

ASME INTERNATIONAL BIOENGINEERING DIVISION

SPRING 2009

MESSAGE FROM THE CHAIR



Jennifer S. Wayne

The year has truly gone by in a flash, with my role as Chair of the Bioengineering Division (BED) coming to a close at the end of June 2009. We have accomplished many things – some large, some small – but all with

the goals of promoting the Bioengineering Division, improving our operations, and highlighting the accomplishments and service of our members. A summary of some of our achievements follows.

The Summer Bioengineering Conference (SBC) continues as our signature event with much effort devoted to its

continued success. Elsewhere in this newsletter, the 2009 SBC in Lake Tahoe is emphasized; it promises to follow in our strong tradition of exemplary research in gorgeous surroundings. Please join us, won't you? We further negotiated another resort contract, for our next Summer Bioengineering Conference, the 2010 SBC in Naples, Florida (see the "Save the Date" note on page 2), and are in the process of finalizing the contract for the 2011 SBC (as of this writing).

BED leadership has worked tirelessly to improve the operations of our SBC, some of which may only be evident "behind the scenes" but rest assured, they are undertaken with the goal of making specific operations more efficient and cost effective.

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EDITOR'S NOTE

Welcome to another riveting compendium of bioengineering news and gossip from your friends at your favorite ASME division!

Look inside for the latest happenings from our administrative committees. Also inside are open invitations to the meetings of our technical committees at this summer's SBC. Be sure to arrive early on the first day of the SBC so that you can join us!

Thanks to all who contributed to

this edition of the BED newsletter.

Please send comments and suggestions to:



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UPCOMING EVENT!



See pages 3 and 4!
Seminar rooms may differ from that pictured.



MESSAGE FROM THE CHAIR (CONTINUED)

BED has negotiated with ASME's Publications department under the direction of Philip DiVietro to implement their abstract submission webtool and publishing services for our conference CD and program book with SBC 2010. Fortuitously, our prior source for abstract submission was closing that portion of their company so BED had to select another vendor regardless. There are naysayers for going the ASME route - I understand all the arguments, however you cannot imagine how much more efficient this should make these functions versus using three different sources as we have in the past. All with improved ASME service at a competitive cost! We will evaluate this decision at the conclusion of SBC 2010 and make changes as appropriate.

As announced in my Fall newsletter segment, the new copyright form instituted this year by ASME, which required only one author to sign on behalf of all the authors of a submitted abstract, was used for abstract submission of 2009 SBC abstracts. This same form is being used throughout ASME, including journal submissions. While not without some glitches and headaches (whatever is?!), it was an improvement over the old form with all signatures. We are still on target to have an electronic form in place for SBC 2010, according to ASME's Publications depart-

ment, which should make some of the headaches disappear.

In addition to our wonderful summer conference, BED's strength also rests in our journals. Our flagship journal, the *Journal of Biomechanical Engineering*, is under the visionary leadership of Dr. Michael Sacks who has doggedly pursued many of the initiatives that he presented in the Fall newsletter. Among other accomplishments, Dr. Sacks has worked with ASME to implement Published Ahead of Print (PAP) starting September 2009 where journal submissions will be made available electronically in manuscript form shortly after acceptance and assigned a Digital Object Identifier (DOI) number for citation purposes until the published version is available. Additional information will be forthcoming. A second journal, completing Volume 2 this year, is the *Journal of Medical Devices* which the BED co-administers with the Design Division. It continues to grow in reputation in the capable hands of coeditors Drs. Arthur Erdman and Gerald Miller. ASME also created a new journal - *Journal of Nanotechnology in Engineering and Medicine*. ASME has asked the basic engineering groups to consider managing this journal which BED is discussing along with other divisions.

On another note, the Bioengineering Division has an official banner for the Summer Bioengineering

Conference which will be displayed in Lake Tahoe. Now, all resort guests will know that BED is "in the house"! Finally, as a tribute to the Bioengineering Division in preserving its history, I have created a poster of our prior Chairs and years of service which will be displayed in Lake Tahoe. This will be uploaded to BED's website soon. Please continue to visit our website (<http://divisions.asme.org/bed>) regularly for additional timely information. The website for SBC 2010 will be accessible very shortly as well.

The Bioengineering Division is truly blessed with talented, dedicated, and giving members. Our successes are due in no small part to their tireless commitment, volunteering their time and lending their expertise - from those who serve on the Executive Committee, to the organizers of the Summer Bioengineering Conferences, to the chairs and members of Technical Committees and Administrative Committees, to the Editors and Associate Editors of our journals, to the reviewers of conference abstracts and Journal submissions, to BED representatives on ASME committees and external agencies. A tremendous thank you to all who have supported my term as chair and for the direction you provide the Division.

Jennifer S. Wayne, Chair
ASME Bioengineering Division
2008 - 2009

2009 SUMMER BIOENGINEERING CONFERENCE, JUNE 17-21, 2009

Join us at the 2009 Summer Bioengineering Conference (SBC) to be held at the spectacular Squaw Creek Resort by Lake Tahoe. There's still time to register for the conference and for the workshops listed in the detailed program (next page): Obtaining the Ideal Faculty Appointment, Predicting Knee Loads *In Vivo*, Fluid-Solid Interactions, Course Development in Bioengineering, and Teaching Undergraduate Biomechanics. Other highlights include:



Van Mow

The Van Mow 70th Birthday Symposium will focus on orthopaedic biomechanics, tissue mechanics, cartilage mechanics, constitutive modeling, and tissue engineering, and will recognize Dr. Mow's substantial contributions to these areas.



Noshir Lagrana
2009 SBC
Conference Chair



Dawn Elliott
2009 SBC
Program Chair

Plenary lecture by Kathy Pearson, PhD: "Developing Peripheral Vision." Dr. Pearson will talk about the need to build our ability to look for weak signals in the external environment regarding potential changes to a profession or an industry. We require awareness that in order to plan for the future we must not only focus on today's work - we require peripheral vision. This session introduces the concept of organizational peripheral vision in order to identify opportunities and threats faster. Dr. Pearson is from The Wharton School at the University of Pennsylvania and is a senior consultant for Decision Strategies International.



Kathy Pearson

Plenary lecture by Martin Yarmush, MD, PhD: "A Challenging Biomedical Science and Research Environment: The Need for Cooperation, Mentorship and Research Translation." Dr. Yarmush believes that now, more than ever, bioengineering communities need to establish programs to aid and mentor investigators. In addition, non-conventional research programs and sources of funds may be available to those who expend effort on research translation. Dr. Yarmush, from Rutgers University, is a leading investigator in molecular and cellular bioengineering with seminal contributions to the fields of liver and skin tissue engineering, applied immunology, BioMEMS, genomics and proteomics technologies, stem cells and metabolic engineering.



Martin Yarmush

OTHER HAPPENINGS IN LAKE TAHOE

The BED's unofficial band is pleased to announce the next date on its concert tour:

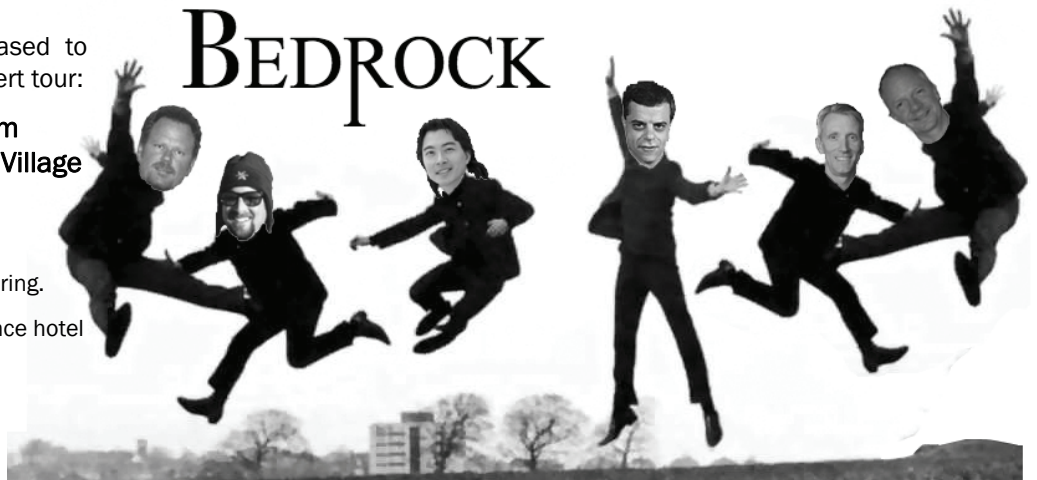
Friday, June 19, 2009, 7 pm
Blue Coyote Sports Grill, Squaw Village

1985 Squaw Valley Rd.
Olympic Valley, CA 96146

All are invited to this informal gathering.

A free shuttle will run from the conference hotel until 11 PM.

This event is endorsed by neither the American Society of Mechanical Engineers nor the ASME Bioengineering Division.



2009 SBC FINAL PROGRAM

WEDNESDAY, June 17, 2009						
Sierra A	Sierra B	Sierra C	Sierra D	Emigrant	Monument	
7:00 am - 3:30 pm	Committee Meetings (various rooms)					
3:45 pm - 5:15 pm	Bone Mechanics	Tissue Engineering I	Hemodynamics and Atherosclerosis I: Carotid Artery Disease	Vascular Solid Mechanics I	Human Movement and Rehabilitation	Improvement in Thermal Treatments
5:15 pm - 5:30 pm	Break (no refreshments)					
5:30 pm - 7:00 pm	Soft Tissue Biomechanics	Nanoengineering for Medical Diagnostics & Therapeutics	Hemodynamics and Atherosclerosis II: Vulnerable Plaque	Vascular Solid Mechanics II	Muscle Mechanics	Spine I
7:00 pm - 9:00 pm	Opening Reception (Sierra A & B)					
9:00 pm - 11:00 pm	Business Meeting / Open Executive Meeting (Sierra C)					
THURSDAY, June 18, 2009						
Sierra A	Sierra B	Sierra C	Sierra D	Emigrant	Monument	
6:30 am - 7:30 am	Breakfast (Castle & Sierra Prefunction)					
7:30 am - 8:30 am	P l e n a r y - Yarmush "Translational Research" (Sierra A & B)					
8:30 am - 8:45 am	Break					
8:45 am - 10:15 am	Mow Symposium: Cartilage Mechanics	Cell Engineering I	Interfacing Measurements and Simulations in Biofluids	Vascular Solid Mechanics III	Modeling Analyses of Human Movement	Lower Extremity
10:15 am - 10:30 am	Break					
10:30 am - 12:00 pm	Mow Symposium: Fibrocartilage Mechanics	Tissue Engineering II	Cardiac and Device Flows	Cardiovascular Solid Mechanics	Simulation Analyses of Human Movement	Therapeutic Drug Delivery
12:00 pm - 2:00 pm	Poster Session I, with Lunch: Includes BS & MS Student Paper Competitions (Alpine Ballroom)					
FRIDAY, June 19, 2009						
Sierra A	Sierra B	Sierra C	Sierra D	Emigrant	Monument	
6:30 am - 7:30 am	Breakfast (Sierra Prefunction)					
7:30 am - 9:00 am	Fung and Mow Research Presentation and Participating in BED	Workshop: Predicting In Vivo Knee Loads		Workshop: Teaching Undergraduate Biomechanics		
9:00 am - 9:15 am	Break					
9:15 am - 10:45 am	PhD Student Paper Competition: Solid Mechanics, Design, Rehabilitation	PhD Student Paper Comp: Tissue & Cell Mechanics and Imaging	PhD Student Paper Competition: Biofluids and Biotransport			
10:45 am - 11:00 am	Break					
11:00 am - 12:30 pm	Connective Soft Tissue Mechanics	Cell Engineering II	Multiscale Modeling and Microscale Flows	Aortic Aneurysm Mechanics	Bone Mechanics and Remodeling	Orthopaedic Design
12:30 pm - 2:30 pm	Poster Session II, with Lunch: includes PhD Student Paper Competition (Alpine Ballroom)					
SATURDAY, June 20, 2009						
Sierra A	Sierra B	Sierra C	Sierra D	Emigrant	Monument	
11:00 am - 12:30 pm	Workshop: Clinical Perspectives in Orthopaedic Biomechanics	Workshop: Obtaining the Ideal Faculty Appointment	Workshop: Fluid-Solid Interactions	Workshop: Course Development in Biomedical Engineering		
12:30 pm - 1:30 pm	Lissner Lunch (Castle & Sierra Prefunction)					
1:30 pm - 2:30 pm	P l e n a r y: Lissner Lecture (Alpine Ballroom)					
2:30 pm - 2:45 pm	Break					
2:45 pm - 4:15 pm	Mow Symposium: Cell Mechanics	Growth and Remodeling I: Loading Effects	Cerebral Aneurysms	Joint and Systems Biomechanics	Bipedal Stance and Gait	Spine II
4:15 pm - 4:30 pm	Break					
4:30 pm - 6:00 pm	Mow Symposium: Orthopaedic Tissue Eng	Growth and Remodeling II: Cardiovascular	Flow Imaging in Vivo and In Vitro	Biomechanical Design	Injury Mechanics	Ocular Biomechanics
6:00 pm - 6:15 pm	Break (no refreshments)					
6:15 pm - 7:15 pm	P l e n a r y: Pearson "Strategic Decision Framing" (Alpine Ballroom)					
7:15 pm - 10:00 pm	Reception and B A N Q U E T (Sierra Ballroom)					

BIOENGINEERING DIVISION TECHNICAL COMMITTEES

BIOTRANSPORT

The Biotransport Committee will meet on Wednesday, June 17, from 2:30 pm to 3:20 pm during the SBC. The major topics of the committee meeting include informing all about the Biotransport sessions at the SBC, SHTC, and IMECE; planning a one-day workshop for the biotransport community in 2012; and discussing specific strategies for helping junior researchers with career advancements. Everyone, including students, is welcome. If you would like to be included on the biotransport email list, please contact Liang Zhu at zliang@umbc.edu.



Liang Zhu
Committee Chair,
2007–2010

DESIGN & REHABILITATION

The Design and Rehabilitation Committee will have its annual meeting at 1:30 pm, Wednesday, June 17, in the Pyramid Peak room at the SBC. This committee covers a wide variety of topics including human movement measurement and modeling, rehabilitation, medical device design (orthopedic, cardiovascular, BioMEMS), engineering for surgery, and robotics. At the committee meeting, we will discuss our 2009 SBC sessions, goals for the 2010 SBC, workshops and special sessions for future meetings, and other strategic initiatives. Everyone with interest in design and/or rehabilitation is encouraged to attend, including students, post-docs, faculty members, and industry members. Those wishing to attend the fluids committee meeting (concurrent) but also interested in design are encouraged to contact Sara Wilson (sewilson@ku.edu) for details of the meeting. Please direct questions to the committee chair, Sara Wilson (sewilson@ku.edu) or co-chair, Lorin Maletsky (maletsky@ku.edu)



Sara Wilson
Committee Chair,
2007–2010

FLUID MECHANICS

The annual Fluids Committee meeting will be at 1:30 pm, Wednesday, June 17, in the Castle Peak room at the SBC. We'll discuss this year's SBC fluids programming and beginning planning next year's. As this is my last year as the chair of the fluids committee, the meeting will include a description of how this committee selects its leaders. According to ASME by-laws, following SBC 2009 the current vice-chair, will become the next Fluids committee chair. This will culminate in the age-old ritual of throwing the current vice-chair, David Steinman, into Lake Tahoe (Any competent fluids chair is expected to survive the ritual. The conference site was hand-picked for this purpose).



Danny Bluestein
Committee Chair,
2006–2009

SOLID MECHANICS

The annual meeting of the Solid Mechanics committee will be held at the SBC on Wednesday, June 17, at 2:30 pm in the Castle Peak room. We are not only the largest but also the friendliest committee in the BED, so please join us at this gathering for an overview of our 2009 SBC offerings and a beginning discussion of our programming for the 2010 SBC.



Dawn Elliott
Committee Chair,
2007–2010

TISSUE AND CELLULAR ENGR.

The Cell and Tissue Engineering Committee will hold their annual committee meeting at the SBC on Wednesday, June 17, from 12:30 pm to 1:20 pm in the Castle Peak Conference room. We will report on the technical podium and poster sessions organized for this year's SBC by the C&TE committee and begin planning for next year's meeting in Naples Florida. We will also be electing a new committee Vice Chairman. All those who are interested are welcome to attend.



Daniel P. Nicolella
Committee Chair,
2009–2012

BIOENGINEERING DIVISION ADMINISTRATIVE COMMITTEES

The BED has four administrative committees: Education, Honors & Awards, Membership, and New Directions. The spring newsletter features the reports of the Education committee; reports of the other three committees can be found in the fall edition.

Additionally, the BED selects representatives to other bioengineering organizations and to committees within ASME. Within ASME, the BED has representatives to the Thurston Award Committee, the ASME annual meeting (the "IMECE"), and the Basic En-

gineering Group Operating Board. Beyond ASME, the BED has representatives to the American Institute for Medical and Biological Engineering and the U.S. National Committee on Biomechanics .

AMERICAN INSTITUTE FOR MEDICAL & BIOLOGICAL ENGINEERING

The BED is one of the eighteen scientific organizations that comprises the American Institute for Medical and Biological Engineering's "Council of Societies." AIMBE aims to promote awareness of the field of biomedical engineering, public policy that furthers advancements in biomedical engineering, and cooperation within the field. The Council of Societies aims to coordinate positions on issues of importance to the entire community through establishing a dialogue at the AIMBE "Annual Event," held each winter in Washington, DC.

At this year's meeting last February, topics of discussion included strategies for encouraging translational research, and addressing health disparities through this pathway. This is a central theme for AIMBE: over the past year, AIMBE has hosted lunch briefings on Capital Hill about barriers to innovation. A second central theme, which will be the focus of an upcoming lunch briefing, is diversity in engineering: the need to encourage under-represented minorities in science and engineering as a whole, and in biomedical engineering in particular.



Gerard Ateshian James Moore, Jr.

Those interested in attending this August briefing can contact Benjamin Corb at bcorb@aimbe.org.

*Gerard Ateshian and Jimmy Moore
BED Representatives to the AIMBE
2008 - 2011*

ASME BASIC ENGINEERING GROUP OPERATING BOARD

The Bioengineering Division participates actively in the activities of the ASME's Basic Engineering Group Operating Board (BEGOB), whose primary mission is to provide representation for a variety of technical divisions in the ASME bureaucracy.

As we reported in the fall edition of your favorite newsletter, one of the key issues on the BEGOB's agenda during 2008 was the simplification of the 1903 copyright process to have author sign on behalf of all co-authors. ASME was highly responsive to this re-

quest, and the new system of a single author signing on behalf of all was instituted in time for the 2009 SBC.

Another key issue is clarification of the coverage provided by ASME level awards. ASME is again being highly responsive, and we hope for this clarification to arrive shortly.

BED's representatives to the BEGOB are Ozan Akkus (Purdue University) and James Moore (Texas A&M University).



Ozan Akkus James Moore, Jr.

*Ozan Akkus and James E. Moore
BED Representatives
to the ASME BEGOB
2008 - 2011*

ASME IMECE



Noshir Lagrana

The ASME BED is amongst the most vibrant of the ASME divisions, and one of only a handful to host its own annual conference. The 11th ASME SBC will be held at Lake Tahoe with more 670 posters and podium presentations. This is the fourth year of the annual programming of this conference, and we expect yet another successful conference with sophisticated scientific poster and podium presentations in the laid-back, enjoyable atmosphere of California. We are looking forward to comprehensive technical sessions, symposia, workshops, and other events, as well as participants will take advantage of the free time to interact with your colleagues from academia and industry.

In addition, BED also has a small but significant presence at the ASME annual "International Mechanical Engineering Conference

and Exhibition" (IMECE) each fall, and 2008 was no exception. One entire track was devoted exclusively to issues of interest to the BED. Ahmed Al-Jumaily from the Institute of Biomedical Technologies in Auckland, New Zealand, and Sara Wilson from the University of Kansas organized this "Biomedical and Biotechnology Engineering Track". This track contained nine divisions with a total of 37 sessions, including two poster sessions. The ASME Applied Mechanics Division's flagship symposium, held in honor of solid mechanics expert and pioneering brain development researcher John W. Hutchinson from Harvard, also had several BED members present.

At the 2009 IMECE at Disneyworld, Drs. Al-Jumaily and Wilson will organize another "Biomedical and Biotechnology Engineering Track". Abstract submission is closed, but it is not too late to join us for the talks. Papers will be presented in eleven symposia:

1. A Biomedical and Biotechnology plenary presentation
2. BioMEMS, Micro and Nano Systems in Medicine and Biology
3. Vibration and Acoustics in Biomedical Applications
4. Application of Composites in Biomaterials and Bioengineering
5. Viscoelasticity of Biological Tissues
6. Dynamics and Control of Biomechanical Systems
7. Bioengineering and Medical Applications
8. Frontiers in Cardiovascular Engineering
9. Biomedical Heat Transfer and Biomedical Fluid Mechanics
10. Computational Modeling and Device Design
11. A poster symposium entitled "New Trends in Biomedical Applications"

*Noshir Lagrana
BED Representative to the IMECE
2008 - 2009*

EDUCATION COMMITTEE



Jeff Bischoff

The BED education committee has continued to focus on incorporating biomedical and biomechanical engineering education activities into the annual SBC.

There were good opportunities for participation at the 2008 SBC, including two workshops and a technical session focused on forensics career options for bioengineering students and on developing undergraduate biomechanics laboratories.

For the 2009 meeting, the committee has continued with workshops, including one on course development in biomedical engineering and a second workshop on teaching undergraduate laboratories. Both of these workshops will feature speakers with distinguished backgrounds and experience in education, and should provoke good discussion as well as provide practical assistance to SBC participants who are active in curriculum and course development.

The committee also is exploring

ways to incorporate a student design challenge into the SBC, and continues to look for interested and innovative members to join the committee (students included!)

Join us for a discussion of all this and more at our annual meeting, which will be held at the 2009 SBC on Wednesday, June 17, from 11:30 am to 12:30 pm in the Castle Peak room at the conference site!

*Jeffrey E. Bischoff, Zimmer Inc.
Chair, BED Education Committee
2006 - 2009*

HONORS & AWARDS COMMITTEE

The BED's Honors and Awards Committee selects recipients for three special recognition awards from the pool of active members of the BED.

The Y.C. Fung Young Investigator Award recognizes outstanding investigators, early in their careers, for significant potential to make substantial contributions to the field of bioengineering and a demonstrated commitment to bioengineering. Candidates must have earned a relevant Ph.D. or equivalent degree within seven years of their nomination and must be under 36 years of age on June 1 of the year of nomination.

The Van C. Mow Medal is bestowed upon an individual who has made significant contributions to the field of bioengineering through research, education,

professional development, leadership in the development of the profession, mentoring of young bioengineers, and service to the bioengineering community. The individual must have earned a Ph.D. or equivalent degree between ten and twenty years prior to June 1 of the year of the award.

The H. R. Lissner Medal was created in 1977 by the Bioengineering Division of ASME to recognize significant contributions to bioengineering. These may be (1) research contributions; (2) new methods for measurement; (3) new equipment and instrumentation; (4) educational contributions; and/or (5) service to the BED and/or the bioengineering community.

Please join us this summer as we recognize the recipients of the

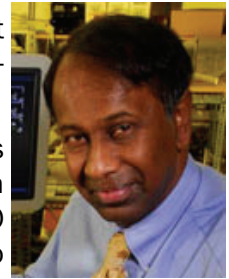
2009 awards at the SBC banquet.

Nominations are now open for the 2010 awards! To learn more about all of the BED awards and to nominate yourself or a colleague, please visit:

http://divisions.asme.org/BED/Honors_Awards.cfm

Nominations for the 2010 awards are due September 1, 2009.

*Ajit Yoganathan
Chair, Honors & Awards Committee
2008 - 2011*



Ajit Yoganathan

INDUSTRY ADVISORY COMMITTEE

The ASME BED Industry Advisory Committee is a new addition to the administrative structure of our division, and is charged with developing new aspects of the Summer Bioengineering Conference and its programming to better serve industry and those interested in interacting with industry. We look to our industry partners for direction in achieving the practical side of BED's mission of "application of mechanical engineering knowledge, skills and

principles to the design, development, analysis and operation of biomechanical systems." We also look to our colleagues in academia who have experience or a desire to interact with industry to participate in this committee and its charge. All are invited to join us for the committee's meeting on Wednesday, June 17, from 12:30 to 1:20 pm in the Pyramid Peak room at the 2009 SBC!



David Vorp

*David Vorp
Chair, BED Industry Advisory
and External Affairs Committees
2008 - 2011*

MEMBERSHIP DEVELOPMENT COMMITTEE



Clark T. Hung

The BED membership development committee has focused on facilitating the nomination of current active BED members of 10 years or more to rank of ASME fellow. The process involves identifying eligible individuals and respective nominators (generally an ASME fellow in

BED).

We are pleased to report that three BED members have been promoted to the rank of ASME fellow over the past year: Ellen Arruda from the University of M. Michigan, Jay D. Humphrey from Texas A&M, and Susan S. Margulies from the University of Pennsylvania. Profs. Arruda, Humphrey and Margulies will be recognized at the 2009 SBC banquet, and their citations will ap-

pear in this column in the fall edition of the SBC newsletter.

The membership development committee will hold its annual meeting at the 2009 SBC on Wednesday June 17, 2009 from 10:30 to 11:20 am in the Pyramid Peak room at the conference site. All are invited!

Clark T. Hung
Chair, BED Membership Committee
2008 - 2011

NEW DIRECTIONS COMMITTEE



Gerard Ateshian

The New Directions Committee meets each year at the SBC to discuss areas of focus for the BED for the upcoming year, and reports on these ideas in the fall newsletter. The areas of focus for the past year have been our intellectual output: how can we

continue to improve our journals and our meetings? Michael Sacks, editor of the Journal of Biomedical Engineering, laid out an explicit plan last year for the journal to improve its impact factor through faster publication, and we are pleased to report success in this area under Michael's leadership. The committee was in agreement that increased industry involvement in the SBC

would strengthen the meeting, and the BED has made efforts to further strengthen this that will be apparent at the 2009 SBC.

This year's meeting will be held on Wednesday, June 17, in the Emigrant Peak room. All are welcome.

Gerard Ateshian
Chair, New Directions Committee
2009 - 2012

US NATIONAL COMMITTEE ON BIOMECHANICS



David Vorp

The US National Committee on Biomechanics (USNCB) is a trans-society committee that focuses on the needs and issues facing the biomechanics community. It is comprised of representatives from multiple professional societies that have a significant portion of their membership with biomechanics as their discipline.

The USNCB will be hosting the 2014 World Congress of Biome-

chanics at a US location to be determined.

Position papers resulting from a summit of biomechanics leaders at the "Frontiers of Biomechanics Symposium" (which was held in

conjunction with the 2005 ASME BED Summer Bioengineering Conference in Vail, CO) have started to appear in print, including:

- Discher, D., Dong, C. Fredberg, J.J., Guilak, F., Ingber, D., Janmey, P., Kamm, R.D., Schmid-Schönbein, G.W.,

"Biomechanics: cell research and applications for the next decade," which appeared in *Annals of Biomedical Engineering*, in January, 2009; and

- Friedman, M., Ateshian, G., et al., "Integrative biomechanics: A paradigm for clinical applications of fundamental mechanics," which will appear in a future issue of *Journal of Biomechanics*.

David Vorp
BED Representative to the USNCB
2007 - 2010

BIOENGINEERING DIVISION

Spring, 2009

News Bulletin

American Society of Mechanical Engineers

ASME BED ROSTER 2008-2009

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