American Society of Biomechanics Newsletter

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asb-biomech.org

From the President

Melissa Gross

As I sit down to write these comments, my first thought is how much I appreciate having the opportunity to serve ASB as President. I have had the privilege of serving on the ASB Executive Board in many roles, as Secretary/Treasurer, Membership Chair, and Program Chair, and so have had the opportunity to see the organization change and grow over many years. During that time, I have also participated in ASB as a regular member, and have attended the annual meetings each year. My first presentation as a graduate student was at the ASB annual meeting in Ann Arbor; now, I sit at my desk in Ann Arbor as ASB President and cannot help but notice how much ASB has contributed to my own growth as a scientist. I am very pleased now to have the opportunity to contribute to the growth of ASB.

The fact that ASB is such a vital part of the biomechanics community is due in large part to the efforts of the Executive Board members. Two individuals completed extended service on the Board this year and their absence will be sorely missed. First, Mark Grabiner finished his term as Past-President, bringing to an end his illustrious career as an ASB Executive Board member - his contributions to the society over the years have been invaluable and his wit is still unmatched. Suzanne Smith labored tirelessly as the Education Committee Chair for three years and she leaves behind a trail of successful tutorials and thoroughly evaluated annual meetings. Tom Buchanan, Program Chair, and Savio Woo and Lars Gilbertson, Meeting Co-Chairs, put together a memorable annual meeting this year and we enjoyed the fruits of their many labors in Pittsburgh (see below). Thanks also to Eadric Bressel who served as our Student Representative this past year.

I would like to welcome four new members to the 1999-2000 Executive Board: James Ashton-Miller as President-elect, Julianne Abendroth-Smith as Education Committee Chair, Scott Delp as Membership Committee Chair, and Walter Herzog, as Program Chair-elect. Trey Crisco, now Program Chair, will work closely with Raghu Natarajan, Meeting Chair, this year in planning the 2000 ASB annual meeting in Chicago in July (mark your calendars!). Rob Shapiro as Secretary/Treasurer is the glue that keeps the organization together. Gerry Smith, Communications Chair, and Joe Hale, Newsletter Editor, continue to keep us talking to each other in paper and electronic media. Kathleen Costa will join us this year as Student Representative. And last but not least, Bruce Martin serves as Past-President this year. Bruce did a terrific job as President this past year, and I wish that I could explain the fact that I can't fill his shoes as a gender difference!

As the year 2000 approaches, it is a good time to take stock of where ASB has been and where ASB will go in the future. A highlight of the most recent past was the 23rd annual meeting in Pittsburgh where the science and professional interactions both glittered. Many thanks to the meeting organizers, Savio Woo and Lars Gilbertson for their terrific organizational effort and to Tom Buchanan for the outstanding and very successful program. The quality of the papers, posters and symposia was excellent. And after hours, ASB members continued to interact enthusiastically during the dining, gambling and dancing sessions.

Several events at the meeting gave us the opportunity to reflect on the past. In his keynote talk, Y.C. Fung gave a broad perspective on biomechanics, exposing the several thousand year old roots of our discipline. Bruce Martin, in his Presidential Lecture, described the genealogy of biomechanics and the relationship between the traits of biomechanists and their scientific work. (Note: the text of Dr. Martin's excellent talk will be available soon on the ASB website). Finally, the personal history of a well-known and revered biomechanist, Tom McMahon, was revisited in a symposium commemorating his work (and traits). *(continued on page 2)*

In this issue . . .

Poised at the millennial edge, it seems an appropriate time to revisit the history of ASB. The interdisciplinary society that was founded 23 years ago has grown into an integral part of the scientific lives of today's biomechanists. Although many of the founders are still active contributors to ASB, the society now comprises second and third academic generations of scientists. As we move forward to shape the future ASB and to ensure its continued interdisciplinary vitality, it is important that all members have access to information about the activities of ASB throughout its history.

To this end, I am proposing that the ASB website expand to include an archive that will document our past and allow us to capture our history as it happens. Because the cultural center of ASB is the annual meeting, an important feature of the archive will be the scientific programs from all of the annual meetings. The names of ASB award winners over the years will be available, as well as ASB Executive Board and ASB committee members. Historical information about the founding of ASB will be included. Other information, such as membership demographics, business meeting minutes, and ASB Bylaws will also be available.

The proposed archive will truly come to life only with the voices of ASB members. If you have any historical material that you think is appropriate and want to contribute, or ideas about what you would like to see included in the archive, please contact me. Relevant photographs, documents and stories would enliven the history and allow present and future ASB scientists to better understand the progression of biomechanics from this century to the next. The new millennium is here, and ASB is ready for the future.

From the Secretary/Treasurer

Rob Shapiro

As I begin my second year as Secretary-Treasurer I would like to report to the membership on our activities for the past year. Much of our energy was devoted to developing a membership database. Jill Carson, a graduate student in our biomechanics program with extensive experience utilizing Access continues to serve as my assistant. We think moving our records from an Excel spreadsheet to the database will greatly improve our ability to provide the information necessary to keep the Executive Board and the membership informed.

Elections
It is my pleasure to report to you that James Ashton-Miller is our new President-elect and Walter Herzog is the new Program Chair-elect. Scott Delp is now serving as the Membership Committee Chair. At the meeting in Pittsburgh, Kathleen Costa was elected the Student Representative to the Executive Board. Congratulations and thanks to all the candidates.

Both modifications to the Bylaws requested by the Executive Board were passed by overwhelming margins. The Bylaws will now reflect our practice of, when appropriate, holding our meeting in conjunction with other societies as we do with CSB at NACOB (Article 6, Section 2). We will also correct the language in Article 10 to consistently use the term "bylaws."

Thanks to the 306 members who voted in this year's election.

Finances (as of 10/99)
As reported at the annual meeting, the society's finances are sound.

Cash on Hand	$13,825.18
Cash Reserve	$19,345.63
Stock Certificates	$28,972.56
Mutual Funds	$45,583.61
Total	$107,726.98

By the time you receive this newsletter we will have reinvested approximately $25,000 in additional American Express funds. We have been working with our financial advisor to develop a successful investment strategy. In our endowment plan we will be diversifying our funds to take advantage of market conditions and also protect our investment from large fluctuations in the market.

Annual Dues
Hopefully, you will already received your dues notice by the time your receive this issue of the newsletter. You will notice that we are now accepting MasterCard, Visa and American Express payments. To help cover our expenses we are including a $3.00 service charge. This fee will be subject to review after we determine how many members take advantage of this payment

method. Please make your payment promptly as this enables us to get the journal subscription materials to the publishers in a timely manner. **The deadline for dues payment is January 31, 2000.** Please make sure that the demographic information listed on the invoice is correct.

Membership (as of 11/99)
A result of our data base activities is we now have an accurate listing of active members. Current membership numbers are:

Regular	537
Student	97
Emeritus	3
Sustaining	1
Corporate	4
Total	642

Our current distribution among membership categories is:

Biological Sciences	7%
Engineering/Applied Physics	52%
Ergonomics/Human Factors	8%
Exercise/Sport Science	18%
Health Science	13%
Undeclared	2%

Journal Subscriptions
I believe we have worked out our delivery problems with Elsevier. You will note that as part of our three-year agreement with Elsevier, the cost of the *Journal of Biomechanics* will increase five dollars this year. The subscription rate will now be $66.00. You will also note the rates for *Clinical Biomechanics* ($73.00) has increased by two dollars. *Medical Engineering and Physics* ($99.00) and *Journal of Electromyography and Kinesiology* ($96.00) subscription rates have not increased. *Gait and Posture* will be available for $70/year. Human Kinetics has not increased the rate for *Journal of Applied Biomechanics* ($40.00).

Please remember that as a result of our contractual arrangement with Elsevier a subscription to *Journal of Biomechanics* is part of ASB membership. The only exceptions to this rule are for those members who personally receive the journal from another source. This exception does not extend to members who have access to library or office copies. Your understanding of this relationship is appreciated.

Reminder
If you have any questions or concerns about your membership, journal subscriptions or other society-related business, please contact me (rshap01@pop.uky.edu) or Jill Carson (jscars@pop.uky.edu).

We wish everyone a Y2K compliant New Year!

Thanks for those prompt dues payments!

Students' Corner

Kathleen Costa

I am both excited and honored to greet you all for the first time as this year's ASB Student Representative. It is a beautiful, sunny Sunday afternoon here in Southern California and I can't believe the fall semester is winding to a close. Where does the time go? It seems like just last week many of us were enjoying the 23rd annual ASB meeting in Pittsburgh, PA. As this year's ASB Student Rep, I would like to first thank Eadric Bressel for both his work and time as our past ASB Student Representative and for helping me transition into the position. Thanks Eadric. Hope all is going well "down under."

As many of you know, this past ASB meeting in Pittsburgh, PA was a big success. The low cost of registration and fee-reimbursement available from the Asian-American Institute for Research and Education made it possible for many of our ASB student members to attend. Highlights from this past meeting included the opening reception at the amazing Carnegie Music Hall with a keynote address by Dr. Y.C. Fung, the "Father of Biomechanics," Dr. Terzopolous' intriguing (and entertaining) presentation on animation in biomechanics, the student luncheon, and the dancing and gambling on the Gateway Clipper river cruise. Aside from the dissemination of good science, I enjoy going to conferences for the opportunity to meet and chat with both established researchers and fellow future biomechanists, and this past conference was no exception. I met a lot of new people in Pittsburgh and I look forward to meeting more of you next year in Chicago.

OK - for those of you unfamiliar with the duties of the ASB Student Representative, my job is to serve as a link between the ASB Executive Board and you, the students. One goal I have for the upcoming year is to develop an "ASB Student's Corner" web page. On the page I would like to expand the Virtual Mentoring Program and Job Resource Center, two very good programs initiated by past ASB Student Representatives. I also plan to post information on funding opportunities, IRB and Human Subjects, and grant proposal issues. If you have ideas for other items you would like to be included on the student page, or any other issues please let me know.

Well, I think that's all for now. If you have not yet received an email from me, please email me at kcosta@usc.edu so I can add your name to the student email list. I wish you all the best for the remainder of the 20th century and on into the new millennium.

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24th Annual Meeting of the

American Society of Biomechanics

University of Illinois at Chicago
Chicago, Illinois

July 19-22, 2000

*** * * FIRST CALL FOR PAPERS * * ***

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Information

Meeting information, as well abstract submission forms and formatting instructions are available on the ASB webpage: *www.asb-biomech.org*.

Of note: the World Congress 2000 on Medical Physics and Biomedical Engineering will be held July 23 - 28, immediately following the ASB meeting in Chicago. See *www.wc2000.org* for further information.

Abstract Deadline

The deadline for abstracts will be unusually early this year. Abstracts must be received by the Program Chair by **February 15, 2000**. Notice of acceptance will be given by mid-April. PLEASE SEND AN EMAIL MESSAGE TO INDICATE YOUR INTENT TO SUBMIT AN ABSTRACT AND ASSIST US IN GENERATING AN EMAIL LIST TO : joseph_crisco@brown.edu

Awards

The American Society of Biomechanics is pleased to award annually the Giovanni Borelli Award, the Pre- and Post-Doctoral Young Scientist Awards, the Journal of Biomechanics Award, the Clinical Biomechanics Award, the ASB-Microstrain Award, and Student Travel Awards. We encourage you to submit applications and nominations for these prestigious awards. For more information please see page 16 or contact the Chair of the Awards Committee, Bruce Martin.

Guest Columnist

M. James Ruder

TEACHING AT A HISTORICALLY DISADVANTAGED TECHNIKON IN SOUTH AFRICA

From July 1997 through June 1998, I was a visiting professor at Technikon Northern Transvaal in the township of Shoshanguve, located 25 miles north of Pretoria. My visit was sponsored by the International Foundation for Education and Self-Help (IFESH). IFESH was founded by Dr. Leon Sullivan, best known as the author of the Sullivan principles, a code of conduct followed by many U.S. businesses that operated in South Africa during apartheid. IFESH supports various economic development projects, principally in sub-Saharan Africa. The project I was involved in is called Educators for Africa (EFA).

Under apartheid, racial segregation was central to the social and legal structure of South Africa. Blacks (75% of the population) were restricted to live in townships, from where they would commute to menial jobs in the cities or to subsistence work on farms, in mines, or in factories. Government expenditure on infrastructure and education in the townships was woefully inadequate. The majority of blacks still live in the townships, and although life is improving, unemployment is currently estimated to be at least 50%. Large sections remain without electricity or running water.

The apartheid system, under international censure and slowly dying, finally collapsed when Nelson Mandela was elected president of the "New" South Africa in 1994 in the first all-race elections. South Africa is now in a tremendous state of flux. Some members of the black majority are rapidly moving into positions of power and affluence, but for others, life has not changed in a material sense. As one facet of a plan to improve the situation of the majority of its people, the new government has set improved availability and quality of higher education as a principal priority.

Technikons and universities are the tertiary institutions of higher learning in South Africa. Technikons specialize in career education, and do a small amount of applied research. A basic course of study takes three years to complete and culminates with the awarding of a National Diploma. Black technikons and universities, previously provided a tiny fraction of the resources given to their white counterparts, are now designated as historically disadvantaged institutions (HDI). Admission to HDI's is now ostensibly open to all races, but few whites want to attend, and most HDI's remain essentially all black. Technikon Northern Transvaal, where I taught, is an HDI.

It is no surprise that the faculty at HDI's are not always on par with those at other institutions. To address this discrepancy, the education ministry intends to specify eventually the MS as the minimum requirement to teach upper level courses. Anticipating this, some faculty members are on study leave to upgrade their credentials. Others, particularly blacks, have left to take much higher paying positions in industry, positions from which they had previously been excluded. These factors, combined with rapidly increasing enrollments, have resulted in an acute faculty shortage, particularly in engineering and the sciences. To help alleviate the shortfall, EFA recruits American educators to spend at least one year as a visiting professor at an HDI.

My appointment was in the department of electrical and mechanical engineering at Technikon Northern Transvaal (TNT). Graduates of this department are considered engineering technologists, not engineers. Typically, they might work as an assistant to an engineer in one of the several auto factories near Johannesburg. I arrived at TNT three days before I thought classes would begin, but soon learned that no one knew when they would start, apparently not an unusual state of affairs. This confounded me initially, but I eventually realized that it was a reflection of the economic state of the HDI's. Many of the students have no income or savings and rely entirely on government and/or industry support. Because non-payment is a significant problem plaguing the HDI's, most HDI's, including TNT, do not allow a student to register until he has paid a minimum deposit, sometimes as little as the equivalent of twenty dollars. If a student does not have the deposit and has not received a support check, he simply stays home and waits for the check, which is often delayed. Poor postal service is sometimes at fault. The technikon administration, always strapped for money, monitors the registration and payment rate and makes a decision on the fly as to when classes will officially begin. For both my terms at TNT, classes started more than one week late.

The classroom environment is more structured than what we experience here. Instructors and students are given a study guide (a very detailed syllabus) and both are expected to follow it exactly. The focus at technikons, especially HDI technikons, has been on rote learning, with less time spent on development of analytical ability. Memorization of formulas is emphasized, problems tend to be "plug and chug", and answers are graded either right or wrong. Grading policy is set nationally, and is very specific. For example, a student needs a term average of 50% to be admitted to the final exam and must then score 50% to pass the course. If he scores 40-49% on the final, he is permitted to take a second final, but the pass threshold is raised to 60%. Instructors therefore need to write two versions of the final exam, which must be submitted to the administration for approval.

The year that I was in South Africa, there were six other EFA instructors in the country, all of us at different HDI's. We would periodically meet at the IFESH office in Johannesburg, and were privileged to hear presentations by various education officials. They all expressed the opinion that the HDI's should de-emphasize rote learning, and that in the future, the training of all employees, including technologists, must stress decision-making abilities. They welcomed our presence, and stated their hope that an additional benefit of the visiting U.S. faculty is that some of our analytical mindset might "rub-off" on the current institutions.

At TNT, I taught strength of materials and fluid mechanics, the same way, I believe, as it is typically done in a sophomore class in the U.S. All instruction is in English, so I had no language problems. I spent extra time on math background, but was not significantly hampered by any lack of preparation on the part of the students. Students were anxious to learn and intrigued that Americans would come all the way to South Africa to teach at their technikon. (There were two other visiting U.S.-sponsored professors at TNT while I was there.) They seemed optimistic about the future of their country. I think they felt their time had finally arrived and were serious about getting prepared for it.

Overall, my year at TNT was beneficial. I was genuinely welcomed and appreciated at almost all times. I think that I made a very minor, but real, contribution to the New South Africa. Being asked to write this column is opportune for me, as I recently received a letter from IFESH stating that they are still seeking visiting professors for South Africa, and asking past participants to be on the lookout for potential candidates. Anyone who might be interested can contact me, and we can talk more about IFESH/EFA.

Dr. Rudert is a Visiting Associate Professor in the Department of Mechanical Engineering at the University of Pittsburgh and can be contacted via email at: rudert+@pitt.edu. Additional information about IFESH is available online at: www.ifesh.org.

Communications Committee

Gerald Smith

ELECTRONIC PUBLICATION ON THE HORIZON

The past decade of internet expansion has opened up possibilities for scientific communication which have challenged the traditional print publication used by all scientific disciplines. Publication has largely been controlled by publishers who use the scholarly work and peer review of scientists to create print volumes paid for by scientists and their institutions. The irony of this situation hasn't been lost on those most intimately involved in scientific publication.

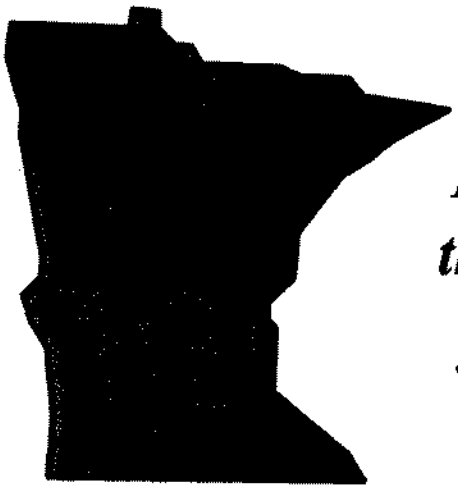
In recent years, much of physics, astronomy, and mathematics research communications have gone online in "arXiv.org". Archived on Los Alamos National Lab servers (*http://xxx.lanl.gov/* and mirrored elsewhere), "papers" are submitted and accessible prior to peer review (pre-prints). If subsequently peer reviewed and accepted by a journal, the edited file stays online as a re-print and is identified by its journal source. Funding for this e-print archive is from the U.S. National Science Foundation and the Department of Energy. It has been tremendously successful with well over 100,000 entries in the current database and new submissions arriving at about 2500 per month.

The escalating costs of traditional print publication have driven various scientific, library and other scholarly consortia to seriously debate alternatives which have the potential to reduce costs and also to return control of publication to authors. For those interested, articles in *Science* [Bachrach et al., Who Should Own Scientific Papers?, volume 281, pp. 1459-1460, 1998], *Nature* [Harnad, On-Line Journals and Financial Fire-Walls, volume 395, pp. 127-128, 1998] and *American Scientist* [Walker, Free Internet Access to Traditional Journals, volume 86, 1998] present the case for a general move to an open access electronic publication model much like that already implemented in physics. Online versions of these papers are available and will be found linked to the above citations in the web version of this newsletter. Most recently, National Institute of Health director Harold Varmus proposed an electronic archive for bio-medical research (May, 1999). After considerable debate, late last summer, the proposal was expanded and modified to include most life science research.

To be called PubMed Central (*http://www.nih.gov/welcome/pubmedcentral/pubmedcentral.htm*), the archive will be overseen but not controlled by the NIH. Tentative structure of the archive is to have both non-reviewed and peer-reviewed content, approximating the pre- and re-print structure of arXiv.org, respectively. Peer review is expected to be organized by journals (in a manner similar to current methods) and by societies. The non-review content will not be quite as freely posted as is the case with physics; PubMed Central will require clearance through a society or other appropriate group for an assessment of appropriateness. Just how this will play out with NIH and how successful it will become remains to be seen. PubMed Central is expected to begin in January 2000.

Whether it is through PubMed Central or other electronic repositories, it is likely that biomechanics will in the near future, along with the rest of modern scholarship, move away from traditional paper-based publication. What role should the American Society of Biomechanics play in giving direction to this change for the discipline? Should ASB become a clearinghouse for PubMed Central biomechanics papers? Will *Journal of Biomechanics*, *Clinical Biomechanics*, *Journal of Applied Biomechanics*, etc. go online with free access via the web? Should ASB lobby the biomechanics journals to move into electronic publication? Your thinking and feedback on these questions can help the ASB Executive Board as it grapples with these questions and the society's role in a changing publication environment. Biomechanists are doing the creative work in writing and peer reviewing the current literature of our field. It is completely appropriate that we determine the direction of biomechanics publication in the new century.

Please send your comments and suggestions to me via email (Gerald.Smith@orst.edu). A collection of ASB membership thinking on these issues will be forwarded to the ASB Executive Board for their perusal.



Between the Lakes

Joseph Hale

I did something recently that I've never done before. And hopefully won't regret later. I made my first online purchase - my wife's Christmas present.

Oh sure, I had used the internet to browse for gifts and search for product retailers, but I always completed my transactions using more traditional, and seemingly more secure, methods. Like many other consumers, I was wary of transmitting personal information, particularly my credit card number, across the internet. Seventy-five percent of those responding to a recent poll by USA Weekend indicated that the convenience of online shopping was not worth the risk that personal information would not be secure. While I am still somewhat wary, my general aversion to shopping ultimately tipped the scale in favor of buying online. Forecasted online sales of $9.5 billion for this holiday season seem to indicate that I am not alone.

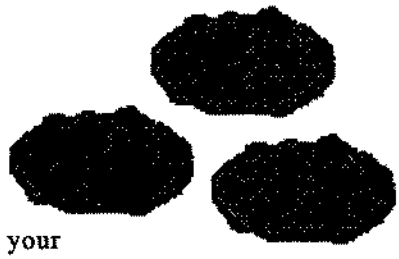
Online shopping is only one of the many benefits delivered by new technologies in a wired world. But those wires transmit information in *two* directions. With internet usage surging, online privacy is becoming an increasingly sensitive issue. A number of companies have tracked users' musical tastes, for example, email correspondence and other private information. Internet privacy issues have also spilled over into international politics. Concern over U.S. initiatives to protect user privacy (or the lack thereof) recently prompted the European Union to prohibit companies that operate within its borders from transferring personal data back to the U.S.

Privacy has been called "the civil rights issue of the information age." As technology brings us closer together, fragments of information about you (collected every time you visit a website, make a credit card purchase, etc.) are becoming much easier to piece together, revealing more detailed personal information about your life.

Information routinely collected via the internet includes your IP address, computer name if it has one, what web browser & operating system you are using, and other system configuration information. Although such information is typically used to tailor web site content to match the users' interests, user data collected by America Online, Yahoo and others has been released under subpoenas. If you want to see some of the information that is being collected about you, Privacy.net (*privacy.net/analyze*) offers a revealing online privacy analysis of your internet connection.

Other means of tracing website visitors include the following:

- E-mail. Your IP address can also be captured by opening an e-mail that contains a web page (HTML e-mail). If the web page requests a graphics file from a server your IP address, as well as the type of e-mail program you are using, is captured. The web page can also place a cookie on your system which can be used to track you later (see "Want a Cookie?" below.)
- Loading software. By running an executable program, virtually anything can be read from the user's hard drive. Files could be read, hidden "trojan horse" programs can be loaded, even programs that allow others to run your computer over the Internet can be installed.



WANT A COOKIE?
Web sites that you visit often place a text file known as an internet or magic "cookie" on your computer without your knowledge. If you revisit the site, the cookie file allows the web site to identify you as a return guest and tailor the information presented based on your interests and tastes. Because the file only contains text it cannot transmit a virus or damage your system. However, depending on how the information is used, it may or may not pose a privacy concern. You can set your online preferences to reject or to notify you about cookies that a website attempts to place on your computer. In some cases, rejecting a cookie may preclude you from viewing a particular web site.

Some common uses for Internet cookies include the following:

- An anonymous code given to you so the web site operator can see how many users return at a later time. These cookies are configured to stay on your system for months or years and are called "persistent" cookies.
- A code identifying you. This usually occurs after a registration. The site could keep a detailed account of pages visited, items purchased, etc. and even combine the information with information from other sources once they know who you are.
- A list of items you purchased. This is often used in "shopping cart" web sites to keep track of your order. Often cookies of this type expire as soon as you log out or after a short time. These are called "session" cookies.
- Personal preferences. This can be anonymous or linked to personal information provided during a registration.

Cookies are supposed to be accessible only from the site that placed them there; however, in a very small number of cases, a

bug allows other sites to download the cookies. More information on cookies (of the http variety) including a cookie demo can be found at *www.cookiecentral.com*.

HOW DO I PROTECT MY PRIVACY ONLINE?

Protecting your privacy online is essentially a matter of knowing who is collecting the information, why, and how it will be used. Ironically, there are a variety of online resources dedicated to helping you protect your privacy online. The following common sense guidelines are a good starting point:

- Look for a privacy policy on every web site that asks you to register or provide information. Most ethical web sites put a link to a privacy policy right on the home page. The policy should tell you exactly what information a web site collects and what it is used for. If the web site shares the information with anyone else it should tell you and give you the option of restricting such use. A privacy policy also should tell you about the security used to protect your personal information and how you can look at the information that is collected about you.
- Look for a privacy seal. These seals, awarded by organizations such as BBBOnLine (a subsidiary of the Council of Better Business Bureaus) and TRUSTe, give assurance that a web site is abiding by its posted privacy policy and provide a mechanism to handle complaints by consumers who feel their privacy has been violated.
- Decide how much information you want to disclose. When you sign up for a service or purchase a product, look for a checkbox or email mechanism that asks if you would (or would not) like to receive announcements for new products and services.
- Do not under any circumstances give your password to anyone. Although this seems obvious, hackers and scammers employ a variety of tricks to entice you to give your password. Be careful. Use passwords with random strings of characters rather than words to increases the level of encryption, use different passwords at different web sites and change passwords regularly.
- When shopping online, use a secure browser that complies with an industry security standard, such as Secure Sockets Layer (SSL) or Secure Electronic Transfer Transaction (SET) to encrypt or scramble purchase information. On secure sites, an "s" will appear at the end of the "http" in the site's web address (i.e., "https") when you are on a page that asks for personal account information. SSL and SET are both recognized by Netscape Navigator and Internet Explorer. Also, print a copy of your purchase order and confirmation number for your records.

If you are not satisfied with the privacy information provided on any web site, it is your decision whether to leave the site, contact the organization to inquire about their privacy policies, or proceed. *(continued on page 10)*

How much do you know about your privacy?

[illegible] Public Radio recently broadcast a series on the [illegible] of privacy in America entitled "The Surveillance Society." The following questions are excerpted from the Privacy Quiz compiled by MPR reporter Bob Collins that appeared as part of that series. Some of the answers may surprise you!

1. Under the U.S. Constitution, you have a right to privacy.

[illegible]

PRIVACY TOOLS

The market for privacy protection products is growing rapidly and has produced a variety of technological tools to help you control the information you share, surf anonymously, and remove your name from e-mailing lists. One such product, the Platform for Privacy Protection (P3P), being developed by the World Wide Web Consortium is expected to have a significant impact. P3P will enable internet browsers to review a company's privacy policy electronically and issue a warning to the user if a privacy statement can not be found. It will also alert you if the site wants more information than you have indicated a willingness to disclose.

A variety of other "tools" for protecting your privacy are available commercially and as free-/share-ware. These tools are divided into two groups: anonymizers and infomediaries. Anonymizers effectively make the user anonymous by creating an untraceable alias. Infomediaries are a new technology that negotiate what sorts of personal information is shared at each site based on a detailed personal profile created by the user. Software can also be installed to detect if your connection is being traced. This program, known as a "firewall", will alert you any time your computer communicates over the internet. A personal firewall software package costs about $30 - $50.

Services also exist for removing your name from online mailing lists and directories. More information is available from *www.junkbusters.com* and *help@bigfoot.com.*

To learn more about online privacy issues and privacy seal programs, visit the following websites:

Online Privacy Alliance	*ww.privacyalliance.org*
Net Coalition	*www.netcoalition.com*
Federal Trade Commission	*www.ftc.gov*
Call for Action	*www.callforaction.org*
BBB Online	*www.bbbonline.org*
CPA WEBTRUST	*www.cpawebtrust.org*
TRUSTe	*www.truste.org*

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 2000. **Deadline for submission of materials is 22 April 2000!**

Education Committee Report

Julianne Abendroth-Smith

Greetings from the snowy mountains of Northern Utah. At least we keep hoping for snowy mountains. I am the new Education Committee Chair, taking over from Suzanne Smith, who I want to thank for preparing the 1999 conference evaluations report that follows. Winter is finally making its appearance here in the high hills of Utah, and we are ready for another season of telemark skiing and cross-country skiing. Well, I guess we have downhill skiing and snowboarding too, for those who are partial to a lift up. Our wonderful outdoor playground here makes for some interesting labs for my graduate and undergraduate students in biomechanics. You have all heard of physics professors who take their students to the amusement park to 'study' roller coasters and free-fall rides; here we study skiing (in all its forms), rock climbing, hiking, occasionally fly fishing, and other various outdoor pursuits, in terms of the biomechanical principles involved in performing the activities. One goal I have always had as a biomechanics professor involved in education, is to make biomechanics understandable and useful to everyone. What form of exercise is more enjoyable, than going out and performing an activity well? And what better way to learn and apply mechanical principles to an activity, than to go out and do it? At least, that is my story, and I am sticking to it. In the future I am planning on sharing some of these labs here in this column, and in the meantime, I invite you all here to sample our outdoor playground, winter or summer. We have a lot of fun living and working here.

1999 Conference Evaluation: As of 8 November, 79 attendees have submitted evaluation forms for the Twenty-Third Annual Meeting held at the University of Pittsburgh. Twenty-five percent of the respondents were student members, while 49% were regular members. It will probably be no surprise to anyone who attended the 1999 ASB Conference that this was one of the most successful and memorable conferences in some time! The mean ratings for the conference were good to excellent with quite a few respondents verbalizing their appreciation to the organizers. In particular, the reception at Carnegie Hall and the banquet aboard the river boat received notably high marks and positive comments. There were some specific aspects of the scientific program that proved to be quite successful and which deserve mention, along with some unexpected consequences. Both tutorials were presented to a full house and both received primarily good ratings. However, the high attendance at the tutorials brought reduced participation in the scheduled lab tours as indicated by several respondents. The conference organizers responded quickly by offering additional tour opportunities during the course of the meeting.

This year, a symposium was dedicated as a tribute to the late biomechanist, Thomas A. McMahon. The symposium was well attended and received very high ratings. Regretfully, attendance at the concurrent Cardiovascular Mechanics session was low, a

consequence not anticipated nor desired by the organizers. From the evaluations, it was clear that both the keynote presentation by Demetri Terzopoulous and the Borelli award presentation by Don Chaffin were highly successful. Several respondents did comment on feeling 'duped' into attending the Business Meeting scheduled just prior to the Borelli presentation, but admitted this did increase attendance at the meeting! Although a relatively small number of respondents commented on the other award presentations, the ratings were quite high, ranging primarily from good to outstanding. This year the student luncheon included a job fair with the attending exhibitors. The ratings indicated that this was well attended and relatively successful. In fact, several regular members commented on the student luncheon activities! Some students did suggest that such activities should be scheduled at the beginning of the conference and recommended that the first night of the conference include a student social. The new student representative, Kathleen Costa, is quite sensitive to these issues and will be busy working with next year's meeting organizers in planning student activities.

In spite of the huge success of this conference, issues associated with podium vs. poster presentations remain a challenge. It is difficult to compare this year's program with the all poster format and large area available for such a venue at last year's NACOB meeting. Even with the success of the posters at NACOB, there were problems with poster size and locating some posters back in corners away from the main traffic. These issues were, again, expressed by the attendees at this year's meeting. It is unfortunate that locating posters away from the main traffic results in a concern that posters are 'second class'. Both podium and poster sessions received primarily good marks. In fact, 44% of the respondents appeared content with the current poster format, while an additional 35% recommended expansion of the poster sessions. Fifty-two percent of the respondents recommended no change in the podium sessions while only 22% requested expansion. On a very positive note, this year saw the 'test case' thematic poster session. The ratings indicated that this session was positively received by the attendees with a few recommendations given on how to improve the format. Of importance was the significant number of respondents who preferred the thematic format and recommended it for future conferences.

Several recommendations were made for topics and speakers at future conferences. These recommendations have been forwarded to next year's Program and Meeting Committees. If anyone has recommendations for tutorials and presenters, please contact the Education Committee Chair.

In summary, the 1999 ASB conference held a the University of Pittsburgh was a big success, providing quite a challenge for next year's organizers! The details of the evaluations will be presented a the midyear meeting the Executive Board. Last, but not least, the Education Committee would like to thank all of those attendees at the 1999 conference who took the time to fill out the evaluation. Your responses are greatly appreciated. Keep in mind, all of your comments are documented and will provide valuable guidelines for the future success of the ASB conferences.

Graduate Biomechanics Programs: The Graduate Biomechanics Programs can be accessed via the ASB website. The database provides a valuable tool for those considering graduate studies in the multidisciplinary area of biomechanics. In this role, it is important that the information given is updated periodically to provide accurate details on the programs and current points of contact. It is requested that those who have listed their institution in the programs database take a few moments to check the current information and update as necessary. Anyone wishing to list a new program is encouraged to do so.

Interested Members: The ASB committees include members representing each of the interest areas of the American Society of Biomechanics. Periodically, new members are needed to fill these positions. If you are interested in becoming a member of a committee, please contact the Education Committee Chair.

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	$75
1/2 page	$150
full page	$250
back page	$500
separate insert	$500 per insertion

If you are interested in placing an advertisement or have any information concerning potential advertisers, please contact Gary Heise (gdheise@bentley.univnorthco.edu).

Job Opportunities

Kathy Browder

FACULTY POSITIONS

BIOMECHANICS - Assistant professor tenure-track position. Qualifications: Training in general area of biomechanics, including molecular, cellular and tissue aspects. Submit letter of application, curriculum vitae, selected reprints, 5-year research plan, and 3 reference letters to: Dr. Warren G. Darling; Department of Exercise Science, 526 FH; The University of Iowa; Iowa City, IA 52242. Email: warren-darling@uiowa.edu. Web site: http://www.uiowa.edu/~exsci/. Start date: 8/00.

BIOMECHANICS - Assistant professor tenure-track position. Responsibilities: Teach undergraduate courses in biomechanics and associated areas of Exercise Science (motor learning, human anatomy, research design); Establish laboratory and develop research opportunities for undergraduates; Seek external and internal funding for research projects. Submit letter of application, curriculum vitae, copy of all graduate transcripts, outline of teaching interests and professional goals, 3 letters of recommendation, and name, address, phone number, and e-mail of 3 former students to: Professor Russ Cagle; Chair, Exercise Science; Willamette University; Salem, OR 97301. Phone: (503) 370-6240. Email: rcagle@willamette.edu.

BIOMECHANICS - Assistant/Associate professor tenure-track position. Responsibilities: Teach undergraduate and graduate courses in biomechanics; Direct master's theses; Engage in funded research in areas of personal expertise; Serve on Department and University committees; May teach courses in the general education activity program; Collaboration within and across departments encouraged. Qualifications: Earned doctorate with specialization in biomechanics; Evidence of research ability and scholarly productivity in biomechanics with ability to secure research funding; Evidence of successful teaching; Evidence of a broad and balanced view of the field of human movement; Experience/interest in teaching measurement and evaluation, and research methods and design desirable. Send letter of application, curriculum vita and 3 letters of recommendation to: Barbara T. Swerkes, Ph.D; Interim Chair; Department of Kinesiology; California State University, Northridge; Northridge, CA 91330-8287. Start date: 8/23/00. Deadline: 1/7/00.

DEPARTMENT CHAIR - Associate professor/Professor tenure-track position. Responsibilities: Principal administrator of the department with commitment to maintaining and developing innovative undergraduate and graduate academic and professional programs; Provide leadership in areas of curriculum planning, faculty assignments, personnel matters, budget recommendations, leadership development, extensive facilities management, and overall administrative responsibility for the department. Must maintain close working relationship with Athletic Director whose coaching personnel serve as teaching faculty. Teaches one course each semester. Qualifications: Earned doctorate in Kinesiology or related field; Minimum of five years university teaching experience, including scholarly achievement with evidence of creative/research contributions. Preference given to applicants who have demonstrated competence in departmental and university governance and have achieved tenure in a previous position. Successful administrative experience required. Evidence of broad and balanced view of the field of human movement valuing equally biological, socio-cultural and aesthetic knowledge about human movement. Send letter of application, curriculum vita, and 3 letters of recommendation to: Barbara T. Swerkes, Ph.D; Interim Chair; Department of Kinesiology; California State University, Northridge; Northridge, CA 91330-8287. Start date: 8/21/00. Deadline: 1/7/00.

KINESIOLOGY/ATHLETIC TRAINING - Instructor and Assistant Athletic Trainer. Duties: Assist the Head Athletic Trainer in administration of program, including team coverage and Athletic Training education program. Requirements: M.A., teaching experience; NATA BOC certification (ATC); Texas Licensure for Athletic Trainers (LAT); American Red Cross First Aid and CPR certification. Send letter addressing position requirements, curriculum vitae, statement of teaching philosophy, and 5 references (names, addresses and phone numbers) to: Dean Nick Lockard; College of Professional Studies; Texas Lutheran University; Sequin, Texas 78155. Web site: www.txlutheran.edu. Review of applications will begin immediately.

KINESIOLOGY - Assistant professor tenure-track position. Responsibilities: Teach undergraduate classes in motor behavior and biomechanics; Familiarity with Dynamical Systems Approach; Activity course instruction; Publishing in refereed journals from theoretical and applied aspects; Strong commitment to undergraduate research; Interest and participation in development of programs in wellness development; Active participation in professional organizations. Teaching assignments may be at Reading, PA, and/or Allentown, PA. Qualifications: Ph.D. required; strong commitment to excellence in undergraduate education; Demonstrated ability to teach effectively in the classroom and laboratory as an individual and in a collaborative manner; Ability to run motion analysis laboratory and use Biopac System; Familiarity with EMG and electrogoniometry. Send letter of application, curriculum vitae, statement of teaching and research philosophy, names, addresses (including email), and phone numbers of 3 references to: Dr. Maryellen Weimer; Executive Associate, Academic Affairs; Berks-Lehigh Valley College; Tulpehocken Road; P. O. Box 7009; Reading, PA 19610-6009. Indicate how you became aware of this position. Web site: http://www.bk.psu.edu/faculty/openpos.html. Start date: 8/00. Deadline: 1/15/00.

CHAIR OF DEPARTMENT OF ALLIED HEALTH SCIENCES - Responsibilities: Provide effective leadership and administration in teaching, research and professional service to the seven Divisions of the Department of Allied Health Sciences. Qualifications: Earned doctorate in allied health or related discipline; 5 years of exemplary leadership in allied health or a related discipline; distinguished record of performance in teaching, service and scholarly achievement. Send current curriculum vitae, a letter of interest, and the names and address of 4 references to: Thomas J. Bacon, DrPH; Executive Associate Dean and Director, NC AHEC Program; Chair, Allied Health Search Committee; Office of the Dean, School of Medicine; University of North Carolina at Chapel Hill; CB#7000, 125 MacNider Building; Chapel Hill, North Carolina 27599-7000; Attention: CamMcAdams. Review of applications will begin immediately and will continue until filled.

BIOMECHANICS - Assistant professor tenure-track position.. Qualifications: Earned doctorate in kinesiology, physical education, or a related discipline preferred (ABD considered) with emphasis in applied biomechanics and movement analysis. Request position description and application from Dean's Office: Phone: (909) 869-3945; e-mail: MABarnes@CSUPomona.edu. Fax: (909) 869-4858; and send completed application to Dr. Wanda Rainbolt; Search Committee Chair; Kinesiology & Health Promotion Department; Phone: (909) 869-2788; Fax: (909) 869 4797; E-mail: WJRainbolt@CSUPomona.edu. Start date: 9/00. Deadline: 1/5/00.

DEAN OF COLLEGE OF ENGINEERING - Responsibilities: Leadership for the college's faculty, and graduate and undergraduate students. Reports directly to Provost and is part of central management team, including active participation in University development activities. Responsible for overall faculty and program development and general financial management of the College. Provides vision and strategic planning necessary to develop and enhance the quality of the College's undergraduate, graduate, and research programs, and to facilitate collaborations with other colleges, and industrial, governmental, and philanthropic organizations. Additional 60,000 square foot engineering building is scheduled for construction and ~ 20 faculty hires anticipated. Work with the Delaware Institute of Biotechnology. Qualifications: Must meet requirements for appointment to rank of professor in one of the departments in the College; Experience in attracting and managing sponsored research and demonstrate an appreciation for the administrative support needed to maintain a vigorous research program; Earned doctoral degree, and a distinguished scholarly record, management experience and the ability to lead the College in its academic responsibilities. Send letter of interest, curriculum vitae, and names of 4 references to: Dean Daniel Rich; Chair Engineering Search Committee; Graham Hall; University of Delaware; Newark, DE 19716. Web site: http://www.udel.edu/engg. Start date: 7/1/00.

OTHER POSITIONS

HEALTH SCIENCE PROFESSIONALS wanted to staff spine program sites for Prevention First, a primary injury prevention company. Responsibilities: Coordination and operation of a low back strengthening program involving testing and training of client employees. Qualifications: Previous clinical or rehab experience preferred although not required. Openings currently available at the Denver International Airport and at the Minneapolis - St. Paul Airport. Call 612-327-5356 or fax resume to 612-727-8841.

SENIOR SOFTWARE ENGINEER with Engineering Animation, Inc., in Philadelphia, PA. Responsibilities: Design and develop cutting edge 3D visualization software for human simulation and ergonomic analysis. Qualifications: Degree in Computer Science or related field; Experience with 3D graphics, ODD design principles, C/C++, and Microsoft DevStudio under Windows NT. Tcl/Tk and Python a plus. Submit resume to: opportunity@eai.com or www.eai.com (Refer to Job# SWEMH92499OCC.) Contact Information: Strategic Staffing (opportunity@eai.com); Engineering Animation; 2321 N. Loop Dr.; Ames IA 50010.

BIOMECHANICS ENGINEERS with Exponent in Philadelphia, PA. Responsibilities: Managing and executing specific biomechanics, biomaterials, implant testing, and computer simulation projects related to orthopaedic, spinal, and cardiovascular medical devices; Participate in medical device practice and assist in the marketing of the group's technical capabilities by presentations to device manufacturers and the scientific community at international meetings. Qualifications: Ph.D. with exemplary academic achievement in undergraduate and graduate coursework; Outstanding verbal and written communication skills required; Graduate training in finite element analysis and biomechanics required; Background in polymer mechanics, large deformation continuum mechanics, constitutive theory development, and fracture mechanics highly desirable; Familiarity with mechanical testing of implants, biomaterials, and human tissue also desirable. Send resume to: Human Resources (hr@exponent.com); Exponent; 149 Commonwealth Drive; Menlo Park CA 94025: Fax: (650)328-3049; Web site: www.exponent.com. (Refer to Job Code Req. #608.)

BIOMECHANICS RESEARCHER with Geo-Centers, Inc. at the Center for Military Biomechanics Research in Natick, MA. 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. Qualifications: Ph.D. or M.S. and experience in biomechanics, exercise science, or biomedical engineering; Experience with video motion analysis systems, force plates and EMG systems is necessary; Specific experience with the Peak Performance Technologies and/or Qualysis motion analysis systems helpful; Ability to perform statistical analysis and prepare technical reports for publication in scientific journals;

Computer programming experience necessary; Proficiency in C/C++ preferred; Excellent oral communication and interpersonal skills necessary. Contact: Dr. Rusty Warren (coferrall@lhm.geo-centers.com); Geo-Centers Inc.; 190 North Main Street; Natick MA 01760; Fax: (508)650-1672.

SENIOR FOOTWARE DEVELOPMENT MANAGER with The Timberland Co. in Stratham, NH. Responsibilities: Develop General Performance products that maintain integrity of the brand including: project concepts and design; product comfort, fit, function, and biomechanics; performance, style, quality over time; price/value; innovation. Identify, pre-qualify and evaluate production facilities capable of meeting the diverse needs of the department. Develop product for value utilizing the most efficient manufacture and assembly techniques. Initiate and conduct basic and applied research to broaden understanding of new constructions, processes, materials and components. Educate practical applications to all pertinent Product Management staff. Qualifications: BFA/BA/BS preferably in Industrial Design or Mechanical Engineering or equivalent experience, plus 5 years experience in footwear development. Must possess excellent interpersonal, organizational, and communication skills (verbal and written). Send resume to: Staffing Department (jobs@timberland.com); The Timberland Company; 200 Domain Drive; Stratham, NH 03885; Ph: (603) 772-9500; Fax: (603) 773-1553. (Refer to Job Code SFDM.)

TECHNICAL DOCUMENT DEVELOPER with Dynamic Research, Inc. in Southern California. Qualifications: BS/BA or higher, and 10+ years hands-on-experience in technical writing, editing, illustration and graphic design. Experience in document development for sophisticated integrated systems featuring electrical, realtime computer, electromechanical and mechanical subsystems such as aerospace, automotive and industrial systems. Use of documentation tools such as Microsoft Word, Powerpoint, Visio, Iso-draw, Framemaker, Pagemaker, Auto-Cad. Highly motivated and possess excellent communication skills. Send resume to: Dynamic Research, Inc. (EAD@DYNRES.COM); 355 Van Ness Avenue, Suite 200; Torrance, CA 90501. Fax: (310) 212-5046. Web site: www.dynres.com. (Refer to Job Code DynResTechDocDev.)

MECHANICAL DESIGNER/DRAFTER with Body Masters Sports Industries. Responsibilities: Product design for the commercial fitness and rehab industry. Responsible for managing multiple projects and be involved in all facets of the product development process; Responsible for CAD work related to new product design and product revisions including detailed layout and assembly drawings. Will interface with Biomechanics, Engineering, Manufacturing, and Assembly in cross-functional team environment. Requirements: Minimum of B.S./Associate Degree or equivalent 3 years design experience; Proficient in CAD with at least 2 years of CAD experience including layout and assembly drawings; Autocad 14 and Mechanical Desktop candidates preferred but Pro/E, Ideas, SolidWorks, Unigraphics or other major CAD experience acceptable; 3D solid modeling experience and knowledge of basic manufacturing processes preferred; Must posses good written and verbal communication skills and be a self-motivated worker. Send resume to: Body Masters Sports Industries; Fax: 318-334-9628.

HUMAN FACTORS ENGINEER with NCR Corporation in Atlanta, GA. Responsibilities: Deliver HFE Consultant Services to internal NCR organizations and external NCR customers; Identify and define usability criteria for new products and services; Plan, schedule, and complete all support activities associated with data acquisition, analysis, design, synthesis, and final implementation of the human-system interface design; Apply the User Centered Design (UCD) process to solve human interface problems. Qualifications: Professional degree (MS, MA, or Ph.D.) and work experience in ergonomics, biomechanics, kinesiology, cognitive science, industrial engineering, human factors psychology, computer science with a concentration in user-interface design, human factors engineering, or experimental psychology. BA or BS considered with a 5 years experience; Record of sustained high level of performance, proven aptitude for problem solving, ability to work independently or in small teams, and proven project management skills; Industry experience preferred. Must be able to travel. Send electronic resume (ASCII format - refer to Job Code Number NCB7505), or mail resume and cover letter to NCR Corporation; Job Code Number: NCB7505; PO Box 1084; Findlay, OH 45839. For more information, email: ncr@aon-hros.com. (Do not apply via email.)

DOCTORAL GRADUATE ASSISTANTSHIPS - The doctoral program in the Division of Kinesiology at the University of Michigan is offering graduate assistantships on a competitive basis for the Fall 2000 semester. The Division is one of 19 degree-granting academic units on the Ann Arbor campus. The doctoral program promotes collaborative research with other disciplines on campus such as neuroscience, medicine, bioengineering, public health, and the social sciences. Detailed information on the Division of Kinesiology, its faculty and programs is available through the Web at: www.umich.edu/~divkines/kinweb/ Applications received by March 1, 2000 will be considered in funding decisions. For information and application materials, please contact: Carrie Stein, Student Services Associate, Division of Kinesiology, University of Michigan, 401 Washtenaw Ave., Ann Arbor, MI 48109-2214 Tel: 734-764-1343, email: steinc@umich.edu

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

Additional opportunities can be found on the ISB home page (http://isb.ri.ccf.org/jobs/index.html) and on the Biomechanics World Wide home page (http://www.per.ualberta.ca/biomechanics) under the Career Opportunities category.

Calendar of Events

Don Anderson

12-15 March 2000 - The 46th Annual Meeting of the Orthopaedic Research Society, Orlando, Florida. *www.ors.org/meetings/46/index.html*

12-15 April 2000 - 5th Annual Meeting of the Gait and Clinical Movement Analysis Society, Mayo Clinic, Rochester, Minnesota. Kenton Kaufman, Ph.D., P.E., Conference Chairperson, 2000 GCMA Society Annual Meeting, Mayo Clinic, Biomechanics Laboratory, 128 Guggenheim, 200 1st Street S.W., Rochester, MN 55905. Tel. 507.284.2261; Fax: 507.284.5391; email: Kaufman.Kenton@mayo.edu.

2-5 April 2000 - The Eleventh International Conference on Mechanics in Medicine and Biology, Maui Marriott Resort, Ka'anapali Beach, Maui, Hawaii. Deborah Highfield, Diversified Conference Management, Inc. Tel. (734) 665-2535; Fax. (734) 665-4541. *www.icmmb11.com.*

14-16 April 2000 - 19th Southern Biomedical Engineering Conference, Blacksburg, Virginia. Jonette Rogers Foy, Ph.D., email: jfoy@vt.edu; *sbec.abe.msstate.edu/2000/19index.html.* Abstracts due January 10, 2000.

1-4 May 2000 - Sixth International Symposium on the 3D Analysis of Human Movement, Cape Town, South Africa. Professor Christopher L Vaughan, Hyman Goldberg Chair of Biomedical Engineering, University of Cape Town, Tel: + 27 21 406 6238; Fax: + 27 21 448 3291; email: kvaughan@anat.uct.ac.za; *www.uct.ac.za/depts/pgc/3dhome.htm*

15-20 May 2000 - 6th World Biomaterials Congress, The Hilton Waikoloa Village, Kamuela, Hawaii. Society for Biomaterials, Tel: 612-543 0908; Fax: 612-545-0335; email: registration@biomaterials.org; *www.biomaterials.org/wc2000.htm*

31 May - 3 June 2000 - Annual Meeting of the American College of Sports Medicine, Indianapolis, IN. American College of Sports Medicine, Tel: (317) 637-9200; Fax: (317) 634-7817; *www.acsm.org*

19-22 July 2000 - 24th Annual Meeting of the American Society of Biomechanics, University of Illinois at Chicago, Chicago, IL. Program Chair, J.J. Crisco, Ph.D., email: joseph_crisco@brown.edu. Abstracts due February 15, 2000.

23-28 July 2000 - World Congress on Medical Physics and Biomedical Engineering, Chicago, Illinois. Chicago 2000 World Congress Headquarters, Tel: (301) 209-3350; Fax: (301) 209-0862; email: wc2000@wc2000.org; *www.wc2000.org.* Abstracts due January 14, 2000.

2-7 August 2000 - Emed Scientific Millennium Meeting, Munich, Germany, abstracts due March 15 2000. *www.novel.de*

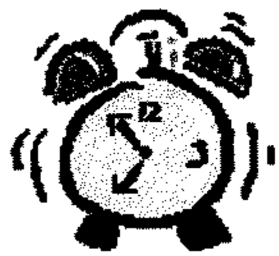
23-26 August 2000 - XIth Congress of the Canadian Society of Biomechanics, Montreal Canada. Congress Secretariat, Tel: (514) 340-3215; Fax: (514) 340 4440; email: bureau@congresbcu.com; *www.congresbcu.com/sb-scb200.htm.* Abstracts due March 1, 2000.

27-30 August 2000 - 12th Conference of the European Society of Biomechanics, Dublin, Ireland. Patrick J. Prendergast, PhD, Chair: ESB 2000, Incentive Conference Ireland, 1 Pembroke Place, Ballsbridge, Dublin 2, Ireland. email: esb2000@tcd.ie; *www.mme.tcd.ie/esb2000.*

8-13 July 2001 - XVIIIth Congress of the International Society of Biomechanics, Zurich, Switzerland. ISB 2001 Lisa Rohrer, Tel: (+41) 01 633 6117; Fax: (+41) 01 633 1124; email rohrer@biomech.mat.ethz.ch; *www.isb2001.ethz.ch/*

3-8 August 2002 - 4th World Congress on Biomechanics, University of Calgary. Dr. Benno Nigg and Dr. Ronald Zernicke.

Happy New Year!



Attention ASB Members

[illegible] in the Society (e.g. serving on a committee or chairing a [illegible], contact [illegible] Smith, 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!

From the Past-President

Bruce Martin

Wanted: Applicants for $5000+ in ASB Scientific Prizes!
One of my most important duties as Past-President is to chair the Awards Committee. This committee is pleased to call for nominations for the awards to be presented at the 2000 ASB annual meeting. All materials supporting nominations for these awards should be submitted to me at Orthopaedic Research Labs, Research Building I, UC Davis Medical Center, 4635 Second Ave., Sacramento, CA 95817. In addition, nominees for the Young Scientist, Clinical Biomechanics, the Journal of Biomechanics, and the Microstrain Awards must also submit their scientific abstracts to the Program Committee Chairperson, Trey Crisco, along with a letter indicating the award being sought. Because the annual meeting is being held earlier this year (July 19-22), applications for the awards will close earlier than usual. The deadline for each award is given below.

Some of these awards have had surprisingly short application lists. Members should seriously 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 2000 Annual Meeting of the American Society of Biomechanics in Chicago in order to receive the award and deliver the Borelli Lecture. The award consists of an engraved plaque and a check for $1500. The submission deadline is **March 15, 2000**.

Young Scientists Awards

These awards recognize early achievements by promising young scientists. They are awarded annually to one pre-doctoral student and one post-doctoral scientist. Nominees for these awards must be current or pending members of the ASB at the time of submission. Candidates may be self-nominated or nominated by an ASB member. For the pre-doctoral award, submitted materials must include a letter of support from the department head or graduate research advisor, a short description of the nominee's current research involvement, a curriculum vitae, copies of published papers and/or submitted manuscripts, and an abstract of original research submitted for presentation at the 2000 ASB annual meeting having the nominee as first or sole author. For the postdoctoral award, submitted materials must include a letter of nomination, the nominee's curriculum vitae, copies of published papers and/or submitted manuscripts, and an abstract of original research submitted for presentation at the 2000 ASB annual meeting having the nominee as first or sole author. These awards each consist of an engraved plaque, a check for $200, and a waiver of conference fees for the 2000 annual meeting. The submission deadline is **February 15, 2000**.

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 undergraduate and graduate students who have made an innovative application of existing instrumentation or have developed new instrumentation for use in the field of biomechanics. A cover letter specifying the candidate's interest in being considered for the award should accompany an abstract of original research submitted for presentation at the 2000 ASB annual meeting. The candidate must be the first or sole author of this abstract. In addition, this abstract must be submitted to the Program Chairperson. The awardee is expected to attend the 2000 ASB annual meeting and to deliver a presentation of the work recognized by the award. The award includes an engraved plaque and a check in the amount of $1000. The submission deadline is **February 15, 2000**.

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. Nominees must be ASB members. A cover letter specifying the candidate's interest in being considered for the award should accompany an abstract of original research submitted for presentation at the 2000 ASB annual meeting. The candidate must be the first or sole author of this abstract. In addition, this abstract must be submitted to the Program Chairperson. The award decision will be based on the award finalists' presentation of their research at the annual meeting. The award includes a $500 check and an engraved plaque. The submission deadline is **February 15, 2000**.

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*. The requirements and procedures are the same as those for the Journal of Biomechanics Award except that the submitted abstract must have special relevance for clinical research. The awardee receives a check for $500 and an engraved plaque. The submission deadline is **February 15, 2000**.

Travel Award

A Travel Award of up to $1000 is offered to foster collaborative research and interaction among scientists by helping to offset the cost of travel to a host institution. All regular ASB members (i.e.,

not student or corporate members) are eligible to apply. A cover letter describing the details of the planned project, a copy of the applicant's curriculum vitae, and an indication of the availability of any matching funds from the host's or candidate's institution (desirable but not required) should be submitted. The funding period is from July 1, 2000 through June 30, 2001. The recipient of the Travel Award is expected to present a poster of the funded project at the 2001 ASB annual meeting to be held in San Diego. The submission deadline is **March 15, 2000**.

Student Travel Awards

These awards, generally around $250, are available only to ASB student members and are intended to offset the cost of travel to the annual meeting. Application for these awards should only be made after receiving notification of an abstract's acceptance. A copy of the accepted abstract, acceptance letter, and a letter from the student's faculty advisor indicating a need for assistance should be submitted to the chair of the Awards Committee as soon as possible after receiving notification of the abstract's acceptance. The submission deadline is **May 15, 2000**.

In addition to the plaque and the check, all of these awards give a nice boost to your curriculum vitae that will stick with you permanently. I urge you to consider applying for one of these awards yourself, or nominating someone who's work you admire!

From the Post-Past-President

Mark D. Grabiner

As Past-President, my largest responsibility was to chair and organize the ASB Awards Committee. I want to thank once again, and give recognition to the individuals who served as members of the 1999 ASB Awards Committee. They are, Dick Brand, Bruce Beynnon, David Burr, Tom Armstrong, Paul DeVita, Debra Hurwitz, Chris Jacobs, and Melissa Gross. The activities of the Awards Committee came to fruition last month at the ASB meeting in Pittsburgh during which the award winners were announced. Congratulations to the following 1999 ASB Award winners.

Giovanni Borelli Award
Don B. Chaffin, PhD
University of Michigan

Post-Doctoral Award
Braden C. Fleming, PhD
University of Vermont

Pre-Doctoral Award
Frank C. Anderson
University of Texas, Austin

ASB-Microstrain Award
Jonathon L. Sakai
University of Pittsburgh

Clinical Biomechanics Award
Jonathon Dingwell
Penn State University

Journal of Biomechanics Award
Michael G. Conzemius
University of Iowa

In addition to the ASB Awards, there were three additional, and special research awards. These awards were graciously funded by the meeting organizers from the Musculoskeletal Research Center at the University of Pittsburgh. The challenging task of determining three award winners from the strong scientific program was assisted by the 1999 Program Committee, chaired by Tom Buchanan and performed by the following team of judges: Melissa Gross, Bruce Martin, Trey Crisco, James Ashton-Miller, David Gabriel, Michael Pavol, Robert Shapiro, Bill Whiting, Ton van den Bogert, and Professor Y-C. Fung. Congratulations to the following scientists, and their co-authors, who were recipients of the 1999 MSRC Awards:

Chih-Tung Chen
Cornell University

Kharma C. Foucher
Rush-Presbyterian St. Luke's Medical Center

Peter Vint
Arizona State University

Lastly, eight students whose papers were presented at the meeting received ASB Student Travel Awards to help defray the cost of attending the meeting. These students were:

Y-H Chang
University of California, Berkeley

K. Costa
University of Southern California

K. Darvish
University of Virginia

J.M. Donelan
University of California, Berkeley

S. Duma
University of Virginia

E.T. Hsiao
University of California, Berkeley.

W. Mathiyakom
University of Southern California

P.E. Requejo
University of Southern California

ASB Graduate Student Grant-In-Aid Program Year 3:

**** First Announcement ****

REQUEST FOR LETTERS OF INTENT
Deadline: February 1, 2000

The ASB Graduate Student Grant-in-Aid Program is now in its third 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 third funding period that will begin Sept. 1, 2000. Award amounts are expected to range from $500 to $2500 for a one-year period. Students must be members of ASB or have a membership application pending no later than February 1, 2000 to be eligible for an award. In addition, expected graduation date should not be earlier than December, 2000.

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, 2000**. 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, 2000. The funding cycle will run from September 1, 2000 to August 31, 2001.

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

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. The benefits and fees for Commercial Members of the Society have been reorganized. Based on level of support, 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 Scott Delp or Melissa Gross (page 4) for details.

The ASB Executive Board is pleased to recognize:

SUSTAINING MEMBERS

Peak Performance Technologies, Inc.

CONTRIBUTING MEMBERS

Motion Analysis Corporation

CORPORATE MEMBERS

Aircast

DePuy

Orthofix, S.R.L.

Tekscan

All members of the Society are invited to suggest names of potential commercial members. Please send your suggestions to Scott Delp, 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.

Don't Forget to pay your dues!

Announcement

ASB Regional Student Meetings

Southern California Conference on Biomechanics

The Musculoskeletal Biomechanics Research Laboratory (MBRL) of the University of Southern California will host the second annual Southern California Conference on Biomechanics (SCCB). The conference will be held April 7-8, 2000 at the University of Southern California's Health Science Campus and will be co-chaired by the directors of MBRL, George Salem and Christopher Powers. The conference is designed to provide graduate and undergraduate students in biomechanics an opportunity to present their research findings to the local scientific community. Keynote addresses will be provided by Dr. Jacquelin Perry, Director of the Pathokinesiology Laboratory at Rancho Los Amigos National Rehabilitation Center and Mark Grabiner, Director of the Clinical Biomechanics and Rehabilitation Laboratory, Cleveland Clinic Foundation. Thanks to the sponsorship of ASB and the host institutions, there are no registration fees. Additional conference information can be found at the conference web site: *www.usc.edu/go/mbrl*

Midwest Graduate Student Biomechanics Symposium

The Midwest Graduate Students Biomechanics Symposium for Year 2000 will be held on the campus of Illinois State University in Normal, IL. Thanks to generous support from the American Society of Biomechanics, the Y2K Symposium will take on a different format than those of previous years. The Symposium will begin Friday evening, March 31 when Dr. Paul DeVita of East Carolina University will present the lecture "Friends, Romans, Countrymen, Lend Me Your Biomechanist". On Saturday, April 1, in addition to the traditional student presentations, Dr. Tim Derrick of Iowa State University will present a morning keynote lecture titled "Attenuation of Shock in the Human Body", and Dr. DeVita will present an afternoon keynote lecture titled "Biomechanical Gait Responses to ACL Injury, Surgery, and Rehabilitation". Students at all levels are encouraged to submit abstracts for the symposium. The submission deadline is **February 15, 2000**. Both podium and poster presentations may be accepted depending on demonstrated interest by those making submissions. For more information on the Symposium, contact Professor Steven McCaw using smccaw@ilstu.edu, putting MWGSBS in the subject line.