

## Introduction

The following abstracts were submitted, peer reviewed and accepted for presentation at the 2011 University of Minnesota's Design of Medical Devices (DMD) Conference ([www.dmd.umn.edu](http://www.dmd.umn.edu)) held April 12–14, 2011 at the Radisson University Hotel in Minneapolis, MN. We especially wish to acknowledge Dr. Just Herder who tirelessly chaired the review process, recruited appropriate reviewers and kept us on schedule.

Each year, this leading international forum invites high quality technical submissions from the academic, clinical and/or industry medical device community. Accepted abstracts are placed into one of the following technical scientific poster session tracks: Medical Device Product Development Process, Medical Simulators, MEMS/Nano, Neural, Orthopedics, Rehabilitation, Surgical Tools, Cardiovascular, Urologic, Regulatory & Intellectual Property, Home Medicine & Telemedicine, Human Factors and Special Devices.

One of the primary goals of the DMD conferences is to provide a neutral forum to bring medical device designers, manufacturers, researchers, and representatives from the public sector together to share their perspectives on medical device design. We very much appreciate the authors for submitting their work to the *Journal of Medical Devices*.

Congratulations to all the authors for acceptance of your abstracts!

**Arthur Erdman**  
Conference Chair

**William Durfee**  
Conference Co-Chair

**Paul Iaizzo**  
Conference Co-Chair

**Just Herder**  
Contributed Papers Chair

**John C. Bischof**  
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**Marie Johnson**  
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**Richard Bianco**  
Conference Co-Chair

*The Design of Medical Devices Conference is presented by: The University of Minnesota's Medical Devices Center, part of the Institute for Engineering in Medicine, the College of Science and Engineering, and the Academic Health Center  
In Cooperation with: The University of Minnesota's Office of Business Relations*