

BIOINTERFACE 2011

Registration

October 24-26, 2011 | Hotel Sofitel Minneapolis | Bloomington, MN

The Surfaces in Biomaterials Foundation is proud to present one of the best technical and most stimulating conferences in the field of biomaterials science in 2011!

The upcoming BioInterface 2011 annual conference will be held in Bloomington, MN on October 24–26, 2011. Our conference is purposely kept small (~150 registrants) to allow you to connect, share and learn by relaxed contact with your fellow attendees. During our conference you will be enriched by the science, and the high quality of interaction that is fostered by the unique blend of industry, academic, regulatory and clinical attendees.

This year's highlights include our workshop entitled "The Role of Government in the Biomaterials Industry"; our interesting and lively Point-Counterpoint session; the presentation of our prestigious Excellence in Surface Science Award; our Student Poster competition; and, of course two full days of solid technical sessions.

Our workshop and symposium sessions will feature a comprehensive ensemble of renowned academic and industry speakers known for their respective work

in the biomaterials industry. In this year's symposium we will have presentations covering the state-of-art in: Improving Hemocompatibility; Materiomics & Cell Biomaterial Interactions; Heart Valves and Tissue Engineered Devices; Vascular Stent and Related; Surgical Biomaterials: Hemostats, Sealants, and Surgical Adhesives; Characterization of Biomaterials and Biological Performance of Materials.

Please plan to attend our 2011 Symposium and Workshop. You will be enriched by the science, the venue (the Twin Cities area), and the unique blend of industry, academic, regulatory and clinical attendees.

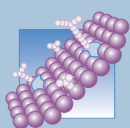
For more information on BioInterface 2011, please contact Ashley Crunstedt at ashleyc@surfaces.org or call her directly at 651-203-7248. For updates, please visit our website at www.surfaces.org.

Conference Highlights:

- The Role of Government in the Biomaterials Industry
- Improving Hemocompatibility
- Materiomics & Cell Biomaterial Interactions
- Heart Valves and Tissue Engineered Devices
- Vascular Stent and Related
- Surgical Biomaterials
- Characterization of Biomaterials
- Biological Performance of Materials
- Student Poster Session
- Student Town Hall Meeting
- Excellence in Surface Science Award

Foundation members and BioInterface attendees specialize in:

- Biodegradable Polymers
- Biofilms
- Hemocompatibility
- Nanotechnology
- Orthopaedics
- Surface Characterization
- Tissue Engineering
- Medical Devices



Surfaces in
Biomaterials
Foundation

BioInterface 2011

2011 Supporting Members

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University of Minnesota

Dear Fellow Surface Science Professionals,

You are invited to join me, your colleagues, industry leaders and invited distinguished scientists for The Surfaces in Biomaterials Foundation's 2011 BioInterface Symposium and Workshop in Minneapolis, center of the world-renowned Minnesota medical device cluster. During its past 20 years, this annual event has grown out as an industry-recognized opportunity to meet and network with other professionals, while discussing new trends and challenges in the biomaterials industry.

The Foundation's mission is to explore innovative and creative solutions to technical challenges at the BioInterface by fostering education and multidisciplinary cooperation among industrial, academic, clinical, and regulatory communities. This year's program comprises scientific sessions featuring well-known presenters

and invited speakers discussing cutting edge technologies and recent scientific developments in hot topic areas in our field. In addition, this event includes the popular and highly anticipated Point-Counterpoint debate session, as well as the Student Poster Competition, and the Excellence in Surface Science Awardee address.

On behalf of the Foundation's members and Board of Directors, I hope you will join us at BioInterface 2011 for a valuable experience that will increase your scientific education and professional development, further the research you are conducting, while having an enjoyable time in interacting with colleagues and peers.

Sincerely,
Marc Hendriks
President, Surfaces in Biomaterials
Foundation

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Workshops/Sessions

Monday, October 24

WORKSHOP

Sofitel Minneapolis

7:00a–3:00p **BioInterface Workshop**
Theme: The Role of Government in the Biomaterials Industry
Chair: Jeannette Polkinghorne, Boston Scientific

7:00–8:00a **Pre-Registration and Continental Breakfast**

8:00–8:15 **Welcome and Introduction**

8:15–8:45 **Workshop Speaker**
Phil Triolo, Phil Triolo and Associates LC
“Establishment of a Biological Risk Evaluation Program to Meet FDA and Notified Body Requirements and Current Expectations”

8:45–9:15 **Workshop Speaker**
Thor Rollins, Nelson Laboratories
“The Future of 10993: Review of Proposed ISO 10993 Changes: Blood (10993-4) and Genotoxicity (10993-3)”

9:15–9:45 **Exhibit Break**

9:45–11:00 **Workshop Speaker**
Janice Kruse, Credusus Consulting, Inc;
Stacy Suberg, RBR, Ltd
“Navigating Government Guidances for Developing Combination Products”

11:00–11:30 **Workshop Speaker**
Clark Thompson, Boston Scientific
“Post Approval Changes for PMA Combination Products”

11:30–12:30p **Luncheon**

12:30–1:15 **Workshop Speaker**
Ralph F. Hall, University of Minnesota Law School
“Unique Technologies Trigger Unique Regulatory Issues: Understand FDA’s Approach to Nanotechnology”

1:15–1:45

Workshop Speaker
Susan Alpert, Former FDA Director of the Office of Device Evaluation, CDRH
Topic: TBD

1:45–2:00

Exhibit Break

2:00–2:30

Workshop Speaker
Roger Pearson, Aspen Research Corporation
“Extractables and Leachables: What to Do and Why to Do it”

2:30–3:00

Workshop Speaker
Angela Krueger, Office of Device Evaluation, Food and Drug Administration
“ODE Update on the 510(k) Program”

3:00–4:00

Applied Technology Workshops (4 total) - Two Parallel 30-minute Presentations
Co-Chairs: Peg Palmer, Surface Solutions Lab, and Dehua Yang, EBATCO

4:00–5:00

Exhibitor Break/Opening Reception

5:00–6:00

Keynote Lecture
Keynote Speaker: David Mooney, Harvard University
“Controlling Cell Trafficking in Vivo with Biomaterials”

Tuesday, October 25

SYMPOSIUM

Sofitel Minneapolis

7:00–8:25a

Registration and Breakfast

7:20–8:25

General Poster Session and Student Poster Judging
Co-Chairs: Carl Turnquist, Genzyme Corporation; Kristen Cardinal, Cal Poly - San Luis Obispo

8:25–8:30 **President's Welcome**

8:30–10:00 **Session 1: Improving Hemocompatibility**
Chair: Savannah Gore, WL Gore; Trevor Johnson, Flagship Biosciences

8:30–9:00 **Invited Speaker**
Nicolas L'Heureux, Ph.D., Cytograft
"Why Seeding Endothelium or Using the Patients' Own Cells Actually Creates an Ideal Hemocompatible Device by Bypassing Synthetic Surface Interactions"

9:00–10:00 **Session 1: Improving Hemocompatibility**

Elizabeth M. Srokowski, Dept. of Chemical Engineering and Applied Chemistry, Institute of Biomaterials and Biomedical Engineering at the University of Toronto (Canada)
"Adsorption and Hemocompatibility Properties of Elastin-like Polypeptide Surfaces"

Wenyi Cai, Dept. of Chemistry, The University of Michigan
"Carboxyl-Ebselen-Based Layer-by-Layer Film: A Potential Antithrombotic and Antimicrobial Coating"

Chad Huval, Chemistry, Semprus BioSciences
"Surface Modifications with Improved Long-Term Hemocompatibility"

10:00–10:30 **Exhibitor Break**

10:30–12:00 **Session 2: Materiomics & Cell Biomaterial Interactions**
Chair: Jan de Boer, University of Twente

10:30–11:00 **Invited Speaker**
Ali Khademhosseini, Ph.D., Harvard Medical School
"Microengineered Hydrogels for Stem Cell Bioengineering and Tissue Fabrication"

11:00–12:00p **Session 2: Materiomics & Cell Biomaterial Interactions**
Jan de Boer, University of Twente
"Materiomics: Screening of Material Properties"

Mark A. Poggi, Biolin Scientific Inc.

"Utilizing Dissipative Microbalance Technology (QCM-D) to Quantify Coating Degradation Processes and Elucidate a More Fundamental Understanding of How Blood-Borne Molecules Interact with Implant Coatings"

Greg Haugstad, Characterization Facility, University of Minnesota

"Using Atomic Force Microscopy to Probe Biofilm Cohesion"

12:00–12:50 **Student Town Hall Meeting and Attendee Luncheon**

Co-Chairs: Carl Turnquist and Kristen Cardinal

12:50–1:30 **Surfaces in Biomaterials Foundation Business Meeting**

1:30–3:00 **Session 3: Heart Valves and Tissue Engineered Devices**
Co-Chairs: Zhengrong Zhou, St. Jude Medical; Gene Boland; University of Louisville

1:30–2:00 **Invited Speaker**
Ivan Vesely, ValveXchange Inc.
"The Future of Heart Valve Surgery"

2:00–3:00 **Session 3: Heart Valves and Tissue Engineered Devices**

Aditee Kurane and Jaishankar Kutty, St. Jude Medical, Inc.
"Bioprosthetic Heart Valve Materials and Characterization"

Jeremy S. Touroo, Cardiovascular Innovation Institute

"A Tissue-Engineered Aneurysm Model for Evaluation of Endovascular Devices"

Jinping Dong, University of Minnesota
"Nanomechanical and Spectroscopic Characterization of Collagen Tissues in Medical Device Applications"

3:00–3:30 **Exhibit Break/Point-Counterpoint Reception**

3:30–5:00 **Point-Counterpoint Session**
Chair: Marc Hendriks
“Let it be resolved that surface-immobilized heparin cannot be made obsolete; it will continue to be the most optimal blood compatible biointerface.”

Wednesday, October 26

SYMPOSIUM

Sofitel Minneapolis

8:00–8:30a **Registration and Breakfast**

8:30–9:30 **Session 4: Vascular Stent and Related Metallic Implants**
Co-Chairs: Susan Peterson, Medtronic; Anna Belu; Medtronic

8:30–9:00 **Invited Speaker**
Dr. Alexandra Porter, Imperial College in London
“Imaging the Structural Degradation of Carbon Nanomaterials in the Brain at High Resolution – Considerations for Potential Vascular Applications”

9:00–10:00 **Session 4: Vascular Stent and Related**
Bill Katz, Katz Analytical Services
“Bio-Accumulation of Metals in Biological Fluids Resulting from Implants”

Chun Wang, University of Minnesota
“Engineer Cell-Biomaterial Interface with Hyaluronic Acid”

Paul Nowatzki, Bayer MaterialScience LLC
“Particulation Testing of Hydrophilic Lubricious Coatings”

10:00–10:30 **Exhibitor Break**

10:30–12:00p **Session 5: Surgical Biomaterials: Hemostats, Sealants, and Surgical Adhesives**
Co-Chairs: Aylvin Dias, DSM Biomedical; Robert Di Luccio, Actamax

10:30–11:00 **Invited Speaker**
Arthur J. Coury, Coury Consulting Services
“Tissue Sealants, Adhesives, Hemostats and Adhesion Prevention Devices for Improved Surgical Outcomes”

11:00–12:00 **Session 5: Surgical Biomaterials**

Fred Fraiser, Actamax
“Sealing and Healing of Clear Corneal Incisions with a Dextran Aldehyde-PEG Amine Tissue Adhesive”

Thomas H. Jozefiak, Genzyme Corporation
“Seprafilm: Chemically Modified HA/CMC for the Prevention of Postsurgical Adhesions”

Steven L. Bennett, Covidien
“PEG Based Hydrogels for use as Surgical Sealants and Hemostats”

12:00–1:30 **Awards Sessions and Lunch**
Student Poster Winner Announced
Excellence in Surface Science Award
Winner: Nicholas A. Peppas, ScD, IOM, NAE, University of Texas
“Responsive Nanoscale Drug Delivery Systems”

1:30–3:00 **Session 6: Characterization of Biomaterials**
Co-Chairs: Klaus Wormuth; SurModics and Steve Goodman; 10H Technologies

1:30–2:00 **Invited Speaker**
David Castner, University of Washington
“3-D Imaging of Cells with ToF-SIMS”

2:00–3:00

Session 6: Characterization of Biomaterials

Steve Goodman, 10H Technologies

“Synchrotron-Based Fourier Transform Infrared Chemical Imaging of Functional SAM and Antibody Biosensor Devices”

Lance Lohstreter, Medtronic

“The Role of Surface Oxide Composition on Albumin and Fibrinogen Adsorption onto Inorganic Combinational Materials”

Khoren Sahagian, Anasys Instruments

“Structure-Property Correlation Using Nanoscale Spectroscopy and Thermal Analysis Methods”

3:00–3:20

Exhibitor Break

3:20–5:00

Session 7: Biological Performance of Materials

Co-Chairs: Klaus Wormuth, SurModics; Steve Goodman, 10H Technologies

A. M. C. Barradas, MIRA Institute for Biomedical Technology and Technical Medicine

“Chemical Functionalization of PLA Surfaces

Enhances Osteogenic Differentiation of MC3T3 Cells”

Val DiTizio, Covalon Technologies

“Bioactive Organic Coatings for Orthopedic Devices”

Ton Dirks, DSM Ahead

“Non-Adhesive and Antimicrobial Coatings for Medical Implants”

Ruby T.S. Lam, Nanolnk Inc.

“Flexible Patterning of Cellular Microenvironment”

Ronald Sahatjian, Medi-Solve Coatings

“Addressing the Problem of Surface Bacterial Infection on Dialysis Catheters, PICC Lines and CV Catheters”

5:00

Program Concludes

Hotel Information

Sofitel Minneapolis
5601 West 78th Street
Bloomington, MN 55429
Tel: (+1) 952/835-1900
[Link to Website](#)



Conference attendees can receive the special reduced room rate of **\$149 per night**. Attendees should make their own reservations through the Sofitel Minneapolis reservation department at: **952-835-1900**. Make sure to ask for the “Surfaces in Biomaterials Foundation rate” in order to receive the special discounted rate. **Reserve your room by September 30, 2011** to receive the group rate; availability cannot be guaranteed after September 30, 2011.

About the hotel:

Discover the ultimate in comfort, elegance and style at Sofitel Minneapolis, a Bloomington hotel that reflects the well-known Sofitel art de vivre. Its attractions include superb service and impeccable attention to detail, a beautiful lobby-atrium, and an award-winning restaurant, Chez Colette. There are a total of 277 rooms and 5 suites at our Minneapolis hotel. This four-star Minneapolis hotel is conveniently accessible to the Minneapolis St Paul International Airport and the Mall of America.

S O F I T E L
L U X U R Y H O T E L S

MINNEAPOLIS

Keynote Speaker: David Mooney

David Mooney is the Robert P. Pinkas Family Professor of Bioengineering in the School of Engineering and Applied Sciences at Harvard University, and a Core Faculty Member of the Wyss Institute for Biologically Inspired Engineering. His laboratory is focused on the design and synthesis of materials that regulate the fate of either transplanted cell populations or cells already resident in tissues. These polymeric systems mimic the



native extracellular matrix in their spatiotemporal control of information presentation to cells. The applications of these systems include the regeneration of damaged or diseased tissues, or the induction of specific immune responses (e.g., cancer vaccines). Dr. Mooney was previously a faculty member at the University of Michigan, and his education and training is from the University of Wisconsin, Massachusetts Institute of Technology, and Harvard Medical School. He is a member of the National Academy of Engineering (US), Fellow of the American Institute for Medical and Biological Engineering, a NIH MERIT awardee, and has received a number of awards from professional societies. His inventions have been licensed by ten companies for development and he is active on industrial scientific advisory boards.

Excellence in Surface Science Award Winner: Nicholas A. Peppas

Nicholas A. Peppas is the Fletcher Stuckey Pratt Chair of Chemical Engineering, Biomedical Engineering and Pharmacy; and chair of the Department of Biomedical Engineering at The University of Texas at Austin. He is a member of the Institute of Medicine of the National Academies, the National Academy of Engineering, the National Academy of Pharmacy of France, and the Texas Academy of Medicine, Engineering and Sciences. Peppas is a world leader in biomaterials, drug delivery and pharmaceutical bioengineering. Among other medical devices, he has developed, patented and/or commercialized nanodelivery systems for oral administration



of insulin to Type I diabetes patients, systems for oral delivery of calcitonin for treatment of postmenopausal women suffering from osteoporosis, new treatments for multiple sclerosis using interferon-beta, as well as intraocular lenses and artificial vocal cords. He has been recognized with awards from AIChE (Founders Award, William Walker Award, Institute Lecture, Jay Bailey Award, Bioengineering Award, Materials Award), BMES (Distinguished Scientist Award), AIMBE (Galletti Award), Society for Biomaterials (Founders, Clemson and Hall Awards), Controlled Release Society (Founders, Heller and Eurand Awards) and other societies. He is the President of the International Union of Societies of Biomaterials Science and Engineering and serves on the Board of the (US) Biomedical Engineering Society.

BioInterface 2011

Online registration available at surfaces.org. A separate form should be completed for each registrant.

Cost

Full Conference – Oct. 24, 25 & 26 (Includes workshop and 2-day symposium, all luncheons, breaks, an evening reception and the Point-Counterpoint session)

Member Combined	<input type="checkbox"/> \$850
Non-Member Combined	<input type="checkbox"/> \$950
Students ¹	<input type="checkbox"/> \$350

Workshop Only – Oct. 24 (Includes the entire workshop, lunch and breaks)

Member	<input type="checkbox"/> \$350
Non-Member	<input type="checkbox"/> \$450
Students ¹	<input type="checkbox"/> \$200

Symposium Only – Oct. 25 & 26 (Includes the 2-day symposium, luncheons, breaks, an evening reception and the Point-Counterpoint session)

Member	<input type="checkbox"/> \$550
Non-Member	<input type="checkbox"/> \$650
Students ¹	<input type="checkbox"/> \$200

¹Students who submit a Technical Poster are given free registration to the Conference (Technical Symposium only; not the Workshop)
☐ Check box to receive more information on the IBB Industrial Partners Program.

Membership – Join now and save on your Symposium registration. Visit www.surfaces.org for complete member benefit information.

Corporate Annual Membership Rates (includes one full conference registration & one exhibit option)	<input type="checkbox"/> \$2,500
Smaller Corporations (fewer than 50 employees) (includes one full conference registration & one exhibit option)	<input type="checkbox"/> \$2,000
Academic Membership (one discounted full conference registration at half the member price and one free exhibit option)	<input type="checkbox"/> \$625
Individual Membership (entitles registration at Member rates)	<input type="checkbox"/> \$50

TOTAL \$ _____

Name _____

Affiliation _____

Department _____

Address _____

City _____ State _____ Zip _____

E-mail _____

Phone _____ Fax _____

ADA/Special Requests _____

Payment (Payment must accompany registration form to be processed)

☐ Check (made payable to Surfaces in Biomaterials Foundation) ☐ MasterCard ☐ VISA ☐ American Express

Note: If you are paying via credit card, all the following information is required.

Name (as it appears on card) _____ Cardholder Phone _____

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Send to: Surfaces in Biomaterials Foundation
 1000 Westgate Drive, Suite 252
 St. Paul, MN 55114
 Fax: 651-290-2266
www.surfaces.org
 Phone (651) 290-6267

Please Note: Surfaces in Biomaterials Foundation has taken the appropriate steps to maintain PCI compliance. In order to protect your privacy, please do not email your credit card information to our office.

Cancellation Policy: With written cancellation notice, received by Oct. 10, 2011 you will receive a full refund, less a \$50 administrative charge. Cancellations after Oct. 10, 2011 are non-refundable. Notices of cancellation must be faxed to the Surfaces in Biomaterials office at 651-290-2266. No-shows will not receive refunds.

(For office use only)

initials	fin.
date	
CK/CC	
amt. paid	
bal. due	