Friday, October 15

Session II  08:00 - 10:00

Chairs
K. Affeld, Berlin, Germany
T. Baldwin, Bethesda, USA

RBP IN EXTRACORPORAL CIRCULATION - PEDIATRIC AND ADULT CIRCULATION

Clinical applications of RBS in children, infants and neonates
J. Woodard, Pittsburgh, USA

PumKIN: NIH "Pumps for kids, infants and neonates" program
T. Baldwin, Bethesda, USA

Bridge-to-bridge application of RBP in pediatric and adult extracorporeal circulation
S. Takatani, Tokyo, Japan

In vivo biocompatibility assessment of the pediatric TinyPump: Result of the sixth version
Y. Ando, Fukuoka, Japan

Experience and lessons learned from the first 500 patients supported with the Levitronix® Pedivas™
J. D. Marks, Massachusetts, USA

In-vitro evaluation of a compliant inflow cannula reservoir to reduce suck-down events with extracorporeal, rotary VAD Support
S. Gregory, Queensland, Australia

E. Nagaoka, Tokyo, Japan

ENERGY TRANSFER / SOURCES

TET system for implantable devices: State of the scientific and technological knowledge
D. Budgett, Auckland, New Zealand

Clinical relevance of energy supply
G. Wieselthaler, Vienna, Austria

How can we achieve an infection resistant percutaneous energy transfer?
K. Affeld, Berlin, Germany

COFFEE BREAK

Session III  10:30 - 12:30

Chairs
M. Loebe, Houston, USA
T. Mazusawa, Ibaraki, Japan
PHYSIOLOGICAL CONTROL / SMART PUMPING

Relaxation monitoring
T. Nishimura, Osaka, Japan

Impact of LVAD pump speed on exercise parameters and invasive hemodynamics
C. Hayward, Sydney, Australia

Review of past and present control strategies for implantable rotary blood pumps
A. Rajamani, Birmingham, UK

Pulsing rotary blood pump as a means to control myocardial load in sheep
S. Vandenberghhe, Bern, Switzerland

A controllable, reversible ex-vivo heart failure model for LVAD support evaluation
M. C. M. Rutten, Eindhoven, The Netherlands

Evaluation of sensor and sensorless feedback signals for rotary TAH physiological controllers
N. Greatrex, Chermside, Australia

In vivo validation of selective destruction and/or removal of aged RBCs by a rotary blood pump
N. Yokoyama, Tokyo, Japan

ULTRA SHORT POSTER PRESENTATION

Coupling between maglev and motor-driving system and its effect on maglev blood pump design
Y. Zhang, Shandong, China

Improvement of hydraulic performance by optimization of impeller and diffuser vane design using a genetic algorithm for an enclosed-impeller type axial flow blood pump
T. Murata, Saitama, Japan

Influence of surface roughness on the shear stress and hemolysis amount under highly viscous blood shear flow
O. Maruyama, Tsukuba, Japan

Magnetically levitated motor for therapeutic arteficial heart
M. Kitago, Ibaraki, Japan

Improvements in a durability test mock circulatory system for a non-pulsatile ventricular assist device under pulsatile flow conditions
M. Nishida, Tsukuba, Japan

In vitro and in vivo characterization of the Levitronix CentriMagTM rotary blood pump
T. Pirbodaghi, Bern, Switzerland

Durability and anti-thrombogenicity of MERA monopivot centrifugal pump
T. Yaman, Tsukuba, Japan

In vitro antithrombogenic testing evaluation for a disposable centrifugal blood pump with hydrodynamic bearing compared with ex vivo results
O. Maruyama, Tsukuba, Japan

Performance improvement of an axial flow pump using forced whirling motion effect
Y. Suzuki, Tokyo, Japan

Development of a mixed flow pediatric blood pump
S. Hamazaki, Tokyo, Japan

LUNCH

Session IV 13:45 - 15:45

Chairs
E. Hennig, Berlin, Germany
Y. Taenaka, Osaka, Japan
PUMP ENGINEERING : DEVICE DESIGN / ENGINEERING METHODS

The ideal assist device: Clinical specifications
M. S. Slaughter, Louisville, USA

Device design based on medical-engineering collaboration
Y. Taenaka, Osaka, Japan

PediaFlow™ Pre-IDE application: finalizing the design and testing of the PediaFlow pediatric VAD in anticipation of clinical trial in 2013
J. F. Antaki, Pittsburgh, USA

Defining the optimal shape for a percutaneous right ventricular assist device
C. Nix, Aachen, Germany

Negligible bearing wear in explanted HeartMate II LVADs following clinical support for up to four years
S. H. Reichenbach, Pleasanton, USA

Development of next generation DuraHeart-A miniaturized centrifugal pump with a magnetically levitated impeller
C. Nojiri, Somerset, USA

Levacor VAD: System development leading to initiation of US BTT clinical trial
P. Khanwilkar, Salt Lake City, USA

An innovative, miniaturized, continuous-flow total artificial heart: design features and potential clinical relevance
M. S. Slaughter, Louisville, USA

Bearing gap control for a hydrodynamic-bearing centrifugal pump for prevention of hemolysis
R. Kosaka, Tsukuba, Japan

A small, efficient, blood pump utilizing a clinically proven blood immersed bearing technology
S. H. Reichenbach, Pleasanton, USA

"Hollow-rotor" axial-flow blood pump: Technical development and initial test results
D. Baykut, Oberwil, Switzerland

Levitronix Centrimag third generation MagLev continuous flow pump as bridge to solution
A. Loforte, Rome, Italy

Development of a MagLev centrifugal blood pump employing a magnet-less disposable pump head
W. Hijikata, Yokohama, Japan

Investigating the compromise of hydraulic and electrical requirements of an LVAD motor
M. Krämer, Aachen, Germany

COFFEE BREAK

Session V  16:15 - 17:45

Chairs:  T. Krabatsch, Berlin, Germany
              C. Sivathasan, Singapore

VAD IMPLANTATION AND EXPLANTATION TECHNIQUES

Minimal invasive techniques
B. Meyns, Leuven, Belgium

Overview: Clinical implantation and explantation techniques
J. W. Long, Oklahoma City, USA

Simultaneous aortic valve replacement in left ventricular assist device recipients: Single-center experience
N. Dranishnikov, Berlin, Germany

Improvement of rotary VAD hemocompatibility via an integrated theoretic and empiric approach
M. J. Slepian, Tucson, USA

Development and hydrodynamic evaluation of a novel inflow canula in a mechanical circulatory support for bridge to decision

H. Sumikura, Osaka, Japan

MODERATED PANEL DISCUSSION

Design changes to reduce complications of RBP

J. Long (moderator), B. Meyns, P. Nuesser, C. Sivathasan, M.S. Slaughter

GALA - DINNER