



## AGENDA

**Event:** Medical Technology Conference  
**Date:** September 17 & 18, 2013  
**Location:** Old Main building, Arizona State University, Tempe, Arizona

### Day 1 – September 17

8:00 am                      **Registration opens**

8:45 am – 9:00 am        **Welcome and Introduction**

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#### **Session 1**

*Session Chair: Jeffrey LaBelle, Ph.D., Assistant Professor, Biomedical Engineering, Arizona State University*

9:00 am – 9:30 am        **A Glimpse into the Future: Focusing on Health Rather than Health Care**  
*Keith Lindor, M.D., Executive Vice Provost for Health Solutions,  
Arizona State University*

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9:30 am – 10:00 am      **Wireless Communication & Charging Platform for Solid State Batteries in  
Miniature Implantable Medical Devices**  
*Andy Kelly, System/IC Architect, Cactus Semiconductor Inc.*

10:00 am – 10:30 am    **MEMS: Sensing a New World of Applications in Healthcare and Wellness**  
*Jay Esfandyari, MEMS Product Marketing Manager, STMicroelectronics*

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10:30 am – 11:00 am    **Break**

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#### **Session 2**

*Session Chair: Ron Molnar, Executive Director, AZ Tech Direct, LLC*

11:00 am – 11:30 am    **Solder Joint Creep and its Relevance to Implantable Electronics**  
*Guna Selvaduray, Biomedical Engineering Program, San Jose State University*

11:30 am – 12:00 pm    **Wafer Level Packaging and TSV for Biomedical Applications**  
*Michael Shillinger, Founder, Innovative Micro Technology*

12:00 pm – 12:30 pm    **Designing More Reliable Medical Products – Methodology and Case Studies**  
*Mike Silverman, Managing Partner, Senior Reliability Consultant, Course  
Instructor, Ops Ala Carte*

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12:30 pm – 1:30 pm      **Lunch**

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## Day 1 – September 17 (continued)

### Session 3

Session Chair: *Guna Selvaduray, Ph.D., Professor, Materials Engineering, San Jose State University*

- 1:30 pm – 2:00 pm      **KEYNOTE : MEMS Technology and the Healthcare Industry –  
The Convergence of Timelines and the Perfect Storm**  
*Sam Bierstock, MD, BSEE, Physician (Internal Medicine and Ophthalmic Surgery), Electrical Engineer, Medical Informaticist, founder of Champions in Healthcare*
- 2:00 pm – 2:30 pm      **Emerging 3D Printing Applications in Biomedical Engineering**  
*David H. Frakes, Ph.D., Assistant Professor, School of Biological and Health Systems Engineering, School of Electrical, Computer, and Energy Engineering, Arizona State University*
- 2:30 pm – 3:00 pm      **Prescribing Gigabit Therapies for Healthcare System Transformation: Information & Communications Technology enabled “Intelligent Medical Systems”**  
*Donald A. Hicks, Ph.D., Professor of Political Economy and Public Policy, Special Assistant to University President, Executive Director of the Southwest TelePresence Network, The University of Texas at Dallas*

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3:00 pm – 3:30 pm      **Break**

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### **Panel Discussion: Technology will Revolutionize the Medical Industry over the next 5 - 10 years**

**Panel Moderator:** *Ron Molnar, Executive Director, AZ Tech Direct*

- 3:30 pm – 4:30 pm      Panelists were selected to cover the range of Technical perspectives :
- Sam Bierstock, MD, BSEE, Physician, Electrical Engineer, Medical Informaticist, founder of Champions in Healthcare
  - Donald A. Hicks, Ph.D., Professor of Political Economy and Public Policy, Special Assistant to University President, Executive Director of the Southwest TelePresence Network, The University of Texas at Dallas
  - Jayna Sheats, Ph.D., co-founder and CTO, Terepac Corporation
  - Karthik Vasanth, Ph.D., GM for Medical and High Reliability, Texas Instruments

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4:30 pm – 4:45 pm      **Day 1 Closing Comments**

5:00 pm – 7:00 pm      **Reception / Student Poster Session**

- Arizona State University
  - Campo Verde High School
  - BioScience High School
  - San Jose State University
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\*\*\*\* **Day 2 agenda on following pages** \*\*\*\*



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8:00 am                    **Registration opens**  
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#### **Session 4**

*Session Chair: Jeffrey LaBelle, Ph.D., Assistant Professor, Biomedical Engineering, Arizona State University*

9:00 am – 9:30 am      **The Quantified Self: New Mobile Healthcare Technology for Consumers**  
*Tony Massimini, Chief of Technology, Semico Research*

9:30 am – 10:00 am    **The Next Generation of Smart Implants**  
*Don Styblo, Vice President of Technology, Principal Client Advisor, Advanced Electronics, Valtronic*

10:00 am – 10:30 am   **Download Two Apps & Call Me in the Morning: Mobile & Tablet-based Applications for Healthcare**  
*Meziar Farzam, Co-Founder and President, Inhance Digital*

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10:30 am – 11:00 am   **Break**

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#### **Session 5**

*Session Chair: Ron Molnar, Executive Director, AZ Tech Direct, LLC*

11:00 am – 11:30 am   **Wedge Bonding New Wire Alloys for Medical Electronics**  
*Lee Levine, Distinguished Member, Hesse Mechatronics*

11:30 am – 12:00 pm   **Application of Embedded Planar Passives in Medical Electronic Designs**  
*Joel S. Peiffer, Lead Engineering Specialist, 3M and David Burgess, President, Ticer Technologies*

12:00 am – 12:30 pm   **Miniaturized Electronic Packaging for Wearable Health Monitors**  
*Jayna Sheats, Ph.D., Co-founder and CTO, Terepac Corporation*

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12:30 pm – 1:30        **Lunch**

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## **Day 2 – September 18 (continued)**

### **Session 6**

*Chair: Guna Selvaduray, Ph.D., Professor, Materials Engineering, San Jose State University*

1:30 pm – 2:00 pm      **KEYNOTE : Creating Solutions for Health through Technology Innovation**  
*Karthik Vasanth, Ph.D., General Manager for Medical and High Reliability, Texas Instruments*

2:00 pm – 2:30 pm      **Microprocessor Technology in Ankle Prosthetics**  
*Thomas Sugar, Ph.D., Arizona State University*

2:30 pm – 3:00 pm      **Development of Sensor Systems for Feedback Control of Artificial Hands**  
*Veronica J. Santos, Asst. Prof. of Mechanical and Aerospace Engineering, Graduate Faculty of Biomedical and Electrical Engineering, Arizona State University*

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3:00 pm – 3:30 pm      **Break**

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### **Panel Discussion: Business in the Healthcare and Medical Industries over the next 5 - 10 years.**

**Moderator:** *Conference Co-Chairman: Nicholas Leonardi, Business Development, Premier Semiconductor Services*

3:30 pm – 4:30 pm      Panelists were selected to cover the range of Business Perspectives:

- Mary Ann Guerra, CEO, BioAccel
- Deborah Dahl, Banner Health
- James Goulka, ATIF
- Others to be announced

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4:30 pm – 4:45 pm      **Day 2 Closing Comments**

**Thank you to our Symposium Sponsors, Presenters and Attendees**

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