

## Thursday April 26

8:30-12:00	<p>Welcome and Plenary Session</p> <p><b>From Bench to Market</b></p> <p>Chair: <i>William K. Durfee</i> – Departments of Mechanical and Biomedical Engineering, University of Minnesota</p> <p>Keynote Speakers: <i>John Watson</i> – National Institutes of Health <i>John Linehan</i> – Whitaker Foundation <i>Tad Simons</i> - IDEO <i>Peter Gove</i> - St. Jude</p> <p>Panel Discussion with Audience</p>
10:20-10:40	Coffee & juice break
12:00-1:30	Box Lunch & Poster Session
2:00-3:30	<p><b>Session 1-A</b></p> <p><b>BioMEMS</b></p> <p>Chair: <i>Bradley J. Nelson</i> – Department of Mechanical Engineering, University of Minnesota</p> <p>Opening Remarks – <i>Bradley J. Nelson</i></p> <p><b>BioMEMS at Lawrence Livermore National Laboratory</b> – <i>Peter Krulevitch</i> – Lawrence Livermore National Laboratory</p> <p><b>MEMS for Drug Screening Applications</b> – <i>Susan C. Mantell</i> – Department of Mechanical Engineering, University of Minnesota</p> <p><b>Implantable Wireless Microsystems, New Opportunities in Medicine and Biology</b> – <i>Babak Ziaie</i> – Department of Electrical &amp; Computer Engineering, University of Minnesota</p>
2:00 -3:50	<p><b>Session 1-B</b></p> <p><b>Advanced Imaging Technologies</b></p> <p>Chair: <i>Bruce E. Hammer</i> – Department of Radiology, University of Minnesota</p> <p>Opening Remarks – <i>Bruce Hammer</i></p> <p><b>Self Guided Ultrasound Phase Arrays for Non-Invasive Surgery</b> – <i>Emad S. Ebbini</i> – Department of Electrical &amp; Computer Engineering, University of Minnesota</p> <p><b>Functional Imaging with Positron Emission Tomography</b> – <i>Jeih-San Liow</i> – Department of Radiology, University of Minnesota</p> <p><b>Design and Characterization of Medical Devices by MRI</b> – <i>Bruce E. Hammer</i> – Department of Radiology, University of Minnesota</p>
3:30-4:00	Break
4:00-5:30	<p><b>Session 2-A</b></p> <p><b>Design of Stem Cell and Gene Therapy Devices</b></p> <p>Chair: <i>David Odde</i> – Department of Biomedical Engineering, University of Minnesota</p> <p>Opening Remarks – <i>Dave Odde</i></p> <p><b>The Promise of Stem Cells Now and in the Future</b> – <i>Catherine Verfaillie</i> – Director, Stem Cell Institute, University of Minnesota</p> <p><b>Stem Cells in Cardiovascular Tissue Engineering</b> – <i>Robert Tranquillo</i> – Department of Biomedical Engineering, University of Minnesota</p> <p><b>Gene Therapy</b> – <i>Chester Whitley</i> – Director; Gene Therapy Center, University of Minnesota</p> <p><b>A Novel Approach for Introducing Biomaterials Into Cells</b> – <i>David Pui</i> – Department of Mechanical Engineering, University of Minnesota</p> <p>Open Discussion</p>

4:10-5:30

**Session 2-B**

**Evidence of Value - Science and Policy in Technology Assessment**

Chair: *Susan B. Foote* – School of Public Health, University of Minnesota

**Medical Device Technology Assessment** – *Michael F. Moore* – Sponsored Projects Administration, University of Minnesota and *Susan B. Foote*, School of Public Health, University of Minnesota

6:00 – 10:00

**Celebration Dinner**

**Changing the Way We Think About Medical Technology Policy**

Master of Ceremonies: *Kenneth H. Keller* – Hubert H. Humphrey Institute, University of Minnesota

Historic Perspective of Biomedical Engineering - *Kenneth H. Keller* – Hubert H. Humphrey Institute, University of Minnesota

University of Minnesota's Role in Medical Device Design - *Chris Maziar* - Vice President of Graduate School, University of Minnesota

**Featured Speaker:** *David F. Durenberger* – former U.S. Senator from Minnesota and current President of Public Policy Partners

**Friday April 27**

8:00 – 9:20

**Session 3-A**

**Minimally Invasive Thermal Therapies**

Chair: *John Bischof* – Departments of Mechanical and Biomedical Engineering, University of Minnesota

Opening Remarks – *John Bischof*

**The Induction of Mild Hypothermia as a Means to Provide Cerebral Protection** –

*Paul Iaizzo* – Departments of Anesthesiology and Physiology, University of Minnesota

**The Warm-up Therapy to Treat Chronic Wounds** – *Scott Augustine* – Augustine Medical

**Characterization of Thermal Injury in Cells and Tissues** – *John Bischof* – Departments of Mechanical and Biomedical Engineering, University of Minnesota

**Minimally Invasive Microwave Treatment of Benign Prostatic Hypertrophy** – *Eric Rudie* – Urologix, Inc. Twin Cities

Open Discussion

8:00 – 9:20

**Session 3-B**

**Entrepreneurship Workshop: Part 1**

Chair: *Alec Johnson* – Center for Entrepreneurial Studies at the Carlson School of Management, University of Minnesota

Challenges of a Medical Device Start-up – *Mark Wagner* – Survilink

Creating Companies out of Technology: The Role of the Carlson School of Management –

*Doug Johnson* – Center for Entrepreneurial Studies at the Carlson School of Management

9:20 – 9:40

Break

9:40 – 11:30

**Session 4-A**

**Tissue Engineering and Advanced Materials**

Chair: *Robert Tranquillo* – Department of Biomedical Engineering, University of Minnesota

Opening Remarks – *Robert Tranquillo*

**Design, Synthesis and Applications of Nanostructured Poly (lactic acid) Block**

**Copolymers** – *Marc Hillmyer* – Department of Chemistry, University of Minnesota

**Bioactive Ceramics** – *Lorraine F. Francis* – Department of Chemical Engineering and Materials Science, University of Minnesota

**Automatically Pulsing Hydrogels for Rhythmic Hormone Delivery** – *Ronald A. Siegel* – Department of Pharmaceutics, University of Minnesota

**Bioengineering Elastic Protein-based Materials for Soft Tissue Restoration** – *Dan W. Urry* – Biological Process Technology Institute, University of Minnesota

9:40 – 11:30

**Session 4-B**

**Entrepreneurship Workshop: Part 2**

Chair: *Alec Johnson* – Center for Entrepreneurial Studies at the Carlson School of Management, University of Minnesota

**Guest Speakers:** *Mark Knudson* – Venturi Group  
*Dave Stassen* – St. Paul Venture Capital

12:00 – 3:00

**Working Lunch: The Future of Medical Devices**

Chair: *Paul Iaizzo* – Departments of Anesthesiology and Physiology, University of Minnesota

Keynote Speaker: *Tim Laske* – Medtronic

Panel of Experts: *Arthur Kydd* – St. Croix Management Group

*Kenneth H. Keller* – Hubert H. Humphrey Institute, University of Minnesota

*Arthur G. Erdman* – Departments of Mechanical and Biomedical Engineering

*Ronald McGlennen* – Center for Laboratory Medicine & Pathology, University of Minnesota

3:30-5:30

**Laboratory Tours:** Tours of selected University of Minnesota biomedical device laboratory tours beginning at 3:30 and 4:30