

2007 Buyers' Guide Inside

BIOMATERIALS FORUM



First Quarter 2007 • Volume 29, Issue 1

**2007 Annual Meeting
Registration Brochure
Inside!**

**Society Officer
Nominees**

**Long Range Planning
for the Society
For Biomaterials:
Work in Progress**



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BIOMATERIALS FORUM



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Executive Editor

Karen Burg, Clemson University, Department of Bioengineering
501 Rhodes Engineering Research Center, Clemson, SC 29634
Phone: (864) 656-6462 • Fax: (864) 656-4466
E-mail: kburg@clemson.edu

Managing Editor

Frank Scussa, Society For Biomaterials
15000 Commerce Parkway, Mt. Laurel, NJ 08054
Phone: (856) 439-0500 • Fax: (856) 439-0525
E-mail: fscussa@ahint.com

Government News Contributing Editor

Joy Dunkers, National Institute of Standards and Technology
100 Bureau Dr., Stop 8541, Gaithersburg, MD 20899-8541
Phone: (301) 975-6841 • Fax: (301) 963-9143
E-mail: joy.dunkers@nist.gov

Government News Contributing Co-Editor

Christine A. Kelley, National Heart, Lung and Blood Institute
National Institutes of Health
6701 Rockledge Dr., Suite 9180, Bethesda, MD 20892-7940
Phone: (301) 435-0513 • Fax: (301) 480-1336
E-mail: ck53r@nih.gov

Industrial News Contributing Editor

Steve T. Lin, Exactech Inc.
2320 NW 66th Court, Gainesville, FL 32653
Phone: (352) 377-1140 • Fax: (352) 378-2617
E-mail: steve.lin@exac.com

Society Business & Membership News Contributing Editor

David H. Kohn, University of Michigan
Departments of Biologic and Materials Sciences
and Biomedical Engineering
1011 N. University Ave., Ann Arbor, MI 48109-1078
Phone: (734) 764-2206 • Fax: (734) 647-2110
E-mail: dhkohn@umich.edu

Special Interest Group News Contributing Editor

Andrés J. Garcia, Georgia Institute of Technology
Department of Mechanical Engineering
315 Ferst Drive, 2314 1BB, Atlanta, GA 30332
Phone: (404) 894-2110 • Fax: (404) 385-1397
E-mail: andres.garcia@me.gatech.edu

University and Research Institution News Contributing Editor

Guigen Zhang, The University of Georgia, Faculty of Engineering
501 Driftmier Engineering Center
The University of Georgia, Athens, GA 30602
Phone: (706) 583-0994 • Fax: (706) 542-8806
E-mail: gzhang@engr.uga.edu

Book Review

Liisa Kuhn, University of Connecticut Health Center
Center for Biomaterials
263 Farmington Avenue, Farmington, CT 06030-1715
Phone: (860) 679-3922 • Fax: (860) 679-4889
E-mail: Lkuhn@uchc.edu

Graphic Designer

Justin Fennelly

Special Interest Group Reporters

Biomaterials Availability & Policy

Carl R. McMillin, carl@syntheticbodyparts.com

Biomaterials-Cell/Organ Therapies

Jon Rowley, jrowley@aastron.com

Biomaterials Education

Howard Winet, hwinet@laoh.ucla.edu

Cardiovascular Biomaterials

Trevor Snyder, snyderta@upmc.edu

Dental/Craniofacial Biomaterials

Yunzhi Yang, yyang19@utm.edu

Drug Delivery

Mark E. Byrne, byrneme@eng.auburn.edu

Implant Pathology

Michelle A. Tucci, mtucci@orthopedics.umsmc.edu

Ophthalmologic Biomaterials

Margaret W. Kayo, m.kayo@biosensors.com

Orthopedic Biomaterials

Rui L. Reis, rgreis@dep.uminho.pt

Proteins & Cells at Interfaces

Christopher A. Siedlecki, csiedlecki@psu.edu

Surface Characterization & Modification

Erika Johnston, erika.johnston@genzyme.com

Tissue Engineered Products

Laura J. Suggs, laura.suggs@mail.utexas.edu



Features

7 Technology Foolishness May Help You Become Creative and Cross-Disciplinary

A little bit of “technology foolishness” can encourage researchers, especially the future ones, to become cross-disciplinary and be creative.

8 Society Officer Nominees

The Society For Biomaterials introduces the 2007-2008 slate of nominees for President-Elect, Secretary-Treasurer-Elect, and Member-at-Large. Voting members are urged to cast their ballots for the candidates of their choice.

10 Long Range Planning for the Society For Biomaterials: Work in Progress

A summary from the Long Range Planning Committee providing recommendations to the Board of Directors and Council for implementation of integrating standing committees.



The 2007 SFB Annual Meeting is in Chicago.

Departments

The Torch

- 2 From the Editor
- 3 From the President
- 3 Update from Headquarters

Chapter News

- 4 Branding the Society For Biomaterials
- 5 Members in the News
- 5 Membership Committee Update
- 6 There is Value in Student Membership
- 7 A Win: Win - Making Reservations at the Meeting Hotel

Book Review

- 12 Bone Grafts and Bone Graft Substitutes
- 12 Annual Book of ASTM Standards 2006. Section Thirteen, Medical Devices and Services

Industry News

- 26 BioInk

Biomaterials Community

- 28 Community Calendar



Walking through the technical exhibition halls at conferences, I am always curious to determine the hall composition – for example, the number of displays from academia or industry. Ignoring the effects of market-driven advertising, one could naively extrapolate the number of industrial booths to the attention of society members to endpoint application. At

one recent meeting of a well-known academic professional society I noted that the large portion of booths was devoted to publishing companies and academic institutions, while very few were industrial vendors. The number of industrially relevant papers presented at the conference reflected this point. This realization led me to ponder our SFB vision and the correlation with conference composition. As we wrestle to inject creativity into our discipline with the goal of “global competitiveness,” I wonder how many opportunities are lost by not having a sustained level of industrial and clinical participation and recognition in all of our Society – i.e., in leadership, in the awards venue, in program planning, in the Special Interest Groups, in educational programs, and so forth.

My simplified view of our interdisciplinary world is that innovation is the result of seamlessly weaving expertise with creativity. I believe innovation is often incorrectly simplified to equate creativity; to avoid this pitfall we must inject creativity into our technical teams through cross training, and SFB is an excellent forum in which to do so. Unraveling the complexities of cellular processes, for example, requires a team

that is “beyond” multidisciplinary, that is, a team that includes new perspectives that push subject matter experts to synthesize new questions and approaches. The article by Zhang, “Think Cross Disciplinary,” in the last issue of the *Forum* highlighted the funding trends and financial reasons why one might be attracted to multi-disciplinary research. There is, however, a fundamental reason beyond increased funding. Simply put — innovation lies at the boundary of disciplines. We are denying our field new ideas if we do not seek to participate in forums outside our discipline. Does this mean desert our own discipline in search of creativity? Absolutely not. While waiting in an airport for a flight, I was struck by a quote (printed on a coffee cup!) by a jazz musician. The words were, quite simply: “In my career I’ve found that ‘thinking outside the box’ works better if I know what’s ‘inside the box.’” How true...creativity without expertise might be likened to owning a car but no map (and no global positioning system!). Similarly, core expertise without creativity is simply knowledge with defined and predictable direction – i.e., an amusement park car guided by a rail.

As we move into the new year, we should again consider how to incorporate more individuals into our Society that will better reflect the diversity needed to solve complicated medical problems and we should seek opportunities to introduce biomaterials to new or different technical forums.

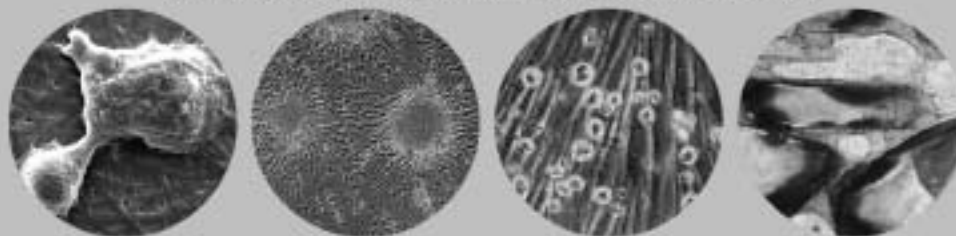
All the best for 2007!

Karen J.L. Burg
Hunter Endowed Chair & Professor of Bioengineering
Clemson University

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From the President

The Torch

By C. Mauli Agrawal



I am writing this column sitting on a plane on the way back home from Chicago after attending the planning meeting for SFB's 2007 annual meeting. We had a record high 874 abstracts submitted this year! Having been involved with organizing the annual meeting multiple times during the past decade, it is interesting for me to see how the content of the meeting is gradually changing – from characterization of metals, hydroxyapatite, and wear of polyethylene to tissue engineering, protein interactions and nanomaterials. The 2007 meeting will

be a testimony to this shift. The content looks very exciting and has a strong international flavor. I hope that you are already making plans to attend!

As we welcome the New Year, we should reflect on a very important privilege we have as members of SFB – the right to vote and select our leadership. In the past few years, only a small portion of our membership has cast votes for selecting our elected officers. I urge you to be more involved this year and be sure to vote in the upcoming elections. After all, the leadership you elect plays a significant role in determining the kind of society we have.

Staff Update From Headquarters

The Torch

By Dan Lemyre, Executive Director

Greetings from the new Executive Director! Though this is the 14th "Staff Update" I have written for the *Biomaterials Forum*, it is my first as SFB's Executive Director!

Please indulge me while I provide an overview of my experience to those with whom I am not yet acquainted. I was promoted from the Assistant Executive Director position (effective January 1, 2007). I bring more than eight years non-profit association management experience to SFB. During my three-and-a-half years as Assistant Executive Director, I have had an opportunity to meet many members and work with the volunteer leadership. Before joining Association Headquarters in 2003 to work specifically for the Society For Biomaterials, I was the Assistant Executive Director of the American Headache Society, a 501(c)3 volunteer organization with many of the same challenges facing SFB. Prior to that, I spent eight years in business-to-business, consumer and pharmaceutical advertising.

The Society's new Assistant Executive Director is Kathy Miranda. Kathy comes to Association Headquarters with more than eight years experience in marketing and publishing for medical associations throughout the U.S. The societies that Kathy has worked with include the American Association of Neurological Surgeons, the American Association of Critical-Care Nurses and the Cardiovascular Research Foundation, among others. Kathy's previous experience included marketing these societies at expositions and developing membership marketing materials. Kathy also has experience in production of several types of publications, including journals and convention dailies working with advertisers, editors and printing companies. I'm sure her expertise will be put to good use for the Society!

I am extremely excited about the road that lies ahead for SFB! As you can see from the articles in this issue, there are several important initiatives that will be blossoming in 2007, largely coming to fruition as the result of implementing the strategic plan that has been carefully developed by the Board and Council during the last year and a half. Integrating the Special Interest Groups further into all aspects of Society operations will take great advantage of the diversity in SFB's membership, and will provide an exponential return on investment in terms of SFB's impact on the international biomaterials research community. The branding activities planned for 2007 promise to help cast a new light on the Society, which will allow SFB to grow in new directions. Opportunities for collaboration with other societies and for-profit corporations seem limitless, and the science in this field advances daily. Truly, SFB is faced with great opportunities!

I am thrilled to work with such a passionate group of leaders and members who share a genuine affection for their Society! I would like to sincerely thank SFB's current Board of Directors for granting me this opportunity.

I look forward to serving the Society to the best of my abilities. I am committed to transparency in Society operations, and I adhere to a strict code of personal ethics.

I encourage you to contact me to discuss your views of the Society, and I welcome suggestions for improved membership services.

Sincerely,

Dan Lemyre
Executive Director

Branding the Society For Biomaterials

SFB's branding task force is one of several task forces initiated as a result of the Society's Strategic Planning Retreat, held November 11-12, 2005. In the spring of 2006, we (Meyer, Niederauer, Widenhouse, and Lemyre) were appointed to the task force and presented with a purpose and goals developed by SFB's Long Range Planning Committee. Other SFB members have been, and will be, approached for their views on the task force's mission and on SFB's profile—as they see it now, and as they would like to see it. The remainder of this article is taken directly from the recent Branding task force report to the Long Range Planning Committee.

The 2005-2006 SFB Long Range Planning Committee enunciated the branding task force purpose as this:

“Define the SFB's unique position in the environment (its “selling proposition”) and develop a brand that reflects it and [that] will provide a consistent and pervasive image/message of the mission, values, and benefits of membership in and/or partnership with the Society.”

The task force is clear, and we all must understand, that branding is much, much more than a logo or a tag line or marketing campaign. Branding encompasses the core of the organization's ethics and mission; it must permeate everything that the organization does and communicates. It cannot be changed lightly. Once established, it probably cannot be changed at all, except with unassailable justification and extreme effort.

There are many useful resources to assist with understanding the branding process. In particular, this resource is highly recommended: *Before the Brand*, by A. Perry and D. Winsom (2003, McGraw Hill, publisher). Please pay particular attention to the word “before.” The authors, for instance, differentiate between “positional tag lines” (which identify what the brand is about) from “promotional tag lines” (short-lived phrases that are used for a specific campaign). The branding task force should maintain a focus on the former.

In our view, SFB's strategic planning activity must aim to re-evaluate the Society's positioning in the science, engineering, education, and professional development universe; e.g. “SFB is a _____ that provides _____ to _____.” In the words of *Before the Brand*,

Brand relativity = relevance + personification + assets (promised and delivered) + differentiation

Only when we can define SFB's attributes in these four



categories, as those attributes are perceived by SFB's different target audiences, will we be ready to make significant progress on positioning and branding. As noted below, we have made a start.

Summary of Input from Task Force Members and other SFB Members

The branding task force agrees that SFB's greatest strength may, in its current positioning, be SFB's greatest weakness: our diversity in membership and areas of materials applications. As Abraham Lincoln is reported to have said, by paraphrasing P.T. Barnum,

“You can please some of the people all of the time, all of the people some of the time, but not all of the people all of the time.”

With SFB's main, “big-top” event of the year, it is perceived that there is little depth or excitement [read “new stuff”] in many of the specialty areas addressed by the program. Yet, many firmly believe that it is precisely SFB's diversity that makes membership and participation worthwhile. Clearly, membership and participation must extend beyond the annual meeting, and a large fraction of SFB's strategic plan must address non-annual meeting ways for our different audiences to be... frankly, seduced into participating and then, satisfied by the experience to the extent that they come back for more.

Continued on page 27

Membership Committee Update

Chapter News

By Margaret Kayo

This has been an active year for the Membership Committee. To date, the 2006-2007 Membership Committee has worked with headquarters staff to develop a membership recruitment and retention plan for presentation to the Board and Council, as well as created proposals for a membership referral program with incentives and a one-year associate membership with paid non-member registration pilot program. Additionally, the Membership Committee has focused on improving SFB's visibility, creating more member value, and improving the look and branding of the member e-mail blasts. Furthermore, the Committee has voted unanimously to approve the Council suggestion to bestow honorary membership on SFB's Past Presidents from the last 25 or more years.

A marketing plan for the Society, including a detailed membership analysis, ideas for increasing the value of SFB membership, and a plan to arrest membership attrition has been developed. Some of the ideas included increasing the

number of SFB conferences and events per year, identifying new target markets, and exhibiting at other society's meetings to increase our visibility.

Member Referral Program

This proposal seeks to reward members who recruit new/lapsed members based on an incentive program. Membership sponsors who recruit the most Active and Associate members would have an opportunity to win biomaterials related textbooks, amazon.com gift certificates, and SFB meeting registrations.

Combined Associate Membership and Non-Member Meeting Registration Pilot Program

This pilot program offers the first 25 non-member annual meeting registrants a trial membership with subscription to "try on" the society. We hope this becomes a vehicle to increasing the visibility of JBMR as well as utilizing one of SFB's most valued assets, the annual meeting.

Members in the News

Chapter News

From Press Release

Congratulations and thank you to Dr. Lynne Jones, who was invited and served as the Guest Editor for the December issue of the *Journal of Histotechnology*, the journal of the National Society for Histotechnology (NSH). Several SFB members also deserve thanks for their contributions to this issue. The focus of the December issue was "histological assessment of tissue response to biomedical devices." This exercise was an excellent means of introducing NSH members to SFB (see www.nsh.org for your introduction to NSH).

Congratulations To:

Professor Nicholas Peppas of the University of Texas at Austin who is the recipient of the 2006 William H. Walker Award for Excellence in Contributions to Chemical Engineering Literature. This award is the highest honor given by the American Institute of Chemical Engineers. His citation reads "for seminal scientific and educational contributions to bionanotechnology, biomolecular sciences and engineering, for nanoscale analysis of polymers and biomaterials, and for providing profound insight into numerous engineering processes and applications that led to analysis, design and development of new biomaterials, drug delivery systems and medical devices."

In addition, Nicholas is the co-recipient of the 2006 James E. Bailey Award for Outstanding Contributions to the Field of Biological Engineering. This award is given by the Society of Biological Engineering and the AIChE in memory of Professor Jay Bailey. The award was presented for Nicholas' great impact on bioengineering. Both awards were presented to Dr. Peppas at the Annual AIChE Meeting in San Francisco in November.

Dr. Bill Wagner, Professor of Chemical Engineering and Surgery at the University of Pittsburgh and at the McGowan Institute of Regenerative Medicine, who was selected as one of the 50 leading scientists in 2006 by *Scientific American*. Bill is recognized for his pioneering work on biodegradable scaffolds for tissue engineering. According to *Scientific American* Editor-In-Chief John Rennie, "The *Scientific American* 50 pays tribute to individuals and organizations who, through their efforts in research, business and policy-making, are driving advances in science and technology that lay the groundwork for a better future. Not only does our list honor these prime movers – it shines a spotlight on the critical fields that are benefiting from their achievements."

There is Value in Student Membership

It may sound coy, but student members are important to the future of the Society For Biomaterials. Frequently, we are asked by both student and active members, “What do we get for our membership fee and for our meeting registration?” The answer is surprisingly similar for both types of members.

As with other types of memberships, student dues vary according to location of the individual (U.S. domestic, Canada, international) and whether they select the dues with the journal (print or online) or not. In fact, the student membership is the only membership category that allows the individual to opt out of the journal. This enables us to offer a student membership at the low price of \$30—quite a value!

Why join? For students at academic institutions that have chapters—it is a condition of chapter membership. Obviously, the more active the chapter, the more benefit to the student. Local chapters have guest speakers, perform community services, and provide for interaction between students and faculty. If you don’t currently have a student chapter at your college or university, the process is fairly straightforward (visit www.biomaterials.org for details). But there is value even if you don’t have a student chapter at your institution. Just like Active and Associate Members, you have access to the following:

- Opportunities to network. This includes:
 - Access to our members listing - 24-Hour member access for Society For Biomaterials members to find other members through the online membership directory in a password-protected members-only section.
 - Focused networking through participation in Special Interest Groups. SIG membership is currently free to students.
 - Interaction with members through participation on committees. Student involvement on committees is encouraged.
- SFB’s Career Services:
 - Online: Biomat Careers (www.biomaterials.org) - search for jobs and post resumes.
 - In Person: The Society’s second Career Fair will be held at the 2007 Annual Meeting in Chicago.
- A Voice in Washington, D.C. - The SFB has several members representing us in leadership positions at the American Institute for Medical and Biological Engineering (AIMBE).
- A free Subscription to *Biomaterials Forum*, the official newsletter of the Society. Student participation is not only promoted, but students are also encouraged to submit articles.
- Discounts on various biomaterials-related journals and publications through the SFB Book Store.
- Professional recognition through various prestigious Society awards (SFB Student Award for Outstanding Research; the STARS awards).
- Society For Biomaterials Platinum Plus® MasterCard® credit card.



Meeting Registration is significantly lower for an individual with student status as compared with Active members and non-members – and it’s even lower if you are a student member. So where does your money go? It goes towards:

- Program expenses
- Meeting expenses (including selected social events)
- A workshop designed specifically with the student in mind. This year, the topic is *Carry the Torch: Understanding Typology, Leadership and Communication Styles to Become a Dynamic and Effective Leader in the Field of Biomaterials*
- Access to Technology and Training Forums
- Access to Student Career Fair

The “student workshop” is organized primarily by student members and promises to be particularly exciting this year. While the workshop is designed for student members, it is also very appropriate for young professionals already in the workplace. Leaders from large and small industry, academia, and government will interface directly with workshop participants in active learning exercises. Although very few large professional organizations would allocate the time and expense of such a non-revenue generating workshop at each annual meeting, the SFB has consistently demonstrated its commitment to nurturing the development of student members and young professionals! Other topics in the past have included: “Corporate Image and Career Development,” “Leadership Forum,” “Presenting Yourself and Your Research,” “Navigating the Biomaterials Career,” “What Fits you Best – Academia or Industry – and How do You Get There?”

The leadership of the SFB takes all dues and meeting registration fees seriously – we are your trustees. We understand the importance of providing ‘value’ to our members. We will continue to explore and develop more programs for all members. But, rest assured, the students will continue to be an important part of our going forward and carrying the torch.

Making Reservations at the Meeting Hotel

Every year when you register for the annual meeting, you also receive information about making reservations at the meeting hotel. This year is no different. The Society For Biomaterials has reserved a block of rooms at the Sheraton Chicago Hotel and Towers. As always, the hotel is a quality facility that should satisfy the needs of most of the meeting attendees.

Why stay at the meeting hotel?

There are the obvious reasons: nice hotel, great location, proximity to the meeting and its associated events, and the negotiated reduced rate. But perhaps you do not realize that you will also be supporting the Society For Biomaterials financially. The SFB management staff has negotiated with the Sheraton so that SFB will receive complimentary rooms that

can be used towards the Society's guest speakers and other invited guests, free use of conference rooms and selected facilities, and discounts on audiovisual services. The requirements for this benefit include that the rooms must be reserved as part of the Guest accommodation block, must be reserved by March 26, 2007, and must meet 85 percent of the total number of room nights negotiated. In addition, if the 85 percent threshold is met, the Society will receive a commission on all room nights booked for the Annual Meeting.

So please make your hotel reservations for the upcoming meeting in the near future. We ask that you consider making them at the Sheraton Chicago Hotel and Towers. And remember, you will be supporting the SFB when you do.

Technology Foolishness May Help You Become Creative and Cross-Disciplinary

Feature

By Guigen Zhang, Education Editor

After reporting on cross-disciplinary education and research in the previous issues of *Biomaterials Forum*, I started to wonder how we can encourage researchers, especially the future ones, to become cross-disciplinary and be creative. It turns out that we need a little bit of "technology foolishness."

You may be thinking, "Foolishness: haven't we had enough of that already?" Yes, indeed. This "foolishness" idea struck me during a recent Bio-Design conference in Atlanta when Professor Bob Nerem of Georgia Tech used some of Charles Dickens' words in his concluding slide to summarize the current state of the field of tissue engineering: "It was the best of times, it was the worst of times; It was the age of wisdom, it was the age of foolishness..." I was intrigued by the link between the word "foolishness" and the interdisciplinary field of tissue engineering.

Eureka! People who were responsible for the establishment of this novel and cross-disciplinary field of tissue engineering must possess such a trait of foolishness. According to James March of Stanford University, a certain amount of "technology foolishness" is necessary to make you creative and cross-disciplinary. Using the scenario we are familiar with,

"All you have to do is be technologically foolish enough to wander into fields you are unfamiliar with. You may steal a thing or two from them that can aid you in reaching your 'Eureka' moment."

technology foolishness refers to stealing ideas from one field and applying them to another with a certain degree of twisting and straining. "Someone in economics, for example, may borrow ideas from evolutionary biology, imagining that the ideas might be relevant to evolutionary economics. This kind of cross-disciplinary stealing can be very rich and productive," March says. March also warned that foolishness can push you to be very creative, but uselessly creative. "The chance that someone who knows no physics will be usefully creative in physics must be so close to zero as to be indistinguishable from it." But applying some borrowed ideas from a domain you

barely know to a field you know well may lead to breakthrough developments. As March succinctly put it, "big jumps are likely to come in the form of foolishness that, against all odds, turns out to be valuable."

Got the idea? All you have to do is be technologically foolish enough to wander into fields you are unfamiliar with. You may steal a thing or two from them that can aid you in reaching your 'Eureka' moment. But consider yourself warned—you need to find that delicate balance between "how much foolishness is good for knowledge and how much knowledge is good for foolishness."

2007 Officer Nominees

The task of selecting the slate of Officer Nominees for 2007 has been completed. Following are the nominees for President-Elect, Secretary-Treasurer-Elect and Member-at-Large. The Society encourages all members to cast their vote for the candidate of their choice. Ballots are available on the Society's web site.

Following are brief descriptions of the responsibilities of each position, along with a description of the nominees' biographical background and their Society experience. Each nominee has also developed a vision statement for the Society that they would work to achieve should they be elected.

President-Elect

The President-Elect shall become familiar with the duties of the President and shall at all times cooperate and assist with the duties of that office. In the absence of the President, the President-Elect shall preside at the meetings of the Society, the Council and the Board of Directors, and perform the duties and exercise the powers of President. The term of office is for a period of one year without succession. The President-Elect is the chairperson of the Long Range Planning Committee.

Nominees for President-Elect



Jeffrey Hubbell, PhD

Jeffrey is Professor at the Ecole Polytechnique Fédérale de Lausanne (EPFL), Switzerland, where he is Director of the Institute of Bioengineering and also a member of the Institute of Chemical Sciences and Engineering. He holds a PhD in Chemical Engineering from Rice

University. He held positions of Assistant and Associate Professor of Chemical Engineering at the University of Texas in Austin, of Professor of Chemical Engineering at the California Institute of Technology, and of Professor of Materials Science at the Swiss Federal Institute of Technology Zurich (ETHZ). Jeff has been active in the Society For Biomaterials since the beginning of his career and won the Clemson Award for Applied Biomaterials Research in 1996. He is also active in the European Society for Biomaterials (where he won the George Winter Award in 2006), the Biomedical Engineering Society, the Tissue Engineering and Regenerative Medicine International Society, and the American Institute of Chemical Engineers, among others. He is Associate Editor of the Journal of Biomaterials Science Polymer Edition, Associate Editor of Biotechnology and Bioengineering, and Executive Editor of Advanced Drug Delivery Reviews, in addition to serving on the editorial boards of the Journal of Biomedical Materials Research and Acta Biomaterialia, among others. Jeff's research is in biomaterials for tissue engineering, drug delivery, gene delivery, and immunotherapy, doing work that spans from design and synthesis of novel bioactive molecules and materials to driving those materials into clinical studies in veterinary and human medicine.

Vision Statement

The Society For Biomaterials plays a key role as a world leader in promoting research and education in biomaterials-related science, engineering and medicine. To maintain this position, the Society must have ever-improving programming at its annual meeting. This is a challenging task, since programming must include fundamental materials science, basic cell and developmental biology, application of these fundamentals to biomaterials science and engineering, and of course translation of this knowledge and technology to the practice of diagnostics, medicine and surgery. The role played by the Society For Biomaterials is unique among related societies in materials science and tissue engineering, in that its

Continued on page 24



Lynne Jones, PhD

Lynne is an Associate Professor in the Department of Orthopaedic Surgery with a joint appointment in the Department of Materials Science and Engineering at the Johns Hopkins University. She received her BS from Ursinus College (Collegeville, Pa.), MS from Towson State University (Towson, Md.), and PhD from Johns Hopkins University (Baltimore, Md). She is the Director of the Center for Osteonecrosis Research and Education, Technical Director of the Arthritis Surgery Bone Bank, and Laboratory Manager and Director of the Clinical Research Group of JHU Orthopaedics at Good Samaritan Hospital. She is a board member of ARCO International and the National Osteonecrosis Foundation. Lynne also volunteers as a Sunday School teacher, coach (basketball, lacrosse), and team manager (lacrosse club).

Lynne became a member of the SFB in 1985. She has served the SFB as the elected SIG Representative to Council (2000-2002), Assistant Program Chair (2002), Program Chair (2003), and member of several committees (Finance; Awards, Ceremonies and Nominations; Meetings; Program; Long-Range Planning). She has organized many tutorials, workshops, and sessions. As Secretary-Treasurer-Elect (2003-2005) and then Secretary-Treasurer (2005-2007), she worked to standardize procedures concerning the budget and the financial management of the Society. Other accomplishments include the establishment of an investment policy; creation of the STAR awards; negotiation for scholarships; and identification and review of new revenue streams.

Vision Statement

One of the strengths of this Society is its diversity in its membership. I remember attending a meeting in the early 80s and being amazed by the interconnectivity of the different medical disciplines and how researchers in academia, industry, and government were all brought together under one roof for one common purpose – biomaterials. We need to build on this strength.

As President, I would like to implement many of the ideas that have come out of the Strategic Planning sessions and follow through with many of the programs that were initiated while I served as Secretary-Treasurer. With my experiences as SIG Representative, Secretary-Treasurer and Program Chair, I have

Continued on page 24

Secretary-Treasurer-Elect

The Secretary-Treasurer-Elect shall become familiar with the duties of the Secretary-Treasurer, shall cooperate and assist in carrying out the duties, and shall prepare for eventual succession to that office. In the temporary absence of the Secretary-Treasurer, the Secretary-Treasurer-Elect will perform the duties and exercise the duties of the office. The term of office shall be for a period of two years without succession. The Secretary-Treasurer-Elect shall be the chairperson of the Finance Committee.

Nominees for Secretary-Treasurer-Elect



Erika Johnston, PhD

Erika is a Sr. Scientist at Genzyme Corp. in the Drug and Biomaterial R&D Division. She joined Genzyme in 1999 following post-doc appointments at the Naval Research Lab in Washington, D.C. She earned her PhD in Chemical Engineering from the University of

Washington, where her studies focused on bacteria-resistant, plasma-deposited PEG-like films. At Genzyme, she has been awarded two Vice-President awards for developing surface modification and drug delivery platforms and for implementing ISO compliant laboratory practices. At present, she is coordinating capital asset outlays and acquisitions during the move of several Genzyme labs.

Erika has served as Surface Modification and Characterization SIG chair since being appointed interim chair at the 2003 SFB Annual Meeting. Since then, the SIG has worked to expand membership, promote student recognition, improve the quality of surface science presented at SFB surface-related sessions, and educate the broader membership and the medical device

Continued on page 24



Antonios Mikos, PhD

Antonios is the J.W. Cox Professor of Bioengineering and Professor of Chemical and Biomolecular Engineering at Rice University. He received his Dipl.Eng. (1983) from the Aristotle University of Thessaloniki, Greece, and his PhD (1988) in Chemical Engineering from Purdue

University under the direction of Professor Nicholas A. Peppas. He was a postdoctoral researcher at the Massachusetts Institute of Technology and the Harvard Medical School working with Professors Robert Langer and Joseph Vacanti before joining the Rice faculty in 1992 as an Assistant Professor.

Antonios' research focuses on the synthesis, processing, and evaluation of new biomaterials for use as scaffolds for tissue engineering, as carriers for controlled drug delivery, and as non-viral vectors for gene therapy. His work has led to the development of novel orthopaedic, cardiovascular, neurologic, and ophthalmologic biomaterials. He is the author of more than 310 publications and 22 patents. He is the editor of 9 books and the author of one textbook.

Continued on page 24

Member-at-Large

The Member-at-Large shall serve as an unencumbered representative of the membership at meetings of both the Board of Directors and Council. The Member-at-Large shall serve for a period of one year.

Nominees for Member-at-Large



Julia Babensee, PhD

Julia is an Associate Professor in the Wallace H. Coulter Department of Biomedical Engineering at the

Georgia Institute of Technology and Emory University in Atlanta, Ga. She is affiliated with the Petit Institute for Bioengineering and Bioscience and the Georgia Tech/Emory Center for the Engineering of Living Tissue. Julia's research program is in the area of engineering of inflammatory and immune responses in the context of biomaterials. Her research program is focused on understanding host responses to combination products. Specifically, she is interested in how biomaterials affect antigen presenting cells, particularly dendritic cells, to affect their ability to stimulate an immune response

Continued on page 25



Tim Topoleski, PhD

L.D. Timmie (Tim) is a Professor and Graduate Program Director in the Mechanical Engineering

Department at UMBC (the University of Maryland, Baltimore County). He joined the faculty of UMBC in Fall 1990 as an Assistant Professor after completing his PhD in Bioengineering at the University of Pennsylvania. He also holds undergraduate and graduate degrees from Cornell University. His research interests are in the mechanics of materials for both manufactured implant materials and biological materials. He has published more than 100 papers in journals, book chapters, and proceedings. He received a Coventry Award for Basic Science from the Knee Society, has been awarded both the Outstanding Teaching and

Continued on page 25



Julie Trudel, PhD

Julie is a Principal Scientist with Medtronic Vascular in Santa Rosa, Calif. She joined Medtronic in July 2003, after spending

a few years with Guidant Corp. in Silicon Valley, working on drug-eluting stents. Julie currently manages a small team of scientists and engineers focusing on a next generation vascular therapy product. Julie received a master's degree and a doctorate degree in bioengineering from Clemson University. Prior to graduate school, Julie completed internships with Health Canada and the Quebec Biomaterials Institute, and graduated with a bachelor's degree in mechanical engineering from Université de Sherbrooke in 1995. Julie has served the members of the Society For Biomaterials as Bylaws Chair (1997) and

Continued on page 25

Long Range Planning for the Society For Biomaterials: Work in Progress

Feature

By Long Range Planning Committee

During a planning retreat held November 11-12, 2005, 20 members of the Board, Council, and staff reflected on the mission of the Society and its impact, as well as on its strengths and weaknesses as an organization. Through this internal scan, strategic initiatives have been identified to enable the Society to succeed in the next 10 years or more. From these initiatives, five areas have been selected as priorities. A task force was appointed by the 2005-2006 Board of Directors for each initiative with charge to translate ideas into an action plan. The task forces were asked to submit a report to the Board for review at the end of May 2006. These task forces consisted of:

- Governance Task Force - (Michael Sefton (Chair), Rick Gemeinhart and Tim Topoleski)
- Programmatic Vision Task Force - (Monty Reichert (Chair), Julia Babensee, John Kao)
- Special Interest Group (SIG) Task Force - (Andrés Garcia (Chair), Shelly Sakiyama-Elbert, Lynne Jones, Buddy Ratner)
- Revenue Task Force - (Lynne Jones (Chair), Jim Anderson, Stuart Goodman, Sam Hulbert, Russ Parsons, Nicholas Peppas, Buddy Ratner)
- Branding Task Force - (Anne Meyer (Chair), Gabriele Niederauer, Christopher Widenhouse, Dan Lemyre)

The 2006-2007 Long Range Planning (LRP) Committee has been charged to: review and analyze the task force reports; provide recommendations to the Board of Directors and Council for implementation integrating standing committees; and include a timeline for implementation. The following task force report summary was presented at the Council meeting held in Tempe, Ariz., October 28, 2006. The complete LRP report and task force reports can be found online at www.biomaterials.org, in the "Members Only" section.

GOVERNANCE TASK FORCE

Report Summary

The report submitted by the task force provided an assessment of the existing governance of the Society as well as recommendations to increase the efficiency of the organization. The task force addressed the purpose of Council, leadership accountability, and flexibility. According to the task force, two issues must be solved to assure that the Society is functioning optimally:

- Overlap in duties and mandate of the Board and Council
- Failure to empower committees

The overall conclusion of the report was to increase performance of the governing body by increasing accountability of the committees and Council members. Following its analysis of the existing governance structure, the task force recommended to put in place the following:

- High quality, dedicated committee chairs and committees who are trusted to exercise their duties within budget and mandate

- Clear SOPs that delineate the mandate and processes to be followed by each committee on routine matters
- A management team (e.g. Association Headquarters staff) that has the administrative implementation (including timeliness) and marketing skills that meet SFB's expectations
- Regular communications among all concerned
- Quality control procedures in the event that critical needs are not met
- A process for identifying new initiatives and approving them through the budget and/or after council review

LRP Committee Recommendation for Implementation

The LRP Committee concurred with the task force and endorsed its recommendations. The LRP recommended that priority be given to increasing accountability of standing committees and leadership of the Society. Several actions were proposed to help committees be more responsible. Presidents and presidents-elect should be reminded of the importance of appointing committee members who are committed and dedicated to the success of the Society and are willing to invest the time necessary to lead a functional committee. In order to keep momentum and continuity from year to year, the LRP recommended that committee composition include at least one member from the previous year. Increasing the autonomy of standing committees should only be considered once accountability has been attained and assured.

PROGRAMMATIC VISION

Report Summary

The task force made many good recommendations concerning the annual meeting, focusing on evaluating the current format of the meeting and changes that should be made to increase content quality, interaction and networking desired by the attendees. Many issues identified by the task force were also reported by members in the survey conducted at the last annual meeting. The 2007 Annual Meeting Program Committee has been made aware of these issues and asked to address them in their program development. One recommendation, implemented at the 2006 meeting with success, was the use of more leaders to present symposia – like the President's symposium and the Town Hall.

LRP Committee Recommendation for Implementation

The Society For Biomaterials' annual meeting should remain the annual event that all members look forward to attending and favor for the submission of their work. The LRP recommended that the current development process for the annual meeting be evaluated. This process includes appointment of a Program Chair, "training" of Program Chair and incoming program chair, Program Committee composition, and abstract submission/revision among others. It was also recommended that SIGs, as discussed below, should have a more active role in the Annual Meeting program and format. The LRP recommended that the 2008 fall meeting be used as a venue to experiment with a new programmatic approach.

SPECIAL INTEREST GROUPS

Report Summary

The task force identified many clear arguments why the SIGs should be an intrinsic part of the Society. Current limitations that are preventing the SIGs from fulfilling this role were also addressed. As discussed by the Governance task force with regard to standing committees, the lack of accountability of SIG officers, the overlap in duties and mandate of the SIGs and council, and the failure to empower SIGs, especially related to budget and programmatic issues, are not conducive to efficiency.

The task force recommended to:

- Restructure the SIGs consisting of broad/long-range SIGs and short-range focus groups, or smaller SIGs meeting the needs of members in smaller sectors or growth areas
- Define the expectations for SIGs within the context of the annual meeting and throughout the year
- Define standard operating procedures and evaluation plan for SIGs
- Significantly increase the accountability of SIG officers

The task force also concluded that while SIGs should be given sufficient empowerment to increase membership value, it does not support an “autonomous” model that will lead to fractioning of the Society.

LRP Committee Recommendation for Implementation

The LRP Committee recognized the strong arguments provided by the SIG task force and concurred on increasing accountability, empowerment, and overall integration of SIGs in the affairs of the Society. SIGs have the potential to provide an added value to the Society. However, there are two sets of issues with SIGs (as with standing committees) that must be addressed separately: the structural issues and intellectual issues. If SIGs do not appear to work well, it could be largely attributed to the lack of direction (purpose and role in the Society) and the accountability of some officers (absence of clear operating procedures and motivation). SIG issues parallel those of standing committees. Issues with SIGs will not be resolved by only restructuring existing SIGs. It will require that SIG members recognize the benefits of SIG membership, and be given an opportunity to assess the SIG plan initiated 10 years ago. The LRP recommended that a Town Hall Meeting be held at the annual meeting in Chicago, moderated by a group of current and past active SIG leaders, to give members the opportunity to discuss these issues. SIGs have a lot more to offer than helping with program development for the annual meeting, which is the current perception. SIGs carry the intellectual torch of the Society.

The LRP strongly recommended that an honest attempt be made to provide structure to the SIGs with clear expectations, operating procedures, and defined roles within the Society. Additionally, it is recommended that SIGs have a plan of action formalized annually by their newly elected leadership for targeted areas of responsibility. Once the structure issue is addressed, then the intellectual issue as proposed by the task force (reorganization) can be evaluated to assure that the Society remains in touch with the intellectual needs of its members and the field.

REVENUE

Report Summary

Current sources of revenue for the Society are mainly short-term and do not provide for effective long-term planning. Annually, the Society depends largely on revenue generated by the Annual Meeting to meet ends. Administrative costs are increasing yearly. The task force addresses thoroughly different avenues for increasing revenue for both short- and long-term. Major sources of revenue have been identified by the task force, including services, website, mailing list rental, events, grants, and donor programs.

LRP Committee Recommendation for Implementation

The committee recommended to complete the branding process before any marketing campaign be launched (who are we and what are we selling?). A Financial Strategic Plan should also be developed identifying projects that can be used to raise money. The goals of the Finance Committee are in line with this recommendation. Also, both the Membership and Meeting Committees should be involved in revenue planning. Action plans for these committees must be coordinated to avoid duplication.

Once branding is complete, a comprehensive campaign combining planned gifts and an endowment would be beneficial for long-term planning. It would decrease financial concerns associated with World Congress years, and with more resources available to members and programs that they can clearly benefit from, an increase in membership will consequently follow. An endowment would help build long-term strength and assure opportunities for innovative programs that meet needs not yet imagined.

BRANDING

Report Summary

The task force provided an in-depth analysis of what is needed for the Society to effectively define its brand reflecting on 1) an overview of how branding should be addressed, 2) the purpose of, and need for, branding for the SFB, and 3) an assessment of the SFB as an essential step in the branding process. Many issues regarding branding have been identified by the task force. The task force clearly pointed out that branding is more than a logo, tag line, or material for a marketing campaign. In fact, branding is less about marketing, advertising, and public relations and more about good leadership, appropriate and ethical behavior, and an organization's commitment and ability to fulfill the promise its brand represents. The SFB brand reflects everything associated with the organization, including, but not limited to, leadership, staff, core values, mission, programs, services, “what is the SFB all about?”

The assessment of the SFB by the task force focused on answering the following questions: What does SFB do that keeps us interested? What does SFB do that weakens the profile? What would we like to see SFB do in the future? The Branding task force's full report is discussed thoroughly on page 27 of this issue of the Forum, “Branding the Society For Biomaterials.”

LRP Committee Recommendation for Implementation

The major recommendation made by the LRP Committee was to keep the Branding task force, led by Dr. Anne Meyer, as a formal advisory group to the Society and facilitator. Members

Continued on page 26

Bone Grafts and Bone Graft Substitutes

Edited by GE Friedlaender, HJ Mankin, VM Goldberg

Copyright 2006, American Academy of Orthopaedic Surgeons, 90 pages. Paperback: \$50.

Description

This monograph concisely summarizes the preclinical and clinical findings to date on bone grafts and bone graft substitutes including their uses as carriers for osteogenic molecules. It's a thin book, similar to a journal in weight; however, it is packed full with the essentials of bone grafts and bone graft substitutes. The information is readily accessible and very good for the reader just becoming aware of this field or for the clinician seeking to understand new options for his or her patients. SFB members may recall that two other bone graft substitute books have been reviewed in this column: Bone Graft Substitutes by CT Laurencin (2003), and Bone Grafts, Derivatives and Substitutes by MR Urist, BT O'Connor and RG Burwell (1994). The textbook by CT Laurencin is still probably a better option for most researchers since it includes tissue engineering approaches, expanded coverage of synthetic bone substitutes, and regulatory issues as well.

Technical Highlights

Graft-host interfaces must be stable and in tight apposition for successful healing. Calcium sulfates chemically dissolve, while calcium phosphates resorb via osteoclastic activity. Bone marrow aspirates provide a means of enhancing the population of osteoprogenitor cells that are often sparse in elderly patients. TGF- β stimulates undifferentiated mesenchymal cell proliferation, and BMP promotes differentiation.

Audience

This book is aimed at clinicians (orthopaedists or prosthodontists, oral and maxillofacial surgeons) or researchers involved in preclinical animal studies involving bone repair/reconstruction. Potential readers include clinicians, residents, researchers, fellows, and graduate students. This book would make a valuable addition to hospital libraries, and medical and dental school libraries.

Contents

- Preface
- 1. Biology of Bone Grafts
- 2. Demineralized Bone Matrix and Synthetic Bone Graft Substitutes
- 3. The Role of Bone Morphogenetic Proteins in Skeletal Repair
- 4. Bone Marrow and Bone Marrow Products as Osteogenic Aids for Bone Repair
- 5. Massive Allograft Transplantation Following Tumor Resection
- 6. Spinal Fusion and the Role of Bone Grafts and Substitutes
- 7. The Use of Allograft in Adult Hip and Knee Reconstruction
- 8. Novel Bone Repair Options in the 21st Century
- 9. Bone Graft Decision Making
- Index



Annual Book of ASTM Standards 2006. Section Thirteen, Medical Devices and Services.

American Society of Testing and Materials (ASTM) International. Revisions issued annually. \$238 or free with ASTM membership (\$75). This is not a typo. It really does pay to join.

Description

There is an excellent resource for testing and evaluation of biomaterials that all SFB should know about: The American Society of Testing and Materials (ASTM). For starters, all of the essential biocompatibility tests necessary to complete before beginning implantation studies of a new biomaterial can be found in this volume, including in vitro cytotoxicity, short-term and long-term in vivo implantation studies. There are standards for ceramic materials, metals, polymers and composites that specify materials characteristics and test methods required to confirm identity and purity. Standards specific to tissue engineering have also been published since 2000. The standards provide procedures and guidance on preparation of materials and cells for tissue engineering medical products. Characterization of collagen, automated methods for enumerating and sizing single cell suspensions, immobilization of cells within alginate gels, in vivo assessment of devices intended to repair or regenerate articular cartilage – these are some of the titles of the standards found in this volume that are relevant to tissue engineering research. The FDA strongly encouraged the ASTM to pursue this tissue engineering activity to assist them with reviewing new product applications that are typically combinations of drugs, biologics, and devices. The ASTM standards provide structured language or terminology and standardized characterization methods so that new materials and tissue engineered medical products can be compared to each other.

Currently the Biomaterials and Biomolecules Committee (F04.42), and the new Committees on Cell Signaling (F04.46) and Nanotechnology (E56) are seeking new members with experience in tissue engineering to assist with standards development. Please join at astm.org. Members receive a free standards volume of their choice, such as Vol. 13.01 described above, and participate by writing or reviewing new standards at bi-annual committee meetings. The author of this article has been a member of ASTM for the past 10 years and her research has definitely benefited from the shared knowledge and networking that occur within ASTM.



Society For Biomaterials
2007 Annual Meeting

Sheraton Chicago Hotel & Towers
April 18-21 • Chicago, Illinois

Program Overview

A Multi-Dimensional, Multi-Disciplinary Approach to Biomaterials Science

The 2007 Annual Meeting of the Society For Biomaterials will explore biomaterials in three dimensions: Nano to Macro Scale, Laboratory to Clinical Applications, and Past to Future. The Symposia, General Sessions, Workshops, Panel Discussions, and Tutorials have been selected and organized with these dimensions in mind. Each of the events in the preliminary outline presented here will explore some aspect of one of these dimensions. By examining biomaterials from these perspectives, attendees will gain a better understanding of the current research and the future directions of this exciting field.

Nano to Macro Scale programs will present new research in BioMEMS and bionanotechnology as well as novel polymers. Laboratory to Clinical Applications programs will examine the latest translational research in tissue engineering, drug delivery, and drug/biomedical device combination products. Past to Future programs will explore 50 years of progress in the field and what needs to be done to achieve even greater clinical success, and examine how to control the biomaterial interface for molecularly communicating devices.

Preliminary Program (Tentative and subject to change)

Keynote Address –
Professor Allan S. Hoffman
Department of Bioengineering
University of Washington

Professor Hoffman studied at M.I.T., where he received B.S., M.S., and Sc.D. degrees in Chemical Engineering between 1953 and 1957. He taught on the faculty of M.I.T. Chemical Engineering Department for a total of ten years. Since 1970 he has been Professor of Bioengineering at the University of Washington in Seattle, Washington. He is also an Affiliate Professor at Shanghai University, Shanghai, China.

He has over 350 publications and is on the editorial advisory boards of six journals, including two American Chemical Society journals (Bioconjugate Chemistry and Biomacromolecules).

Some of his professional activities and awards have included:

- Chairman, Gordon Conference on Biomaterials, 1977
- President, Society for Biomaterials, 1983-1984
- Clemson Award, Society for Biomaterials, 1984
- Biomaterials Science Prize, Japanese Biomaterials Society, 1990



*Event & Transportation Management by In the Loop - Chicago.
Catering by Blue Plate. Photograph by Michael Kardas Photography.*

2007 Bash Reception

The Bash is Back! Join your colleagues at the 2007 Bash Reception being held at The Field Museum, considered one of the finest institutions of its kind in the world and a staple in Chicago's cultural experience. On Friday night, the Society For Biomaterials will take over The Field Museum for an extraordinary evening for you to mix with friends, colleagues, industry leaders, and newcomers. Attendees will have access to a majority of permanent exhibitions, and transportation from the conference hotel is provided. This event is included with meeting registration; however students may choose to opt out for a reduced fee. More information about The Field Museum can be found at: www.fieldmuseum.org

- Board of Governors, Controlled Release Society, 1991-1994
- Founders Award of the Society for Biomaterials, 2000
- Two symposia in honor of his 60th (1992) and 70th (2002) birthdays
- Festschrifts published after each symposium
- Elected to the National Academy of Engineering (USA), 2005
- International Award from Society for Polymer Science, Japan, 2006

Highlights of the 2007 Meeting will include: General Sessions:

A General Session identifies a topic that is familiar to the general membership. Abstracts reflect the most current research in that field.

- Surface Modification and Characterization of Biomaterials
- Cardiovascular Biomaterials SIG
- Implant Pathology SIG and Dental/Craniofacial SIG

- Proteins and Cells at Interfaces SIG
- Polysaccharide-Based Biomaterials
- Ophthalmologic Biomaterials
- Tissue Engineered Products for Clinical Applications
- Urological Tissue Engineering and Biomaterials
- Drug/biomedical Device Combination Products
- Advances in Drug Delivery
- Protein Adsorption on Microdevice
- Biomaterials and Microscale Technologies for Biomedical Applications
- High Throughput Screening Methodologies for Biomaterials
- Orthopaedic SIG: Cell/Tissue Interactions
- Nanoparticles for Imaging and Drug Delivery
- Orthopaedic SIG: Total Joint

- Developing Best Practices in Tissue Engineering Education
- Advances in Biomaterials Science: A Symposium by the Leaders of Biomaterials

Workshops

The workshops will provide an in-depth educational experience on topics relating to biomaterials with a significant amount of time dedicated to discussion and questions and answers. Each workshop requires separate registration, the fees for which are detailed on the registration form.

- Recent Developments in Rapid Prototyping of Biomaterials
- Carry the Torch: Understanding Typology, Leadership and Communication Styles to Become a Dynamic and Effective Leader in the Field of Biomaterials
- Spine Pain: Origins and Treatment Strategies

Symposia

A Symposium is designed to focus attention on a specific topic within the large disciplines that make up the Society's membership. The symposium highlights a well-defined topic that is not addressed by the regular sessions of the annual meeting. The format includes a single lead speaker followed by related abstracts. The lead speaker either presents the current concepts of the topic or presents cutting-edge research within the area.

- Controlled Interactions of Proteins and Peptides with Biomaterial Surfaces
- Toll-like Receptor Interaction with Biomaterial Implants
- Cell Function on Biomaterial Gradients and Arrays
- Biomaterial-based Bridges for Neural Regeneration
- Translational Research in Nanomedicine: It Is Happening Now
- Biological Modification of Cardiovascular Biomaterials for Medical Devices: Translation from the Laboratory to the Clinic
- Regenerative Medicine and Clinical Translation
- Surface Modification and Characterization of Orthopaedic and Dental Implants at the Nano/Micro Scale for Improved Osseointegration
- Self-assembling Biomaterials
- Nano and Microparticulate Drug Delivery
- Biomimetics and Nanoscience: Advances in Protein/peptide-based Biomaterials


Recent Developments in Rapid Prototyping of Biomaterials

Direct writing technologies, including microcontact printing, fused deposition modeling, selective laser sintering, inkjetting, and laser direct writing, involve layer-by-layer growth of three-dimensional structures. These technologies have traditionally been used in the microelectronics, defense, and automotive industries. More recently, direct writing technologies have been used to process cells and materials for use in medicine and dentistry. This workshop will review recent developments in rapid prototyping technologies for fabrication of tissue substitutes, biosensors, drug delivery devices, and medical instruments. Speakers will discuss various aspects of the rapid prototyping process, including processing of radiographic images, development of computer models, novel direct writing processes, and biocompatible materials for use in direct writing. This symposium aims to create collaboration and discussion among the many groups involved in the development and use of rapid prototyping technologies, including biomaterials engineers, medical scientists, medical device manufacturers, equipment manufacturers, and clinicians.

Carry the Torch: Understanding Typology, Leadership and Communication Styles to Become a Dynamic and Effective Leader in the Field of Biomaterials

Whether preparing for a career in academia or industry, leadership skills are required to succeed in the field of biomaterials. In order to become a leader, it is important to understand the various personality types and communication styles of the people around you, how your own personal traits shape your leadership style and how others see you.

This program will examine the major factors that impact our abilities to lead by evaluating how personality and behavior



affect communication power and how these factors influence your perception in a work environment. The workshop will offer techniques and skills necessary to help recognize and develop effective interpersonal skills, such as motivating others and efficient conflict resolution. Individual and group activities will be used to teach effective ways to cultivate leadership skills and build strong and effective leaders. The three-module workshop sheds light on the preparation necessary to move towards leadership positions and will also serve to assess personal leadership development. Generic leadership, behavioral, and communication concepts will be presented in the first module. The second module will focus on the needs for these skills in industry. In the third module, emphasis will be made on the special considerations of leadership required in both the academic and industry side of the biomaterials field.

Spine Pain: Origins and Treatment Strategies

This workshop is designed in two parts for a full-day program.

Part I: Session I of the workshop will focus on the origin and mechanisms associated with lower back pain, in particular with pain associated with the intervertebral disc. While several recent studies have revealed the presence of nerve fibers in the disc in different regions, there is no conclusive association of patient's pain to a location in the spine. This symposium is aimed at addressing these issues and leading pain researchers and clinicians from the region will participate in lectures as well as an open panel discussion on the topic.

Part II: Session II of the workshop will address different treatment strategies for alleviating disc pain including drug delivery concepts, synthetic and protein-based injectable nucleus replacement strategies, total disc replacement strategies as well as biological strategies such as genetic engineering, and cellular and tissue engineering approaches.

Panel Discussions

Panel Discussions foster open debates on a topic. The invited guests include renowned experts in the area of focus and the chair allows time for open discussion with the audience.

- Biomaterials and Biocompatibility: Theories and Clinical Relevance
- Where Have We Been and Where Are We Going? Traditional Approaches versus Nanotechnologies

Biomaterials and Biocompatibility: Theories & Clinical Relevance

Research work in the area of biomaterials has been marching fast with various new concepts such as biomimetic, stem cells, and nanotechnology. However, in the real world, problems that

existed decades ago continue to exist today; we still do not have fouling-free surface, we still do not have the materials for small diameter vascular grafts, and we still do not have the orthopedic implant materials that can last longer than 10 years.

New concepts may provide insights into old problems, provided that we understand the situations. However, if we ask ourselves how well we understand the old problems, the answer may not be satisfactory. It is necessary to review what the major reasons for device failure are and what prevents us from getting breakthroughs in technology developments. Are they material stability, compatibility, lack of required properties, or lack of nanotechnology? It is also necessary to vision the potentials of both old-fashioned research and the research driven by the new concepts.

Where Have We Been and Where Are We Going? Traditional Approaches versus Nanotechnologies

The purpose of this panel will be to review what we have learned about old problems and to provide visions of the potential "old" and "new" research.

Senior academic experts will review the basics we have learned about the protein adsorption, cell adhesion, calcification, and degradation of the materials as well as why adsorption seems unavoidable. Clinical experts will review main reasons for device failure such as materials failures, calcification, foreign body reaction/ fibrosis encapsulation, infection, as well as others. Experts active in nano-science, self-assembly, and other new areas will provide vision as to what and why these new sciences are promising.

Tutorials

The purpose of a tutorial is to teach attendees about a specific technology or focus area. It may include up to two presenters and time for questions and answers. The invited speakers are selected for their experience in the field, as well as their ability to teach fundamental topics that are of increasing importance to a wide range of biomaterials scientists and engineers. Attendance at the tutorial is included with the general meeting registration. In 2007, the tutorial topics will be:

- Getting to Phase I: Preclinical Studies
- Cellular Signal Transduction

Getting to Phase I: Preclinical Studies

Preclinical studies are those in which a drug, device, combinational or tissue engineered product is tested using in vivo animal models, in vitro model systems, cadaveric specimens, and retrieval analyses of explants. All researchers involved in the field of biomaterials should appreciate the

science, government regulations, and role of these types of projects in evaluating current products as well as in bringing a new drug or device to market.

Cellular Signal Transduction

Responses to implants by cells and tissues are critically dependent on their ability to recognize the chemical and physical structure of the implant material. Moreover, the type and magnitude of a response is modulated by the biomechanical environment. Cellular recognition of materials involves the transduction of signals from outside the cell to inside the cell, which may result in alterations in cell survival, proliferation, differentiation, metabolism, and function. This tutorial addresses the study of genes, molecules, and pathways that transduce signals from materials to cells and tissues. It will focus on state-of-the-art techniques to evaluate signal transduction mechanisms and predict cell responses to biomaterials.

Technology and Training Forums

These Forums will be technically-based educational opportunities hosted by SFB corporate supporters. ■

Tentative Program Schedule

Wednesday, April 18, 2007

7:00 am – 6:30 pm	Registration Open
8:00 am – 12:00 pm	Workshop I: <ul style="list-style-type: none"> Recent Developments in Rapid Prototyping of Biomaterials
8:00 am – 5:00 pm	Workshop II: <ul style="list-style-type: none"> Carry the Torch: Understanding Typology, Leadership and Communication Styles to Become a Dynamic and Effective Leader in the Field of Biomaterials
1:00 pm – 2:30 pm	Technology and Training Forums
3:00 pm – 4:30 pm	Technology and Training Forums
5:00 pm – 7:00 pm	Opening Ceremony
6:15 pm – 7:00 pm	Keynote: <i>Professor Allan S. Hoffman</i> Department of Bioengineering, University of Washington
7:00 pm – 9:30 pm	Opening Reception

Thursday, April 19, 2007

7:00 am – 6:45 pm	Registration Open
7:00 am – 8:00 am	Special Interest Group Meetings
8:00 am – 9:30 am	Plenary Session I Presentations by Society's Awardees
9:30 am – 12:45 pm	Exhibit Hall Open
9:30 am – 9:45 am	Break
9:45 am – 11:45 am	Concurrent Oral Abstract Presentations - Session I <ul style="list-style-type: none"> Surface Modification and Characterization of Biomaterials (General Session) Advances in Drug Delivery I (General Session) Biomaterial-based Bridges for Neural Regeneration (Symposium) Polysaccharide-based Biomaterials I (General Session) Tissue Engineered Products for Clinical Applications I (General Session) Orthopedic SIG: Total Joint (General Session)
11:45 am – 12:45 pm	Lunch (on own) Student Career Fair
12:45 pm – 2:45 pm	Concurrent Oral Abstract Presentations - Session II <ul style="list-style-type: none"> Biomaterials and Microscale Technologies for Biomedical Applications I (General Session) Cell Function on Biomaterial Gradients and Arrays (Symposium) Tissue Engineered Products for Clinical Applications II (General Session) Drug/biomedical Device Combination Products I (General Session) Nano and Microparticulate Drug Delivery (Symposium) Nanoparticles for Imaging and Drug Delivery (General Session)



2:45 pm – 6:45 pm **Exhibit Hall Open**

2:45 pm – 3:15 pm **Break**

3:15 pm – 5:15 pm **Panel Discussion-** Where Have We Been and Where Are We Going? Traditional Approaches versus Nanotechnologies

Tutorial: Getting to Phase I: Preclinical Studies

5:15 pm – 6:45 pm **Poster Session I & Exhibition Reception**

Friday, April 20, 2007

7:00 am – 4:30 pm **Registration Open**

7:00 am – 8:00 am **Special Interest Group Meetings**

8:00 am – 9:30 am **Concurrent Oral Abstract Presentations - Session III**

- Surface Modification and Characterization of Orthopaedic and Dental Implants at the Nano/Micro Scale for Improved Osseointegration I (Symposium)
- Cardiovascular Biomaterials SIG (General Session)
- Regenerative Medicine and Clinical Translation I (Symposium)
- Tissue Engineering SIG (General Session)
- Ophthalmologic Biomaterials (General Session)
- Toll-like Receptor Interaction with Biomaterial Implants (Symposium)

9:30 am – 4:00 pm **Exhibit Hall Open**

9:30 am – 11:00 am **Annual Business Meeting**

9:30 am – 11:00 am **National Student Chapter Meeting**

11:00 am – 12:30 pm **Concurrent Oral Abstract Presentations Session IV**

- Surface Modification and Characterization of Orthopaedic and Dental Implants at the Nano/Micro Scale for Improved Osseointegration II (General Session)

- Developing Best Practices in Tissue Engineering Education (Symposium)
- Protein and Cells at Interfaces SIG (General Session)
- Urological Tissue Engineering and Biomaterials (General Session)
- High Throughput Screening Methodologies for Biomaterials (General Session)
- Protein Adsorption on Microdevice (General Session)

12:30 pm – 1:30 pm **Lunch (on Own)**

1:30 pm – 3:00 pm **Concurrent Oral Abstract Presentations - Session V**

- Biomaterials and Microscale Technologies for Biomedical Applications II (General Session)
- Biological Modification of Cardiovascular Biomaterials for Medical Devices: Translation from the Laboratory to the Clinic (Symposium)
- Drug/biomedical Device Combination Products II (General Session)
- Regenerative Medicine and Clinical Translation II (Symposium)
- Translational Research in Nanomedicine: It Is Happening Now (Symposium)
- Self-Assembling Biomaterials (Symposium)

3:00 pm – 4:30 pm **Poster Session II / Break**

4:30 pm – 6:00 pm **Town Hall Meeting**

7:00 pm – 10:00 pm **BASH - Reception at Chicago's famous Field Museum**

Saturday, April 21, 2007

7:00 am – 3:15 pm **Registration Open**

7:00 am – 8:00 am **All Special Interest Group Officers Meeting (Open to all SIG members)**

8:00 am – 10:00 am

Concurrent Oral Abstract Presentations - Session VI

- Advances in Biomaterials Science: A Symposium by the Leaders of Biomaterials
- Surface Modification and Characterization of Biomaterials II (General Session)
- Implant Pathology SIG and Dental Craniofacial SIG (General Session)
- Biomimetics and Nanoscience: Advances in Protein/peptide-based Biomaterials (Symposium)
- Biomaterials and Microscale Technologies for Biomedical Applications III (General Session)

8:00 am – 4:00 pm

Workshop III: Spine Pain: Origins and Treatment Strategies

10:00 am – 10:15 am

Break

10:15 am – 12:15 pm

Plenary Session II

Presentations by Society's Awardees

12:15 pm – 1:15 pm

Lunch (on Own)

1:15 pm – 3:15 pm

Tutorial: Cellular Signal Transduction**Panel Discussion:** Biomaterials and Biocompatibility: Theories and Clinical Relevance

3:15 pm – 3:30 pm

Break

3:30 pm – 5:30 pm

Concurrent Oral Abstract Presentations Session VII

- Biomaterials and Microscale Technologies for Biomedical Applications IV (General Session)
- Advances in Drug Delivery II (General Session)
- Orthopedic SIG: Cell/Tissue Interactions (General Session)
- Polysaccharide-based Biomaterials II (General Session)
- Controlled Interactions of Proteins and Peptides with Biomaterial Surfaces (Symposium)

Hotel Information/Reservations

For your convenience, blocks of sleeping rooms have been reserved at the Sheraton Chicago Hotel and Towers. The hotel can be contacted directly for individual reservations, which will be taken on a first-come, first-served basis. Please be sure to reference the Society For Biomaterials or SFB Annual Meeting when making reservations.

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Sleeping room rates have been reserved for attendees at a conference rate of \$199 single/double occupancy. These reduced rates are available until March 26, 2007, depending upon availability. To reserve a room at the group rate, contact the hotel directly by calling their reservation desk at (312) 464-1000 ext. 7000. Please be sure to reference the Society For Biomaterials.

General Information

All sessions of the meeting, including exhibits, posters, and oral presentations will take place at the Sheraton Chicago Hotel and Towers.

Registration

All attendees are expected to register for the meeting. Register early and get the pre-registration fees, which are much lower than on-site registration. The pre-registration deadline is March 28, 2007.

Registration fees include: Transactions CD-ROM, admittance to all scientific sessions, tutorials, technology and training forums, panel discussions, exhibits, and all social events (additional fees apply to Wednesday workshops). Students may register for the meeting without registering for the Bash reception being held on Friday night at a reduced fee.

Registration Form

Please print or type.

First Name _____ Surname/Last Name _____
 Title _____ Specialty or Discipline _____
 Affiliation _____ Department _____
 Address _____
 City _____ State/Province _____ ZIP/Postal Code _____ Country _____
 Telephone _____ Facsimile _____
 (For international numbers, please include country and city codes.)
 Email _____ Special Requests (ADA, Dietary, Etc.) _____
 Member in which Society? Society For Biomaterials, USA Other WBC Society (list) _____ Member Number _____

SCIENTIFIC REGISTRATION	Member Before March 28	Post-Grad Member Before March 28	Student Member Before March 28	Student Member NO BASH Before March 28	Non-Member Before March 28	Post-Grad Non-Member Before March 28	Student Non-Member Before March 28	Student Non-Member NO BASH Before March 28	Member After March 28	Post-Grad Member After March 28	Student Member After March 28	Student Member NO BASH After March 28	Non-Member After March 28	Post-Grad Non-Member After March 28	Student Non-Member After March 28	Student Non-Member NO BASH After March 28	Government Employee Rate
Meeting & Exhibit Registration	<input type="checkbox"/> \$475	<input type="checkbox"/> \$305	<input type="checkbox"/> \$110	<input type="checkbox"/> \$80	<input type="checkbox"/> \$655	<input type="checkbox"/> \$425	<input type="checkbox"/> \$180	<input type="checkbox"/> \$120	<input type="checkbox"/> \$570	<input type="checkbox"/> \$350	<input type="checkbox"/> \$145	<input type="checkbox"/> \$115	<input type="checkbox"/> \$770	<input type="checkbox"/> \$480	<input type="checkbox"/> \$215	<input type="checkbox"/> \$155	<input type="checkbox"/> \$500
Workshop I	<input type="checkbox"/> \$200	<input type="checkbox"/> \$150	<input type="checkbox"/> \$105	<input type="checkbox"/> \$105	<input type="checkbox"/> \$280	<input type="checkbox"/> \$215	<input type="checkbox"/> \$150	<input type="checkbox"/> \$150	<input type="checkbox"/> \$250	<input type="checkbox"/> \$185	<input type="checkbox"/> \$115	<input type="checkbox"/> \$115	<input type="checkbox"/> \$320	<input type="checkbox"/> \$245	<input type="checkbox"/> \$180	<input type="checkbox"/> \$180	<input type="checkbox"/> \$200
Workshop II	<input type="checkbox"/> \$150	<input type="checkbox"/> \$95	<input type="checkbox"/> \$40	<input type="checkbox"/> \$40	<input type="checkbox"/> \$200	<input type="checkbox"/> \$140	<input type="checkbox"/> \$75	<input type="checkbox"/> \$75	<input type="checkbox"/> \$150	<input type="checkbox"/> \$95	<input type="checkbox"/> \$40	<input type="checkbox"/> \$40	<input type="checkbox"/> \$200	<input type="checkbox"/> \$140	<input type="checkbox"/> \$75	<input type="checkbox"/> \$75	<input type="checkbox"/> \$150
Workshop III (w/Conference Reg.)	<input type="checkbox"/> \$300	<input type="checkbox"/> \$200	<input type="checkbox"/> \$55	<input type="checkbox"/> \$55	<input type="checkbox"/> \$400	<input type="checkbox"/> \$250	<input type="checkbox"/> \$105	<input type="checkbox"/> \$105	<input type="checkbox"/> \$350	<input type="checkbox"/> \$250	<input type="checkbox"/> \$105	<input type="checkbox"/> \$105	<input type="checkbox"/> \$450	<input type="checkbox"/> \$300	<input type="checkbox"/> \$155	<input type="checkbox"/> \$155	<input type="checkbox"/> \$300
Workshop III (w/o Conference Reg.)	<input type="checkbox"/> \$400	<input type="checkbox"/> \$300	<input type="checkbox"/> \$105	<input type="checkbox"/> \$105	<input type="checkbox"/> \$500	<input type="checkbox"/> \$350	<input type="checkbox"/> \$145	<input type="checkbox"/> \$145	<input type="checkbox"/> \$450	<input type="checkbox"/> \$350	<input type="checkbox"/> \$155	<input type="checkbox"/> \$155	<input type="checkbox"/> \$550	<input type="checkbox"/> \$400	<input type="checkbox"/> \$195	<input type="checkbox"/> \$195	<input type="checkbox"/> \$400

SCIENTIFIC REGISTRATION SUBTOTAL \$

OPTIONAL TRANSACTIONS (one CD-ROM included with each Meeting Registration)

Transactions Book \$110
 Additional CD-ROM \$30

SOCIAL REGISTRATION

Opening Ceremony & Reception Extra tickets for Accompanying Guests (#) _____ x \$65 each

Includes Exhibition Reception (name of guest _____)
 (one ticket included in Member & Non-Member Meeting Registration)

*** Student and Post-Graduate status verification required.**

I attest the named individual is a full-time, degree-seeking student.
 I attest the named individual is a post-graduate, degreed individual in training at an academic institution such as a resident or post-doc.

X _____
Signature of advisor or department chair

Advisor's Printed Name _____
 Advisor's Telephone _____
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TRANSACTION AND SOCIAL REGISTRATION SUBTOTAL \$

TOTAL AMOUNT DUE \$

METHOD OF PAYMENT:

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Name (as it appears on card) _____

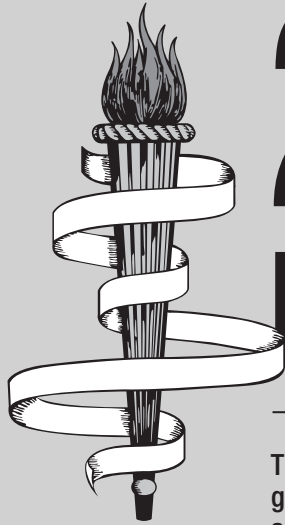
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THREE OPTIONS FOR REGISTRATION:

- WWW.BIOMATERIALS.ORG
- Fax this registration form to 800-292-1724
- Mail this registration form to:
 Show Data Solutions
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 PO Box 618
 Howell, NJ 07731-0618



2007 Buyers' Guide

The Society For Biomaterials presents its 2007 Buyers' Guide. This guide lists the leading companies in the biomaterials industry along with their areas of business. Use this guide throughout the year to find companies that are ready to provide you with the products and services you need to accomplish your professional endeavors.

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4th State Inc.
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DEVICE DEVELOPMENT &

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Concordia Manufacturing LLC
Curasan
Hyaluron Contract Manufacturing
Lakeshore Biomaterials
Medical Device Testing Services
Midwest Plastic Components
TESco Associates Inc.

DRUG DELIVERY &

PHARMACEUTICALS

Brookwood Pharmaceuticals
Hyaluron Contract Manufacturing
Lakeshore Biomaterials
Midwest Plastic Components
NovaMatrix

MATERIALS &

MATERIALS SERVICES

Concordia Manufacturing LLC
Curasan
Lakeshore Biomaterials
NovaMatrix
SSL/Coatings 2Go
Tissue Growth Technologies

MEDICAL DEVICE EVALUATION

Bose Corp.
Medical Device Testing Services

PACKAGING

PRODUCTS & SERVICES

Hyaluron Contract Manufacturing
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SURFACE

MODIFICATION & TREATMENT

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TESTING EQUIPMENT

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TESTING SERVICES

Medical Device Testing Services
Tissue Growth Technologies



4th State Inc.

Stephen L. Kaplan
General Manager
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Officer Nominees

Continued from page 8

Jeffrey Hubbell, PhD continued

programming span must be broader yet provide excellence in depth. Programming at the annual meetings will be my main priority, since this programming serves the membership, provides education to trainee members, and attracts new members. In addition, substantial attention will be paid to the Society's role among peer societies, its visibility to members and to the general scientific community, to its service to its industrial and academic membership, and of course to its financial security.

Lynne Jones, PhD continued

unique insight into implementing the ideas proposed by the Governance, Program, SIG, and Revenue task forces. For example, as SFB President, I will work to enact new revenue streams such as the donor/capital campaign; a more comprehensive scholarship program; the publication of monographs, manuals, and textbooks; and a website that is more interactive and an invaluable resource.

Most activities of the Society For Biomaterials have traditionally focused on the annual meeting. The Society For Biomaterials is ready to become a "year-round" society. By expanding our vision to include activities throughout the year, we will not only increase the value of membership but also enable the SFB to have a bigger impact on the field of Biomaterials. As SFB President-Elect, I will explore the possibility of regional consortiums – bringing together our student chapters, local industry, and regulatory agencies. By combining this concept with our mission for professional development, we can hold seminars, workshops, and webcasts throughout the year. We can accomplish this by building on the Biomaterials Day model. This will create unique networking and mentoring opportunities for students, recent graduates, and members transitioning between fields, as well as for our more established colleagues. This will also increase the visibility of SFB at our workplace, universities, and government agencies. I support the expansion of our educational programs to truly include professional development. Bringing back CME credit is one significant step in this direction. I will work with SFB's Council to develop web-based education programs – including videotaping of our workshops. SIGs can have a significant impact on all of these programs.

It is now time to act on these ideas and create more opportunities for all of our members. I thank the SFB for this nomination and ask that you give me the opportunity to continue to lead and serve the membership of my primary society, the Society For Biomaterials.

Erika Johnston, PhD continued

community with regard to advances in surface characterization techniques. Toward these goals, the SC&M SIG organized a student poster contest at the 7th World Biomaterials Congress in 2004, developed tutorials for Medical Design and Manufacturing Conventions in 2005 and 2006, co-sponsored a tutorial on surface characterization with the American Vacuum Society, and co-organized symposia with several other

SFB SIGs. In response, the SIG has nearly doubled in size to 212 members in 2006. During this time she oversaw financial activities of the SIG and ensured that all activities adhered to budgeted limits. Most recently, she co-organized a five-day symposium on Biosurfaces and Biointerfaces for the Materials Research Society's Fall 2006 meeting, where two former SFB presidents were invited to present.

Vision Statement

Special Interest Groups serve as the primary mechanism for individuals to contribute to the advancement of the Society's mission. In recognition of their central importance, great strides were made last year to improve the equitability and transparency of the SIG budgeting process. This year, in response to the SIG task force, additional changes to SIG structure and oversight may be expected. As incoming chair of the Finance Committee, I would advocate that SIGs enjoy more independence over the funds they work to raise. The current policy of not permitting SIG funds to roll over from year to year discourages SIGs from embarking on ambitious initiatives that require stable funding over longer periods of time. Therefore, an initial goal would be to reexamine this policy and work to create the financial environment that would encourage SIGs to plan further into the future.

Regarding the finances of the Society as a whole, I applaud the efforts of Lynne Jones and Alan Litsky to improve the efficiency of the Society's internal financial processes. With those improvements in place, I would turn my attention toward increasing returns on the Society's investments, maintaining the sound practice of setting funds aside to buffer the effect of WBC years, and increasing funds for infrastructure improvement projects such as Web site development. I would look forward to committing as much energy to stewarding the Society's financial well being as I have contributed toward SIG development over the past several years.

Antonios Mikos, PhD continued

Antonios is a Fellow of the International Union of Societies for Biomaterials Science and Engineering and a Fellow of the American Institute for Medical and Biological Engineering. He has been recognized by various awards including the Distinguished Lecturer Award of the Biomedical Engineering Society, the Marshall R. Urist Award for Excellence in Tissue Regeneration Research of the Orthopaedic Research Society, and the Clemson Award for Contributions to the Literature of the Society For Biomaterials. He is a founding editor of the journal *Tissue Engineering* and a member of the editorial boards of the journals *Advanced Drug Delivery Reviews*, *Biomaterials*, *Cell Transplantation*, *Journal of Biomaterials Science Polymer Edition*, *Journal of Biomedical Materials Research (Part A and B)*, and *Journal of Controlled Release*. He is the organizer of the continuing education course *Advances in Tissue Engineering* offered annually at Rice University since 1993.

Vision Statement

If elected to the position of Secretary-Treasurer elect, I will work with our President and Council to improve our current financial situation and secure resources to promote the visibility of our Society, support and expand our educational activities and enhance the professional development of our members. I will also strive to inform our members of the fiscal health of our Society and how it relates to its mission.

Officer Nominees

Continued from page 8

Julia Babensee, PhD continued

to associated foreign antigen in the combination product (e.g., tissue engineered construct or polymeric vaccine delivery vehicle) as a means of controlling immune responses. She brings cutting-edge concepts in immunology into the biomaterials field to enable further understanding of the host response to biomaterials.

Julia was educated at the University of Toronto receiving a BAsC in 1990 and a PhD in 1996 in the Department of Chemical Engineering and Applied Chemistry. She was also a postdoctoral fellow in the Department of Bioengineering at Rice University from 1996-1999. She was awarded the Student Award for Outstanding Research-Undergraduate, Masters or Health Science from the Society for Biomaterials (SFB) at the 1992 World Biomaterials Congress in Berlin, Germany. More recently, she received the SFB Young Investigator Award in 2005. She is also the recipient of a Hulda Irene Duggan Arthritis Investigator Award from the Arthritis Foundation and a CAREER Award from the National Science Foundation (NSF). Other past and current research funding sources include a National Institutes of Health (NIH) RO1, Whitaker Foundation Biomedical Engineering Research Grant, and Wallace H. Coulter Clinical/Translational Research Grants. Julia is an associate editor of the *Annals of Biomedical Engineering*. She also serves as a manuscript reviewer for various journals in the biomaterials field, including *Journal of Biomedical Materials Research*, *Biomaterials*, *Journal of Biomaterials Science*, *Polymer Edition*, *Journal of Controlled Release* and *Tissue Engineering*. She has served on various grant review panels for NSF, NIH and Canadian Institute of Health Research (CIHR). She is also involved in teaching biomaterials and tissue engineering to undergraduate and graduate students at Georgia Tech and is a co-director on a pending NIH T32 Biomaterials training grant.

Julia is a regular attendee at SFB meetings and has been actively involved in many capacities. She has served or serves as a member of the SFB Strategic Planning Committee (2002-2003 and 2005), SFB Awards and Nominations Committee (2005-2006), SFB Strategic Planning task force on Annual Meeting (2005-2006), SFB Publications Committee (2005-2008) and as abstract reviewer, session chair and symposium organizer.

Vision Statement

My goals are to help make the Society For Biomaterials the premier biomaterials society and to make your membership in this Society most valuable. I am committed to excellence in biomaterials research and training. I am committed to supporting the translation of developments in biomaterials research from the bench to bedside. I will provide support for programs and activities that facilitate the translation of biomaterial developments to the public. I am committed to the Society For Biomaterials and am interested in ensuring that the Society For Biomaterials is prepared to address the biomaterials needs of the future. Being a part of the strategic planning process, I have become familiar with the running of the Society and its future issues. This participation has further strengthened my commitment to the Society. As the member-at-large is a Board member that interfaces directly with the membership and becomes your (our) representative, I am

interested in being a conduit for input from the greater membership as the Society enters this critical stage in its further development. I will gather input from all members in academia, industry and government using means such as the Web site, surveys and town hall meetings and take these ideas and comments to the Board and Council meetings as your representative.

Tim Topoleski, PhD continued

Outstanding Research awards from UMBC's College of Engineering and Information Technology, and has been named a UMBC Humanities Teaching Fellow. Tim has been an active member of the Society For Biomaterials since he was a graduate student, and has served the Society as Chair of the Bylaws Committee and Parliamentarian (2002-2007), Chair of the Orthopaedic Biomaterials Special Interest Group (1999-2000), Orthopaedic Biomaterials Organizer and Session Chair, 6th World Biomaterials Congress (2000), and as a perennial Session Chair at the Annual Meetings of the Society For Biomaterials. He serves as a reviewer for numerous scientific journals as well as for the National Science Foundation, the National Institutes of Health, and the Arthritis Foundation.

Vision Statement

I believe that the members of the Society For Biomaterials see the Society as a leader in promoting education and research in biomaterials science. The members of the Society want to maintain that leadership and continue to be part of the growth of the Society as biomaterials research continues to evolve. I have enjoyed working with the members and Council of the Society For Biomaterials as the Chair of the Bylaws Committee, and I would like to represent the expectations of the Society membership to the Council. In my past experience as a member of the Council, I know that the Society's leadership wants to make the Society For Biomaterials our primary professional "home." To do this, the leadership needs to know what we, as members, expect from the Society, and to respond to the members' evolving needs and interests. I am especially interested in continuing the growth of the educational mission of the Society For Biomaterials, in both formal scientific training, and also in professional development. If I were to have the privilege to be the Member-at-Large, I would work to be both a direct representative of the membership's voice to Council, and a facilitator for discussions among the members. The Society For Biomaterials is its members, and I believe that it is important for us to take an active and personal role in guiding the Society.

Julie Trudel, PhD continued

President (1998-2000) of the National Student Section and as the Forum reporter for the Cardiovascular Biomaterials Special Interest Group (2003-2006).

Vision Statement

Within this one-year term, I would like to work together with current and ex-members of the Society to better understand the needs that are specific to our industry, academic, government, and student members. The result of this effort would lead to a list of recommendations and creative strategies for the Board of Directors and Council on what we should do to add more value to the Society, retain membership and attract members from various professional affiliations. I would truly be honored to represent the members and serve the Society in this position!

Allergan Inc. (Irvine, Calif.) announced that the United States Food and Drug Administration (FDA) has approved Allergan's Inamed(R) Silicone-Filled Breast Implants for use in breast augmentation, reconstruction and revision surgery. Until now, Inamed Silicone-Filled Breast Implants were only available in the United States to women seeking breast reconstruction and revision surgery through clinical studies. The approval is a significant development for women in the United States who now have the same options that women in more than 60 countries have had for the last 25 years.

ATS Medical Inc. (Minneapolis) announced that it has received a Notice of Allowance from the U.S. Patent and Trademark Office for a key patent application on its anti-coagulation and demineralization of conductive medical devices technology. The ATS technology is used to treat implantable medical devices to minimize blood/platelet interaction with the device. Significantly, this may enable the reduction or elimination of current long term anti-coagulant or anti-platelet therapies. These medical treatments are intolerable in some patient populations that may exclude them from receiving the best treatment options.

Generex Biotechnology Corp. (Toronto, Canada), the leader in drug delivery for metabolic diseases through the inner lining of the mouth, announced that it has been awarded the 2006 North American Frost & Sullivan Award for Technology Innovation for its proprietary oral insulin spray product, Generex Oral-lyn. Frost & Sullivan's Technology Innovation Award is bestowed upon a company (or individual) that has carried out new research, which has resulted in innovation(s) that have or are expected to bring significant contributions to the industry in terms of adoption, change, and competitive posture. In bestowing the award on Generex Oral-lyn, Frost & Sullivan stated that the product "is strongly positioned to be the most acceptable form of alternative, needle-free insulin delivery to patients and doctors alike as there is a huge global demand for prandial glucose control, which is emerging as a key factor in reducing cardiovascular risk. By totally eliminating pain and increasing patient convenience and treatment compliance, Generex Oral-lyn is expected to improve the quality of life of diabetic patients with a relative decrease in diabetic complications and a significant reduction in the enormous costs associated with insulin therapies."

Kyphone Inc. (Sunnyvale, Calif.), developer of medical devices designed to restore spinal function and diagnose low-back pain using minimally invasive technologies, said it definitively agreed to pay \$525 million plus contingency payments for St. Francis Medical Technologies Inc. Closely held St. Francis Medical, Alameda, Calif., produces the X Stop Interspinous Process Decompression System, which treats lumbar spinal stenosis. Under the terms, Kyphon will pay \$525 million plus as much as \$200 million -- in cash or a combination of cash and stock -- depending upon revenue results.

Osteologix Inc. (San Francisco) announced that it has initiated a randomized, double-blind, placebo-controlled phase II clinical trial of NB S101, its investigational drug for

osteoporosis. The primary endpoint of the study is the change in patients' bone resorption. Osteologix plans to enroll approximately 275 postmenopausal women with low bone mineral density and treat them for 12 weeks in the clinical trial, which is being conducted at investigator sites located throughout the United Kingdom and Denmark. In addition to the primary endpoint of quantifying bone resorption, Osteologix plans to evaluate the effect of NB S101 on bone formation by measuring markers specific for this process. Other secondary endpoints being evaluated include the effects of NB S101 on bone mineral density, strontium levels and markers of cartilage degradation. Side effects will also be assessed.

Osteotech Inc. (Eatontown, N.J.) announced that it has entered into a license agreement with Bacterin International Inc., a biologics company and manufacturer of elutive bioactive coatings for medical devices. Under the agreement, Bacterin receives a nonexclusive license to Osteotech's U.S. Patent Nos. 5,284,655 and 5,290,558 relating to flowable demineralized bone powder compositions, which are two of the patents that underlie Osteotech's proprietary Grafton(R) DBM line of tissue grafts. The agreement also provides Osteotech with option rights to certain Bacterin technology and intellectual property.

Long Range Planning

Continued from page 11

are invited to participate in the process, including student members. Lack of continuity, a common issue raised by the other task forces, must be addressed in the branding process as well. The LRP Committee focused on the task force's recommendations about what SFB should do in the future. SFB bridges enabling technology and clinical applications. Its profile is that of the three-legged stool comprised of industry, academia, and government. SFB supports each leg equally, and each leg needs to rely on the others for support as well. Its stability is maintained through a strong platform of advocacy for patient care achieved by fostering education, training, and innovation. To assure the sustainability of connections and stability of the organization, the LRP Committee proposed strategic actions that should be undertaken by the Society.

WE NEED YOUR INPUT

The Long Range Planning Committee invites all members, and prospective members, of the Society to review the complete Long Range Planning Committee report and provide comments and suggestions to assure that the future of the Society is bright and prosperous. The Society should answer the needs of its members and fulfill its mission of education and service. A series of surveys is in development, and we strongly encourage you to participate. In addition, if you have any comments on the Long Range Planning Committee report, or any suggestions, please address comments to Martine LaBerge, chair of the LRP Committee, at laberge@clemson.edu.

Branding the Society For Biomaterials

Continued from page 4

One SFB member offered this:

“My view is that the SFB needs to be reconceptualized from the ground up. It’s time for out-of-the box thinking...more profoundly instituting the concept of “purpose brand” for redesigning the identity and function of the SFB... for exciting, organizing, promulgating, and QCing excellence in biomaterials research in each of its clinical or commercial manifestations...”

Notice that this individual is not spurning SFB’s rich diversity.

Three broad questions were used to guide the task force discussion to date:

1. What does SFB do that keeps us interested?
2. What does SFB do that weakens the profile?
3. What would we like to see SFB do in the future?

Responses and themes that emerged are summarized below.

1. What does SFB do that keeps us interested?

- educates re: biomaterials technology, its development, and applications
- provides variety of clinical applications and techniques to learn about and apply to an individual’s research
- supplies healthy influx of different/new scientific ideas, as well as people from other fields who are just beginning to “discover” biomaterials applications
- supplies good mix of industry, academia, and government representation
- convenes focused experts in biomaterials applications and research
- provides broad and diverse profile with respect to specific applications
- involves students: strong networking and career development opportunities

2. What does SFB do that weakens the profile?

- too many topics at meetings, diminishing the necessary details/depth on specific subjects
- slow to highlight new things (ideas, people, opportunities) in print and electronic publications; need for new things in publications to energize face-to-face interactions at meetings, etc.
- too polite (almost apologetic) for being a scientific and technology bazaar, rather than claiming its primacy in the crosscutting field of bio/materials science and engineering
- weak links between the different and specific needs and strengths of academic, industry, and government representatives
- little to no representation of the clinical applications/needs; motivation or logic behind an individual’s research should be related to some clinical application; presentation of unmet clinical needs/applications should be essential to SFB meetings and other vehicles of communication

- inability to hold students’ interest for full membership; why?
- application rationale: new biomaterials or knowledge/applications “because it hasn’t been done before” is of little interest to industry [but something we must continue to do, yes? Perhaps by communicating potential applications more clearly.]

3. What would we like to see SFB do in the future?

- more effectively bring together academia, industry and government
- help members/attendees do their jobs; i.e. relevant, timely, state-of-the-art help with professional responsibilities
- improve the value proposition (benefit v. cost)
- continue and improve on the best-centralized network for medical products/biomaterials-related professionals in industry, academia, and government, with students from all backgrounds (including students in clinical programs)
- reduce “factions” within SFB (e.g. basic academic research v. applied R&D) by becoming the technology-enabling link between the clinical setting and industry, with government input and guidance
- establish affiliations with clinical societies to promote biomaterials science and education, as well as research excellence
- develop more benefit for SFB members from SFB endorsements of other groups’ meetings, etc.
- facilitate career changes [e.g. from orthopedics to cardiovascular applications] and other opportunities via training and education

Closing Remarks

In closing, there is interest — and quite a bit of passion in some quarters—within the SFB membership for SFB’s future and for what is happening in the strategic planning process. We will reach out to more members, with open-ended, well-designed questions, to elicit their opinions, spark their creative ideas, and enhance their continuing participation in SFB. Respect and inclusion engender respect and loyalty.

SFB is the leading light for basic, applied, and clinical research involving synthetic and biological materials. Our future? SFB makes and sustains the connections. SFB connects.

The current branding task force will serve as a formal advisory group to the Society and facilitator while SFB’s members define its future. SFB’s branding is an inclusive process where members are invited to participate by sharing their views. A series of surveys is in development. We encourage you to not only participate in these surveys, but also feel free to share any other insights or suggestions you may have. Please address your comments to Dan Lemyre at dlemyre@biomaterials.org, and plan to attend the “Town Hall Meeting” at the Annual Meeting in Chicago.

Community Calendar

Engineering Tissues 2007

March 7-11, 2007
Hilton Head, SC
<http://www.hiltonhead.gatech.edu/>

3rd International Conference on Tissue Engineering

September 21-26, 2008
Rhodes, Greece
<http://www.aegeanconferences.org>

Society For Biomaterials 2007 Annual Meeting and Exposition

April 18-21, 2007
Chicago, IL
<http://www.biomaterials.org>

International Congress on BioHydrogels

November 14-18, 2007
Viareggio (Lucca), Italy
<http://www.biohydrogels2007.it>

ESF-EMBO Symposium

Biological Surfaces and Interfaces
July 1-6, 2007
Sant Feliu de Guixols, Spain
<http://www.esf.org/conferences/07222>

ASAIO's 53rd Annual Conference

June 7-9, 2007
Chicago, IL
<http://www.asaio.com/>

Opportunities and Markets for Medical Textiles and Biomedical Polymers and Materials

March 21-22, 2007
Greenville, SC
<http://odce.clemson.edu/07SMTGVL/>



SOCIETY FOR BIOMATERIALS 2007 ANNUAL MEETING



CHICAGO

April 18-21, 2007
Chicago, Illinois

Please visit the SFB website or contact SFB headquarters at info@biomaterials.org for more information about the 2007 Annual Meeting.

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