2005)
told the team doc which player got dented.

The Head Impact Telemetry System
has too many benefits to mention.
Accelerometers stay on the head,
not the helmet instead,
so when the hits come it won't miss them.

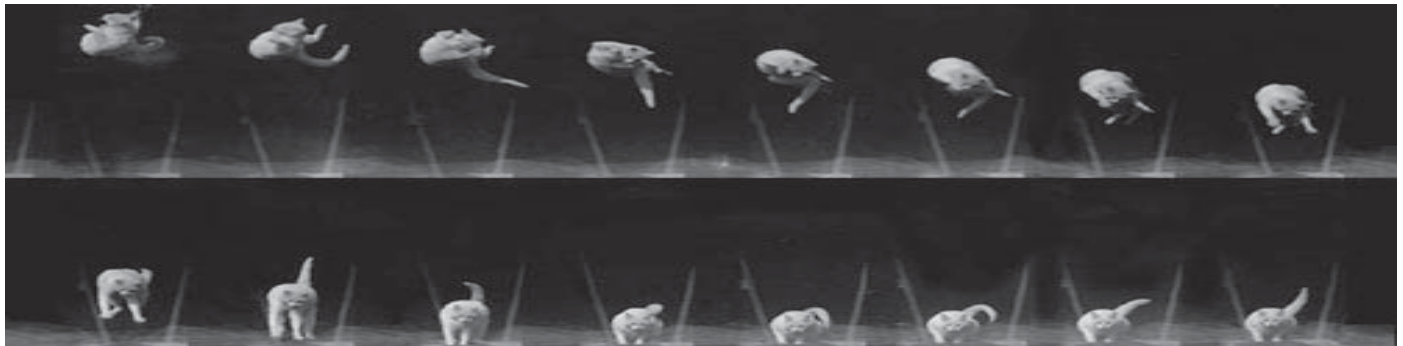
Fifty two players were studied
for two seasons they were bruised and bloodied
The risk to the head
was calculated
from data that were censored doubly.

Results and Discussion

The range of head injury potential
was distributed as an exponential;
the same as you see
with crashes and delta-V,
and the similarity is not coincidental.

Nearly twelve thousand hits were recorded,
and the data turned out to be sordid.
"These guys should be dead!"
the past research said.
"This experiment must be aborted!"

Players took more hits than a junkie,
But the outcome was some kind of funky.
Only three concussions!
which has repercussions
for criteria scaled from a monkey



Attention Students!

The purpose of the Graduate Student Grant-In-Aid Program is to support student members of ASB pursuing biomechanics research by offering a source of research funding. The grants are distributed on a competitive basis and are intended to offset the costs directly associated with conducting research. Funds may be used for small equipment items, materials and supplies, and animal or subject costs, but cannot be used to support travel costs or salaries. ASB anticipates awarding 3-5 grants, ranging from \$500 to \$2500 for a one-year period.

To be eligible, an applicant must be a student member of ASB or have a membership application *received* by the Membership Chair no later than December 15, 2006. Applications must be submitted *in a single file* by electronic mail (Word or ASCII text only, *no* PDF materials are acceptable) by midnight January 15, 2007. The email must have as the subject line *2007 ASB GIA*. The attached file should have the applicant's name as the file name (for example, LastNameFirstNameInitialYear.doc, i.e. McCawS07.doc).

The application must include: 1) the name of the applicant and the title of the project; 2) a 150 word abstract; 3) the significance of and need for the research; 4) specific aims and hypotheses to be examined, 5) a succinct overview of the methods to be employed; 6) an itemized budget (note that ASB does *not* pay indirect costs for the GIA), 7) a curriculum vita of the applicant, 8) a letter of recommendation from a faculty advisor/supervisor, 9) the name and mailing address of the fiscal agent at the institution responsible for handling any grant funds provided, and 10) the recipient title that should appear on the check. Sections 1 to 6 of the application should not exceed *seven* double-spaced pages. Page margins should not be less than 2.5 cm and font size no less than 11 point. Since applications are distributed electronically for review, please minimize the use of graphics (for example, neither letterhead graphics nor electronic signatures are required on the letter of recommendation).

The Education Committee of the American Society of Biomechanics will review applications, with funding distribution expected by June 1. The rule is that recipients must present at the annual ASB meeting in the year following receipt of a GIA; for example, those receiving funding distributed in 2007 will be expected to attend and present at ASB in 2008. However, rules such as this are made to be broken and extensions to the following year will be granted if a good excuse without unjustified whining is presented.

Applications and inquiries should be submitted to:

Steven T. McCaw, Ph.D
Chair, ASB Education Committee
School of Kinesiology and Recreation
Illinois State University
email: smccaw@ilstu.edu
Application Email subject: 2007 ASB GIA
General Inquiry Subject: 2007 GIA

Northwest Symposium 2006

Peter Crompton and Claire Jones

The 2nd Northwest Biomechanics Symposium was hosted by the Department of Mechanical Engineering at the University of British Columbia on May 12-13, 2006.

The symposium was attended by over 80 students, faculty, and industry representatives from 15 academic institutions and industry groups. The 25 podium presentations and 15 posters spanned a wide range of bioengineering topics including: the biomechanics of spinal cord injury and associated orthopaedic interventions; computational models of bone resorption; knee kinematics in response to disease and surgery; application of gait analysis to concussion diagnosis, assessing stability in the aged and assessing asymmetry during running tasks; and aspects of adult and pediatric neck musculature. Top symposium honours went to Anthony Choo and co-workers of UBC for their presentation entitled “*Con-tusion, dislocation and distraction – primary and secondary damage in distinct mechanisms of spinal cord injury*”. The poster prize was awarded to Sampath Gollapudi and David Lin of Washington State University for their poster on “*Crossbridge modeling of temperature-dependent contractile properties of human soleus muscle fibers*”.

Dr. Walter Herzog of University of Calgary, Alberta presented his keynote address following the symposium dinner set in the 1912-built Cecil Green Park House overlooking the Burrard Inlet and Vancouver’s North Shore coast mountains. Dr. Herzog provided an entertaining account of the progression of research into muscle fibre contraction mechanisms from the 1952 work of Abbott and Aubert to present day single-fibre research being carried out by his laboratory in Calgary.

The opportunity to share ideas, opinions, experience and advice amongst faculty and students was facilitated by small group discussions following each formal presentation session. Discussion questions dealt with topics such as the challenges involved with *in vitro* and *in vivo* experimental models,

translation of research from laboratory to clinical settings, the impact of advances in medical imaging techniques, the in’s and out’s of scientific publication, and approaches to multidisciplinary collaborations. This student symposium was made possible by the generous support of the American Society of Biomechanics. Further information on the symposium can be found at <http://batman.mech.ubc.ca/~NWBS>.



View of Burrard Inlet from the 2006 NWBS banquet at UBC.

ASB 2006 Conference Report

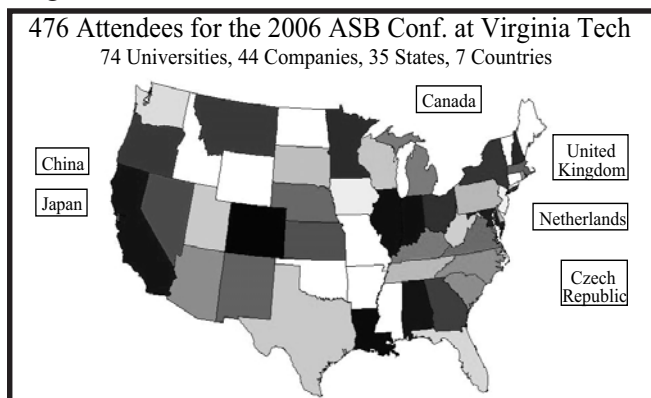
Stefan Duma

The 2006 ASB conference was held at Virginia Tech on September 6–9. The meeting was enjoyed by 476 attendees from around the world representing both industry and academia. Given the sponsorship of the exhibitors, Virginia Tech, Wake Forest University, and The Virginia College of Osteopathic Medicine, we were able to break even on overall costs while allowing students to attend for \$50 that included nearly all food for three days. If you stayed long enough, the fee also included a free limbo dance to cap off the conference.

It is impossible to thank and recognize all of the people who worked so hard to make this conference possible, but we do want to recognize a few people. First and foremost, Irene Davis deserves most of the credit for such a successful meeting given her wonderful new programmatic ideas. After all, the primary purpose of the conference is the exchange of scientific knowledge and to that end we reached new heights this year (a close secondary purpose is the enjoyment of free wine and beer while exchanging said knowledge). We also want to

recognize Amanda Covey and all of the graduate students at Virginia Tech who spent so much time doing the little things (like driving back and forth from the airport) that made the conference more enjoyable. Finally, thanks to all those who attended for taking the time to travel to our small town in the Blue Ridge Mountains. We hope that everyone had a great time, and we look forward to seeing you at Stanford next fall.

Sincerely,
Stefan Duma, Michael Madigan, and Kevin Granata
Virginia Tech 2006 Host Committee



Paid Job Listing

Tenure-Track Faculty Position

Assistant Professor, Biomechanics, Sport and Exercise Science, University of Northern Colorado. Earned doctorate in exercise science or related field. Candidate must have a background and expertise in biomechanics. Teaching experience at the college/university level is desired. Responsibilities: teach relevant undergraduate and graduate courses (primarily biomechanics and anatomical kinesiology); conduct independent and collaborative research; seek and maintain extramural funding; advise and supervise research of undergraduate and graduate exercise science students; serve on school and university committees; and enhance the school's exercise science program. Review of candidates will begin December 1, 2006 and will continue until the position is filled. Submit letter of application, which addresses specific areas of teaching/research competence, curriculum vitae, transcripts, and the names, with accompanying contact information, of three references to: Gary D. Heise, Ph.D.; Chair, Exercise Science Search Committee; School of Sport and Exercise Science; Campus Box 39; Greeley, CO 80639. Questions are to be directed to gary.heise@unco.edu. The full vacancy announcement and application instructions are available at: <http://www.unco.edu/nhs/employment.html>.

Communication Committee

Andy Karduna

Here it is, winter newsletter time and the great news is that all I have to do is write this article. Michelle Sabick has taken over as newsletter editor (good luck Michelle, hopefully you are not regretting your decision). I've moved on to the greener pastures of Communications Chair (though I may live to regret it).

Last year, Trey Crisco and Kathy Simpson completely redesigned the ASB website (www.asbweb.org), which has made it pretty easy for me to further refine it. I've been working on updating everything, including upcoming regional meetings and information from the annual meeting at Virginia Tech (the abstracts are there, along with pictures of many smiling ASB members with beers in their hands). On my list of things to do is to work on increasing the archival information on our website, since we are currently only utilizing about 1% of our allocated server space of 30 GB. Also, as Ted Gross mentioned in the last ASB newsletter, as Communications Chair, I will be working with the Secretary Treasurer-Elect (Paul DeVita) on helping to set up an on-line membership system for dues and subscriptions and possibly abstract submissions. Due to the complex nature of this task, we are looking into having an outside company handle this. Initial estimates indicate that it may actually be less expensive than our current procedures.

My goal is to keep the website up to date with information applicable to our membership so that you will be encouraged to check back often. I'd be happy to hear any suggestions you might have.



Commercial Members

Commercial membership categories are aimed at encouraging affiliation by commercial organizations that market products which are used by the biomechanics research community, or companies that are otherwise engaged in activities that fall within the Society's general interest areas. Companies wishing to become a Commercial Members are encouraged to contact Max Kurz, Membership Committee Chair. The ASB Executive Board is pleased to recognize our 2006 commercial members:

SUSTAINING MEMBERS

Motion Analysis Corporation
Bose Corporation - EnduraTEC
ViconPeak

Paid Job Listing



The Department of Mechanical & Biomedical Engineering at Boise State University

seeks candidates for two tenure-track openings as we continue to grow our emphasis areas of energy systems and biomechanics. In particular, we seek high-energy, collaborative and creative individuals who are dedicated to making significant contributions with their scholarship and teaching. The College of Engineering at Boise State is particularly dynamic and collegial, with rapidly growing graduate programs and widely respected undergraduate programs. Our faculty strive to integrate their scholarship and teaching, and much of our research is carried out with the involvement of undergraduate students. Please refer to the college web site for the full information regarding the position: <http://coen.boisestate.edu> (and click on "Faculty Searches"). Boise State University is strongly committed to achieving excellence through cultural diversity. The University actively encourages applications and nominations of women, persons of color, and members of other underrepresented groups. EOE/AA Institution, Veterans preference.

A View From the Blue

Michelle Sabick

As I sit here finalizing the December newsletter, my first as ASB newsletter editor, fall is in full swing in the inland Northwest. Before I wax philosophical, however, I should introduce myself. I am an Assistant Professor in Mechanical and Biomedical Engineering at Boise State University. Yes, the school with the blue turf on our football field. In fact, it is the infamous blue turf that inspired the name of this column. Kit Vaughn started a trend in 1992 by calling his newsletter column "A View from the Academical Village" after his Thomas Jefferson-designed University of Virginia campus. The view of the stadium and foothills right out my office window is likely quite different than that which inspired Kit to name his column, but it does remind me that life continues on outside my window, regardless of what turmoil happens to be taking place inside my office.

In this column I hope to follow in the great tradition of ASB Newsletter editors by commenting on topics relevant to biomechanists, while attempting to inject a bit of humor (but probably very little wisdom). Before I start, I should also thank my predecessor, Andy Karduna, who made my transition to the position relatively smooth. Andy has moved on to be Chair of the Communications Committee and I wish him the best of luck in his new post.

The snow-dusted foothills outside my window right now remind me that change is not only inevitable, it is often healthy. It is easy to become complacent with our teaching methods, our research ideas, or our personal relationships and forget to look at whether they could be improved. Therefore, during this season of transition I encourage you to identify an area where you could make a change for the better. It might be as simple as adding an engaging learning activity to a course you are teaching, trying out a new software package, or reaching out to a colleague in a different department to start a new research project. In my experience, a little bit of effort often leads to benefits that I never expected. You never know how that might change your view.

Past-President

Ted Gross

As the Past-President, it is my pleasure to Chair the various society Awards Committees. In this column, I will briefly describe the award selection process then turn to a description of the Borelli, Hay, and Pre- and Post-Doctoral Young Scientist Awards (all of which require a submission package). A fifth award, the Travel Award, also requires a submission package, while the remaining awards (Journal of Biomechanics, Clinical Biomechanics, Microstrain, and President's Award) are selected from a pool of highly scored abstracts submitted to our annual meeting. More information can be found on our website (<http://www.asbweb.org/html/awardgrant/awardgrant.html>). Please note that we have implemented an electronic submission process this year and all materials must be submitted, where required, by February 23, 2007.

If you are interested in participating in the awards selection process, please send me an e-mail indicating your willingness to serve. For those interested in submitting Awards packages, I have provided my contact information below. Good luck to everyone and see you at Stanford.

Ted S. Gross, Ph.D.
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Award Selection Process

Following feedback from the society, the Executive Board extensively discussed and approved several changes to the Awards selection process beginning this year. Given that several ASB awards are assessed based on a % cutoff of blind abstract scores, approximately 70 to 90 abstracts/Award packages are now considered each year across all of our awards. Given our membership size, finding

equal representation from each of our 5 discipline areas and members willing to review such a large number of packages without any conflict for any award has become a substantial practical limitation. As a result, sub-committees will be formed for each Award, with some members serving on multiple sub-committees.

The Borelli and Hay Awards Committee will be comprised of the current President-Elect and President, and three former Past-Presidents and/or Borelli/Hay winners (requiring equal representation of all 5 ASB disciplinary categories) as solicited by the current Past-President. Members in conflict (either nominating or submitting for either Award or a former mentor or mentee) will be excused from participation in the assessment of either Award). Separate committees will be established for the remaining awards while maintaining discipline diversity (at least $n=5$ per committee). Any committee member with a conflict will be excused from receiving submissions for that award (e.g., a member that is in conflict for the Journal of Biomechanics Award would not receive those abstracts but would be eligible to participate in the selection of the Clinical Biomechanics Award).

The current Past-President serves as a non-voting Chair for all of the Awards Committees and is responsible for recruiting members to serve on the Awards Committees and administering the process. Each committee member independently reviews the appropriate material and submits his/her vote electronically to the Chair without discussion amongst the committee members. The recipient/finalist of each award will be determined via the highest average score as tabulated by the Chair. If an average ranking is identical for two candidates, the smallest range of scores will serve as a tie-break.

Borelli Award

The Borelli Award is the most prestigious honor given by the ASB, recognizes outstanding career accomplishment and is awarded annually to an investigator who has conducted exemplary research in any area of biomechanics. The award is named after Giovanni Alfonso Borelli (1608-1679). Borelli, a mid-17th century Professor of Mathematics from

Naples, Italy, is considered to be the father of modern biomechanics. Borelli's novel contribution, the treatise "*On the Movement of Animals*" (translated by Paul Maquet and published by Springer-Verlag), puts forth numerous propositions on the movements and displacements of the limbs of man and animals.

The Borelli Award selection is based on originality, quality and depth of the research and the relevance of this work to the field of biomechanics. The awardee must attend the Annual Meeting of the ASB in order to receive the award and to deliver the Borelli lecture. The award consists of an engraved plaque and a check for \$1,500. The Borelli Award is open to all scientists, including non-ASB members, but excluding ASB officers and members of the Borelli and Hay Awards Committees. Candidates may be self-nominated or nominated by others. Candidates should be established scientists whose work incorporates biomechanics in any scientific field. Submission material for the Borelli Award includes a letter of nomination (7 hard copies or Word document or PDF), a comprehensive curriculum vitae (Word document or PDF), and five publications on a single topic or theme (PDF). All materials must be sent by e-mail (or post-marked) by February 23, 2007 to the ASB Past-President.

Hay Award

The Jim Hay Memorial Award for Research in Sports and Exercise Biomechanics was established in 2004 via the support of the Hay family and additional donors to recognize outstanding career accomplishment. The Hay Award is awarded annually to an investigator who has conducted exemplary research in the area of sports and exercise science biomechanics.

The Hay Award selection is based on originality, quality and depth of the research and the relevance of this work to the field of Sports and Exercise biomechanics. The awardee must attend the Annual Meeting of the ASB in order to receive the award and to deliver the Jim Hay Memorial lecture. The award consists of an engraved plaque and a check for \$1,000. The award is open to all scientists, including non-ASB members, but excluding ASB officers and members of the Borelli and Hay Awards

Committees. Candidates may be nominated by themselves or by others. Submission material for the Hay Award includes a letter of nomination (7 hard copies or Word document or PDF), a comprehensive curriculum vitae (Word document or PDF), and five publications on a single topic or theme (PDF). All materials must be sent by e-mail (or post-marked) by February 23, 2007 to the ASB Past-President.

Young Scientist Awards

The Pre- and Post-Doctoral Young Scientist awards are amongst the most competitive in our society and recognize outstanding early achievements by promising young scientists. Selection is based upon the scientific quality of the submitted material. Both awardees must attend the annual ASB meeting to present their work in a special Awards session. Each award consists of an engraved plaque, a check for \$500, and a waiver of conference fees for the annual ASB meeting.

Regarding eligibility, nominees must be current or pending members of the ASB *at the time of submission*. A young scientist is considered eligible for the pre-doctoral award if they have not received their doctoral degree in the year prior to the ASB annual meeting. A young scientist is considered eligible for the post-doctoral award if they have received their doctoral degree within five years prior to the year of the annual meeting. Candidates may be self-nominated or nominated by an ASB member for either award.

Submission materials are identical for the two Awards and include a letter of nomination from the department head or graduate research advisor (7 hard copies or Word document or PDF), a curriculum vitae (Word document or PDF), and a description of the nominee's current research that should include a statement specifying the nominee's contribution to all work described and to all accompanying publications (limit 2 pages, Word document or PDF). Finally, candidates for the Young Scientist Awards must submit an abstract of original research (via regular call for abstracts) to the ASB annual meeting with the nominee as first author. All materials (excluding the Abstract) must be sent by e-mail (or post-marked) by February 23, 2007 to the ASB Past-President.

Southeast Regional Conference

It is our pleasure to announce the Second South East Biomechanics Conference to be held April 19- April 21, 2007 at Duke University in Durham, NC. Abstract Submission is now open for SEBC 2007 and will close February 1, 2007. The major aims for this regional ASB meeting are to provide a welcoming environment for students to present and receive feedback on their research, and to create an informal scientific environment that encourages interaction between students and faculty.

The theme is "*BIOMECHANICS: from Injury Prevention to Performance Enhancement*" which will be highlighted with keynote addresses by Dr. Irene Davis (University of Delaware) and Dr. Farshid Guilak (Duke University, Editor in Chief Journal of Biomechanics). However, abstracts from ALL areas of biomechanics will be accepted and are encouraged. In addition to student presentations, the meeting will include a student/faculty banquet as well as tours of several biomechanics laboratories on the Duke University campus. Details can be found at the SEBC website: <http://klab.surgery.duke.edu/SEBC>.

IMPORTANT DATES:

- Abstract Submission: February 1, 2007
- Conference: April 19- April 21, 2007

CONFERENCE ORGANIZERS:

- Robin Queen, Ph.D. (robin.queen@duke.edu)
- Ershela Sims, Ph.D. (ershela.sims@duke.edu)

Please direct email inquiries to one of the conference organizers.

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SEBC



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Paid Job Listing

The Department of Human Physiology, University of Oregon, invites applications for a tenure-track position at the level of Assistant Professor created to enhance teaching and research in a program with strengths in biomechanics, physiology, motor control, and athletic training. The ideal candidate will contribute directly to one or more of these sub-disciplines, provide expertise that will bridge across existing programs, and/or contribute in synergistic areas that are not currently represented in the department. A PhD in a related field (physiology, kinesiology, exercise physiology, biomechanics) or an MD is required, as are at least two years of postdoctoral training or independent university research experience. Candidates are expected to demonstrate a proven record of research investigating physiological functions in human subjects as well as demonstrated ability or high potential to attract external funding. Previous university-level teaching experience is highly desirable. The successful applicant will be expected to establish a vigorous research program supported by extramural funding, contribute to the mission of the department in undergraduate and graduate teaching, and engage in departmental and university service. The ability to work effectively with faculty, staff and students from a variety of diverse backgrounds is required. Competitive salary support and start-up funds will be made available. Applicants should submit a curriculum vitae, a statement describing their research goals and teaching philosophy, representative recent publications, and names and addresses of three references to: Search Committee, Department of Human Physiology, 1240 University of Oregon, Eugene, OR 97403-1240. Review of applications will begin December 15, 2006 and will continue until a suitable candidate is hired.

Northwest Regional Conference

We are pleased to announce the 3rd Annual Northwest Biomechanics Symposium to be held May 18-19, 2007 at University of Oregon in Eugene, OR. This symposium, in the spirit of ASB meetings, will encourage students in biomechanics, assist regional collaborations between research institutions, and advance the state-of-the-art in biomechanics research and education.

The program will include student presentations (both podium and poster), a keynote address by Dr. Rodger Kram of the University of Colorado on running mechanics, a student/faculty dinner banquet, and round table discussions on current biomechanics research. These activities are expected to provide an atmosphere rich in student and faculty networking for both career and research advancement.

Abstracts from all areas of biomechanics will be considered. Details can be found on the conference website: <http://biomechanics.uoregon.edu/nwbs2007>.

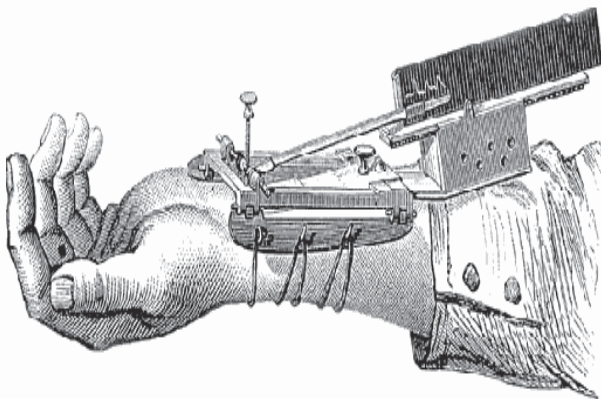
IMPORTANT DATES:

- Abstract Submission: April 2, 2007
- Conference: May 18-19, 2007

CONFERENCE ORGANIZERS:

More details can be found by contacting the symposium chairs:

- Li-Shan Chou, Ph.D. (chou@uoregon.edu)
- Michael Pavol, Ph.D.
(Mike.Pavol@oregonstate.edu).



Northeast Regional Conference

We are pleased to announce that The University of Maryland at College Park and Baltimore, Departments of Kinesiology, Bioengineering, and Physical Therapy and Rehabilitation Science, are co-hosting the Northeast American Society of Biomechanics (NEASB) regional meeting on March 30-31, 2007. This conference will be largely catered toward enriching the academic experiences of students by providing them with an informal, scientific setting in which they can present research and receive feedback on their studies through interaction with faculty from other regional universities.

The theme of this year's conference is "*Bridging the Gap between Biomechanics and Motor Control*." Abstracts from outside of the conference theme are strongly encouraged and will be accepted. Respected scholars in Biomechanics and Motor Control, including Dr. Vladimir Zatsiorsky of Penn State University, will give the keynote addresses. In addition to presentations, the meeting will feature tours of the Neuromechanics, Cognitive Motor Neuroscience, Orthopaedic Mechanobiology, and Human Performance Laboratories at the University of Maryland, College Park. For the details about the conference please visit the website: <http://www.hhp.umd.edu/KNES/faculty/jkshim/NEASB>. We look forward to seeing you at the NEASB in Baltimore in March!

IMPORTANT DATES:

- Abstract Submission: October 24, 2006 - January 31, 2007
- Notification of Abstract Acceptance: February 15, 2007
- Conference: March 30 - March 31, 2007

CONFERENCE ORGANIZERS:

- Jae Kun Shim, Ph.D. (jkshim@umd.edu),
- Adam Hsieh, Ph.D. (hsieh@umd.edu)
- Timothy Judkins, Ph.D.
(TJudkins@som.umaryland.edu),
- Alex Hooke, B.S. (ahooke@umd.edu),
Graduate student organizer

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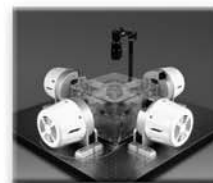
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Calendar of Events

William Ledoux

Orthopaedic Research Society

February 11 - 14, 2007, San Diego, California
Abstract deadline - past
www.ors.org

Australasian Biomechanics Conference

February 15 - 17, 2007, Auckland, Australia
Abstract Deadline - past
www.cce.auckland.ac.nz/conferences/index.cfm?P=9173

American Academy of Orthotists and Prosthetists

March 21 - 24, 2007, San Francisco, California
Abstract deadline - past
www.academyannualmeeting.org/2007/home.asp

Gait and Clinical Movement Analysis Society

April 11 - 14, 2007, Springfield, Massachusetts
Abstract deadline - past
www.amrinc.net/gcmas

NorthEast American Society of Biomechanics Conference

March 30-April 1, 2007, College Park, Maryland
Abstract deadline - January 31, 2007
<http://www.hhp.umd.edu/KNES/faculty/jkshim/NEASB/index.html>

Southeast Biomechanics Conference

April 19 - 21, 2007, Durham, North Carolina
Abstract deadline - February 1, 2007
klab.surgery.duke.edu/modules/klab_sebc_2007/index.php?id=1

Northwest Biomechanics Symposium

May 18 - 19, 2007, Eugene, Oregon
Abstract deadline - April 2, 2007
biomechanics.uoregon.edu/nwbs2007

American College of Sports Medicine

May 30 - June 2, 2007, New Orleans, Louisiana
Abstract deadline - past
www.acsm.org/AM/Template.cfm?Section=Annual_Meeting2

Society for Experimental Mechanics Conference and Exposition

June 3 - 6, 2007, Springfield, Massachusetts
Abstract deadline - past
www.sem.org/CONF-AC-TOP.asp

International Conference on Rehabilitation Robotics

June 13 - 15, 2007, Noordwijk, The Netherlands
Abstract deadline - February 4, 2007
www.icorr2007.org

Summer Bioengineering Conference

June 20 - 24, 2007, Keystone, Colorado
Abstract deadline - January 31, 2007
divisions.asme.org/bed/events/BED%20Conference%202007.pdf

International Society of Biomechanics

July 1 - 5, 2007, Taipei, Taiwan
Abstract deadline - January 15, 2007
www.isb2007.org

International Conference of Experimental Mechanics

July 1 - 6, 2007, Alexandroupolis, Greece
Abstract deadline - past
www.icem13.gr

International Society for Posture and Gait Research

July 14 - 18, 2007, Burlington, Vermont
Abstract deadline - past
www.ispgr.org

IASTED International Conference on Biomechanics

August 20 - 22, 2007, Honolulu, Hawaii
Abstract deadline - April 1, 2007
www.iasted.org/conferences/home-580.html

IEEE Engineering in Medicine and Biology Society

August 23 - 26, 2007, Lyon, France
Abstract deadline - April 2, 2007
www.embc07.ulster.ac.uk/

American Society of Biomechanics

August 23-25, 2007, Palo Alto, CA
Abstract deadline - TBA
www.asbweb.org

European Society of Movement Analysis for Adults and Children

September TBA, 2007, Athens, Greece
Abstract deadline - TBA
www.esmac.org

Human Factors and Ergonomics Society

October 1 - 5, 2007, Baltimore, Maryland
Abstract deadline - TBA
www.hfes.org/web/HFESMeetings/meetings.html

NOTE: For a more comprehensive international listing, please visit ISB's website at: www.isbweb.org/conferences

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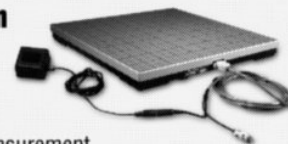
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