



American Society of Biomechanics Newsletter

Vol. 15 December 2002 No. 2

www.asb-biomech.org

From the President

Joan Bechtold

Hello to all in our ASB Biomechanics community. For, we truly are a community... a thriving, diverse, respectful and creative community. (And, a community that didn't have to be fabricated to meet any of our institutional "diversity" goals).

Community: Sharing, participation, fellowship, a group of people having common interests.

Diversity: Multiplicity of difference, multiformity, variety.

I am extremely honored to be your representative as President. I now know how my predecessors felt in this position, and it is both humbling and exciting. We have the opportunity to build upon the foresight of our founders who recognized the potential of a new multidisciplinary field of Biomechanics. Their internal drive and leadership established ASB as the focus for the development and maturation of our field. We are fortunate to be sharing the fruits of their vision for the field and for ASB.

In this report, I'd like first to recognize ASB's current stewardship. As always, your Executive Board is working hard to further the needs and goals of ASB. To outgoing board members, we bid a fond farewell and a huge thanks. *James Ashton-Miller* leaves us after 3 years as President/Past-President. He has been insightful and effective. I will miss his common sense and guidance, and would like to thank him for his commitment and energy. *Jill McNitt-Gray* is outgoing Program-Chair. She worked very well within the World Congress organization, to maintain and highlight ASB presence within this international gathering. We thank her for her tremendous efforts (and previous stints on the Executive Board).

We are re-welcoming *Walter Herzog* (this time as President-Elect), after losing him (as Meeting Chair of the World Congress of Biomechanics). Walter is an example of indefatigable energies, spirit and creativity. He is the personification of diversity, having been born Swiss, educated in Switzerland and the US, and having worked and taught in Canada for the last decade. I expect that he'll bring more of his hard work, efficiency, generosity and keen insight to the benefit of our diverse society. We also thank *Ugo Buzzi* for the difficult yet pivotal role he played as Student Representative. He had to hit the ground running, and by the time he was in his stride, it was already time to help recruit another student to fill his role. He has continued the Student Rep's tradition of keeping student issues at the forefront of the Board's agenda, and making sure that we interpret and act upon a correct version of their point of view (and

not our oldster's myopia and nostalgia!). We welcome *Max Kurz* to take over this spot, and expect he'll ably fulfill his role.

We have other executive board members in transition. *Julianne Abendroth-Smith* is leaving her position as Education Chair, and has assumed the role of Membership Chair following hard-working *Scott Delp's* very successful tenure. We welcome Julianne's perspective and upbeat attitude, as she applies them to the goal of further increasing our ASB membership. *Steve McCaw* is our new Education Chair, and he already has begun to propose new initiatives and to advocate for the good of the students and continuing education efforts. We look forward to benefitting from his initiatives.

Don Anderson continues to very ably and amicably put together our newsletter, one of the more visible and community-building efforts of ASB. *Gary Heise* also continues in the unheralded task of keeping us at the forefront of technology. He maintains our website, takes responsibility for the often arduous posting of meeting abstracts, and does this all with a remarkable willingness and good humor.

As you may realize, the main activity of ASB is our Annual Meeting. After a resoundingly successful WCB, we now have an equally outstanding 2003 ASB meeting to look forward to (September 25-27, 2003, University of Toledo). For this meeting to be successful, we rely on the extended resources and creative ideas of our Meeting Chair and Program Chair. *Rodger Kram* is our Program Chair, and we welcome *Steve Robinovitch* as ASB's new

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(From the President continued)

Program Chair-Elect. Steve will be learning the ropes this year to be in the spotlight next year. *Danny Pincivero* and *Vijay Goel* are our energetic Meeting co-Chairs.

This year's annual meeting promises to be one with tremendous potential in first class surroundings. Vijay Goel was Meeting Chair for our very successful University of Iowa meeting, and being very ably and meticulously assisted by Danny Pincivero, we can be assured of superior accommodations and facilities. There is strong local departmental support for this meeting, and the program at this point looks very strong. And, just for the record, the Toledo Art Museum is considered one of the finest in the country, the zoo is particularly attractive (and is the site for our banquet), and the location is central to a large portion of our membership. We hope that students will team up to come to Toledo from many of the ASB strongholds within driving distance (in the US and Canada), and a strong slate of student activities is anticipated. For those arriving by plane, Detroit is a reasonable drive, and Vijay and Danny will offer specific tips for making your travel plans as the time gets closer.

The 2003 Annual meeting will have a tough act to follow. The World Congress took place in Calgary during August 2002. It was an outstanding opportunity for ASB to benefit from interaction with our extended world biomechanics community. While Walter Herzog and Jill McNitt-Gray organized the program to include stellar opportunities for our science to shine its brightest, they didn't forget the value of more relaxed encounters. So, we were able to work hard and play hard, and enjoy being with our colleagues and friends. It was an excellent experience for all who were there. If you weren't able to attend, you can peruse the abstracts on the ASB website – Gary Heise coordinated the logistics of making them freely available.

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I would also like to acknowledge the success of the ASB regional meetings, originally proposed by former ASB President Mark Grabiner. The intent is to provide meetings that can draw from more localized regions, and to provide an opportunity for students and local faculty and professionals to meet, present, and potentially to collaborate. The ASB-sponsored meetings have been extremely well-attended, and the next one is being arranged by Michael Feltner and will occur at Pepperdine (see announcement, page 14). Keep that in mind if you're in the area, or consider submitting a proposal to host a meeting in your own region. It isn't as difficult as you think, and your wider community will reap much benefit.

Now, if I were to tally all the names I've listed, (and the countless other committee members and general "friends of ASB"), we would have a diverse palette of interests, training areas, experience levels, and research approaches. In other words, back to the "diversity" and "community" themes. Now, enter the "mentorship" theme.

Mentor: experienced and trusted advisor.

We all have had experience with mentorship, whether just starting out in this field, or more senior members. It can come in subtle or overt forms. Mentorship may serve to reinforce our current direction of interest or endeavor, or it may serve to open up new arenas for our consideration. Given ASB's role in fostering education and development of our members (particularly students just getting started), a semi-formalized mentorship activity makes sense. It would help us to engage the curiosity of those new to our field, with all their energies and technical capabilities and quest for knowledge. I'd like to suggest a program that would utilize and expand upon ASB's traditional strengths and opportunities: mentorship with a twist. Since one of our goals is to maintain diversity amongst our profession and society, I would propose that we organize a *cross-disciplinary mentorship program*. This could help to make easier the first, often forbidding steps toward learning about and appreciating another facet of our field.

An engineering student could be teamed with a more senior biology member; or an Anthropology fellow with a Human Factors fellow. The interactions could be varied, and include email exchange, teaming up to attend the annual or regional meetings together, arranging introductions to useful contact persons in each other's respective fields, providing advice on correctly portraying their field's perspective in grants, papers, or joint workshop presentations. There are many incarnations, and this will be something I will be pursuing this year. Please let me know your thoughts and ideas and experiences. I would hope this will become a living, evolving program that will provide useful and unique benefit to our members.

Thank you for electing me and giving me the opportunity to serve ASB. I would like to keep ASB relevant and meaningful to all our members, and want ASB to continue to be the focal point for Biomechanics activity in our diverse communities! We are a vibrant, active society, which is a tribute to you, our members.

Best wishes for a safe and inspiring season and for a healthy and rewarding 2003!

Joanie

From the Secretary/Treasurer

Ted Gross

In what I am sure is a most anxiously awaited edition of the Secretary-Treasurer column, I wanted to update ASB members on upcoming changes with the 2003 journal subscriptions and the finances of our society. If you have any specific questions or comments, feel free to e-mail me (tgross@u.washington.edu).

Journal Subscriptions: We are putting together the 2003 dues invoices, to be distributed by e-mail for the first time. We are hoping this will decrease society mailing costs while maintaining ease of membership renewal. If all goes well, the first invoice should be e-mailed by the end of November. If all goes poorly, we will be madly stuffing envelopes in early December. As in previous years, members will have the option of paying either by check or credit card (with an additional \$3 processing charge). Invoices can be returned either by mail or fax. One significant change is that the Executive Board has agreed to move forward with an optional Journal of Biomechanics subscription plan. As a great many of our members receive electronic access to the Journal via their institutions, the Executive Board has negotiated with Elsevier to make purchase of the hard copy elective on a one year trial basis. Those members electing to continue receiving the hard copy will simply select this as an option on the dues invoice. At this time, we anticipate a slight increase in journal costs similar to those experienced over the past few years. Also, Elsevier has agreed to have our membership directly e-mail one of their representatives regarding journal inquiries (Hassan Bakiriddin: h.bakiriddin@elsevier). By eliminating the middle person (i.e., me), we are hoping to streamline the time line for inquiries. Please realize that as we send Elsevier and Human Kinetics our subscription lists monthly, it often takes 4 to 6 weeks from when your dues are initially mailed until you are included on a subscription list.

Finances: Regarding fiscal matters, we will finish 2002 on budget (approximately \$40k/yr excluding journal subscription fees). As of the Annual Business Meeting at the World Congress, total society funds stood at \$102,290. This represented a 17% decline from the previous year (end of year). The decrease was due, in part, to declines in the ASB investment portfolio. Funds at that time did not reflect the \$10,000 that was subsequently transferred to ASB from the WCB organizers (approximately 50% of the decline). In consultation with the Executive Board and our financial advisor at American Express, the ASB investment portfolio has been realigned over the past year with two strategies in mind. First, approximately \$40,000 has been placed in cash or readily extracted cash certificates in order to provide for an emergency annual meeting in the event that the society receives no income for an entire year. Second, the remainder of the investments have been placed in moderately conservative mutual funds emphasizing value investments, with diversity. Our hope is that these funds will grow within the next 5 to 10 years such that ASB will be able to target an additional \$5,000 per year of interest toward worthy initiatives such as the student grant-in-aid program and regional meeting sponsorship. Including awards given at the annual meeting, ASB used approximately 40% of its operating budget to support these initiatives in 2002.

Education Committee

Steve McCaw

Greetings, from beautiful Normal Illinois. I assumed responsibility as Education Committee chair at the August ASB meeting held in Calgary, and with the help of my predecessor Julianne Abendroth-Smith the task has been very pleasant. At the Executive Board meeting, action was taken on a few items, details of which are listed below.

Over the past few years, the proliferation of low cost, easy to use video recording equipment has led to an increase in the number of people recording oral and poster presentations at conferences. Concerns have been raised regarding the appropriateness of this practice. With several of my colleagues, this issue was discussed in lively conversation following afternoon sessions at the recent World Congress on Biomechanics (i.e. over beer in a street-side pub). Some argued the practice is harmless, since an individual may simply be recording a presentation of personal interest for future reference. However, others countered that the practice might not be harmless. A presentation recording might be shared with colleagues who were unwilling to travel to and register for the conference, yet have an interest in specific sessions. Since most presentations are of studies yet to be published, questions arose over the copyright protection for data projected or posted. Some claimed they don't like someone nefariously taking the data — why not just ask the presenter for a copy of the presentation. Others said it is simply annoying to look out and see someone recording a presentation. The ASB Executive Board discussed presentation recording and the following resolution was adopted: ASB will ban photo and video recording at oral and poster presentations at future ASB meetings without specific permission of the society. A flyer stating this policy will be included in the registration package. This motion will take effect with the ASB meeting next September in Toledo. Of course, there is nothing to prevent anyone from approaching a presenter and asking for a copy of the presentation or specific slides for personal use.

Many students' decision to attend the annual meeting is partially determined by location, and the effect on conference expenses. However, the student representative's attendance is expected since an executive board meeting is held in conjunction with the annual meeting. Students are an integral part of the Society, and their active participation on the Executive Board is important and encouraged. Thus, the ASB Executive Board has decided to partially fund the travel expenses of the elected student representative to attend the annual meeting, to the amount of \$500. It is hoped that this financial incentive will ensure that a student interested in serving on the Executive Board is not deterred by the cost of required attendance at an annual meeting.

In the past few years, regional student biomechanics conferences have been successfully organized in the Midwest and in Southern California. These meetings provide a forum for students to meet not only other students, but also faculty from other institutions.

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The setting is typically less formal and intimidating than a national meeting. Recognizing their value, the ASB has contributed financially to the meetings to defray the costs of bringing in keynote speakers. The ASB wants to see an expansion of these student conferences into other regions of the country, and asks individuals to step forward as organizers. The logistics of organizing one is far less demanding than any other biomechanics meeting: arrange a location, spread the word, and wait while it all comes to you. Actually, a little more is involved but it is a relatively painless experience. I am willing to share my experience gained from organizing four of these meetings in the Midwest with anyone interested. ASB is committed to providing financial support to regional meetings on a rotating basis, and I will help you develop a budget proposal. Once a region implements a meeting, it will just grow from there. This is your chance to go down in biomechanics history, as the initiator of meetings in your region. Everyone will appreciate your leadership.

I look forward to working with the ASB Executive Board and all members over the next three years. If you're interested in serving on the Education Committee, if you have any issues/concerns that you would like to raise, or, most importantly, if you want to organize a regional meeting, contact me by phone or e-mail.

We Need Your Contribution

Members are encouraged to contribute to the newsletter. A note, a letter to the editor, a lead on an interesting story, information about a scientific meeting, in fact anything of interest to the ASB membership would be most welcome. Send information scrawled in longhand, via e-mail, or on computer diskette for PC or Macintosh. If you have any other ideas, please get in touch. The next newsletter will be published in June 2003. **Deadline for submission of materials is 18 April 2003!**



Students' Corner

Max Kurz

I extend warm greetings to you as I accept the role of the new student representative for ASB. It seems that we have begun to establish a tradition of students from the University of Nebraska at Omaha serving as the Student Representative for the Executive Board of ASB. Of course this enables me to make a better transition into the position and continue to make progress on many of the items my predecessors have put forward to the Executive Board. As the ASB Student Representative, my job is to serve as a link between the Board and you, the students. Please feel free to send me any comments or questions that you may have regarding ASB and student relations (mkurz@mail.unomaha.edu).

I encourage you to begin thinking about attending and presenting your work at the next ASB meeting in Toledo, Ohio. Although it seems like the meeting is still far away, submission deadlines for presentations tend to sneak up on us with all the tasks we must complete during the year. This year's submission deadline will be on the 1st of April. Begin to formulate your research questions with your mentor and work toward a goal of presenting at the 2003 ASB meeting. It will be a pleasure to see more students participating and interacting in our professional organization. After all, the students are the future of biomechanics.

The 2003 ASB meeting at the University of Toledo is looking to be another successful meeting, with many opportunities to improve your skills as you work toward becoming a successful researcher. I am working with the Executive Board on having a workshop at the ASB meeting for students interested in pursuing external funding through NIH or NSF. This workshop will be useful for students interested in obtaining funding for their doctoral and post-doctoral work. Please send me any additional ideas you may have to make the meeting more attractive for student participation.

ASB has supported opportunities for students to present research and interact with other students in your region. Dr. Michael Feltner (michael.feltner@pepperdine.edu) has organized the Southern California Conference on Biomechanics (Abstract Submission: March 1, 2003 Meeting Dates: March 28-29, 2003) for undergraduate and graduate students. Regional student meetings offer you an opportunity to present your research to the biomechanics community and fellow students in your region. Presentations typically range from completed thesis and doctoral work to current research ideas where only pilot data has been collected. The format at these meetings tends to focus on developing student as better researchers.

Please note that ASB offers students cash awards for presenting and conducting research. ASB has a Grant-In-Aid program that awards funding to students to conduct research projects. Awards can range from \$250-\$2500 for a one-year period. Additionally, there are student travel awards to offset the cost of attending the annual ASB meetings. Details on these awards are available in this newsletter.

Best of luck this year, and I look forward to seeing you in Toledo.

Max Kurz

mkurz@mail.unomaha.edu

ASB2003: ANNUAL MEETING OF THE AMERICAN SOCIETY OF BIOMECHANICS



The University of Toledo
September 25-27, 2003

Organizers:

- College of Engineering (Departments of Bioengineering, and Mechanical, Industrial and Manufacturing Engineering)
- College of Health and Human Services (Department of Kinesiology)
- Medical College of Ohio (Department of Orthopedic Surgery)

IMPORTANT DATES:

April 1, 2003 - Abstract deadline

August 1, 2003 - Early registration deadline

For further details regarding conference travel, accommodations, and regular updates, please visit: www.bioe.eng.utoledo.edu/ASB

Meeting Chair: Vijay K. Goel, Ph.D., Chair and Professor,
Department of Bioengineering, The University of Toledo
Director, Spine Research Center, Medical College of Ohio
(vijay.goel@utoledo.edu)

Co-chair: Danny M. Pincivero, Ph.D.
Department of Kinesiology, The University of Toledo
(danny.pincivero@utoledo.edu)

Program Chair: Rodger Kram, Ph.D.
University of Colorado, Boulder
(rodger.kram@colorado.edu)

Sponsors: American Society of Biomechanics, The University of Toledo (Division of Sponsored Research), National Institute on Disability and Rehabilitation Research (NIDRR), Orthovita, Inc., DePuy AcroMed (A J&J Company), Intrinsic Orthopedics, MTS Corporation



Intrinsic Orthopedics



Program Committee

Rodger Kram

The Annual Meeting of the American Society of Biomechanics will be held at the University of Toledo, September 25-27, 2003. Toledo is located in the northwest region of Ohio, near the Michigan border just 45 minutes from Detroit's Metro Airport.

The lead-off keynote speaker will be Prof. Vik Kapoor of the University of Toledo who will present highlights from his research on "neurotransistors." Neurotransistors connect a network of living brain cells to a transistor incorporated on a silicon chip using nanotechnology. This novel technology is used to study the development of living neural networks and may someday be used to replace damaged parts of the brain in Alzheimer's or Parkinson's patients.

Prof. Michael Dickinson of Cal Tech will also present a keynote lecture. His area of research is the biomechanics and neural control of insect flight. In addition to discovering "how flies fly," Michael is also part of a team developing insect sized robotic machines that fly. He was recently awarded a MacArthur "genius" prize for his creativity.

So far, two symposia are in the planning stages, but others are being organized. There will be a tribute symposium to the late Jim Hay, a founding member of ASB and life-long sports biomechanist. Second, there will be a symposium contrasting classic and modern theories for human walking. The goal of scientific program chair, Rodger Kram is to evenly represent the various disciplines within ASB.

The organizers are making a special effort to highlight the status of and time devoted to poster presentations. Many large scientific meetings are almost all posters now, and we hope to appropriately raise the level of respect for poster presentations.

Note that this year's meeting is scheduled for after most of us are back teaching, so the "usual" schedule has been juggled to minimize time away from home and yet allow you to book a cheaper Saturday stay-over airfare. Toledo accommodations will be a notable bargain, allowing you to stretch travel funds further. The meeting will start on Thursday morning with a full program running through Saturday noon. Prominent among the amenities scheduled by meeting co-organizers Vijay Goel and Danny Pincivero is a banquet at the Toledo Zoo on Friday evening. Saturday's program will feature the Borelli award lecture. Tutorials, laboratory tours and demos will round out Saturday afternoon. For those interested in taking in some of the city of Toledo, there are a number of high caliber public golf courses in the area and there is a remarkably fine art museum. For more details, there is a city of Toledo link on the conference web site listed below.

The organizers hope to attract an unusual number of Canadian biomechanists to ASB this year (or is that "a number of unusual Canadian biomechanists?") There is no CSB meeting in 2003

and Toledo is within driving distance of several Canadian universities with prominent biomechanics programs. So, it won't be a true NACOB, but it may be close, eh?

The most important deadline is April 1st for abstract submission. Please check out the meeting web site at:

www.bioe.eng.utoledo.edu/ASB.



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. Based on level of financial support required and upon benefits provided, commercial membership categories in decreasing order are Sustaining Member, Supporting Member, Contributing Member, and Corporate Member. Companies wishing to become a Commercial Member are encouraged to contact either Julianne Abendroth-Smith or Joan Bechtold (page 4) for details.

The ASB Executive Board is pleased to recognize:

CORPORATE MEMBERS

Aircast

DePuy

Orthofix, S.R.L.

Peak Performance Technologies, Inc.

Tekscan, Inc.

All members of the Society are invited to suggest names of potential commercial members. Please send your suggestions to Julianne Abendroth-Smith, Membership Committee Chairperson, at the address indicated on page 4 of this newsletter. If you have a particular contact person at the company, please make sure to include his/her name.

Communication Committee

Gary Heise

As we gear up for abstract submissions for our 2003, University of Toledo Annual Meeting, I would like to update the membership on a couple of Society communications issues. First, the abstract submission process for the Annual Meeting will again be an electronic process. The details are still being forged, but abstracts will be submitted via e-mail with the abstract format most likely being Adobe Acrobat (*.pdf). The submission and subsequent review process for San Diego abstracts (2001) went relatively well with abstracts produced in this format.

The "look" of the website has changed from our early days when Jill McNitt-Gray and Gerry Smith started our web presence. Regarding that new look, I would be happy to hear any comments about the website's appearance, with the understanding that I plan to devote some quality semester break time to updating much of it.

The final item concerns the Graduate Program portion of the web site. Over the upcoming semester break (for those of us academics), I will e-mail all current contact people listed on the website. The e-mail will contain a new submission form which is far briefer than our present form and contains less information. The Executive Board's argument for this briefer format is that our graduate program listing should be an index of programs, which provides a resource for students in the initial stage of their investigation process. Many programs and labs have their own website, which will provide students all the details they require for their search. Again, feel free to submit any comments about this area of the website to me.

I look forward to seeing you virtually on-line and in-person at Toledo.

... Attention ... ASB Members

If you are interested in becoming more active in the Society (e.g., serving on a committee or chairing a conference session), contact Steve McCaw, Education Committee Chair (page 4) with your name, address, phone/fax number, email address, and your desired involvement. This information will be included in a data base which is periodically updated and distributed to the Executive Board.
Thanks!

ASB Graduate Student Grant-In-Aid Program 2003:

*** First Announcement ***

DEADLINE: Letter of Intent -
February 1, 2003

The ASB Graduate Student Grant-in-Aid Program is now in its sixth year of operation. The purpose of the Graduate Student Grant-in-Aid Program is to aid and encourage student members of ASB in pursuing biomechanics research by offering a source of research funding. Awards, which will be distributed on a competitive basis, are meant to offset the costs directly associated with conducting the 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. The Executive Board anticipates making 3-5 awards for the funding period that will begin Sept. 1, 2003. Award amounts are expected to range from \$500 to \$2500 for the one-year period. Students must be members of ASB or have a membership application pending no later than February 1, 2003 to be eligible for an award. In addition, expected graduation date should not be earlier than December, 2003.



A two-stage review process will be used. Interested students must first submit a letter of intent that is postmarked no later than February 1, 2003. Submissions by electronic mail (Word or ASCII text) will also be accepted. The letter of intent should identify: 1) the significance of and need for the research to be conducted, 2) specific aims and hypotheses to be examined, and 3) a brief overview of the methods to be employed. The letter of intent should not exceed two single-spaced pages. Page margins should not be less than 2.5 cm and font size not less than 11 point.

Those who receive a favorable review at this stage will be invited to submit a full research proposal by May 1, 2003. The funding cycle will run from September 1, 2003 to August 31, 2004.

Letters of intent should be submitted to:

Mark S. Redfern, Ph.D.
Human Movement and Balance Laboratory
110 EEI Building
200 Lothrop St.
Pittsburgh, PA 15213
email: redfernms@msx.upmc.edu
phone: (412) 647-7923

Mark S. Redfern, Ph.D.
Chair, ASB Research Review Committee

From the Past-President

Andrew A. Biewener

– Call for 2003 ASB Award Nominations –

As Chair of the Awards Committee, I am pleased to call for nominations for the 2003 ASB awards to be presented at the ASB annual meeting to be held in September in Toledo, OH.

All abstracts for the 2003 ASB meeting (including those for the Young Scientist Award) should be submitted online via the ASB web site. These will be reviewed and handled by the Program Chair, Rodger Kram. All materials supporting nominations for the Borelli Award, the Young Scientist Awards, the Travel Award, and the Student Travel Awards should be submitted directly to me.

The nominees for Clinical Biomechanics, Journal of Biomechanics, and the ASB-Microstrain awards will be selected by the Awards Committee from among the top-rated abstracts submitted to the 2003 ASB meeting, as ranked by the Program Committee. The Awards Committee will then select two finalists for each of the three awards, and each of these six authors will present their work in a special awards session at the ASB annual meeting. The winner of each award will be selected by the Awards Committee after this session.

ASB members are asked to nominate individuals whose work they admire or consider applying for any award that is appropriate for their membership status and research area.

– Borelli Award –

The Borelli Award, 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 open to all scientists, including non-ASB members, but excluding ASB officers and members of the Awards Committee. Candidates may be nominated by themselves or by others. Selection is based on originality, quality and depth of the research and its relevance to the field of biomechanics. A letter of nomination, a comprehensive curriculum vitae, and five publications on a single topic or theme must be submitted. The awardee is expected to attend the 2003 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 submission deadline is **April 1, 2003**.

– ASB-Microstrain Award –

Microstrain, Inc., of Burlington, Vermont annually funds an award that recognizes superior achievement in the area of instrumentation. The award competition is open to scientists of any age and stage in their career (for example, undergraduate and graduate students, postdoctoral fellows, faculty and researchers) both in and outside the U.S. The award recognizes the individual's innovative application of existing instrumentation or have developed new instrumentation for use in the field of biomechanics. Candidates for the award must be the first or sole author on an abstract of original research submitted to the 2003 ASB meeting. Candidates for the award will

be selected from the top 20th percentile of abstracts submitted to the ASB meeting, as evaluated by the Program Committee. The Awards Committee will then select two finalists from this pool for the award, and each of these two authors will present their work in a special awards session at the ASB annual meeting. The winner of each award will be selected by the Awards Committee after this session. The award includes an engraved plaque and a check in the amount of \$1,000. The submission deadline is **April 1, 2003**.

– Journal of Biomechanics Award –

This award, sponsored by Elsevier Science, Ltd., publishers of the Journal of Biomechanics, recognizes substantive and conceptually novel mechanics approaches explaining how biological systems function. In addition to being ASB members, candidates for the award must be the first or sole author on an abstract of original research submitted to the 2003 ASB meeting. Candidates for the award will be selected from the top 20th percentile of abstracts submitted to the ASB meeting as evaluated by the Program Committee. The Awards Committee will then select two finalists from this pool for the award, and each of these two authors will present their work in a special awards session at the ASB annual meeting. The winner of each award will be selected by the Awards Committee after this session. The award includes an engraved plaque and a check in the amount of \$500. The submission deadline is **April 1, 2003**.

– Clinical Biomechanics Award –

This award recognizes outstanding new biomechanics research targeting a contemporary clinical problem, and is sponsored by Elsevier Science, Ltd., publishers of Clinical Biomechanics. In addition to being ASB members, candidates for the award must be the first or sole author on an abstract of original research with special relevance for clinical applications submitted to the 2003 ASB meeting. Candidates for the award will be selected from the top 20th percentile of abstracts submitted to the ASB meeting, as evaluated by the Program Committee. The Awards Committee will then select two finalists for the award from this pool, and each of these two authors will present their work in a special awards session at the ASB annual meeting. The winner of each award will be selected by the Awards Committee after this session. The award includes an engraved plaque and a check in the amount of \$500. The submission deadline is **April 1, 2003**.

– ASB President's Award ***New*** –

This is a *new* award that the 2002 ASB XB has approved to recognize meritorious research involving "highly innovative use of experimental or theoretical methods in any field of biomechanics" that is presented as a poster at the annual ASB meeting. Candidates for this award must be first or sole author on an abstract of original research submitted as a poster to the 2003 ASB meeting. The winner of this award will be selected by the ASB Awards Committee after the poster session is concluded and announced at the meeting together with the other awards. The award includes an engraved plaque and a check in the amount of \$500. The submission deadline is **April 1, 2003**.



A View From Amidst the Corn

Don Anderson

Every once in a while, change imposes itself upon your life. Spring 2002 was one of those times for me. The Biomechanics Lab at the Minneapolis Sports Medicine Center, where I had lived professionally the past five years, closed its doors with little advance notice, leaving me unemployed. And so, the search for a new professional home began.

My first job search / networking call was to my graduate school advisor and mentor Tom Brown (former ASB President). The ensuing chain of events culminated in my accepting a position here in the Orthopaedic Biomechanics Lab of the University of Iowa late this summer.

My editorial column in previous issues of this newsletter bore the title “Into the Woods,” largely because of my love for the forests of Northern Minnesota. In moving from Minnesota to Iowa, it seemed logical to revisit the naming of this column. To put the task in a context and to research precedence, I pulled out my archive containing all of the known newsletters of the ASB, dating back to May of 1988 (including a single issue of the “LabRat Gazette,” a student effort of now Dr. Peter Vint’s circa 1996). I think I was also lead to look back on our history by the death this summer of one of ASB’s most influential founders, Dr. Jim Hay. Coincidentally, Dr. Hay served on the faculty here at the University of Iowa some 27 years, and was instrumental in the founding of the ASB.

The Society’s first official Newsletter editor was Keith Williams (5/88 through 12/91). In its first Issue, the newsletter was only four pages long, photocopied, and the closest thing to an editorial was Keith’s introductory text announcing the reasons for starting a regular newsletter. Those first issues were sprinkled with Keith’s wit, but not until December of 1991 (Keith’s final issue) was a formal editorial byline unveiled. It was entitled:

The Tilted Perspective

and it “combined humor with thought-provoking ways in which we could improve the Society.”

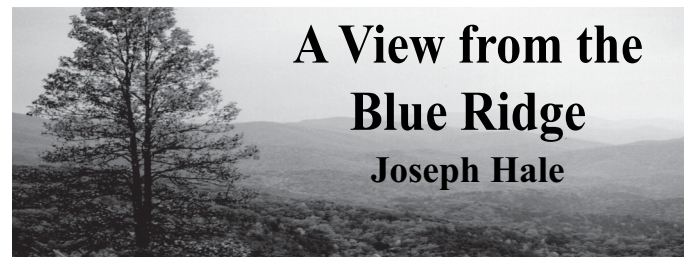
In December 1992, Kit Vaughan took over the reins of the ASB Newsletter. In his first issue, he penned an editorial column with

A View from the Academical Village

Kit Vaughan

the byline “A View from the Academical Village,” and in that first column, he informed us that Thomas Jefferson not only established the University of Virginia (Kit’s home institution at the time), but he also designed the original buildings which he called an “academical village.” Kit pledged to “have an editorial piece in each issue... which would address issues relevant to the members of the American Society of Biomechanics.” In subsequent issues, Kit’s editorials ranged in subject matter from grantsmanship to the relationship between academia and industry. Kit ably served as newsletter editor through June of 1995, when he handed the baton to Joe Hale, an editorial assistant for the newsletter at that time. It seems that Kit wanted out so badly that he took a position in his native South Africa to make it happen.

Joe took the editorial column and made it his own, warning that with the change in editors, we might notice a subtle ‘change of view’ in the column. He named his editorial space:



A View from the Blue Ridge Joseph Hale

explaining that the Blue Ridge Mountains encircle the academical village at the University of Virginia (no institutional change, just a change in editor), and that “they are a part of the fabric of the lives of the people in central Virginia.” I think it didn’t hurt that Joe intensely loved those mountains and being outdoors.

Sticking with his “local nature” theme, when Joe moved to Minnesota (the land of 10,000 lakes) in the Fall of 1997, he introduced a new heading for his column - “Between the Lakes.”

Joe took the editorial column in some new directions during his tenure. To quote from his final editorial “Although not always strictly related to Biomechanics, I have endeavored to select topics that would hopefully provoke the reader to think beyond the bounds of his/her specific research interests. Inspired by issues that I have encountered in my professional and personal pursuits, my editorials have covered topics ranging from society members’ efforts to obtain a new prosthetic limb for an indigent woman to a primer on computer viruses. Printing articles that are of interest to every member of such a diverse society as ours is indeed a challenge.”

Then, in the Fall of 2000, I took over as the Editor of this esteemed Newsletter. The precedent for an editorial column was so well established by that time, I never considered not having



Between the Lakes

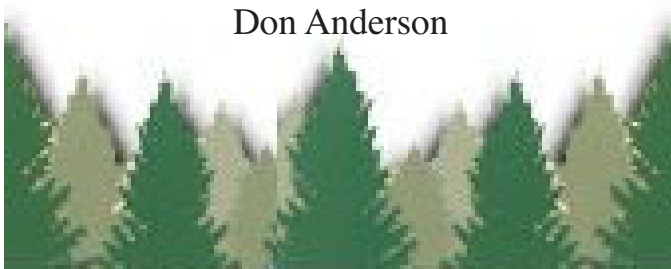
Joseph Hale

one. But what to name it, and what direction to take with it? While I did live and work in the same environs as Joe Hale, it seemed inappropriate to keep the same heading for the editorial column, and somehow untrue to keep the same focus. So just as those before me, I made the column my own. And I named it in the "local nature" vein as Joe had before me.

In this column you've seen tutorials on computer software, and a travelogue on Calgary and its surroundings in advance of the World Congress of Biomechanics. Truly a hodgepodge of content and focus.

Into the Woods

Don Anderson



Now, back to the theme of change. I grew up in Iowa, less than a half an hour's drive from the University of Iowa. And if there is one thing I know about Iowa, it is that "Corn" is king around here. The state is not (in my humble opinion) blessed with some of the natural beauty of other states, since much of the land was ceded to agricultural ends long ago. The Department of Orthopaedic Surgery here at the U of I years ago took upon itself the corn logo with which I have chosen to head my column. So one should not be surprised by my choice to change the column title. As for focus, I suspect shifting to a more agricultural bent in my content would not be a tribute to you the members of the ASB (but you should take a peek at the CornCam - www.iowafarmer.com/corncam/corn.html - even though there won't be much activity there until next Spring). So in the absence of suggestions from the rest of you, I will keep this hallowed space as my bully pulpit. Of relevance, perhaps,

discussions among corn growers here in Iowa have begun to often include the topic of biotechnology, although that topic is likely better left for another column. Enjoy the text of this Ode to an Internet Cornfield lifted from the CornCam site. And welcome change when it comes in your life.



The Internet Cornfield

By A. Lee

In the middle of America In the center of a field,
There is a camera that watches For what this earth can yield
This kindly Iowa Farmer Has pity for the city folk
In a life where concrete grows And the atmosphere can choke
With his very own web site He offers what he can
The growing of his corn For every child of man.
Just turn on your computer And watch the screen turn on
For pictures of his corn field All the way from dusk to dawn
You can watch the corn grow From the safety of your home
Drink your cola, eat your morning snack But never having to roam
He'll give up all the details As he measures all the stalks
How long the corn silk is And all that farmer talk
You'll see the rain come Dancing down, on rivets in the earth
You'll know about the temperature For whatever that is worth
So when you're feeling isolated With not enough to do
Go visit in a cornfield To see what you can view
With all his technology There's plenty to see
There's close ups of corn stalks And all of it's for free
There's pictures that show The field in before
To compare with the after Oh, there's even lots more
So every fifteen minutes He updates his site
Even giving the world A cornfield at night.
This noble creature, With time on his hands
Is doing his part To help us all understand
Mother nature at work As he produces the corn
That finds it's way to our tables After the stocks have been shorn
Where will it end up? As buttered and salted,
As liquor or flakes, bread Pig food, Whatever? We'll exalt it
Although in truth, In my dreams I've seen
Field rings as evidence Of little men in green
Fifteen minute pictures Would be enough time to observe
Visiting space aliens That have come to serve
Or maybe, just maybe There is a ball game taking place
With heroes long dead In this cornfield place.
Whatever the outcome Whatever I'll see
I must admit, I hope He enjoys the fun much as me!
Thank you for the fun.

A. Lee is from Snohomish, Wash. There she writes, volunteers, and raises kids. And she loves corn, "both the eating and humor kind."

Past Past-President's Report

James Ashton-Miller

2002 ASB Nominating Committee: The Nominating Committee (elected at the annual meeting in San Diego) consisted of Roger Enoka, Richard Hinrichs, and myself (Chair). From the four names the Committee forwarded to the Executive Board, ASB members elected Walter Herzog (Biological Sciences) as President-Elect, and Steve Robinovitch (Engineering/Applied Physics) as Program Chair-Elect in the annual ballot. The chair thanks the committee members for their efforts and the nominees for their willingness to run.

2002 ASB Awards: Eleven members kindly agreed to take time out of their busy schedules to serve on the 2002 Awards Committee. They were distributed among the our membership categories as follows:

Biological Science: Andrew Biewener, William Stauber
Ergonomics: Donald Chaffin, Mark Redfern, Robert Radwin
Exercise Science: Peter Cavanaugh, Melissa Gross, Robert Gregor
Engineering and Applied Physics: Ian Stokes, James Ashton-Miller
Health Sciences: Phil Martin, Mark Grabiner

Five members evaluated the Pre- and Post-doctoral Young Scientist nominees (9 and 12 nominations, respectively), five more evaluated the Journal of Biomechanics, Microstrain and Clinical Biomechanics nominees (10, 7 and 12 nominees, respectively, from the WCB program committee), and four members evaluated the four Borelli award nominees. Selection of the Young Scientist awards was made on the basis of the research papers, nomination letters, curriculum vitae and academic transcripts that were submitted. In the case of the JB/MS/CB awards, the materials made available to the committee consisted of the top-ranked abstracts in each category, forwarded by the WCB Program Committee. Thus the selection of the winners was made on the basis of the oral presentations of each of the two finalists in each category at the ASB awards sessions at the Calgary WCB meeting. The awards sessions were well attended and the quality of the presentations was outstanding.

Winners were:

- Mimi Koehl (Borelli Award),
- J. Maxwell Donelan (Young Scientist Pre-Doctoral Award),
- Richard R Neptune, (Young Scientist Post-Doctoral Award),
- Karen Reed et al. (Clinical Biomechanics Award),
- T. Matsumoto et al. (Microstrain Award), and
- Kevin Shelburne et al (Journal of Biomechanics Award).

In closing, allow me to thank the committee members for their diligent work. It has been a privilege to serve the society for these past three years. Thank you for that opportunity and I look forward to seeing you next year in Toledo.

Respectfully submitted,

James A. Ashton-Miller



Advertising in the ASB Newsletter

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:

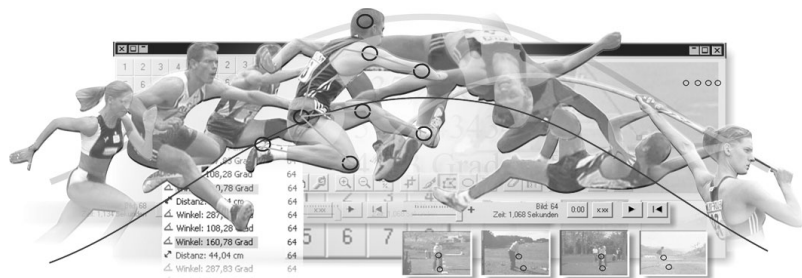
1/4 page	\$100
1/2 page	\$200
full page	\$400
back page	\$600
separate insert	\$600 per insertion

If you are interested in placing an advertisement or have any information concerning potential advertisers, please contact Peter Vint at (peter.vint@researchintegrations.com).

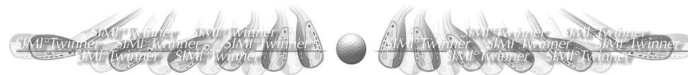
SIMI°Motion offers 2D and 3D motion analysis based on standard or highspeed video, analog data acquisition, signal processing, easy setup, usage and reporting.

The system is compatible with analog and digital video cameras and cooperates seamlessly with products from Biovision, Novel, TekScan, Kistler, AMTI, Redlake and other state-of-the-art technologies.

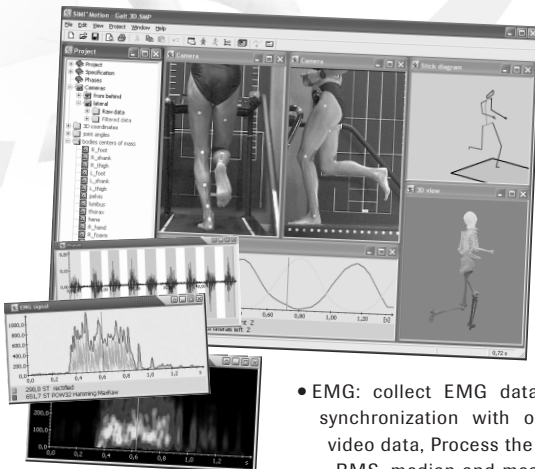
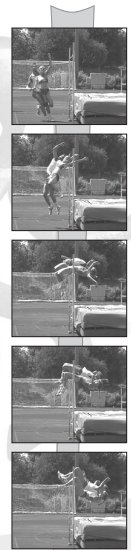
- **Pan/Tilt/Zoom:** simple setup and highly improved validation, software based and requires no additional hardware
- **Validation:** automatically validates 3D calibration, reports any problems and suggests how to improve accuracy
- **Report:** create user defined HTML reports, even video clips can be added
- **Inverse dynamics:** calculate forces and moments, display results together with all other data within a single user interface



2D Still Image Measurement



SIMI°Twiner Pro



- **EMG:** collect EMG data with automatic synchronization with other devices and video data, Process the signals with filters, RMS, median and mean frequency etc.



SIMI°Motion version 6.1

2D and 3D
Motion Analysis

Synchronized capturing

Capture video clips from six consumer DV cameras without any additional cables with an accuracy of about 1 ms. Video editing features allow to crop and save with full quality or to recompress the clips with any codec (e.g. DivX 5.0).



SIMI°Twiner Pro is designed for all those who would like to capture, document, compare and rate movement sequences in an easy, uncomplicated and particularly objective way.

- simple handling and easy learning
- direct visual comparison of two videos
- synchronous replay of the videos with any synchronization point
- simple measurement of distances, angles and spatial changes
- video sequences are blended into each other, showing the two movements simultaneously (video mix)
- various points of time can be blended into one image (stroboscope).

Third
**SOUTHERN CALIFORNIA
 CONFERENCE ON
 BIOMECHANICS**



March 28-29, 2003

Department of Sports
 Medicine
 Pepperdine University

Sponsored by:



In an effort to foster collaboration and the exchange of knowledge among biomechanics programs in the greater Southern California area, we proudly announce the third annual meeting of the Southern California Conference on Biomechanics (SCCB). The conference seeks to foster the professional development of graduate and undergraduate students in biomechanics by providing students an opportunity to present their research to the biomechanics community.

Free communication presentations will be 20 minutes in length: 12 minutes for the presentation; 8 minutes for audience and faculty panel questions. The conference schedule provides time for 22 student presentations. If the number of accepted papers exceeds 22, a poster session may be added to accommodate more student participants. If the number of accepted papers is less than 22, additional discussion time will be added following each paper. A panel of two faculty members will be appointed for each session to facilitate the discussion period following the presentation.

Awards honoring the best original research and presentation by an undergraduate student and by a graduate student will be presented at the conclusion of the meeting.

Individuals planning to attend the conference are encouraged to send an email indicating their intent to the conference organizers either to sccb_2003@yahoo.com or to michael.feltner@pepperdine.edu.

**TENTATIVE CONFERENCE
 SCHEDULE**

Friday March 28, 2003

4:00 - 6:00 pm	Arrival & Check In
6:00 - 6:15 pm	Welcome
6:15 - 7:15 pm	SCCB Keynote
7:30 - 9:30 pm	Free Communications 1

Saturday March 29, 2003

7:00 - 8:30 am	Registration
8:30 - 10:30 am	Free Communications 2
10:30 - 10:45 am	Break
10:45 - 12:05 pm	Free Communications 3
12:05 - 1:30 pm	Lunch (on your own)
1:30 - 2:30 pm	ASB Keynote
2:30 - 2:45 pm	Break
2:45 - 4:45 pm	Free Communications 4
4:45 - 5:00 pm	Awards & Closing

ASB Keynote Address
Dr. Robert Gregor
Georgia Tech University

SCCB Keynote Address
Dr. Christopher Powers
University of Southern California

<http://faculty.pepperdine.edu/mfeltner/sccb>

ABSTRACT SUBMISSION

Details for abstract submission may be found at the conference web site:

<http://faculty.pepperdine.edu/mfeltner/sccb>

*The deadline for abstract submission is
 March 1, 2003*

REGISTRATION

Thanks to the financial support of the American Society of Biomechanics, there is no registration fee for conference attendance.

To register, send a letter to:

Dr. Michael Feltner
Department of Sports Medicine
Natural Science Division
Pepperdine University
Malibu, CA 90263
Attn: SCCB 2003 Registration

In the letter, indicate the name, address, telephone number and email address of all faculty members who will be attending and the names of all student attendees. Registration will be confirmed via email.

Registration information must be received by March 1, 2003.

Meals are not included with the conference registration.

All conference activities will be held in Elkins Auditorium on Pepperdine University campus

Lodging

The following hotels are located near the Pepperdine University campus:

Malibu Beach Inn
 Malibu Country Inn
 Radisson
 Hyatt-Westlake Plaza
 Good Nite Inn

Additional hotel information can be found on the Conference website.

For additional information, contact either:

Dr. Michael Feltner
 Department of Sports Medicine
 Pepperdine University
 Malibu, CA 90263

(310) 506-4312
michael.feltner@pepperdine.edu

or

Dr. Michele LeBlanc
 Natural Science Division
 Pepperdine University
 Malibu, CA 90263

(310) 506-7930
michele.leblanc@pepperdine.edu

News of Former ASB President and Founder's Death

IOWA CITY — Dr. James G. Hay, 65, a former President and Founding Member of the American Society of Biomechanics, died of malignant melanoma on Aug. 1, 2002, in his home in Mount Maunganui, New Zealand. A memorial service was held at Mount Harbour Chapel in Mount Maunganui on August 5th.

Jim was born Nov. 5, 1936, in Waipukerau, New Zealand, the son of Frank and Irene Hay. He was married to Hilary Williamson on May 17, 1955, in Auckland, New Zealand.

He attended Otago University in Dunedin, New Zealand, where he received his bachelor's degree in physical education in 1958. He received his Ph.D. degree in biomechanics from the University of Iowa in 1967 and served as professor of biomechanics at Iowa from 1971 until his retirement in 1998.

Jim was considered one of the world's leading biomechanics researcher and teacher at the time of his retirement. His many lectures throughout the world and his many published books and journal articles have had a profound influence on the advancement of sports science. More than 400 of Jim's former students are now teaching biomechanics at universities throughout the world.

Besides his work at Iowa, Jim served for many years as a consultant and researcher for both the U.S. Olympic Committee and International Olympic Committee.

Jim was a member of many professional and civic organizations, including the International Society of Sports Biomechanics, an organization he co-founded and served as president for two years. He was most proud to be a member of the Iowa City and Mount Maunganui Rotary clubs.

Jim had an avid interest in all things scientific, including the science of cryptography. His dying wish was ABF Y TJM. His work in sports science will live on as long as there is sport in this world.

Contributions may be made to the Mount Maunganui Rotary Club, c/o Peter Clarke, 53 Sunrise Ave., Mount Maunganui, New Zealand. The club plans to construct a special park bench, in Jim's name, to be placed at the base of Mount Maunganui, where Jim loved to sit and watch the sun set.

Editors note: This obituary ran in the Iowa City Press Citizen while many of us were attending the World Congress of Biomechanics. I have made only minor edits to their text.

Graduate Program Information

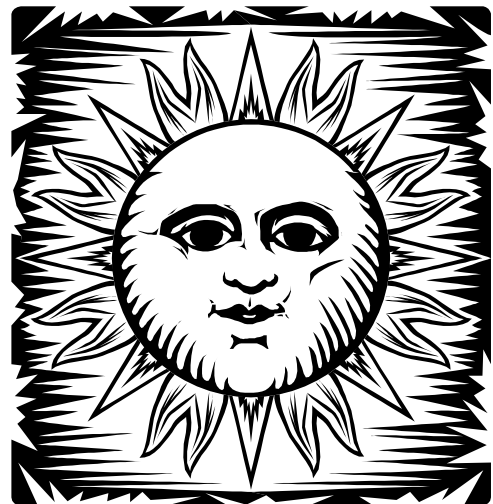
The ASB maintains an on-line database of universities and colleges with graduate programs in biomechanics. The database is organized alphabetically by country and state and currently includes more than 70 institutions from Canada, the United Kingdom, and 32 different states within the US. This is a great resource for undergraduate students who may be considering graduate school as well as for anyone who just wants to find out what's going on at other institutions.

Is your institution included in the database? If not, new information can be sent to Gary Heise at University of Northern Colorado via email: gary.heise@unco.edu. Because the information contained in these listings may gradually become outdated as equipment and personnel at laboratories change over time, all institutions are encouraged to review and update their information periodically.

New and updated program information can be transmitted directly in an e-mail. Alternatively, an online form can be used to submit updated grad program details.

The graduate program database can be accessed through the Society's internet homepage at:

www.asb-biomech.org



\$\$\$

*Don't Forget
to pay your dues!*

\$\$\$

Job Opportunities

Kathy Browder

Faculty Positions

Kinesiology – Assistant Professor – Qualifications: Doctorate in Exercise Science or related field; ABD considered. Demonstrated evidence of effective teaching. Practical experience and expertise in biomechanics, instrumentation, anatomy and physiology, assessment procedures, and instructional technology in the teaching/learning process. **Responsibilities:** Teach in Health, Kinesiology, & Recreation education programs. Advise majors. Supervise practicums & internships. Oversee operations for wellness center. Conduct research. Send letter of application, CV, graduate & undergraduate transcripts, and names & telephone numbers of 3 references to Office of Personnel; Southern Arkansas University; P.O. Box 9288; Magnolia, AK 71754-9288. Tel: 870-235-4382; E-mail: jethomason@saumag.edu. Start date: 8/03. Deadline: Until filled.

Structural Kinesiology/Biomechanics – Assistant Professor – Qualifications: Doctorate in field. **Responsibilities:** Teach classes in structural kinesiology & sport biomechanics. Also teach nutrition or pedagogy classes. Advise graduate & undergraduate students. Conduct independent scholarly research program. Provide service to department, university, & community. Send letter, CV, copies of transcripts, and 3 letters of reference to Dr. Penny McCullagh, Dept. of Kinesiology and Physical Education, CSU Hayward, 25800 Carlos Bee Blvd. Hayward, CA, 94542. E-mail: pennymc@csu Hayward.edu. TEL: 510-885-3061. Fax: 510-885-2282. Website: <http://www.edschool.csu Hayward.edu>. Start date: Fall 2003. Deadline: 12/1/02.

Physical Therapy – Asst/Assoc/Full Professor – Qualifications: Doctorate in exercise science, muscle physiology, neuroscience, biomechanics, motor development, or physical therapy. One year post-doctoral research experience, if new investigator. Physical therapy licensure not required. **Responsibilities:** Establish active independent programs of extramurally funded research in area closely related to biokinesiology. Teach in entry level or post-professional programs. Participate in faculty & university governance. Send letter and CV to Jack Turman, PhD, PT; Chair, Biokinesiology Search Committee; USC Department of Biokinesiology and Physical Therapy; 1540 Alcazar Street, CHP 155; Los Angeles, CA 90089. TEL: 323-442-2900. Fax: 323-442-1515. Email: turman@usc.edu. Website: www.usc.edu/pt. Start date: 7/1/03.

Exercise Physiology & Biomechanics – Asst/Assoc Professor – Qualifications: Doctorate in exercise physiology and/or biomechanics. Willingness to travel for teaching and supervision. **Responsibilities:** Teaching, scholarly activity, and service. Involvement in professional organizations. Send letter of application, CV, unofficial transcripts, and 3 letters of recommendation Dr. Marlene Mawson, Chair; College of Education; 1500 Maple Street; State University of West Georgia; Carrollton, Georgia 30118-5000. Website: <http://coe.westga.edu>. Start date: 8/11/03. Deadline: Until filled.

Exercise Physiology & Biomechanics – Visiting Lecturer – Qualifications: Doctorate in exercise physiology or related field (ABD encouraged to apply). Desired: Secondary expertise in biomechanics or equivalent area; teaching competency (undergraduate and graduate) in exercise physiology, biomechanics and at least two of the following areas: anatomy, exercise testing/prescription, female performance issues, fitness/wellness, applied nutrition for health/performance, human sexuality, and/or growth, maturation and performance; previous college teaching experience and/or post-doctoral research experience. Send application letter, CV with current e-mail address, transcripts, and 3 letters of reference with phone numbers to Dr. C. M. Hearon; Northeastern Illinois University; 5500 N. St. Louis Ave.; Chicago, IL 60625-4699. Email: C-Hearon@neiu.edu. Website: www.neiu.edu. Start date: 8/03. Deadline: Until filled.

Biomechanics/Motor Control – Assistant Professor – Qualifications: Doctorate & academic background in Kinesiology or related disciplines, such as Biomechanics, Engineering, Human Factors, Neuroscience, or Psychology. Ability to teach courses in biomechanics/motor control desirable. **Responsibilities:** Engage in research, seek extramural funding, teach at the undergraduate and graduate levels, advise and direct student research. Contribute to the department's interdisciplinary research. Send

application materials to Dr. Karl S. Rosengren; Chair of the Search Committee; Department of Kinesiology; University of Illinois at Urbana-Champaign; 906 S. Goodwin Avenue; Urbana, IL 61801; TEL: 217-244-7323. Fax: 217-244-7322. Website: <http://www.kines.uiuc.edu>. Start date: 8/21/03. Deadline: 12/1/02.

Biomechanics– Associate Professor – Qualifications: Doctorate (in biomechanics preferred); evidence of previous teaching experience and prior administrative assignment in directing and managing a laboratory facility. Preferred: background in clinical and tissue biomechanics; evidence of scholarly productivity through writing, presentations, and successful grantsmanship in area of expertise; evidence of involvement in professional organizations in the area of expertise. **Responsibilities:** Direct Biomechanics Laboratory. Teach courses according to expertise. Send letter of application, CV, one copy of official transcripts of all graduate work, and names and phone numbers of 3 references to Dr. Mitch Whaley, Chair; School of Physical Education; Ball State University; Muncie, IN 47306. E-mail: mwhaley@bsu.edu. TEL: 765-285-3206. Fax: 765-285-5610. Website: <http://www.bsu.edu>. Start date: 8/22/03. Deadline: Until filled.

Biomechanics– Associate Professor – Qualifications: Doctorate (in biomechanics preferred); evidence of previous teaching experience and prior administrative assignment in directing and managing a laboratory facility. Preferred: background in clinical and tissue biomechanics; evidence of scholarly productivity through writing, presentations, and successful grantsmanship in area of expertise; evidence of involvement in professional organizations in the area of expertise. **Responsibilities:** Direct Biomechanics Laboratory. Teach courses according to expertise. Send letter of application, CV, one copy of official transcripts of all graduate work, and names and phone numbers of 3 references to Dr. Mitch Whaley, Chair; School of Physical Education; Ball State University; Muncie, IN 47306. E-mail: mwhaley@bsu.edu. TEL: 765-285-3206. Fax: 765-285-5610. Website: <http://www.bsu.edu>. Start date: 8/22/03. Deadline: Until filled.

Exercise Science– Assistant Professor – Qualifications: Master's in related area (doctorate preferred). Experience in exercise science and/or teaching sport movement. **Responsibilities:** Teach exercise physiology, biomechanics, sports nutrition, motor learning, and introduction to exercise science. Additional courses may include teaching and coaching methods, rhythmic, or recreation, etc. Send letter of application, transcripts, CV, and 3 letters of reference to Lisa Hicks, Search Committee Chairperson; Department of Health and Physical Education; University of Indianapolis; 1400 E. Hanna Ave.; Indianapolis, IN 46227. Email: lhicks@uindy.edu. Website: <http://www.uindy.edu>. Start date: 8/03. Deadline: 12/7/02.

Biomechanics – Assistant Professor – Qualifications: Doctorate in Biomechanics or Kinesiology (ABD considered). Interest and experience in teaching freshmen through graduate courses in Kinesiology, Biomechanics, Ergonomics, Anatomy and Physiology, and Pathophysiology. Demonstrated successful college teaching, excellent written and verbal communication skills, and evidence of scholarly work with potential for external funding. **Responsibilities:** Direct undergraduate and graduate student research, advise undergraduate and graduate students, develop and maintain a program of scholarly and creative activity that leads to sustained scholarly achievement and the pursuit of grant funding, and continue professional development and active engagement in their professional fields. Send letter of application, CV, and a list containing the names, addresses, phone numbers, and e-mail addresses of 3 references to Tom Masterson, PhD; Search Committee Chair; School of Health Sciences; 119 Pearce Hall; Central Michigan University; Mount Pleasant, MI 48859. TEL: 989-774-2154. Email: Thomas.James.Masterson_jr@cmich.edu. Website: <http://www.chp.cmich.edu/ehsd/>. Start date: 8/18/03. Deadline: 12/1/02.

Biomechanics – Associate/Full Professor – Qualifications: Advanced degree in Kinesiology or a related field and a nationally recognized record of funded research and scholarly publications. History of successful doctoral student training. Be willing to contribute to the mentoring of junior faculty. Send detailed letter of interest addressing the requirements for this position, CV, selected reprints, and the names, addresses, and telephone numbers of 3 references to Susan H. Brown, PhD; Associate Dean for Research; Division of Kinesiology; The University of Michigan; 401 Washetenaw Ave.; Ann Arbor, MI 48109-2214; TEL: 734-763-6755; FAX: 734-936-1925; Email: shcb@umich.edu. Website: www.umich.edu/~divkines/kinweb/. Start date: 8/03. Deadline: Until filled.

Mechanical Engineering (Position # 792949) – Assistant/Associate Professor – Qualifications: Ph.D. in biomechanics/materials, bioinstrumentation, product design, rehabilitation engineering, movement science. Responsibilities: Strengthen dept. presence in local bio-medical industry. Teach undergraduate and graduate courses in mechanical and manufacturing engineering, advise undergraduate and graduate students, develop curriculum and sponsored research, participate in departmental and accreditation activities, and provide service to the university and the community. Send letter of application (with position number), CV, copies of transcripts from universities attended, and 3 professional references to Bantwal Baliga; Chair, Faculty Search Committee; Mechanical and Manufacturing Engineering Department; St. Cloud State University; ECC 101, 720 4th Avenue South; St. Cloud, MN 56301-4498. Can apply by e-mail: brbaliga@stcloudstate.edu. Website: <http://condor.stcloudstate.edu/~mme/index.html>. Start date: 8/25/03. Deadline: 1/13/03.

Exercise Science – Assistant/Associate Professor – Qualifications: Doctorate in Exercise Science or related field with emphasis in Exercise Physiology & supporting area of expertise in Biomechanics, Motor Control or related discipline. Appropriate professional certifications (e.g., NSCA, ACSM). Experience in assessing and developing exercise programs for healthy populations. Demonstrated commitment to excellence in teaching and professional service. Current record of focused scholarly productivity. Responsibilities: Teach undergraduate and graduate courses in exercise physiology, performance/fitness/physiological assessments, and biomechanics or motor control. Chair & serve on thesis committees. Seek and obtain extramural funding. Publish research in a focused area. Establish collaborative partnerships with the medical community, public and/or private sector community agencies, and other units on campus. Send letter of application, CV, graduate and undergraduate transcripts, 3 letters of reference, and samples of research publications to Dr. Lawrence Weiss; Chair of Exercise Physiology Search Committee; Department of Human Movements Sciences and Education; The University of Memphis; Memphis, TN 38152-3480. TEL: 901-678-4648; FAX: 901-678-3591; E-mail: lweiss@memphis.edu. Website: <http://hmse.memphis.edu>. Start date: 8/03. Deadline: 1/13/03.

Biomechanics/Athletic Training – Associate Professor – Qualifications: Terminal degree in Kinesiology (preferred in Biomechanics, Pedagogy, or Sports Behavior). Undergraduate and graduate teaching experience. Record of scholarly activity. Supervisory experience and familiarity with JRC-AT accreditation. Responsibilities: Supervise 8 faculty, lead undergraduate and graduate curriculum development and CAAHEP accreditation effort, teach ~9 hours per semester, and promote the department to internal and external communities. Send letter, CV, and list of 5 references to Dr. Greg Haff; Department of Kinesiology; Midwestern State University; 3410 Taft Blvd.; Wichita Falls, TX 76308. E-mail: steven.snowden@mwsu.edu. Website: <http://hs2.mwsu.edu/kinesiology/index.asp>. Start date: 8/03. Deadline: Until filled.

Kinesiology/Biomechanics– Assistant Professor – Qualifications: Earned doctorate in Exercise Science, Anatomy, Physiology, Biomechanics, Motor Learning or related area. Record of accomplishments and/or potential for excellence in teaching, research and service. Responsibilities: Teach undergraduate/graduate courses in Kinesiology (Biomechanics), Introductory Anatomy, and Introductory Physiology. Advise undergraduate and graduate students. Advance knowledge as a teacher-scholar through publications and presentations. Assist in supervision of new Motion Analysis Laboratory. Send letter of application, CV, unofficial transcripts, and 3 letters of recommendation to Virginia L. Hicks, Ph.D.; Search Committee Chairperson; Department of Health, Physical Education, Recreation and Coaching; University of Wisconsin-Whitewater; Whitewater, WI 53190; TEL: 262-472-1140; FAX: 262-472-3221; Email: hicksv@uww.edu. Website: <http://www.uww.edu>. Start date: 8/03. Deadline: 1/13/03

Physical Therapy – Assistant Professor – Qualifications: Expertise and/or interest in one or more of the following areas—adult or pediatric neurorehabilitation, musculoskeletal diagnosis and treatment, administration. Evidence of capability for teaching and research. Send application letter, resume with e-mail address and reference contacts to Arkansas State University; College of Nursing and Health Professions; Dean's Office - P.O. Box 910; State University, AR 72467; TEL: 870-972-3112; Email: hanrahan@astate.edu. Website: <http://pt.astate.edu>. Start date: 8/03. Deadline: 1/15/03

Physical Therapy (Position #99040) – Associate Professor – Qualifications: Doctoral degree, eligible for PT licensure in Florida. Preference given to candidates with a

specialty in orthopedics, physiology and/or kinesiology. Responsibilities: Teach in Masters, DPT and Ph.D. programs. Act as Research Advisor and/or Clinical Supervisor. Act as academic advisor to MPT students. Send letter of interest, CV and 3 references to Position #99040; Nova Southeastern University; Office of Human Resources; 3301 College Ave.; Ft. Lauderdale, FL 33314; FAX: 954-262-3813; Email: nsujobs@nova.edu. Website: <http://www.nova.edu>. Start date: 1/2/03. Deadline: 12/1/02.

Athletic Training # (31858) – Assistant/Associate Professor – Qualifications: Ph. D. or equivalent, NATA-BOC certification, and eligibility for Florida license as an athletic trainer required. Preferred qualifications include PT and/or CSCS credentials, teaching, clinical and research expertise. Send cover letter, CV, 3 letters of recommendation, and official transcripts to Dr. Christopher Joyce; College of Health; 4567 St. Johns Bluff Road South; Building 39/2024; Jacksonville, FL 32224; E-Mail: CJOYCE@UNF.EDU. Website: <http://www.unf.edu>. Start date: 8/03. Deadline: 12/13/02.

Physical Therapy – Open Rank – Qualifications: Doctoral degree. Post-doctoral experience desirable. Teaching expertise in orthopaedic/musculoskeletal content preferred. Responsibilities: Performing research, pursue extramural funding, supervise graduate student research, teach in areas of content expertise, and participate in faculty governance and professional service. Send CV, cover letter outlining research agenda, and the names of 3 references to LaDora Thompson, Ph.D., BSPT; Chair, Search Committee; Program in Physical Therapy; MMC 388; The University of Minnesota; 420 Delaware Street SE; Minneapolis, MN 55455; TEL: 612-626-5271; Email: thomp067@umn.edu. Start date: 7/03. Deadline: Until filled.

Strength & Conditioning – Assistant Professor – Qualifications: Doctorate in Kinesiology or closely related field. Certifications as Strength and Conditioning Specialist and USA Weightlifting Level I preferred. Preference given to applicants with university teaching experience and record of research/scholarly activity. Responsibilities: Teach a variety of undergraduate weight training courses, a graduate course in strength and conditioning, and other courses depending on. Send letters of inquiry to Dr. Fred D. Baldini, Chair; Department of Kinesiology and Health Science; CSUS; 6000 J Street; Sacramento, CA 95819-6073. TEL: 916-278-6441; FAX: 916-278-7664. Email: baldinif@csus.edu. Website: <http://www.csus.edu/fas/fsaindex.htm>. Start date: 8/03. Deadline: 1/13/03.

Biomechanics/Motor Control – Assistant Professor – Qualifications: Doctorate in Kinesiology or related disciplines, such as Biomechanics, Engineering, Human Factors, Neuroscience, or Psychology. Ability to teach courses in Kinesiology focusing on aspects of biomechanics / motor control desirable. Responsibilities: Engage in research, seek extramural funding, teach at the undergraduate and graduate levels, advise and direct student research. Send application materials to Dr. Karl S. Rosengren; Chair of the Search Committee; Department of Kinesiology; University of Illinois at Urbana-Champaign; 906 S. Goodwin Ave; Urbana, IL 61801; TEL: 217-244-7323; FAX: 217-244-7322. Website: <http://www.kines.uiuc.edu>. Start date: 8/21/03. Deadline: 12/1/02.

Human Biologist – Assistant/Associate Professor – Qualifications: Ph.D. in biomechanics, pathology, physiology, pharmacology, or toxicology. Responsibilities: Teach two-semester course in human anatomy and physiology; course in pathophysiology, pharmacology, or histology; and another course in the candidate's area of interest. Send CV, statements of teaching philosophy and research plans, and the names of 3 references to Dr. Paul Hamilton; Department of Biology; University of Central Arkansas; Conway, AR 72035. Email: paulh@mail.uca.edu. Website: <http://www.uca.edu/biology/>. Start date: 8/03. Deadline: Until filled.

Other Positions

Senior Ergonomics Engineer (Job Code: 02-0003152) to work with Johnson & Johnson in Warsaw, IN. Qualifications: B.A. / B.S. or equivalent work experience. 6-10 years work experience. Responsibilities: Provide technical expertise in the areas of musculoskeletal disorders and back injury prevention, workplace and equipment design, work physiology, biomechanics, vibration, lighting, occupational stress and job design. Recommend content for the ergonomics component of the health and safety management policy and program. Implement at the site level those policies and programs developed for the corporation to assure that workplace conditions comply with all local, state, federal and J&J requirements. Participate in the design and review

(continued on next page)

(Other Positions continued)

of new processes for compliance with ergonomic specifications. Assist management in identifying and prioritizing ergonomic hazards; participate on ergonomics task forces. Participate in investigations of incidents involving potential ergonomics issues, making appropriate recommendations. Participate in external audits/inspections by OSHA, NATLSCO and state agencies at regional J&J facilities. Customize generic training and education programs for use at regional sites and conduct ergonomics training. Contact information: jn.com/careers.

Senior Research Engineer (Job Code: 02-0004670) to work with Johnson & Johnson in Warsaw, IN. Qualifications: B.A. / B.S. or equivalent work experience. 3-5 years work experience. Responsibilities: Manage research projects from initial feasibility testing through final product development. Assess new technologies and develop improved methods of product evaluation. Evaluate research proposals relative to DePuy objectives and business plan. Assist in the management of co-op students, lab technicians, and test engineers. Advance the utilization of available technology and equipment for the research of materials and products to further R&D goals. Provide technical assistance to Product Development, Marketing, Sales, Quality, Clinical and Regulatory, and Manufacturing groups. Interface with surgeons, researchers, outside vendors and prototype facilities. Prepare reports and presentations for both internal and external publication. Stay current with advances in orthopaedic surgery, biomechanics, and biomaterials. Attend technical meetings; participate in activities of technical societies. Contact information: jn.com/careers.

BMI Scientist (Job Code: 000690) to work with Titan Corporation in San Antonio, TX. Qualifications: Ability to obtain clearance. PhD or MS in Physics, Math, Biomechanics, and/or Engineering. Specific areas of expertise required include Quasi-Static Electromagnetics associated with Micro-to-Macro electrodes, Control System Analysis, Statistical Analysis, Biological Nerve Networks, and Computational Neural Networks. Ability to work as part of a diverse Government/Contractor team on problems involving the translation of basic theoretical research into practical applications. Responsibilities: Support a research and development program being conducted by the Air Force Research Laboratory to investigate and demonstrate technologies related to Brain Machine Interfaces (BMI). Work includes acquisition of neural signals and injection of signals into the nervous system. Contact information: DISJobs@btg.com.

Senior Customs Design Engineer (Job Code: SCDE628FL) to work in Jacksonville, FL. Qualifications: B.S. in Mechanical Engineering or Bioengineering/Biomechanics. 7-10 years experience in New Product Development. Prior Orthopedic Industry experience, preferably in the Knee and Hip Replacement Devices. Strong design experience in development and manufacturing environments, preferably in orthopedic devices. Skilled in leadership and people development in a team environment. Demonstrated organizational and project management skills. Working knowledge of QSR/ISO requirements. Knowledge of quality tools such as FMEA, product/process validations; quality and inspection requirements, manufacturing processes, measurement techniques, and engineering drawing interpretation; and software packages including Microsoft and CAD applications. Contact information: lisaelligson@charter.net.

Research Laboratory Assistant (Job Code: INWSRD16523) to work with NIKE in Portland, OR. Qualifications: Master's in Biomechanics or related field with 1-2 years' experience in a research environment. Experience working with human subjects and utilizing biomechanical research tools, including Kistler, Pedar, Motion Analysis, and EMG. Demonstrated analytical & organizational skills. Fluent with typical biomechanics and data collection software, Microsoft Office and basic statistical packages. Position requires the completion of a non-compete agreement. Responsibilities: Conduct biomechanical studies to support Category and Advanced Research and Development initiatives. Develop experiments to identify the performance, comfort and protection requirements of athletes. Contact information: www.nikebiz.com/applynow.

Computer Scientist to work in San Antonio, TX. Qualifications: BS & MA or PhD with strong Algorithm experience, Mathematics or Biomechanics or Physics skills for government robotics research project. Programming helpful: C++ / FORTRAN. Must be US citizen capable of obtaining Department of Defense security clearances. All responses must indicate position, travel and salary desired or history. Send resumes [in Word (.doc) or Acrobat (.pdf) format] to rjenkins@symbiont.com. Symbiont, Inc.; 13750 San Pedro Avenue, Ste 605; San Antonio, TX 78232; FAX: 210-545-2430.

Orthotist (Job Code: mrsa652) to work in Los Angeles, CA. Qualifications: Minimum 5-7 years clinical experience. Experience seeing patients and lab work. Previous experience as an orthotic technician is desired. Must be ABC Certified Orthotist. Physical Therapy background is highly desired. Responsibilities: Design, fabricate, fit and align the orthoses (supportive devices). Assess clients needs by physical examination. Assist in pre-surgical planning. Evaluate effectiveness and comfort. Record and report clinical information. Contact information: resume@socalmri.com. Management Recruiters of Santa Ana, Inc; 2700 North Main Street, Suite 600; Santa Ana, CA 92705-6637; FAX: 714-565-0020.

Research & Development Team Member to work with Ultraflex Systems in Philadelphia, PA. Qualifications: BS in mechanical, electrical, bio-medical or biomechanical engineering. Training in AutoCAD or Solid Works proficiency in detailing new design concepts. 1-5 year's product development experience in consumer or healthcare arena in smaller team environment with multiple duties contributing to each phase of new product development. Responsibilities: Research, develop and prove the safety, efficacy and cost effectiveness of proprietary technologies that address unmet patient needs with conservative treatments that are elegant, functional and simple to use. Work to acquire product development know-how specific to the assistive and rehab technology fields, with an emphasis on external orthotic and prosthetic technology. Contact information: www.careerbuilder.com.

Biotechnology Positions to work with Contact Singapore in Redwood City, CA. Positions available for Materials Scientist (Organic Synthesis); Principal Scientist of Bioinformatics; Research Scientist / Principal Scientist - Surgical Oncology/ Pathophysiology; Research Scientist / Principal Scientist - Biomechanics; Research Lab & Facilities Supervisor/Manager. Contact information: Serene Bek; Center Director; Contact Singapore San Francisco; 333 Twin Dolphin Drive, Suite 145; Redwood City, CA 94065; TEL: 650-591-3828; FAX: 650-591-1080; Email: sanfrancisco@cs.org.sg. Website: www.contactsingapore.org.sg.

Ergonomics Engineer (Job Code: #231704) to work in Portage, WI. Qualifications: BS in Ergonomics, biomechanics, industrial engineering or closely related disciplines. Strong understanding of ergonomics and biomechanics coupled with solid engineering, lab, and test and analysis skills. Ability to break down complex data that result from the research into terms readily understandable by the other staff members. Good time management and broad based engineering skills. Responsibilities: Testing of product either at the initial design stage or when asked for product revisions. Help sister facilities with their ergonomic issues. Help improve the in-house production equipment and process in order to make them more ergonomically friendly. Contact information: Apply directly with 4Jobs at a <http://www.4jobs.com/job.asp?id=231704>.

Biomechanics Researcher to work with GeoCenters, Inc., in Natick, MA. Qualifications: Experience with basic tools for collecting biomechanical data, including video motion analysis systems, force plates, and EMG systems. Ability to perform statistical analysis on the data collected and prepare manuscripts suitable for publication in scientific journals. Ability to write computer programs to carry out data analysis. Master's degree and experience in biomechanics, exercise physiology, or biomedical engineering will be considered. Responsibilities: Design and implement protocols and studies in biomechanics to assess the effect of clothing, footwear, load-carriage equipment, and other personal equipment on soldiers' ability to carry out their mission. Contact information: staffing@geo-centers.com.

NOTE: Applicants are strongly encouraged to contact the listing individual/institution directly to determine the current status of a position and to obtain additional information.

Additional opportunities can be found on the ISB website (www.isbweb.org/jobs), and on the Biomechanics World Wide website (www.per.ualberta.ca/biomechanics) under the Career Opportunities category.

Calendar of Events

Andrew Karduna

49th Annual Meeting of the Orthopaedic Research Society
February 2-5, 2003, New Orleans, Louisiana
Abstract deadline - past
www.ors.org

2nd International Symposium on Adaptive Motion of Animals
and Machines
March 4-8, 2003, Kyoto, Japan
Abstract deadline – past
www.kimura.is.uec.ac.jp/amam2003

Southern California Conference on Biomechanics
March 28-29, 2003, Malibu, CA
Abstract deadline – March 1, 2003
faculty.pepperdine.edu/mfeltner/sccb

2nd International Conference on New Biomedical Materials
April 5-8, 2003, Cardiff, Wales, UK
Abstract deadline – March 1, 2003
www.appsci.dmu.ac.uk/biomat

29th Annual Meeting of the Society for Biomaterials
April 30 – May 3, 2003, Reno, Nevada
Abstract deadline – past
www.biomaterials.org/meetings/2003

8th Annual Meeting of the Gait and Clinical Movement
Analysis Society
May 7-10, 2003, Wilmington, Delaware
Abstract deadline – past
gait.aidi.udel.edu/gaitlab/gait2003.html

European Workshop on Movement Science
May 22-24, 2003, Münster, Germany
Abstract deadline – December 31, 2002
www.uni-muenster.de/EWOMS

50th Meeting of the American College of Sports Medicine
May 28-31, 2003, San Francisco, California
Abstract deadline – past
www.acsm.org

2003 Summer Bioengineering Conference
June 25-29, 2003, Key Biscayne, Florida
Abstract deadline – December 15, 2002
www.asme.org/divisions/bed/events/summer03.html

19th Congress of the International Society of Biomechanics
July 6-12, 2003, Dunedin, New Zealand
Abstract deadline – January 24, 2003
www.isb2003.otago.ac.nz

Progress in Motor Control IV
Abstract deadline – March 1, 2003
www.pmciv.unicaen.fr

XVth Triennial Congress of the International Ergonomics
Association
August 24-29, 2003 – Seoul, Korea
Abstract deadline – past
www.iea2003.org

World Congress on Medical Physics and Biomedical
Engineering
August 24-29, 2003 – Sydney, Australia
Abstract deadline – March 10, 2003
www.wc2003.org

25th Annual International Conference of the IEEE
Engineering and Medicine in Biology Society
September 17-21, 2003, Cancun, Mexico
Abstract deadline – May 2, 2003
itzamna.uam.mx/cancun

**27th Annual Meeting of the
American Society of Biomechanics
September 25-27, 2003, Toledo, OH
Abstract deadline – April 1, 2003
www.bioe.eng.utoledo.edu/asb/index.html**

47th Annual Meeting of the Human Factors and Ergonomics
Society
October 13-17, 2003, Denver, Colorado
Abstract deadline – March 4, 2003
hfes.org

5th Conference of the International Shoulder Group
August, 2004, Lisbon, Portugal
www.internationalshouldergroup.org

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



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