

*Wednesday, May 26, 2010 • Hilton Harrisburg, Pennsylvania*  
**Sponsored Forum for FDA & Clinical ECMO Experts to Discuss & Define Outstanding Clinical & Regulatory Issues Related to ECMO**  
*Presented by Penn State Hershey Medical Center in cooperation with ASAIO*  
**Aly El-Banayosy, MD - Course Director**  
*For More Information Call 717.531.6483 or Email [continuinged@hmc.psu.edu](mailto:continuinged@hmc.psu.edu)*  
[www.pennstatehershey.org/ce](http://www.pennstatehershey.org/ce)

**Thursday, May 27, 2010**

8:00am - 8:30am

**RAPID FIRE FLASH PRESENTATIONS**

Five Abstracts have been selected for presentation in the New Rapid Fire format. Authors will have five minutes to present up to three slides. Please direct all questions to poster board in Exhibit Hall.

Hemolysis Rate after Biventricular Centrifugal Ventricular Assist Device Implantation: Preliminary Data of Clinical Study

\*\*Alexander Stepanenko, MD - Deutsches Herzzentrum Berlin

Clinical Predictors for Long Hospital Stay after Left Ventricular Assist Device (LVAD) Implantation

\*\*Ian Ledford - Intermountain Medical Ctr

Gas Exchange Performance of a Silicon Nanoporous Membrane on a Liquid -Gas System

\*\*Fernando Casas, PhD - Cleveland Clinic

Different Flow Conditions Do Not Adversely Affect Integrity and Activation of the Endothelial Surface of a Novel Artificial Gas Exchange Membrane

\*\*Bettina Wiegmann, MD - Hannover Medical School

Two-Pool Physical Simulator of the Inter-Compartmental Mass Transfer during Dialysis

\*\*Giustina Casagrande, PhD - Politecnico di Milano

8:30am - 12:15pm

**GENERAL SESSION 1**

**"Opportunities for Innovation in the Face of Healthcare Reform"**

*Chairmen: William Holman, MD & Kurt Dasse, PhD*

8:30am - 9:30am

**SYMPOSIUM**

IT / Bioinformatics / Healthcare

**John Giobbi** - President & CEO, Proxense LLC

**Ryan Gallivan, MD** - Medical Advisor Otolaryngology, Proxense LLC

9:30am - 10:00am

**KEYNOTE ADDRESS**

The Future Impact of Healthcare Reform in the United States and the Regulatory Climate on Medical Device Innovation

**Roger Evans, PhD** - CEO, Transplant Professionals LLC

10:00am - 10:45am

**VISIT EXHIBITS & POSTERS - ENJOY REFRESHMENTS**

Exhibit Area: Key Ballroom 6 - Level 2

10:45am - 11:45am

**SYMPOSIUM**

International Perspectives on Healthcare Reform

Changes in Healthcare Reform in Europe

**Emma Birks, MRCP, PhD** - Prof Medicine, Univ of Louisville

Changes in Healthcare Reform in Asia

**\*\*Takeshi Nakatani, MD, PhD** - Dir Organ Transplantation, Nat'l Cardiovascular Ctr

11:45am - 12:15pm

ASAIO Y Nosé International Fellowship Presentation

**\*\*Takashi Nishimura, MD, PhD** - Univ of Tokyo

12:15pm - 1:15pm

**WORKING LUNCHEON - Admission by Ticket**

Decreasing Complications with VAD Support - Role of Physician & Industry

**\*\*Ranjit John, MD** - Asst Prof Surgery, Univ of Minnesota

1:30pm - 5:15pm

**CARDIAC TRACK**

1:30pm - 3:00pm

**CARDIAC SLIDE SESSION 1 ♦ Short Term Circulatory Support**

*Moderators: Ranjit John, MD & Jeffrey Morgan, MD*

1:30pm

Use of the Levitronix Left Ventricular Assist Device for Treating Postcardiotomy Cardiogenic Shock

Mehmet Akay - Texas Heart Inst

1:45pm

Outcomes with the Levitronix CentriMag as Cardiopulmonary Support (CPS) for Cardiogenic Shock

\*\*Pere Ventura, BS - Intermountain Medical Ctr

2:00pm

CentriMag-ECMO in Management of Acute Heart Failure Syndrome and Beyond

\*\*Aly El Banayosy, MD - Penn State Univ

2:15pm

Recovery: To Explant or Not To Explant

Joshua Baker, MD - Massachusetts General Hospital

2:30pm

Comparison of Circulatory Support with IABP and Impella 2.SLP

Stephanie Schampaert, BS - Eindhoven Univ of Technology

2:45pm

Remote Cannulation for CentriMag Right Ventricular Support To Reduce In Hospital Morbidity

Matthew Schiralli, MD - Univ of Rochester

1:30pm - 3:00pm

**CARDIAC INVITED SPEAKERS 1**

Moderators: Egemen Tuzun, MD & Peter Wearden, MD, PhD

1:30pm - 2:00pm

**SYMPOSIUM**

**Next Trial for REVIVE - IT**

**The Need and the Challenge**

**Leslie Miller, MD** - Walters Chair CV Medicine, Georgetown Univ Hospital

**REVIVE - IT Trial Update**

**\*\*Timothy Baldwin, PhD** - Prog Dir NHLBI, NIH

2:00pm - 2:30pm

**Debate - Control Based on Venous Return - Is It Enough?**

**\*\*Robert Benkowski, BSME** - COO, MicroMed Cardiovascular Inc

**\*\*Heinrich Schima, PhD** - Prof Physics & Biomed Eng, Medical Univ Vienna

2:30pm - 3:00pm

**FDA's Role & Position on the Harmonization By Doing Initiative**

**\*\*Eric Chen, MS** - Biomedical Engineer, FDA

3:00pm - 3:45pm

**VISIT EXHIBITS & POSTERS - ENJOY REFRESHMENTS**

Exhibit Area: Key Ballroom 6 - Level 2

3:45pm - 5:15pm

**CARDIAC SLIDE SESSION 2 ♦ Continuous Flow Pumps - Technical Consideration**

Moderators: Roberta Bogaev, MD & Greg Burgreen, PhD

3:45pm

**Algorithm for HeartMate II LVAD Speed Adjustments in the Perioperative Period**

Joshua Baker, MD - Massachusetts General Hospital

4:00pm

**Fluidic Performance Via Intrinsic Parameters of a Magnetically Levitated Axial Flow VAD**

Mark Olles, PhD - Rochester Inst of Technology

4:15pm

**Methodology of Hemolysis Testing of Mechanical Circulatory Support Devices**

**\*\*Michael Sobieski, RN, CCP** - Univ of Louisville

4:30pm

**Study on Improvement of Performance of Axial Flow Pump by Improving the Motor**

Shin Furukawa, MS - Tokyo Denki Univ

4:45pm

**In Vitro Hemolysis Study in a Nonpulsatile Implantable VAD: The Effect of Head Pressure and Flow**

**\*\*Branka Lukic, MS** - Penn State Univ

5:00pm

**Evaluation of Ventricular Relaxation during Mechanical Cardiac Assist with Rotary Blood Pumps**

**\*\*Francesco Moscato, PhD** - Medical Univ of Vienna

3:45pm - 5:15pm

**CARDIAC INVITED SPEAKERS 2**

Moderators: David Farrar, PhD & Edwin McGee, MD

3:45pm - 4:15pm

**Proteomics to Study Cardiac Remodeling**

**Giulio Agnetti, PhD** - Postdoctoral Research Fellow, John Hopkins Univ

4:15pm - 4:45pm

**Designing LVAD Trials - FDA Perspective**

**\*\*Eric Chen, MS** - Biomedical Engineer, FDA

4:45pm - 5:15pm

**Do You Like Your LVAD With or Without Warfarin? New VAD Design to Avoid Systemic Anticoagulation**

**\*\*Egemen Tuzun, MD** - Asst Dir CV Surgery Research Labs, Texas Heart Inst

8:00am - 5:00pm

**CARDIAC POSTER SESSION 1 ♦ Posters Available All Day**

Room: Exhibit Area - Key Ballroom 6 - Level 2

**Board #**

- 1 **Newly Developed Mini-Axial Flow Pump: Apex Pump**  
**\*\*Guorong Li, MD** - Fu Wai Hospital
- 2 **Hemolysis Rate after Biventricular Centrifugal Ventricular Assist Device Implantation: Preliminary Data of Clinical Study**  
**\*\*Alexander Stepanenko, MD** - Deutsches Herzzentrum Berlin
- 3 **Biventricular Mechanical Support with Two Implantable Assist Devices**  
Thomas Krabatsch, MD, PhD - German Heart Inst
- 4 **Clinical Predictors for Long Hospital Stay after Left Ventricular Assist Device (LVAD) Implantation**  
**\*\*Ian Ledford** - Intermountain Medical Ctr
- 5 **Causes of Mortality in Stable Destination Therapy Patients**  
**\*\*Douglas Horstmanshof, MD** - Integris Advanced Cardiac Care
- 6 **In Vivo Biocompatibility Evaluation of a New Surfactant Polymer Coating Mimicking the Glycocalyx of Endothelial Cells**  
Akira Shiose, MD, PhD - Cleveland Clinic
- 7 **Stability of Unloading-Induced Cardiac Improvement in Patients with Chronic Non-Ischemic Cardiomyopathy: Predictive Value for Transplant-Free Outcome after Ventricular Assist Device Implantation**  
Michael Dandel, MD, PhD - Deutsches Herzzentrum Berlin
- 8 **Development of the Implantable Axial Flow Pump LVAD with the Hydrodynamic Bearings**  
**\*\*Tomonori Tsukiya, PhD** - Nat'l Cardiovascular Research Ctr
- 9 **Low Rate of Thromboembolism with the INCOR Ventricular Assist Device: Design Changes and Initial Clinical Results**  
**\*\*Andreas Arndt, PhD** - Berlin Heart GmbH
- 10 **Pre-Clinical Evaluation of MITIHEART® LVAD**  
Andrew Hunsberger, MS - MITIHeart Corporation
- 11 **A Novel Counterpulsation Drive Mode in a Continuous -Flow Left Ventricular Assist Device - Effect on Coronary Circulation**  
Masahiko Ando, MD - Nat'l Cardiovascular Research Ctr
- 12 **Left Ventricular Assist for Pediatric Patients**  
Masahide Komagamine, MD - Tokyo Women's Medical Univ
- 13 **Left Ventricular Mechanical Support with the Impella Afford More Recovery Potential in Failing Hearts Than Extracorporeal Membrane Oxygenation**  
Dai Kawashima, MD - Univ of Tokyo
- 14 **The Effect of Continuous Flow Left Ventricular Assist Devices (CF -LVAD) on Aortic Valve Competence**  
**\*\*Jerson Martina, MSc** - Univ Medical Ctr Utrecht
- 15 **Adult Candidates for Heart Transplantation with Larger Body Surface Area Profit More from Mechanical Circulatory Support**  
**\*\*Takeshi Komoda, MD, PhD** - Deutsches Herzzentrum Berlin
- 16 **Does Ejection Fraction Predict Response to Biventricular Pacing after Cardiac Surgery?**  
**\*\*Michelle Spotnitz, MD** - UMDNJ - Robert Wood Johnson
- 17 **Driveline Infection and Bacteremia in Continuous -Flow LVAD Patients Increases Duration of LVAD Support**  
Forum Kamdar, MD - Univ of Minnesota
- 18 **Reduction in Device-Related Infections with the HeartMate II Left Ventricular Assist Device**  
**\*\*Jeffrey Morgan, MD** - Henry Ford Hospital

- 19 Development of a Novel Skin Penetrating Pad for Preventing the Exit Site Infection of VAD Driveline  
Toshihide Mizuno, DVM, PhD - Nat'l Cardiovascular Research Ctr
- 20 Pump Flow Estimation in cf-LVAD Patients Requires Dynamic Pump Models  
Marcel Rutten, PhD - Eindhoven Univ of Technology
- 21 Renal Dysfunction in Patients Receiving Continuous –Flow Left Ventricular Assist Devices Adversely Affects Survival  
Forum Kamdar, MD - Univ of Minnesota
- 22 Self-Expanding Venous Cannulae for Pediatric CPB  
Saad Abdel-Sayed, PhD - Univ Hospital CHUV
- 23 Turbulence Modeling as a Source of Error in FDA's "Critical Path" Interlaboratory Computational Study of Flow in a Nozzle Model  
Sandy Stewart, PhD - FDA
- 24 An Ovine Model of Postinfarction Remodeling  
Bart Meyns, MD, PhD - Univ Hospitals Leuven
- 25 Management of Patent Foramen Ovale during HeartMate LVAD Placement  
\*\*Walter Dembitsky, MD - Sharp Memorial Hospital
- 26 Novel Combined Maglev Actuator for the BiVACOR  
\*\*Toru Masuzawa, PhD - Ibaraki Univ
- 27 Differences in Regional Myocardial Perfusion, Metabolism, MVO2 and Edema after 12 Hour Coronary Sinus Machine Perfusion Preservation of Canine Hearts  
Michael Cobert, MS - Univ of Texas Southwestern
- 28 Sensorless Fuzzy Logic Control of a Rotary VAD: In Vivo Performance  
\*\*Fernando Casas, PhD - Cleveland Clinic
- 29 HeartMate II LVAD Support in Patients with Mechanical Mitral Valves  
Mehmet Akay - Texas Heart Inst
- 30 Comprehensive Fluid Dynamic Assessment of a Bileaflet Mitral Bioprosthesis  
Jonathan Hill - Univ of South Carolina

1:30pm - 4:45pm

**BIOENGINEERING TRACK**

1:30pm - 2:30pm

**BIOENGINEERING SLIDE SESSION 1 ♦ Neural & Auditory Bioengineering**

*Moderators: Steven Koenig, PhD & Antonio Ferreira, PhD*

1:30pm

Development of a New Antithrombogenic Cerebral Stent Using Ion Beam Surface Modification – A Five Year Animal Study

\*\*Yochi Sugita, MD - Baylor College of Medicine

1:45pm

A Novel Neurovascular Stent Covered in Stretchable Thin Film NiTi Significantly Decreases Flow into a Wide –Neck Aneurysm In Vitro

\*\*Youngjae Chun, PhD - UCLA

2:00pm

Liposome–Encapsulated Hemoglobin Alleviates Hearing Loss after Transient Cochlear Ischemia and Reperfusion

\*\*Akira Kawaguchi, MD, PhD - Tokai Univ

2:15pm

Brain Based Electrospun Tissue Scaffolds: A Parametric Study

\*\*Kevin Aroom, MS - Univ of Texas

1:30pm - 3:00pm

**BIOENGINEERING INVITED SPEAKERS 1**

*Moderators: James Antaki, PhD & Roshni Patel, MS*

1:30pm - 2:30pm

First International ECMO Conference

2:30pm - 3:00pm

Artificial Muscles

**Mohsen Shahinpoor, PhD** - Richard C Hill Prof & Chair Mech Eng, Univ of Maine

3:00pm - 3:45pm

**VISIT EXHIBITS & POSTERS - ENJOY REFRESHMENTS**

Exhibit Area: Key Ballroom 6 - Level 2

3:45pm - 5:15pm

**BIOENGINEERING SLIDE SESSION 2 ♦ Blood Substitutes & Pediatric Cardiopulmonary Bypass**

*Moderators: Conrad Zapanta, PhD & Keeffe Manning, PhD*

3:45pm

Hemotech–Blood Substitute Role in the Prevention of Platelet Activation in Percutaneous Coronary Intervention (PCI) Patients

\*\*Jan-Stanley Simoni, DVM, PhD - Texas Tech Univ

4:00pm

Delaying Blood Transfusion during Extreme Anemia with Perfluorocarbon Emulsion

\*\*Pedro Cabrales, PhD - Univ of California

4:15pm

In Vitro Observations of the Fluid Mechanics inside the Penn State PVAD Using Blood Analogs of Varying Hematocrits

\*\*Breigh Roszelle, BS - Penn State Univ

4:30pm

Left Ventricular Mechanoenergetic Cost of Blood and Plasma Viscosity during Hemodilution

\*\*Pedro Cabrales, PhD - Univ of California

4:45pm

Effect of Liposome–Encapsulated Hemoglobin on Antigen–Presenting Activity

\*\*Akira Kawaguchi, MD, PhD - Tokai Univ

5:00pm

Preliminary Experimental Validation of a Pressure–Regulated, Volume–Controlled Liquid Ventilation Mode

\*\*Raymond Robert, PhD, MSc - Univ de Sherbrooke

3:45pm - 4:45pm

**BIOENGINEERING INVITED SPEAKERS 2**

*Moderators: Kenneth Solen, PhD & Mickey Ising, BS*

3:45pm - 4:15pm

Translational Biomedical Engineering for Artificial Organ Research & Development

**Bastian de Mol, MD, PhD** - Prof CT Biomechanics, Academic Medical Center

4:15pm - 4:45pm

Bioengineering Challenges In Engineered Tissue Valves

**Michael Sacks, PhD** - John A Swanson Chair Bioeng, Univ of Pittsburgh

8:00am - 5:00pm

**BIOENGINEERING POSTER SESSION 1 ♦ Artificial Organ & Blood Substitute Development ♦ Posters Available All Day**

Room: Exhibit Area - Key Ballroom 6 - Level 2

**Board #**

- 31 Pre-Transplant Kidney–Specific Treatment To Eliminate the Need for Systemic Immunosuppression  
Lauren Brasile, PhD - Breonics
- 32 Apparatus for Measuring the Effect of Apical Torsion on Functioning Isolated Hearts  
Dennis Trumble, MS - Carnegie Mellon Univ
- 33 Development of a Highly Efficient Non –Viral Vector for Cardiac Gene Therapy  
Zhou Min, MD, PhD - Nat'l Cardiovascular Research Inst
- 34 Novel Percutaneous Implant Model for Pre-Clinical Testing  
\*\*Kelly Chapman, BSME - IncuMed Research Organization
- 35 Different Flow Conditions Do Not Adversely Affect Integrity and Activation of the Endothelial Surface of a Novel Artificial Gas Exchange Membrane  
\*\*Bettina Wiegmann, MD - Hannover Medical School
- 36 VA ECMO Setting Optimization in Patients Suffering from Cardiogenic Shock  
\*\*David Macku, MD, MSc - Czech Technical Univ

- 37 **Molecular Surgery for the Treatment of Malignant Tumors**  
\*\*Kazuhide Ohta, DVM, PhD - Baylor College of Medicine
- 38 **Liver Regeneration by Portal Cell Therapy: Transplanted Human Cord Blood Derived Unrestricted Somatic Stem Cells Generate Hepatocyte-Like Cells through Transdifferentiation but Not Cell Fusion**  
Alireza Ghodsizad, MD - Univ of Heidelberg
- 39 **Two-Pool Physical Simulator of the Inter-Compartmental Mass Transfer during Dialysis**  
\*\*Giustina Casagrande, PhD - Politecnico di Milano
- 40 **Plasmapheresis through a Microfabricated Silicon Nanofilter**  
\*\*Edward Leonard, PhD - Columbia Univ
- 41 **Regulated Delivery of IGF-1 Using Localizable Microencapsulated Genetically Modified Cells**  
\*\*Roshni Patel, MS - Brown Univ
- 42 **Expanding Capsule for Diet Control**  
\*\*Tomoyuki Yambe, MD, PhD - Tohoku Univ
- 43 **Surgical Correction of Ptosis by Ionic Polyacrylonitrile Artificial Muscles**  
Mohsen Shahinpoor, PhD - Univ of Maine
- 44 **Sustained Release Nitric Oxide from Long Lived Circulating Nanoparticles**  
\*\*Pedro Cabrales, PhD - Univ of California
- 45 **Drinking Mechanism for an Artificial Esophagus and Super Stent System**  
\*\*Tomoyuki Yambe, MD, PhD - Tohoku Univ
- 46 **Effects of Storage Time and ABO Group on Male and Female Donor Red Blood Cell Suspension Viscoelasticity**  
\*\*Amanda Daly, BS - Univ of Pittsburgh
- 47 **Study of the Influence of Lecithin Concentration on the Stability of Perfluorocetyl Bromide Emulsions**  
Camila Castro, MSc - Univ de Los Andes

1:30pm - 5:05pm

**INTERNATIONAL SOCIETY FOR APHERESIS SESSION**

**Apheresis Therapy I**

*Moderators: Andre Kaplan, MD & Patrick Moriarty, MD*

1:30pm - 1:50pm

**Selective Apheresis Technologies - Current Status and Future Perspectives**

**Wolfgang Ramlow, MD** - Medical Director, Clinic for Neph, Dialysis & Apheresis

1:50pm - 2:10pm

**Apheresis Therapy in Immune-Mediated Vasculitides**

**Andre Kaplan, MD** - Prof Medicine, University of Connecticut Health Ctr

2:10pm - 2:30pm

**Apheresis Therapy in Solid Organ Transplantation**

**Jan Kielstein, MD, PhD** - Asst Prof Medicine, Medical School Hannover

2:30pm - 2:50pm

**Current Status of Apheresis Therapy in Sepsis and Liver Failure**

**Dieter Falkenhagen, MD, PhD** - Head Clinical Med & Biotech, Danube Univ at Krems

3:00pm - 3:45pm

**VISIT EXHIBITS & POSTERS - ENJOY REFRESHMENTS**

Exhibit Area: Key Ballroom 6 - Level 2

**Apheresis Therapy II**

*Moderators: Paul Malchesky, D Eng & Wolfgang Eamlow, MD*

3:45pm - 4:05pm

**Adsorptive Cytapheresis - An Effective Treatment Option in Inflammatory Bowel Diseases**

**Ken Fukunaga, MD, PhD** - Asst Prof Medicine, Hyogo College of Medicine

4:05pm - 4:25pm

**Apheresis Therapy in Neurological Diseases - Current Status and Future Perspectives**

**Chang-Sung Koh, MD, PhD** - Prof Medicine, Shinshu University

4:25pm - 4:45pm

**Immunoadsorption in Idiopathic Dilated Cardiomyopathy**

**Lars Herda, MD** - Univ Greifswald

4:45pm - 5:05pm

**Rheological Effects of Lipid Apheresis**

**Patrick Moriarty, MD** - Clinical Pharmacology, Univ of Kansas

1:30pm - 5:15pm

**PULMONARY TRACK**

1:30pm - 3:00pm

**PULMONARY LECTURE & SLIDE SESSION 1**

*Moderators: Joseph Zwischenberger, MD & Jonathan Haft, MD*

1:30pm - 2:00pm

**Using ECMO as an Ambulatory Bridge to Lung Transplantation**

**Bartley Griffith, MD** - Prof & Chief Cardiac Surgery, Univ of Maryland

2:00pm

**ECMO in Patients with Shock, Predictors of Survival**

David Spurlock, MD - Univ of Michigan

2:15pm

**Retrospective Analysis of Venovenous Versus Venoarterial Extracorporeal Membrane Oxygenation for Treatment of Post Lung Transplantation Primary Graft Failure**

\*\*Matthew Bacchetta, MD - Columbia Univ

2:30pm

**Transfusion Requirements with a New Miniaturized System for Extracorporeal Membrane Oxygenation (ECMO) in Adult Respiratory Failure**

Daniele Camboni, MD - Univ Hospital Regensburg

2:45pm

**An Ultra-Durable Heparin-Free Pediatric and Adult ECMO Systems and Its Clinical Application in Japan**

\*\*Nobumasa Katagiri, ME - Nat'l Cardiovascular Ctr Research Inst

**ASAIO Willem J Kolff - Don B Olsen Award Recipient**

3:00pm - 3:45pm

**VISIT EXHIBITS & POSTERS - ENJOY REFRESHMENTS**

Exhibit Area: Key Ballroom 6 - Level 2

3:45pm - 5:15pm

**PULMONARY SLIDE SESSION 2**

*Moderators: Michael Sobieski, RN, CCP & Keith Cook, PhD*

3:45pm

**Extracorporeal Life Support as Rescue Therapy Following Sudden Cardiac Arrest Death**

Pasquale Totaro, MD, PhD - IRCCS Foundation S Matteo

4:00pm

**Percutaneous Cardiopulmonary Support Using Emergency Bypass System: Clinical Portfolio from Single Center Experience of 103 Cases**

\*\*Cheong Lim, MD, PhD - Seoul National Univ

4:15pm

**Safe Transport of Critically Ill Patients on Extracorporeal Membrane Oxygenation Support**

\*\*Matthew Bacchetta, MD - Columbia Univ

4:30pm

**Efficacy of Extracorporeal CO2 Removal with the Hemolung: Results in Animals**

\*\*Peter Wearden, MD, PhD - Children's Hospital of Pittsburgh

4:45pm

**Extracorporeal Support in Non-Heparinized Donors after Cardiac (DCD)**

\*\*Alvaro Rojas, MD - Univ of Michigan

5:00pm **A Microfluidic Respiratory Assist Device with High Gas Permeability for Artificial Lung Applications**  
Jeffrey Borenstein, PhD - Draper Laboratory

8:00am - 5:00pm **PULMONARY POSTER SESSION 1 ♦ Posters Available All Day**

Room: Exhibit Area - Key Ballroom 6 - Level 2

**Board #**

- 48 **Effects of the Molecular Mass of Tense –State Polymerized Bovine Hemoglobin on Blood Pressure and Vasoconstriction**  
\*\*Pedro Cabrales, PhD - Univ of California
- 49 **Gas Exchange Performance of a Silicon Nanoporous Membrane on a Liquid –Gas System**  
\*\*Fernando Casas, PhD - Cleveland Clinic
- 50 **Transesophageal Echo Guidance Facilitates Percutaneous Placement of the Avalon Elite™ Cannula for ECMO**  
\*\*Mark Bonnell, MD - Univ of Kentucky
- 51 **Mathematical Model of an Extra–Corporal Support System**  
Alejandro Mendoza Garcia, MSc - Technische Universitat Munchen
- 52 **A New Venovenous Perfusion –Induced Systemic Hyperthermia Circuit for Advanced Lung Cancer Therapy**  
\*\*Cherry Croft, PhD - Univ of Kentucky
- 53 **Silicone Hollow Sphere Fibers (SHSF): A New Concept for Capillary Membrane Oxygenators (CMO)**  
Khosrow Mottaghy - RWTH Aachen Univ
- 54 **Computational Evaluation of the Pediatric Scaled Pump –Lung (PediPL) Device**  
\*\*Mustafa Ertan Taskin, PhD - Univ of Maryland
- 55 **Structural Analysis for Constructing a Balloon Type Extracorporeal Membrane Oxygenator Using CFD Analysis**  
\*\*Young Ran Park, MS - Chonbuk National Univ
- 56 **Impedance and Right Ventricular Function in the Hypertensive Pulmonary System**  
Begum Akay, MD - Univ of Michigan
- 57 **Novel Bridge to Lung Transplantation in Pulmonary Hypertension Using Atrial Septostomy and Venous Extracorporeal Life Support**  
Peter Sassalos, MD - Univ of Michigan
- 58 **Converting the Redy 2000 Dialysis Machine to an Artificial Gills Machine That Delivers Dissolved Oxygen in Aquatic Phase**  
\*\*Mohamed Elnachef, MD - SIOF Institute

5:30pm - 6:30pm **ASAIO WELCOME RECEPTION - Admission by Ticket**

**Friday, May 28, 2010 ♦ INTENSIVE DIALYSIS DAY**

8:00am - 10:00am **RENAL GENERAL SESSION - Friday**

**"Intensive Outpatient Dialysis, Long and Short"**

Chairman: William Fissell, MD

8:00am - 9:00am **Improving Outcomes Through Intensive Hemodialysis**

Philip McFarlane, MD - Medical Dir Nephrology, Univ of Toronto

9:00am - 10:00am **Home Hemodialysis and Short Daily Hemodialysis**

\*\*Christopher Blagg, MD - Executive Director, Northwest Kidney Centers

10:00am - 10:45am **VISIT EXHIBITS & POSTERS - ENJOY REFRESHMENTS**

Exhibit Area: Key Ballroom 6 - Level 2

10:45am - 12:00pm **CIRCULATE AND VISIT EXHIBITS & POSTERS**

12:15pm - 1:15pm **RENAL WORKING LUNCHEON - Admission by ticket**

**A Nurse Manager's Perspective on Intensive Maintenance Hemodialysis**

Introduction David Smith, RN, CHN - Manager Operations, Fresenius Medical Care NA

Lynda Newman, MSN, RN, ACNS-BC, CNN - Clinical Coordinator Home Dialysis, Case Medical Ctr

**RENAL PARALLEL SESSIONS**

1:30pm - 4:45pm **RENAL TRACK A. NUTS AND BOLTS OF INTENSIVE OUTPATIENT THERAPIES**

Moderator: Andre Kaplan, MD

1:30pm - 2:00pm **Tenuous Economics of a Nocturnal Program**

Robert Provenzano, MD - Dir Nephrology, St Johns Hospital & Medical Center

2:00pm - 2:30pm **Practical Matters in Setting Up a Nocturnal Program**

Karl Schwarze, MD - Chief Nephrology, Akron Nephrology Associates

2:30pm - 3:00pm **Discussion**

3:00pm - 3:45pm **VISIT EXHIBITS & POSTERS - ENJOY REFRESHMENTS**

Exhibit Area: Key Ballroom 6 - Level 2

3:45pm - 4:15pm **Technical and Practical Aspects of Daily Dialysis**

Robert Provenzano, MD - Dir Nephrology, St Johns Hospital & Medical Center

4:15pm - 4:45pm **Nocturnal Home Hemodialysis with an Eye Toward Long Term Survival of the Program**

Lynda Newman, MSN, RN, ACNS-BC, CNN - Clinical Coordinator Home Dialysis, Case Medical Ctr

1:30pm - 3:00pm **RENAL TRACK B. NOVEL MEMBRANE TECHNOLOGIES**

Moderator: William Fissell, MD

1:30pm - 2:00pm **Controlled Pore Geometries for Enhanced Selectivity**

\*\*William Fissell, MD - Assoc Staff, Cleveland Clinic

2:00pm - 2:30pm **Anodized Alumina Membranes**

\*\*Zhongping Huang, PhD - Asst Prof Mech Eng, Widener Univ

2:30pm - 3:00pm **Annealed Silicon Nanoporous Membranes**

Christopher Striemer, PhD - VP Engineering, SIMPore Inc

3:00pm - 3:45pm **VISIT EXHIBITS & POSTERS - ENJOY REFRESHMENTS**

Exhibit Area: Key Ballroom 6 - Level 2

3:45pm - 4:30pm	<b>RENAL SLIDE SESSION 1</b>
3:45pm	<b><u>Tidal Peritoneal Dialysis (TPD) Using Low Tidal (TV) and Reserve (RV) Volumes: Towards an Automated Wearable Artificial Kidney (AWAK)</u></b> **Martin Roberts, PhD - VA Greater Healthcare Systems
4:00pm	<b><u>Plasma Levels of Piperacillin and Tazobactam In Vitro Model of CVVHDF</u></b> Gisella Vischini, MD - S Eugenio Hospital
4:15pm	<b><u>Possible Treatment of Hyperphosphatemia during Dialysis Using a Phosphate Binding Column and an Improved Dialysate</u></b> Matthew Fahrenkopf - Carnegie Mellon Univ
8:00am - 5:00pm	<b>RENAL POSTER SESSION 1 • Posters Available All Day</b> Room: Exhibit Area - Key Ballroom 6 - Level 2

Board #	
59	<b><u>Clinical Evaluation of a Vascular Access System for Hemodialysis</u></b> **Abram Janis, MS - IncuMed Research Organization
60	<b><u>Comparison of Clearance and Fluid Distributions of Newly Designed High Flux Hemodialyzers</u></b> **Zhongping Huang, PhD - Widener Univ
61	<b><u>Patient Satisfaction with Renal Replacement Therapy, Education and Training</u></b> Greg Abbott, MBA - Baxter Healthcare
62	<b><u>Assessment of Change in Hydration Status in Hemodialysis Patients Using Bioimpedance Techniques</u></b> Samer Abbas, PhD - Renal Research Inst
63	<b><u>A Selective Cytopheretic Inhibitory Device (SCD) Accelerates Renal Recovery and Improves Mortality in ICU Patients with AKI and MOF in an Exploratory Clinical Study</u></b> **David Humes, MD - Univ of Michigan
64	<b><u>Effect of Selective Renal Artery Perfusion with Extracorporeal Circuit on Renal Function under Acute Cardio -Renal Syndrome</u></b> Shigeru Hanada, MD - Nat'l Cardiovascular Research Inst
65	<b><u>Optimized Biocompatibility and Performance of a New Steam Sterilized Plasma Separation Membrane</u></b> Markus Storr - Gambro Dialysatoren GmbH
66	<b><u>Mechanism of Action of a Selective Cytopheretic Device to Ameliorate Multiorgan Dysfunction in Septic Shock</u></b> **Juyoung Jung, DVM, PhD - Univ of Michigan
67	<b><u>Does a Reduced Sodium Dietary Intake Impact Blood Pressure and Total Body Water?</u></b> Natalia Rakova, MD - Russian Academy of Sciences
68	<b><u>Initial In Vivo Evaluation of a Hemodialyzing System for Transportable Treatment</u></b> **George Pantalos, PhD - Univ of Louisville
69	<b><u>Insulinogenic Index in Non -Diabetics during Hemodialysis</u></b> **Daniel Schneditz, PhD - Medical Univ of Graz
70	<b><u>Cryoreactive Albumin Removal Apheresis (CRARA) Therapy for the Prevention of Diabetic Complication</u></b> **Hiroshi Miyamoto, PhD - Baylor College of Medicine
71	<b><u>Dialyzer End-Caps Revisited</u></b> **Alexandra Peyser, BS - Columbia Univ
72	<b><u>Development of the 2nd Generation Granulocytapheresis Column</u></b> Junji Takaba - Baylor College of Medicine

## Friday, May 28, 2010

8:00am - 8:30am **RAPID FIRE FLASH PRESENTATIONS**  
Five Abstracts have been selected for presentation in the New Rapid Fire format. Authors will have five minutes to present up to three slides. Please direct all questions to poster board in Exhibit Hall.

<b><u>Clinical Evaluation of a Vascular Access System for Hemodialysis</u></b> **Abram Janis, MS - IncuMed Research Organization
<b><u>Modeling and Numerical Analysis of Platelet Activation, Adhesion and Aggregation in Artificial Organs</u></b> **Jaewook Nam, PhD - Rice Univ
<b><u>Impact of a Continuous Flow Left Ventricular Assist Device on Right Ventricular Function</u></b> **Jeffrey Morgan, MD - Henry Ford Hospital
<b><u>Evaluation of Oxygen Exchange in Total Liquid Ventilation with a Bubble Gas Exchanger</u></b> **Philippe Micheau, PhD - Univ de Sherbrooke
<b><u>Development of a 2nd Gen. Data Acquisition Platform for the Pediaflow VAD</u></b> **Salim Olia, BS - Univ of Pittsburgh

8:30am - 12:15pm **GENERAL SESSION 2 - Friday**  
**"Disruptive Technologies: Developing the Next Breakthrough"**

Chairmen: William Wagner, PhD & William Weiss, PhD

8:30am - 9:00am **KEYNOTE ADDRESS**  
**Enhancing Innovation and Its Commercial Application in an Academic Medical Center**  
Christopher Coburn, PhD - Executive Director Innovations, Cleveland Clinic

9:00am - 9:30am **The Safe Surgeon and Surgical Innovation**  
\*\*William Holman, MD - Prof CT Surgery, Univ of Alabama at Birmingham - President ASAIO

9:30am - 10:00am **ECMO as Organ Resuscitation for Donors after Cardiac Death**  
Constantino Fondevila, MD, PhD - Assoc Prof Surgery, Univ of Barcelona

10:00am - 10:45am **VISIT EXHIBITS & POSTERS - ENJOY REFRESHMENTS** Exhibit Area: Key Ballroom 6 - Level 2

10:45am - 11:15am **ASAIO HASTINGS LECTURE**  
**Artificial Lung - A New Inspiration**  
\*\*Joseph Zwischenberger, MD - Chair Surgery, Univ of Kentucky

11:15am - 11:45am **50th Scribner Anniversary - Dialyzing His First Patients with Chronic Renal Failure Using the Scribner - Quinton Shunt**  
\*\*Christopher Blagg, MD - Executive Director, Northwest Kidney Centers

11:45am - 12:15pm **BARNEY CLARK AWARD PRESENTATION**  
Presented by: \*\*Don Olsen, DVM - President, Utah Artificial Heart Inst  
\*\*Eli Friedman, MD - Prof Medicine, Downstate Medical Center

**ASAIO WILLEM J KOLFF - DON B OLSEN AWARD PRESENTATION**

Presented by: **\*\*Don Olsen, DVM**

**\*\*Nobumasa Katagiri, ME** - Nat'l Cardiovascular Ctr Research Inst

12:15pm - 1:15pm

**WORKING LUNCHEON - Admission by Ticket**

**Physicians Present - Training & Education with Devices / Therapy**

**\*\*Mark Slaughter, MD** - Prof & Chief Thoracic & CV Surg, Univ of Louisville

1:30pm - 5:00pm

**SPECIAL INTERACTIVE EXHIBIT: Demonstrating the Preparation and Management During Transport of a Critically Ill Patient Who is Being Sent to Tertiary Care Facility for a Highly Technical Procedure. In addition, Attendees Can See How Well They Perform Resuscitation-Related Procedures**

Room: Exhibit Area - Key Ballroom 6 - Level 2

**Integration of Medical Education and Technology, Recent Innovations**

**Richard Aghababian, MD** - Assoc Dean CME, Univ of Massachusetts Medical School

**\*\*James DuCanto, MD** - Asst Clinical Prof Liver Transplant Anesthesia, Aurora St Luke's Medical Ctr

**Jorge Yarzebski, NREMT-P** - Emergency Med Prog Coordinator, Univ of Massachusetts

**A. Preparation and Management during Transport of a Critically Ill Patient**

**B. Demonstration of Resuscitation-Related Procedures**

1:30pm - 4:15pm

**PULMONARY TRACK**

1:30pm - 3:00pm

**PULMONARY LECTURE & SLIDE SESSION 3**

Moderators: **Guruprasad Giridharan, PhD** & **William Federspiel, PhD**

1:30pm - 2:00pm

**Neurally Adjusted Ventilatory Assist**

**Christer Sinderby, BSc** - Staff Scientist, St Michael's Hospital

2:00pm

**Assessment of the Gas Exchange Performance of the TLV System with a Slanted Operating Table**

**Ryo Yokoi, BS** - Tokyo Denki Univ

2:15pm

**Veno-Venous Peripheral Extracorporeal Membrane Oxygenator (ECMO) for Acute Respiratory Failure Due to Influenza A (H1N1)**

**Virus Infection: Early Satisfactory Results in Our Single-Centre Experience**

**Pasquale Totaro, MD, PhD** - IRCCS Foundation S Matteo

2:30pm

**30 Day In-Vivo Performance of an Integrated Pediatric Pump-Lung for Cardiac/Cardiopulmonary Support**

**Tao Zhang, PhD** - Univ of Maryland

2:45pm

**In Vitro Testing Results of the Hemolung Respiratory Assist System**

**\*\*Paul Bieniek** - Alung Technologies Inc

3:00pm - 3:45pm

**VISIT EXHIBITS & POSTERS - ENJOY REFRESHMENTS**

Exhibit Area: Key Ballroom 6 - Level 2

3:45pm - 4:45pm

**SPECIAL SESSION - IFAO - ESAO**

Moderator: **Stephen Ash, MD**

3:45pm - 4:15pm

**Regenerative Medicine and ESAO Conference 2011**

**Rui Reis, PhD** - Assoc Prof, Univ of Minho

4:15pm - 4:45pm

**Artificial Organs and IFAO**

**\*\*Jörg Vienken, PhD** - President IFAO

1:30pm - 5:30pm

**CARDIAC TRACK**

1:30pm - 3:00pm

**CARDIAC SLIDE SESSION 3 ♦ Continuous Flow LVAD - Clinical Implication**

Moderators: **Geetha Bhat, MD, PhD** & **Scott Corbett, PhD**

1:30pm

**Lack of Ischemic Strokes in Patients Implanted with the HeartMate II LVAD: A Single Center Experience**

**Paul Nolan, PhD** - Univ of Arizona

1:45pm

**Does Coronary Flow Increase in cf-LVAD Support?**

**\*\*Egemen Tuzun, MD** - Texas Heart Inst

2:00pm

**How Effective Are Continuous Flow Left Ventricular Assist Devices in Lowering High Pulmonary Artery Pressures in Heart Transplant Candidates?**

**\*\*Geetha Bhat, MD, PhD** - Advocate Christ Medical Ctr

2:15pm

**Efficacy of Continuous-Flow LVADs in End-Stage Heart Failure Patients with Severe Pulmonary Hypertension**

**Forum Kamdar, MD** - Univ of Minnesota

2:30pm

**Tricuspid Valve Replacement Coincident with HeartMate II LVAD Insertion**

**\*\*Walter Dembitsky, MD** - Sharp Memorial Hospital

2:45pm

**Low Operative Mortality in Patients Supported with a Left Ventricular Assist Device Requiring Pump Exchange**

**\*\*Antone Tatoes, MD** - Advocate Christ Medical Ctr

1:30pm - 2:45pm

**CARDIAC INVITED SPEAKERS 3**

Moderators: **George Pantalos, PhD** & **Todd Massey, MD**

1:30pm - 1:50pm

**Dual Continuous Flow: Total Artificial Heart with Induced Pulsatility**

**\*\*O Howard Frazier, MD** - Chief Center for Cardiac Support, Texas Heart Inst

1:50pm - 2:15pm

**Remote Monitoring Session**

**Gregory Ewald, MD** - Assoc Prof Medicine, Washington Univ

2:15pm - 2:45pm

**Human Factors and When to Evaluate the Device**

**\*\*Sonna Patel-Raman, PhD** - Biomedical Engineer, FDA - FDA Perspective

**\*\*Jeffrey LaRose, MSME** - Exec VP, CSO, HeartWare Inc - Industry Perspective

3:00pm - 3:45pm

**VISIT EXHIBITS & POSTERS - ENJOY REFRESHMENTS**

Exhibit Area: Key Ballroom 6 - Level 2

3:45pm - 5:30pm

**CARDIAC SLIDE SESSION 4 ♦ VADs - Experimental**

Moderators: **Steven Conrad, MD, PhD** & **John Pristas, MBA**

3:45pm - 4:00pm

**Hypothermia**

**Marie Mullen, MD** - Assoc Prof Emergency Medicine, Univ of Massachusetts

4:00pm

**Opening Time and Average Load on the Aortic Valve during cf-LVAD Support**

**\*\*Egemen Tuzun, MD** - Texas Heart Inst

4:15pm

**A New Technology for Preventing VAD Drive Line Infection Using Plasma-Based Ion Implantation**

**\*\*Yoichi Sugita, MD** - Baylor College of Medicine

4:30pm

**Acute Animal Experiments of a Magnetically Levitated Axial Flow VAD**

- 4:45pm **1st US Implants of the Levacor VAD**  
 \*\*Don Olsen, DVM - Utah Artificial Heart Inst
- 5:00pm **Optimizing Cardiovascular Interaction with Ventricular Assist Devices**  
 \*\*Douglas Horstmanshof, MD - Integris Advanced Cardiac Care  
 Daniel Timms, PhD - Helmholtz Inst
- 5:15pm **Hemorheological Evaluation of the 3rd Gen. Pediaflow VAD Performance**  
 \*\*Salim Olia, BS - Univ of Pittsburgh

8:00am - 5:00pm **CARDIAC POSTER SESSION 2 • Posters Available All Day**

Room: Exhibit Area - Key Ballroom 6 - Level 2

**Board #**

- 73 **Miniature Cardiopulmonary Bypass System for Mice**  
 \*\*Akira Kawaguchi, MD, PhD - Tokai Univ
- 74 **Development of a Novel Inflow Cannula for Less Invasive and Antithrombogenic LVAD Support**  
 \*\*Yoshiaki Takewa, MD - Nat'l Cardiovascular Research Ctr
- 75 **Modeling and Numerical Analysis of Platelet Activation, Adhesion and Aggregation in Artificial Organs**  
 \*\*Jaewook Nam, PhD - Rice Univ
- 76 **Development of Native Heart Load Control System with Continuous Flow Ventricular Assist Device for Bridge to Recovery of Failing Heart**  
 \*\*Takashi Nishimura, MD, PhD - Univ of Tokyo **ASAIO Y Nosé International Fellowship Recipient**
- 77 **Impact of a Continuous Flow Left Ventricular Assist Device on Right Ventricular Function**  
 \*\*Jeffrey Morgan, MD - Henry Ford Hospital
- 78 **Rescue Therapy with TandemHeart™ in Patients with Severe Post –Heart Transplant Rejection and Cardiogenic Shock**  
 Mehmet Akay - Texas Heart Inst
- 79 **Influence of the Aortic Root Compliance on Hemolysis of Heart Valve Prostheses: An In Vitro Study**  
 Marcus Hormes, Dipl Ing - RWTH Aachen Univ
- 80 **Time-Dependent Differences in the Cause of Death after Left Ventricular Assist Device Implantation**  
 \*\*Ian Ledford - Intermountain Medical Ctr
- 81 **LEVACOR™ VAD – Preclinical Qualification for US Study**  
 \*\*Phillip Miller, MS - WorldHeart Corporation
- 82 **Preclinical Biocompatibility Assessment of Pediatric VADS in the Ovine Model**  
 \*\*Carl Johnson, BS - Univ of Pittsburgh
- 83 **Use of External Pressure Application To Augment Fontan Hemodynamics**  
 \*\*Sonya Bhavsar, BS - Virginia Commonwealth Univ
- 84 **In Vitro and Ex Vivo Development of a Novel Bioactive Ventricular Assist Device Conduit**  
 Matthew Phaneuf, BS - BioSurfaces Inc
- 85 **Biventricular Support Using Implantable Continuous –Flow Ventricular Assist Devices**  
 Shunsuke Saito, MD - Osaka Univ
- 86 **Speed Modulation of the Continuous –Flow Total Artificial Heart To Simulate a Physiologic Arterial Pressure Waveform**  
 Akira Shiose, MD, PhD - Cleveland Clinic
- 87 **Accidental Intraabdominal Tunneling of Driveline in Patient Supported for over 4 Years with DuraHeart Left Ventricular Assist Device (LVAD) Detected during Pump Exchange**  
 \*\*Alexander Stepanenko, MD - Deutsches Herzzentrum Berlin
- 88 **Arterial Pressure Correlates with Cardiac Output during Biventricular Pacing Optimization**  
 Barry Breaux - Columbia Univ
- 89 **A Dynamic Study on the Hemolytic Effect of Negative Pressure on Blood**  
 \*\*Tim Kaufmann, Dipl Phys - RWTH Aachen Univ
- 90 **Development of a Wearable Pneumatic Total Artificial Heart System with an Ultra Compact Drive Unit**  
 Hirohito Sumikura, PhD - Nat'l Cardiovascular Research Ctr
- 91 **Biochemical and Functional Changes in Red Blood Cells and Platelets Induced by Iodinated Radiographic Contrast Media (ICM)**  
 \*\*Jan-Stanley Simoni, DVM, PhD - Texas Tech Univ
- 92 **A Design Tool for Miniaturized RBP Impeller Suspension Using Fluid Film Bearings**  
 Daniel Timms, PhD - Helmholtz Inst
- 93 **Percutaneous Cavopulmonary Assist System for Failing Fontan Circulation**  
 \*\*Dongfang Wang, MD, PhD - Univ of Kentucky
- 94 **Peripheral Approach to the Impella 5.0LP**  
 Joshua Baker, MD - Massachusetts General Hospital
- 95 **Development of an Ultra –Compact Pneumatic Pressure Generation System To Drive a Pneumatic Blood Pump for VAD and TAH**  
 \*\*Akihiko Homma, PhD - Nat'l Cardiovascular Research Ctr
- 96 **Development of a Rapid, Safe, Fiberoptic Guided, Single –Incision Cricothyrotomy Method Using a Large Ovine Model: A Pilot Study**  
 \*\*James DuCanto, MD - Aurora St Luke's Medical Ctr
- 97 **Simulation of the Flow in the Cardiovascular System for Cardiopulmonary Bypass and Cardiac Assist Using a Two-Way Fluid–Structure–Interaction Model**  
 \*\*Tim Kaufmann, Dipl Phys - RWTH Aachen Univ
- 98 **Computational Modeling of Nitinol Stents for Percutaneous Heart Valves**  
 \*\*Javid Moraveji - Univ of South Carolina
- 99 **Simulation of a Pneumatic Driver for a Pediatric Ventricular Assist Device**  
 \*\*William Weiss, PhD - Penn State Univ
- 100 **Ultrafiltration Techniques in a Large –Animal Model of Cardiac Replacement**  
 \*\*Jeff Conger, BS, RRT - Texas Heart Inst
- 101 **Investigation of Effects of Passive Filling Left Ventricular Assist Device on Native Failing Heart in Mock Circulation**  
 Yu Funabashi - Tokyo Denki Univ
- 102 **In Vivo Calcification of Polyurethane Trileaflet Heart Valves**  
 \*\*Caitlyn Bosecker, SMME - Abiomed Inc

1:30pm - 5:00pm

**BIOENGINEERING TRACK**

1:30pm - 3:00pm

**BIOENGINEERING SLIDE SESSION 3 • Ventricular Assist Device Bioengineering**

Moderators: Marina Kameneva, PhD & Timothy Maul, PhD

1:30pm

**Predictors of Late Exit Site Infections Associated with Ventricular Assist Device (VAD) Therapy**

\*\*Pramond Bonde, MD - Univ of Pittsburgh

1:45pm

**Early Unloading of Infarcted Hearts Prevents Cardiac Remodeling and Preserves Calcium Homeostasis**

Giacomo Bianchi, MD - Univ of Maryland

2:00pm

**Impella LVAD Effectively Decreases Strain in the Left Ventricle after Myocardial Infarction**

\*\*Zhongjun Wu, PhD - Univ of Maryland

2:15pm

**Optimal Identification of Need for Right Ventricular Support Using Cost –Sensitive Decision Tree**

\*\*Yajuan Wang, MS - Carnegie Mellon Univ

**ASAIO Young Innovator First Time Author Fellowship Recipient**

2:30pm	<b><u>Biodegradable and Thermo-responsive Hydrogels Designed for Injection Therapy To Improve Function in Ischemic Cardiomyopathy</u></b> **William Wagner, PhD - Univ of Pittsburgh
2:45pm	<b><u>Sensitivity of Hemodynamics and Wall Stress to the Speed of Continuous Flow Pump</u></b> **Choon-Sik Jhun, PhD - Penn State Univ
1:30pm - 3:00pm	<b>BIOENGINEERING INVITED SPEAKERS 3</b> <i>Moderators: Christopher Siedlecki, PhD &amp; Luke Herbertson, PhD</i>
1:30pm - 2:00pm	<b><u>Microtechnology - Devices</u></b> <b>Robert Keynton, PhD</b> - Prof & Chair Bioeng, Univ of Louisville
2:00pm - 2:30pm	<b><u>Surface Coatings – Interface Between Biological Tissue and Devices</u></b> <b>Michael Danilich, PhD</b> - Dir Biomedical Technologies, Luna Innovations Inc
3:00pm - 3:45pm	<b>VISIT EXHIBITS &amp; POSTERS - ENJOY REFRESHMENTS</b> Exhibit Area: Key Ballroom 6 - Level 2
3:45pm - 5:15pm	<b>BIOENGINEERING SLIDE SESSION 4 ♦ Artificial Organ Development</b> <i>Moderators: Amy Throckmorton, PhD &amp; Scott Merz, PhD</i>
3:45pm	<b><u>Development of a Cell Pouch To Form an Artificial Pancreas</u></b> David White, PhD - Univ of Western Ontario
4:00pm	<b><u>Bioengineered Skin Allografts – A New Method To Prevent Humoral Response</u></b> Lauren Brasile, PhD - Breonics
4:15pm	<b><u>Fibronectin Influences Staphylococcus Epidermidis RP62A Adhesion and Interaction with Platelets on Polyurethane Biomaterial Surfaces</u></b> **Christopher Siedlecki, PhD - Penn State Univ
4:30pm	<b><u>Evaluation of Small Intestine Submucosa Vascular Grafts for Small –Diameter Veins Replacement: Methodology and Early Results in an Animal Model</u></b> Lina Maria Quijano - Univ of Los Andes
4:45pm	<b><u>Platelet Inhibition by Antibiotics and Implications in Circulatory Support Device Development</u></b> **Denise Medvid - Penn State Univ
5:00pm	<b><u>Nitric Oxide (NO) Generating Silicone Hollow Fibers</u></b> Kagya Amoako, MS - Univ of Michigan
3:45pm - 4:45pm	<b>BIOENGINEERING INVITED SPEAKERS 4</b> <i>Moderators: John Marks, PhD &amp; Connie Hall, PhD</i>
3:45pm - 4:15pm	<b><u>Artificial Bladder - Neo-Organs</u></b> <b>Tamer Aboushwareb, MD, PhD</b> - Research Instructor, Wake Forest Univ
4:15pm - 4:45pm	<b><u>Creating a New Cardiovascular Bioengineering Institute in Turkey</u></b> **Kamuran Kadipasaoglu, PhD - Instructor Mech Eng, Bahcesehir Univ **Taha Elibol, BS - Research Assistant, Bahcesehir Univ
8:00am - 5:00pm	<b>BIOENGINEERING POSTER SESSION 2 ♦ Pediatric &amp; Adult Blood Pump Development ♦ Posters Available All Day</b> Room: Exhibit Area - Key Ballroom 6 - Level 2

Board #	
103	<b><u>In-Vitro Hemodynamic Evaluation of Ventricular Suction Conditions of the Evaheart Assist Pump</u></b> **Antonio Ferreira, PhD - Carnegie Mellon Univ
104	<b><u>Differences in Hydrodynamic Performance and Flow Estimation between Axial and Centrifugal LVAD</u></b> **Guruprasad Giridharan, PhD - Univ of Louisville
105	<b><u>Introductory Tests to In Vivo Evaluation: Magnetic Coupling Influence in Motor Controller</u></b> Eduardo Bock, MSc - IDPC / FEM
106	<b><u>Auxiliary Artificial Heart Endurance Test with a Mock Circulation Loop System</u></b> **Aron Andrade, PhD - Inst Dante Pazzanese of Cardiology
107	<b><u>Modeling and Diagnostics of Total Artificial Heart</u></b> Taoufik Wassar - Univ of Houston
108	<b><u>Surveillance and Management of HeartMate II Percutaneous Drivelines</u></b> **Trevor Snyder, PhD - Integris Baptist Medical Ctr
109	<b><u>Evaluation of Oxygen Exchange in Total Liquid Ventilation with a Bubble Gas Exchanger</u></b> **Philippe Micheau, PhD - Univ de Sherbrooke
110	<b><u>Aortic Outlet Extension in the 12cc Penn State Pediatric Ventricular Assist Device</u></b> **Michael Fickes, BS - Penn State Univ
111	<b><u>A Methodology To Study the Hemodynamics in Patients with Bi-Directional Glenn Shunt</u></b> Carolina Vallecilla, MSc - Univ of Los Andes
112	<b><u>A Fontan-Type Mock Circuit with Heterometric Autoregulation</u></b> **Taha Elibol, BS - Bahcesehir Univ
113	<b><u>Computational Assessment of Twisted Cage Filaments for an Intravascular Axial Flow Blood Pump for Cavopulmonary Assistance</u></b> **Amy Throckmorton, PhD - Virginia Commonwealth Univ
114	<b><u>A Flow Analysis of a Polymeric Trileaflet Heart Valve</u></b> **Dylan Frank, BS - Penn State Univ
115	<b><u>The Scaling Effects in Comparing Pediatric and Adult Mechanical Heart Valves</u></b> **Stephen Topper - Penn State Univ
116	<b><u>Functionalization of Polymeric Membranes for Tissue Engineering of Heart Valves</u></b> **Ismar Cestari, MD, PhD - Univ of Sao Paulo
117	<b><u>Development of a Novel Material Testing Method for Simulation of Biomedical Materials</u></b> **Tim Kaufmann, Dipl Phys - RWTH Aachen Univ
118	<b><u>Development of a 2nd Gen. Data Acquisition Platform for the Pediaflow VAD</u></b> **Salim Olia, BS - Univ of Pittsburgh

1:30pm - 4:15pm	<b>NEURAL SESSION</b> <i>Moderators: Nicholas Hatsopoulos, PhD &amp; Sonna Patel-Raman, PhD</i>
1:30pm - 2:30pm	<b>SYMPOSIUM</b> <b><u>Neuromorphic Engineering - Artificial Neural Systems, Such As Vision Systems, Head-Eye Systems, Auditory Processors &amp; Autonomous Robots</u></b> <b>Timothy Horiuchi, PhD</b> - Assoc Prof Computer Eng, Univ of Maryland <b>John Pezaris, PhD</b> - Asst Prof Neuroscience, Massachusetts General Hospital <b>Phil Troyk, PhD</b> - Assoc Prof Bioeng, IIT

- 2:30pm - 3:00pm **Advances In Artificial Hearing**  
**Christof Stieger, PhD** - Asst Prof ENT Head & Neck Surg, Univ of Bern
- 3:00pm - 3:45pm **VISIT EXHIBITS & POSTERS - ENJOY REFRESHMENTS** Exhibit Area: Key Ballroom 6 - Level 2
- 3:45pm - 4:15pm **Artificial Eyes**  
**Robert Greenberg, MD, PhD** - President & CEO, Second Sight Medical Products Inc
- 1:30pm - 4:15pm **PEDIATRIC SESSION**  
Moderators: **Brian Duncan, MD, MBA** & **Timothy Baldwin, PhD**
- 1:30pm - 1:45pm **An Overview of the NHLBI's PumpKIN Program**  
**\*\*Timothy Baldwin, PhD** - Prog Dir NHLBI, NIH
- 1:45pm - 3:00pm **SYMPOSIUM**  
**What Are the Best Methods for Anticoagulating Pediatric Patients with MCS Devices?**  
**Christopher Almond, MD** - Cardiologist, Children's Hosp Boston  
**Patricia Massicotte, MD** - Dir Vascular Patency, Univ of Alberta  
**Holger Buchholz, MD** - VAD Specialist, Univ of Alberta  
**\*\*Peter Wearden, MD, PhD** - Asst Prof Pediatrics CT Surg, Children's Hospital of Pittsburgh
- 3:00pm - 3:45pm **VISIT EXHIBITS & POSTERS - ENJOY REFRESHMENTS** Exhibit Area: Key Ballroom 6 - Level 2
- 3:45pm - 4:15pm **Challenges In Pediatric Cardiac Assist Device Development & Use**  
**\*\*James Antaki, PhD** - Prof Biomed Eng, Carnegie Mellon Univ
- 5:30pm - 6:00pm **ASAIO MEMBER BUSINESS MEETING**

## Saturday, May 29, 2010

- 8:00am - 8:30am **RAPID FIRE FLASH PRESENTATIONS**  
Five Abstracts have been selected for presentation in the New Rapid Fire format. Authors will have five minutes to present up to three slides. Please direct all questions to poster board in Exhibit Hall.
- Complicated Endocarditis Requiring Temporary Circulatory Support after Surgical Correction – Incidence and Outcome**  
Christian Binner, MD - Heart Center Leipzig
- Pre-Clinical Assessment of the 3rd PediaFlow™ Pediatric Ventricular Assist Device Prototype**  
**\*\*Timothy Maul, PhD** - Univ of Pittsburgh
- Delivering Physiologic Pulse Pressures with Continuous Flow Ventricular Assist Devices**  
**\*\*Mickey Ising** - Univ of Louisville **ASAIO Young Innovator First Time Author Fellowship Recipient**
- Assessing Shear-Induced Platelet Activation: In Vitro Comparison between Human and Bovine Blood**  
Qijin Lu, PhD - FDA
- Coating Polymers with a Human Extracellular Matrix (hECM) Significantly Improves Implant Biocompatibility**  
Emmett Pinney - Histogen Inc
- 8:30am - 12:00pm **GENERAL SESSION 3**  
**"Roadmap to Innovation: From Concept to Commercialization"**  
Chairmen: **William Wagner, PhD** & **David Humes, MD**
- 8:30am - 9:00am **Novel Tools and Techniques to Facilitate Off-Pump LVAD Implantation**  
**\*\*William Cohn, MD** - CV Surgeon, Texas Heart Institute
- 9:00am - 10:30am **NEW VENTURE FORUM**  
**Bridging Innovative Medical Concepts and Technologies to a Commercial Reality**
- Panel: **Tracy Warren**      **\*\*Brian Duncan, MD, MBA**      **Edward Berger, PhD**  
**\*\*Eric Chen, MS**      **\*\*Thomas Meese, BSE**
- Dynamitral: The Only Dynamic Mitral Valve Bioprosthesis**  
**\*\*Arash Kheradvar, MD, PhD** - Asst Prof Mech Eng, Univ of South Carolina
- Oclude Solutions**  
Carolina Vallecilla, MSc - Univ of Los Andes
- Bloodox**  
Camila Castro, MSc - Univ de Los Andes
- 10:30am - 11:00am **VISIT EXHIBITS & POSTERS - ENJOY REFRESHMENTS** Exhibit Area: Key Ballroom 6 - Level 2
- 11:00am - 11:30am **The Sorcerer's Apprentice - An Inventor's Journey**  
**\*\*Richard Wampler, MD** - Consultant
- 11:30am - 12:00pm **DEBATE**  
**Ethics of Organ Resuscitation with Donors after Cardiac Death**  
**\*\*Joseph Zwischenberger, MD** - Chair Surgery, Univ of Kentucky  
**\*\*Jeffrey Punch, MD** - Chief Transplantation, Univ of Michigan Medical Center
- 1:00pm - 3:00pm **COMMERCIALIZATION SESSION**  
Moderator: **Tracy Warren**
- 1:00pm - 2:30pm **SYMPOSIUM**  
**Commercializing Medical Devices**  
**Panel Discussion - The Basics of Commercialization**  
**Intellectual Property Primer**  
**Bonnie McLeod, PhD, JD** - Partner / Attorney, Cooley Godward Kronish LLP  
**The Medical Device Development Pathway: From Concept to Reimbursement in Seven Easy Steps**  
**\*\*Brian Duncan, MD, MBA** - Venture Partner - Arboretum Ventures

**Equity Primer - The Play Book of VC's**

Tracy Warren - General Partner, Battelle Ventures LP

2:30pm - 2:45pm

**Small Business: Trials and Tribulations**

**Doug Godshall** - President & CEO, HeartWare Inc

2:45pm - 3:00pm

**How to Reach High Standards to Sell Your Laboratory? A win-win Situation for Industry and Academia!**

**\*\*Egemen Tuzun, MD** - Asst Dir CV Surg, Texas Heart Inst

1:00pm - 3:00pm

**CARDIAC TRACK**

1:30pm - 3:00pm

**CARDIAC SLIDE SESSION 5 ♦ VADs**

Moderators: Wayne Richenbacher, MD & Mark Macedo, BSN

1:30pm

**Characterization of Reasons for Turning down Referrals for Left Ventricular Assist Devices (LVADs)**

**\*\*Jan Leford** - Intermountain Medical Ctr

1:45pm

**Anatomic Fit of a Percutaneous VAD for Treatment of Acute Right Heart Failure**

**\*\*Scott Corbett, PhD** - Abiomed Inc

2:00pm

**Ischemic Bowel Disease in Patients on Mechanical Assist Devices**

Monica Gustafson, MD - Univ of Arizona

2:15pm

**An Innovative, Miniaturized, Continuous –Flow Total Artificial Heart: Device Design and Preliminary Studies**

**\*\*Mark Slaughter, MD** - Univ of Louisville

2:30pm

**Anticoagulation Strategies for High Risk HeartMate II Patients**

**\*\*Walter Dembitsky, MD** - Sharp Memorial Hospital

2:45pm

**Arteriovenous Malformation and Gastrointestinal Bleeding in Patients with the HeartMate II Left Ventricular Assist Device**

Zumrut Demirozu - Texas Heart Inst

8:00am - 12:00pm

**CARDIAC POSTER SESSION 3 ♦ Posters Available Until 12 Noon**

Room: Exhibit Area - Key Ballroom 6 - Level 2

**Board #**

- 119 **A Single-Pass Orifice System To Assess Red Blood Cell Fragility**  
**\*\*Luke Herbertson, PhD** - FDA
- 120 **Complicated Endocarditis Requiring Temporary Circulatory Support after Surgical Correction – Incidence and Outcome**  
Christian Binner, MD - Heart Center Leipzig
- 121 **Pre-Clinical Assessment of the 3rd PediaFlow™ Pediatric Ventricular Assist Device Prototype**  
**\*\*Timothy Maul, PhD** - Univ of Pittsburgh
- 122 **A New Failing Fontan Sheep Model**  
**\*\*Dongfang Wang, MD, PhD** - Univ of Kentucky
- 123 **Left Ventricular Reverse Remodeling with the HeartMate II LVAD as Measured by Left Ventricular End Diastolic Dimensions and Severity of Mitral Regurgitation**  
**\*\*Jeffrey Morgan, MD** - Henry Ford Hospital
- 124 **Quantification of Ambulatory Power Source for Ventricular Assist System**  
Craig Carder, MSEE - HeartWare Inc
- 125 **In-Vitro Optimization of Inflation/Deflation Control for Para-Aortic Counter-Pulsatile Circulation Support**  
Ming-Yao Chan, PhD - Nat'l Cheng Kung Univ
- 126 **A New Axial Blood Designed for Adults in Fuwai Hospital**  
**\*\*Yan Zhang, MD** - Fu Wai Hospital **Presentation Cancelled 4/13/2010**
- 127 **Heart Rate Variability in Ventricular Assist Device Animals in View of the Mathematical Models**  
**\*\*Eiki Akagawa, PhD** - Nat'l Cardiovascular Research Ctr
- 128 **Regional Cerebral Oxygen Saturation Monitoring during Unilateral and Bilateral Carotid Perfusion for Cerebral Protection in Aortic Surgery**  
Pasquale Totaro, MD, PhD - IRCCS Foundation S Matteo
- 129 **Acquisition of Accurate Pressure –Volume Loops of Left Ventricle in Mock Circulation**  
Yoshihiro Miyazawa - Tokyo Denki Univ
- 130 **Experimental Evaluation of the InCor Pediatric Ventricular Assist Device**  
**\*\*Idagene Cestari, PhD** - Heart Inst, InCor
- 131 **Clinical Experience with Terumo –Triplex in Total Arch Replacement –Analysis of Postoperative Serum Leakage, Graft Dilatation Ratio and Inflammatory Response**  
**\*\*Toshihiro Ohata, MD, PhD** - KKR Sapporo Medical Ctr
- 132 **Hydraulic Ventricular Work Reduction with the Micromed cf –LVAD, an Ex–Vivo Study**  
Kim Pennings, BSc - Eindhoven Univ of Technology
- 133 **Interlaboratory Measurements of Flow Parameters for Comparison to CFD Simulations of FDA's Nozzle Model**  
Prasanna Hariharan - FDA
- 134 **Modeling and Simulation of Phasic Coronary Flow under Counter –Pulsatile Circulation Support**  
Chun-Hao Hung - Aeronautics & Astronautics
- 135 **Computational Fluid Dynamic Analysis of Aerosol Distribution in the Human Tracheo –Bronchial Tree**  
**\*\*Paola Bagnoli, PhD** - Politecnico di Milano
- 136 **A Computational Approach To Assess the Effect of Dynamic Annulus on Mitral's Leaflet Stress Distribution**  
**\*\*Ahmad Falahatpisheh, MSc** - Univ of South Carolina
- 137 **Investigation of Steady Flow through a Realistic Model of the Thoracic Human Aorta Using 3D Stereo –PIV and CFD–Simulation**  
**\*\*Tim Kaufmann, Dipl Phys** - RWTH Aachen Univ
- 138 **New Computational Method in Tensor –Based Hemolysis Analysis for Artificial Heart Pump**  
**\*\*Jaewook Nam, PhD** - Rice Univ
- 139 **Flow Rate Estimation for a Pneumatic Artificial Heart Using the Driveline Air Mass Flow**  
**\*\*Kentaro Ohnuma, PhD** - Nat'l Cardiovascular Research Ctr
- 140 **Hemodynamic Analysis of a Novel Spherical Positive Displacement Rotary Blood Pump**  
**\*\*Greg Burgreen, PhD** - Optimal LLC
- 141 **A Novel Ex Vivo Perfusion System for Analysis of High Blood Pressure in Human Vessels**  
Ulrich Schreiber, PhD - German Heart Ctr Munich
- 142 **Influence of Hemocor HPH –Hemoconcentrator on ATP Release from Human Erythrocytes**  
**\*\*Jan-Stanley Simoni, DVM, PhD** - Texas Tech Univ
- 143 **Bridge to Recovery with a Thoratec Biventricular Assist Device for Postpartum Cardiomyopathy: A Case Report**  
**\*\*Hannah Zimmerman, MD** - Univ of Arizona
- 144 **Evaluation of Less Invasive Treatment for Aortic Aneurysm with Ischemic Heart Disease by Catheter Intervention**  
Shigeki Ito, MD, PhD - Nishitokyo Central General Hospital
- 145 **Nitinol Based Artificial Muscle Independent Biventricular External Cardiac Assist Device: Bench Test Results**  
Alexandre Michalis, MD - CHUV

- 146 **PIV and Wall-PIV Study of a Valveless Counterpulsation Heart Assist Device**  
\*\*Leonid Goubergrits, PhD - Charite Universitaetsmedizin Berlin
- 147 **Rare Cardiac Pathology: Unilateral Absence of Pulmonary Artery with Tetralogy of Fallot**  
Tijen Alkan-Bozkaya, MD - Istanbul Bilim Univ
- 148 **Tacrolimus Once-Daily Formulation in the De-Novo Prophylaxis of Transplant Rejection in Heart Allograft Recipients**  
Akhim Koch - Uniklinik Heidelberg

1:00pm - 3:00pm

**PULMONARY TRACK**

1:30pm - 3:00pm

**PULMONARY SLIDE SESSION 4**

Moderators: Richard Chan, CCP & Zhongjun Wu, PhD

1:30pm

**Platelet Response to Extracorporeal Respiratory Support**

\*\*Xiaoqin Zhou, MD - Univ of Kentucky

1:45pm

**Combined Pulmonary and Renal Support in One Extracorporeal Device**

\*\*Bettina Wiegmann, MD - Hannover Medical School

2:00pm

**Evaluation of Platelet Activation in Ovinies Implanted with Integrated Pump -Lung Using Soluble P-Selectin**

Kang Zhou, MD - Univ of Maryland

2:15pm

**Pulsatile Versus Non Pulsatile Blood Flow in Blood Oxygenators: A CFD Study**

Marcus Hormes - RWTH Aachen Univ

2:30pm

**CFD Analysis of a Percutaneous Respiratory Assist Catheter**

\*\*Greg Burgreen - Optimal LLC

2:45pm

**Immobilized Carbonic Anhydrase on Hollow Fibers Accelerates CO2 Removal from Blood**

\*\*David Arazawa - Univ of Pittsburgh

1:00pm - 2:45pm

**BIOENGINEERING TRACK**

1:30pm - 3:00pm

**BIOENGINEERING SLIDE SESSION 5**

Moderators: Karen May-Newman, PhD & Breigh Roszelle, MS

1:30pm

**Compliant Thoracic Artificial Lung Design Using Fluid-Structure Interaction Modeling**

\*\*Rebecca Schewe, MS - Univ of Michigan

1:45pm

**Robust Simulation of CFD-Predicted Hemolysis**

\*\*Greg Burgreen, PhD - Optimal LLC

2:00pm

**Numerical Model of Thrombosis and Thromboembolization: Microfluid Effects**

\*\*Kenneth Solen, PhD - Brigham Young Univ

2:15pm

**An Improved Experimental Wall Shear Estimation within a 50cc Penn State Blood Pump**

\*\*Jason Nanna, BS - Penn State Univ

2:30pm

**Numerical and Experimental Investigation of the Flow through the LVAD Outlet Conduit -Aorta Anastomosis**

\*\*Esra Sorguven, PhD - Yeditepe Univ

2:45pm

**Flow Patterns of the LVAD-Assisted Left Ventricle Studied in a Mock Circulatory Loop**

\*\*Karen May-Newman, PhD - San Diego State Univ

8:00am - 12:00pm

**BIOENGINEERING POSTER SESSION 3 • Models & Surfaces to Improve Artificial Organs • Posters Available Until 12 Noon**

Room: Exhibit Area - Key Ballroom 6 - Level 2

**Board #**

- 149 **Delivering Physiologic Pulse Pressures with Continuous Flow Ventricular Assist Devices**  
\*\*Mickey Ising - Univ of Louisville
- 150 **Blood Dispersion in Capillaries**  
\*\*David Macku, MD, MSc - Czech Technical Univ
- 151 **Assessing Shear-Induced Platelet Activation: In Vitro Comparison between Human and Bovine Blood**  
Qijin Lu, PhD - FDA
- 152 **Design of a New Mag-Lev Hemolyzer Using CFD**  
\*\*Zhongjun Wu, PhD - Univ of Maryland
- 153 **Analysis of Pulsatile Flow in a Quasi-Angiostenosis Model Using the Finite Element Method**  
Naoki Katsura, MS - Toin Univ of Yokohama
- 154 **Pressure Versus Volume Loop Assessment for a Physical Cardiovascular Simulator System**  
Jeison Fonseca, MSc - Institute Dante Pazzanese of Cardiology
- 155 **3-D Reconstructed Patient-Specific Cavopulmonary Connection with Mechanical Assistance in the Inferior Vena Cava**  
\*\*Sonya Bhavsar, BS - Virginia Commonwealth Univ
- 156 **Chitosan/Gelatin Modified Film for Use in Prevention of Postoperative Peritoneal Adhesions**  
Elyas Shamram, MSc - Iran Univ **Presentation Cancelled 5/3/2010**
- 157 **Coating Polymers with a Human Extracellular Matrix (hECM) Significantly Improves Implant Biocompatibility**  
Emmett Pinney - Histogen Inc
- 158 **Construction of a System for Analysis of Cell Population Behavior on a Fibrous Scaffold**  
\*\*Hiroo Noguchi, MS - Tokyo Denki Univ
- 159 **Platelet Adhesion to Polyurethane Urea under Cardiac Impulse**  
\*\*Katherine Chorpensing, MS - Penn State Univ
- 160 **Fibrinogen Bioactivity and Platelet Adhesion on Biomaterial Surfaces**  
\*\*Christopher Siedlecki, PhD - Penn State Univ
- 161 **Contact Activation of Blood Coagulation by Mixed Thiol Self-Assembled Monolayers**  
James Bauer - Penn State Univ
- 162 **Evaluation of Cell Proliferation Potential on a Fibrous Scaffold Structure**  
\*\*Kazuhiro Nonaka, MS - Tokyo Denki Univ
- 163 **Simulation of Breathing Effects and Movement Artifacts in Mock Circuits**  
\*\*Heinrich Schima, PhD - Medical Univ of Vienna

\*\*Indicates an ASAIO Member

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