

**ESAO**  **2008**

# **Final Scientific Programme**

XXXV Annual meeting  
European Society for Artificial Organs

**Towards future  
biomedical technologies**

Centre Médical Universitaire (CMU)  
Geneva – Switzerland  
3-6 September 2008

[www.esao2008.medecine.unige.ch](http://www.esao2008.medecine.unige.ch)

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**XXXV Annual ESAO Congress, 3-6 September 2008, Geneva - Switzerland**


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**WELCOME MESSAGE**


## XXXV Annual ESAO Congress

**3-6 September 2008, Geneva - Switzerland**



On behalf of the European Society for Artificial Organs (ESAO), it is my great pleasure and honour to welcome you to the 35<sup>th</sup> annual meeting which will be held at the Medical Faculty of the University of Geneva, Switzerland, from 3 to 6 September, 2008.

**Towards future biomedical technologies** will be the theme of this congress which will be organised in collaboration with the Ecole Polytechnique Fédérale de Lausanne (EPFL), the Universities and University Hospitals of Geneva and Lausanne, thus, bringing together all the Science from the Arc Lémanique.

A highly scientific programme has been put together, covering various fields ranging from cardiovascular, liver and kidney support to tissue engineering, cell therapy and transplantation. The ongoing research in these fields, and especially the increased collaborations among various specialties, has led to tangible improvements which benefit the patient. This meeting is not only important as a teaching platform, but also gives young scientists the opportunity to present innovative studies. Finally, the human networking aspect of such a meeting and exchange of ideas and knowledge are equally important, not only among scientists, but also with our industrial partners, whom we thank for their support. We are also indebted to the wide panel of Swiss and international experts who will contribute to make it a “state-of-the-art” congress.

Geneva is the smallest of the big capitals - host of the world's largest health and humanitarian headquarters - a crossroad of men and ideas - a centre of arts and culture - a melting pot of history - a capital of gastronomy and hospitality, and a starting point for some of the most exciting lake and mountain excursions.

We look forward to welcoming you in Geneva for an interesting and challenging ESAO 2008 annual meeting.

**Beat H. Walpoth, MD**  
*ESAO and Congress President*



## XXXV Annual ESAO Congress, 3-6 September 2008, Geneva - Switzerland



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## XXXV Annual ESAO Congress 3-6 September 2008, Geneva - Switzerland

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## XXXV Annual ESAO Congress

### 3-6 September 2008, Geneva - Switzerland

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#### Congress Organiser

MCI has been selected by ESAO as the official Congress Organiser to process registrations, abstract handling, exhibition and sponsorship. All correspondence should be sent to:

#### ESAO 2008

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#### ESAO information

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*For membership application please consult the ESAO Website: [www.esao.org](http://www.esao.org)*

#### Congress venue and location

The XXXV ESAO Annual Meeting will be held at the Centre Médical Universitaire (CMU), Rue Michel-Servet 1, 1206 Geneva. The CMU is located next to the University Hospital not far away from the city centre.

#### ESAO Awards

The following Awards will be given during the congress:

- ESAO Wichtig Research Award
- ESAO Poster Awards (3)
- ESAO Innovation Award

Details can be found on the congress Website:



[www.esao2008.medecine.unige.ch](http://www.esao2008.medecine.unige.ch)

**XXXV Annual ESAO Congress, 3-6 September 2008, Geneva - Switzerland**

**ESAO 3-6 SEPTEMBER 2008      SCIENTIFIC PROGRAMME      WEDNESDAY 3 September**

	Room A	Room B	Room C	Room D
<b>Wednesday 3</b>				
13.30 - 14.45	<p><b>POSTGRADUATE COURSE</b> Complications Associated with the Use of Biomaterials in Dialysis</p> <p><b>PART I</b></p> <p><u>Chair:</u> M. Burnier, Lausanne (SUI) D. Teta, Lausanne (SUI)</p> <p><b>Patrick SAUDAN</b>, Geneva, (SUI) <i>Complications of venous catheters</i></p> <p><b>Pierre-Yves MARTIN</b>, Geneva (SUI) <i>Complications of dialysis membranes</i></p>		<p><b>POSTGRADUATE COURSE</b> European Granting &amp; Technology Transfer</p> <p><b>PART I</b></p> <p><b>HEALTH in FP7: Opportunities, Participation Rules, Keys for Success</b></p> <p><u>Chair:</u> K. Mottaghy, Aachen (GER) A. Waehry, Geneva (SUI)</p> <p><b>Judith ZBINDEN</b>, Swiss NCP HEALTH, Euresearch HO Bern (SUI) <i>Health opportunities in FP7</i></p> <p><b>Veronique SORDET</b>, Euresearch Geneva (SUI) <i>FP7 participation rules</i></p> <p><b>Interactive Session</b> <i>How to make a successful application</i></p>	
14.45 - 15.15	<b>COFFEE BREAK</b>			
15.15 - 16.45	<p><b>PART II</b></p> <p><u>Chair:</u> P.-Y. Martin, Geneva (SUI) P. Saudan, Geneva (SUI)</p> <p><b>Menno PRUIJM</b>, Lausanne, (SUI) <i>Complications of plasmapheresis</i></p> <p><b>Daniel TETA</b>, Lausanne, (SUI) <i>Complications of peritoneal dialysis</i></p>		<p><b>PART II</b></p> <p><b>From the Innovation to the Product</b></p> <p><u>Chair:</u> D. Falkenhagen, Krems (AUT) N. Maturana, Geneva (SUI)</p> <p><b>Alexandra RICHARDSON</b>, (UNITEC) Geneva, (SUI) <i>Intellectual property and technology transfer</i></p> <p><b>Benoit DUBUIJS</b>, (President Bioalps Association), Geneva, (SUI) <i>Regional networks and innovation supports</i></p> <p><b>Jesus MARTIN-GARCIA, Benoit DUBUIJS</b>, (ECLOSION) Geneva, (SUI) <i>From the innovation to the product (with film - 4 minutes)</i></p> <p style="text-align: right;"><i>Partly supported by BioAlps</i></p>	

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ESAO 3-6 SEPTEMBER 2008	SCIENTIFIC PROGRAMME	WEDNESDAY 3 September
<p><b>Wednesday 3</b></p>	<p><b>Room B</b></p> <p><b>OPENING CEREMONY</b></p> <p><i>Welcome Address</i>  <b>Beat H. WALPOTH</b>, Geneva (SUI)                      ESAO &amp; Congress President</p> <p><i>Allocutions</i>  <b>Pierre-François UNGER</b>                      State Councillor, Department of Economy and Health, Geneva (SUI)  <b>Jean-Dominique VASSALLI</b>                      Rector, University of Geneva (SUI)  <b>Patrick FRANCIOLI</b>                      Dean, Faculty of Biology &amp; Medicine, University of Lausanne (SUI)</p> <p><b>MUSIC</b></p>	<p><b>ESAO 2008</b></p>  <p><b>Final Scientific Programme</b></p> <p>XXXV Annual meeting                      European Society for Artificial Organs</p> <p><b>Towards future                      biomedical technologies</b></p> <p>Centre Médical Universitaire (CMU)                      Geneva – Switzerland                      3-6 September 2008</p> <p><a href="http://www.esao2008.medecine.unige.ch">www.esao2008.medecine.unige.ch</a></p>
<p><b>18.00 - 19.00</b></p>	<p><b>PLENARY SESSION</b></p> <p><b>Highlights from the Organising Universities</b></p> <p><u>Chair:</u> B. Meyns, Leuven (NDL)                      P. Hoffmeyer, Geneva (SUI)                      B.H. Walpoth, Geneva (SUI)</p> <p><b>Jeffrey HUBBELL</b>, EPFL, Lausanne (SUI)  <i>Molecular and cellular engineering toward artificial organs research</i></p> <p><b>Yan BARRANDON</b>, Joint Chair EPFL-CHUV, Lausanne (SUI)  <i>Stem cells: teaching old dogs new tricks</i></p> <p><b>Afksendiyos KALANGOS</b>, HUG, Geneva (SUI)  <i>Clinical application of cardiovascular biomaterials –                      From the polymer to the patient</i></p> <p><b>MUSIC</b></p>	
<p><b>19.00 - 20.00</b></p>	<p><b>WELCOME RECEPTION</b></p>	<p><a href="http://www.esao2008.medecine.unige.ch">www.esao2008.medecine.unige.ch</a></p>

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THURSDAY 4 September

SCIENTIFIC PROGRAMME

ESAO 3-6 SEPTEMBER 2008

Thursday 4	Room A	Room B	Room C	Room D
08.30 - 09.30		<p><b>PLENARY SESSION - LIVER -</b></p> <p>Chair: D. Falkenhagen, Krems (AUT) N. Demartines, Lausanne (SUI) P. Dayer, Geneva (SUI)</p> <p><b>Igor SAUER</b>, Berlin (GER) <i>Extracorporeal liver support - back from bed to bench</i></p> <p><b>Philippe MOREL</b>, Geneva (SUI) <i>Liver transplant: what does the future hold?</i></p> <p><b>Vladimir MIRONOV</b>, Charlston (USA) <i>Organ printing: directed tissue self-assembly</i></p>		
9.30 - 10.00	<b>COFFEE BREAK</b>			
10.00 - 11.00	<p><b>AFFILIATED SOCIETY SYMPOSIUM - ESOT -</b></p> <p><b>Organ Viability &amp; Preservation for Transplantation</b></p> <p>Chair: G. Rakhorst, Groningen (NLD) H. Leuvenink, Groningen (NLD)</p> <p><b>Henri LEUVENINK</b>, Groningen (NLD) <i>Preservation &amp; innovative techniques of perfusion to maintain organ viability</i></p> <p><b>Michiel ERASMUS</b>, Groningen (NLD) <i>Lung perfusion, non-heartbeating donation and transplantation</i></p> <p><b>Thierry BERNEY</b>, Geneva, (SUI) <i>Islet transplantation</i></p> 	<p><b>AFFILIATED SOCIETY SYMPOSIUM - ASAIO -</b></p> <p><b>Highlights from the ASAIO 2008 Meeting</b></p> <p>Chair: S. Ash, Lafayette (USA) M. Lysaght, Boston (USA)</p> <p><b>Michael LYSAGHT</b>, Boston (USA) <i>Bioengineering</i></p> <p><b>Steve ASH</b>, Lafayette (USA) <i>Renal</i></p> <p><b>Keefe MANNING</b>, University Park (USA) <i>Cardiovascular</i></p> 	<p><b>AFFILIATED SOCIETY SYMPOSIUM - TERMIS -</b></p> <p><b>Strategies for Tissue Engineering of Connective Tissues</b></p> <p>Chair: R. Reis, Porto (POR) I. Martin, Basle (SUI)</p> <p><b>Rui L. REIS</b>, Porto (POR) <i>New strategies for tissue engineering of bone and osteochondral defects</i></p> <p><b>Ivan MARTIN</b>, Basle (SUI) <i>Mesenchymal stem cell expansion in 3D perfusion systems</i></p> 	

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ESAO 3-6 SEPTEMBER 2008		SCIENTIFIC PROGRAMME		THURSDAY 4 September	
Thursday 4	Room A	Room B	Room C	Room D	
11.00 - 12.00		<p><b>CORPORATE MEMBERS SYMPOSIUM</b></p> <p><b>Therapy Development to Meet Future Patient Requirements</b></p> <p>Chair: I. Ledebø, Lund (SWE) B. Walpoth, Geneva (SUI) S. Stefoni, Bologna (ITA)</p> <p><b>Sudhir BOWRY</b>, Bad Homburg (GER) <b>Fresenius Medical Care</b> <i>Uremic toxins – what should and can be removed with current membranes and treatment modalities to improve patient outcomes?</i></p> <p><b>Peter RUTHERFORD</b>, Zürich (SUI) <b>Baxter, Healthcare</b> <i>Simplicity and complexity – treating tomorrow's patients</i></p> <p><b>Ingrid LEDEBØ</b>, Lund (SWE) <b>Gambro</b> <i>Future development of dialysis</i></p>			
12.00 - 13.30	<p><b>SUPPORTED LUNCH SYMPOSIUM</b></p> <p><b>Immuno-Suppression for Transplantation: Update 2008</b></p> <p>Chairmen and speakers: TBA</p> <p><i>Supported by Astellas</i></p>	<p><b>SUPPORTED LUNCH SYMPOSIUM</b></p> <p><b>Pulsatile versus Non Pulsatile Flow for Cardiac Support</b></p> <p>Chair: H. Schima, Vienna (AUT) M. Cikirikcioglu, Geneva (SUI)</p> <p><b>Heinrich SCHIMA</b>, Vienna (AUT) <i>Physiological aspects of continuous flow</i></p> <p><b>Andreas ARNDT</b>, Berlin (GER) <i>Enhancing the pulsatility of rotary blood pumps – options and limitations</i></p> <p><b>Johannes MÜLLER</b>, Berlin (GER) <i>Clinical experience with semi-pulsatile blood flow</i></p> <p><i>Supported by Berlin Heart</i></p>	<p><b>SUPPORTED LUNCH SYMPOSIUM</b></p> <p><b>Extracorporeal Blood Circuits for Liver Failure Therapies</b></p> <p>Chair: D. Falkenhagen, Krems (AUT) A. Hadengue, Geneva (SUI)</p> <p><b>Igor SAUER</b>, Berlin (GER) <i>Clinical experiences with extracorporeal liver assist devices</i></p> <p><b>Horst CHRISTMANN</b>, Bad Homburg, (GER) <i>Technical advances to improve the performance of the Prometheus System</i></p> <p><b>Peter KRISPER</b>, Graz, (AUT) <i>Optimizing anticoagulation in extracorporeal blood circuits for liver failure therapy</i></p> <p><i>Supported by Fresenius Medical Care</i></p>		



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THURSDAY 4 September

SCIENTIFIC PROGRAMME

ESAO 3-6 SEPTEMBER 2008

Thursday 4	Room A	Room B	Room C	Room D
13.30 - 15.00	<p><b>ORAL SESSION</b></p> <p><b>Technology in Tissue Engineering</b></p> <p><u>Chair:</u> R. Reis, Porto (POR) M. Swartz, Lausanne (SUI)</p> <p><b>O1</b> Bioprinting of blood vessels: Vascular tissue spheroids as building blocks <u>Carmine Gentile</u>, et al, Charleston, SC, (USA)</p> <p><b>O2</b> Biological skin replacement: the need for sterilization <u>Willem F. Wolkers</u>, et al, Hannover, (GER)</p> <p><b>O3</b> Cryopreservation of tissue and tissue engineered products <u>Birgit Glasmacher</u>, et al, Hannover, (GER)</p> <p><b>O4</b> Mechanotransduction-Bioreactor for tissue engineering of a ureter prosthesis <u>Christoph Becker</u>, et al, Aachen, (GER)</p> <p><b>O5</b> Tissue engineering artery utilizing the physiologic pulsatile bioreactor <u>Kiyotaka Iwasaki</u>, et al, Tokyo, (JPN)</p> <p><b>O6</b> Development of a production process for stem cell based cell therapeutic implants <u>Peter M. Czermak</u>, et al, Giessen, (GER)</p>	<p><b>ORAL SESSION</b></p> <p><b>Cardiovascular Implants I: Valves and Myocardium</b></p> <p><u>Chair:</u> G. Wieselthaler, Vienna (AUT) M. Kutryk, Toronto (CAN)</p> <p><b>O7</b> The effects of fluid properties and flow conditions on local bi-leaflet mechanical heart valve hemodynamics <u>Keefe B. Manning</u>, et al, University Park, (USA)</p> <p><b>O8</b> Titanized glutaraldehyde fixed heart valve prostheses with less calcification and total endothelialization <u>Norbert W. Guldner</u>, et al, Lübeck, (GER)</p> <p><b>O9</b> Assessment of bio-mechanical performance of the new bioprostheses (Kalingos® heart valve) in the sheep model <u>Mustafa Cikirikcioglu</u>, et al, Geneva, (SUI)</p> <p><b>O10</b> Off-pump transventricular pulmonary replacement using a decellularized porcine valve on a self-expandable stent: a new approach for pulmonary valve incompetence? <u>Ivan Bouzguenda</u>, et al, Lille, (FRA)</p> <p><b>O11</b> Atrioventricular valve repair using a biodegradable annuloplasty ring in children <u>Mustafa Cikirikcioglu</u>, et al, Geneva, (SUI)</p> <p><b>O12</b> Embryonic stem cell-based tissue engineering for the regeneration of the infarcted heart <u>Marisa E. Jaconi</u>, et al, Geneva, (SUI)</p>	<p><b>ORAL SESSION</b></p> <p><b>One Day on the Liver - Scientific Session</b></p> <p><u>Chair:</u> I. Sauer, Berlin (GER) T. Berney, Geneva (SUI)</p> <p><b>O13</b> A new application of the AMC-bioartificial liver: A model to study the establishment of metabolic zonation in the liver <u>Ruudtje Hoekstra</u>, et al, Amsterdam, (NED)</p> <p><b>O14</b> A new system of sub-normotemic perfusion for liver preservation in a pig model <u>Enrico Gringeri</u>, et al, Padova, (ITA)</p> <p><b>O15</b> Transplantation of immortalized human hepatocytes improves survival without increasing native liver regeneration in acute liver failure <u>Antonino Sgroi</u>, et al, Geneva, (SUI)</p> <p><b>O16</b> Behaviour of human hepatocyte in ammonia plasma-grafted PEEK-WC-PU membrane bio-hybrid system <u>Simona Salerno</u>, et al, Rende, CS, (ITA)</p> <p><b>O17</b> Labelling of primary human hepatocytes with micron-sized iron oxide particles in temporary suspension culture <u>Nora N. Kammer</u>, et al, Berlin, (GER)</p> <p><b>O18</b> Online hcf system with good removal capacity of glutamine brings good clinical effect <u>Kazuaki Inoue</u>, et al, Yokohama, (JPN)</p>	<p><b>SPECIAL SYMPOSIUM</b></p> <p><b>WAA – ESFH I</b></p> <p><u>Chair:</u> B. Stegmayr, Umea (SWE) V. Witt, Vienna (AUT)</p> <p><b>Dieter FALKENHAGEN</b>, Krems (AUT) <i>Adsorption of endotoxins: new possibilities using old principles</i></p> <p><b>Jens ALTRICHTER</b>, Rostock (GER) <i>Extracorporeal cell therapy with granulocytes in sepsis and septic shock – in vivo and clinical results</i></p> <p><b>Peter SCHOLZ</b>, Rostock (GER) <i>The leukocyte inhibition module in apheresis – immunomodulation in cardiac surgery, intensive care and autoimmune disease</i></p> <p><b>Dieter FALKENHAGEN</b>, Krems (AUT) <i>Citrate anticoagulation in apheresis treatment – how to optimise</i></p> <p><b>Volker WITT</b>, Vienna (AUT) <i>Anticoagulation with citrate and electrolyte imbalance in children during apheresis</i></p>

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ESAO 3-6 SEPTEMBER 2008		SCIENTIFIC PROGRAMME		THURSDAY 4 September	
Thursday 4	Room A	Room B	Room C	Room D	
15.00 - 16.00	<p><b>Bio-artificial Tissues I – (P1-P7)</b> Chair: C. Légallais, Y. Harder</p> <p><b>Cardiac Assist Device - Clinical I – (P38-P43)</b> Chair: G. Wieselthaler, E. Pektok</p> <p><b>Cardiac Valves – (P68-P76)</b> Chair: B. Meyns, J. Christenson</p> <p><b>Cell Culture I – (P86-P92)</b> Chair: B. Glasmacher, T. Laumonier</p> <p><b>Cells &amp; Stimuli – (P116-P122)</b> Chair: N. Hofmann, M. Jaconi</p> <p><b>Kidney - Biological Aspects – (P137-P142)</b> Chair: B. Stegmayr, M. Pruijm</p> <p><b>Liver Support I – (P176-P181)</b> Chair: I. Sauer, T. Berney</p> <p><b>Transplantation I – (P199-P206)</b> Chair: A. Buscaroli, L. Buhler</p>	<p><b>Moderated Poster Session - I</b> 3<sup>rd</sup> floor CMU</p>	<p><b>Biomaterials I – (P15-P22)</b> Chair: R. Reis, G. Bowlin</p> <p><b>Cardiac Assist Device - Technical I – (P49-P55b)</b> Chair: J. del Canizo, U. Steinseiffer</p> <p><b>Cardiovascular Grafts – (P77-P85)</b> Chair: H. Schima, D. Mugnai</p> <p><b>Cell Transplantation &amp; Tissue Engineering I – (P99-P107)</b> Chair: A. Bader, W. Wolkers</p> <p><b>Computer Modelling &amp; Robotics I – (P123-P129)</b> Chair: P. Verdonck, A. F. Garcia</p> <p><b>Kidney - Clinical Aspects – (P151-P158)</b> Chair: A. Sikole, D. Teta</p> <p><b>Medical Implants I – (P187-P192)</b> Chair: G. Rakhorst, S. Karaca</p>		
<p><b>Moderated Poster Sessions</b></p> <p>Authors have to present their poster and the moderator will choose the best poster of his/her session for the Poster Award Committee, which will then select the three best posters of the congress. Poster prizes will be awarded at the Congress Dinner.</p>					
 <p><a href="http://www.esao2008.medicine.unige.ch">www.esao2008.medicine.unige.ch</a></p>					

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Thursday 4	Room A	Room B	Room C	Room D
16.00 - 17.30	<p><b>ORAL SESSION</b></p> <p><b>Transplantation - Organ Preservation and Marginal Organs</b></p> <p>Chair: G. Rakhorst, Groningen (NLD) I. Buhler, Geneva (SUI)</p> <p><b>O19</b> Recovery of warm ischemically damaged kidneys using a novel organ perfusion system <u>Marie-Claire J.M. Schreinemachers</u>, et al, Amsterdam, (NED)</p> <p><b>O20</b> Hypothermic in situ machine perfusion of donor organs during non-heart-beating donation <u>Edwin F. Dierselhuis</u>, et al, Groningen, (NED)</p> <p><b>O21</b> Organ recovery using extracorporeal support improves function of renal grafts from donors after circulatory determination of death (DCDD) <u>Alvaro Rojas</u>, et al, Ann Arbor, (USA)</p> <p><b>O22</b> Oxidative stress in kidney transplant recipients <u>Nicole Lanci</u>, et al, Bologna, (ITA)</p> <p><b>O23</b> A new machine, magnetic resonance compatible, able to test, by gadolinium perfusion imaging, the vascular anatomy and the quality of perfusion in marginal kidneys reanimated by oxygenated hypothermic pulsatile perfusion. <u>Jean-Bernard Buchs</u>, et al, Genève, (SUI)</p> <p><b>O24</b> Molecular adsorbents recirculating system (MARS) dialysis for graft dysfunction after liver transplantation: single center experience <u>Jiyoung Y. Lee</u>, et al, Seoul, (KOR)</p>	<p><b>ORAL SESSION</b></p> <p><b>Cardiovascular Implants II: Grafts and Stents</b></p> <p>Chair: O.M. Hess, Bern (SUI) B. Podesser, Vienna (AUT)</p> <p><b>O25</b> Mechanotransduction of endothelial cells: uptake of quantum dots under controlled shear stress conditions <u>Anette Runtmund</u>, et al, Hannover, (GER)</p> <p><b>O26</b> Evaluation of thrombogenic potential of electrospun bioresorbable vascular graft materials <u>Patricia S. Wolfe</u>, et al, Richmond, (USA)</p> <p><b>O27</b> Features of decellularized aortic matrices seeded with endothelial cells in a newly developed pulsatile flow bioreactor <u>Martina Seifert</u>, et al, Berlin, (GER)</p> <p><b>O28</b> Vascular tissue engineering using mesenchymal stem-cells (MSCs) seeding on synthetic biodegradable vascular grafts <u>Alessio Rungtatscher</u>, et al, Geneva, (SUI)</p> <p><b>O29</b> Drug eluting degradable synthetic vascular prostheses <u>Francesco Innocenti</u>, et al, Geneva, (SUI)</p> <p><b>O30</b> Virtual stenting for customisation of endovascular devices <u>Catrin Bludszuweit-Philipp</u>, et al, Rostock, (GER)</p>	<p><b>ORAL SESSION</b></p> <p><b>Biomaterials</b></p> <p>Chair: B. Glasmacher, Hannover (GER) G. Catapano, Rende (ITA)</p> <p><b>O31</b> Endothelialisation of artificial poly 4-methyl-1-pentene (PMP) membranes with gas exchange properties <u>Christian Hess</u>, et al, Hannover, (GER)</p> <p><b>O32</b> Modification of collagen/peo nanofiber scaffolds using metallic nanoparticles <u>Andreas Szentivanyi</u>, et al, Hannover, (GER)</p> <p><b>O33</b> Heterotypic interaction of fibroblasts and endothelial cells on restricted area <u>Stefania Lamponi</u>, et al, Siena, (ITA)</p> <p><b>O34</b> Adhesion and differentiation of human mesenchymal stem cells on biogenic polyelectrolyte multilayers <u>Thomas M. Groth</u>, et al, Halle-Saale, (GER)</p> <p><b>O35</b> Co-Cultivation of different cell types on spider silk fibres <u>Anja R. Hillmer</u>, et al, Hannover, (GER)</p> <p><b>O36</b> Porous biodegradable microfibers for scaffold manufacturing <u>Giuseppe A. Perale</u>, et al, Milan, (ITA)</p>	<p><b>Young Investigators' Liver Session</b></p> <p>Chair: N.N. Kammer, Berlin (GER) S. Salerno, Rende (ITA)</p> <p><b>Saba HABIBOLLAH</b>, Newcastle (GBR) <i>Beyond haematology: cord blood for liver therapy</i></p> <p><b>Nils BILECKE</b>, Berlin (GER) <i>The Multicompartment SlideReactor: a novel concept for continuous monitoring of co-cultured cells</i></p> <p><b>Jean-Mathieu PROT</b>, Compiègne (FRA) <i>Growth characterisation of hepatocarcinoma cells cultivated in a microfluidic biochip</i></p> <p><b>SIMONA SALERNO</b>, Rende (ITA) <i>Membrane biohybrid systems for liver tissue engineering</i></p> <p><b>Stephan HARM</b>, Krems (AUT) <i>Encapsulated liver cells for the hybrid MDS</i></p> <p><i>Partly supported by Fresenius Medical Care</i></p>
19.00 - 20.00	<b>CONCERT - Partly sponsored by the Wilmsdorf Foundation</b>			

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Friday 5	Room A	Room B	Room C	Room D	
08.30 - 09.30		<p><b>PLENARY SESSION - HEART -</b></p> <p>Chair: L. von Segesser, Lausanne (SUI) A. Mazzucco, Verona (ITA) H. Bounameaux, Geneva (SUI)</p> <p><b>Daniel LOISANCE</b>, Créteil (FRA) <i>Permanent artificial ventricles: the optimal therapy for end-stage cardiac patients ?</i></p> <p><b>Giuseppe FAGGIAN</b>, Verona (ITA) <i>Present and Future of heart transplantation</i></p> <p><b>Axel HAVERICH</b>, Hannover (GER) <i>Ventricular Assist Devices - The Biological Solution</i></p>			
10.00 - 11.00	<p><b>AFFILIATED SOCIETY SYMPOSIUM - SWISS TRANSPLANT SOCIETY -</b></p> <p><b>Current and Future Options for Transplantation</b></p> <p>Chair: M. Pascual, Lausanne (SUI) L. Buhler, Geneva (SUI)</p> <p><b>Michael DICKENMANN</b>, Basle (SUI) <i>Living donation in kidney transplantation</i></p> <p><b>Markus WEBER</b>, Zurich, (SUI) <i>Immunosuppression - State-of-the-Art 2008</i></p> <p><b>Leo BUHLER</b>, Geneva, (SUI) <i>Update on Xenotransplantation</i></p> <p><b>With the kind support of Wyeth Pharmaceuticals</b></p> 	<p><b>AFFILIATED SOCIETY SYMPOSIUM - JSAO -</b></p> <p><b>Highlights from the Japanese Society for Artificial Organs</b></p> <p>Chair: Y. Fukui, Tokyo (JPN) Y. Taenaka, Osaka (JPN)</p> <p><b>Tomohiro NISHINAKA and Kenji YAMAZAKI</b>, Tokyo (JPN) <i>Mechanical circulatory support</i></p> <p><b>Mitsuo UMEZU</b>, Waseda (JPN) <i>Contribution of biomedical engineering</i></p> <p><b>Keiichi KANDA</b>, Kyoto (JPN) <i>New approach in tissue engineering</i></p> <p><b>Yasuharu OHGOE and Yasuhiro FUKUI</b>, Tokyo (JPN) <i>DLC (Diamond Like Carbon) coating technology for artificial organs</i></p> 	<p><b>AFFILIATED SOCIETY SYMPOSIUM - ESB -</b></p> <p><b>Biomaterials for Soft Tissue Engineering</b></p> <p>Chair: J. Kirkpatrick, Mainz (GER) R. Gurny, Geneva (SUI)</p> <p><b>Dirk GRIJPMAN</b>, Enschede (NLD) <i>Flexible and elastic polymeric structures for cardiovascular tissue engineering</i></p> <p><b>James KIRKPATRICK</b>, Mainz (GER) <i>Biomaterial interactions with human endothelial lineage cells for promoting angiogenesis</i></p> 		



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Friday 5	Room A	Room B	Room C	Room D
11.00 - 12.00	<p><b>SPECIAL SYMPOSIUM</b> - WAA - ESFH - II -</p> <p><u>Chair:</u> W. Ramlow, Rostock (GER) D. Falkenhagen, Krams (AUT)</p> <p><b>Loic GUILLEVIN</b>, Paris (FRA) <i>Apheresis and ANCA associated vasculitis</i></p> <p><b>Bernd STEGMAYR</b>, Umea (SWE) <i>World Apheresis Association Registry: Benefits and new approaches</i></p> <p><b>Heinrich PROPHET</b>, Rostock (GER) <i>World Apheresis Association Registry: Data of LDL-apheresis and concepts of how to enable comparison with a control group</i></p> <p><b>Volker WITT</b>, Vienna (AUT) <i>World Apheresis Association Registry: Pediatric data. Are they totally different?</i></p>	<p><b>SPECIAL SYMPOSIUM</b> - HEART: Willem J. Kolff -</p> <p><b>From Heart Imaging to Destination</b></p> <p><u>Chair:</u> P. Portner, Stanford (USA) J. Sierra, Geneva (SUI)</p> <p><b>Thomas SCHMITZ-RODE</b>, Aachen (GER) <i>Implantation of cardiovascular devices: significance and future role of image guidance</i></p> <p><b>Marvin SLEPIAN</b>, Tucson (USA) <i>The SynCardia Total Artificial Heart: Present and future applications in the management of advanced heart failure</i></p> <p><b>Georg WIESELTHALER</b>, Vienna (AUT) <i>Anticoagulation during heart support 2008: is there anything new?</i></p>	<p><b>SPECIAL SYMPOSIUM</b> - TISSUE ENGINEERING -</p> <p><b>Scaffold and Cell Assembly</b></p> <p><u>Chair:</u> A. Bader, Leipzig (GER) V. Rontard, Boston (USA)</p> <p><b>Gary BOWLIN</b>, Richmond (USA) <i>Bioresorbable vascular graft design and development</i></p> <p><b>Suwan JAYASINGHE</b>, London (GBR) <i>Cell scaffolding</i></p> <p><b>Nicolas L'HEUREUX</b>, Novato (USA) <i>Sheet-based tissue engineering for vascular applications</i></p>	
12.00 - 13.30	<p><b>SUPPORTED LUNCH SYMPOSIUM</b></p> <p><b>Percutaneous/Apical Aortic Valve Replacement</b></p> <p><u>Chair:</u> A. Kalangos, Geneva (SUI) M. Roffi, Geneva (SUI)</p> <p><b>Stephan WINDECKER</b>, Bern (SUI) <i>Percutaneous aortic valve replacement using a transfemoral approach</i></p> <p><b>Friedrich ECKSTEIN</b>, Basle (SUI) <i>Percutaneous aortic valve replacement using a transapical approach</i></p>	<p><b>SUPPORTED LUNCH SYMPOSIUM</b></p> <p><b>Mid and Long-Term VAD: Today's Gold Standard</b></p> <p><u>Chair:</u> A. Mazzucco, Verona (ITA) F. Mach, Geneva (SUI)</p> <p><b>Stephen WESTABY</b>, Oxford (GBR) <i>Mid-term support with Levitronix</i></p> <p><b>Giuseppe FAGGIAN</b>, Verona (ITA) <i>From post cardiomy in acute heart failure to bridge to destination</i></p> <p><b>O. Howard FRAZIER</b>, Houston (USA) <i>Recovery following HeartMate II implantation</i></p>	<p><b>SUPPORTED LUNCH SYMPOSIUM</b></p> <p><b>Lung Support</b></p> <p><u>Chair:</u> K. Mottaghy, Aachen (GER) W. Habre, Geneva (SUI)</p> <p><b>K. MOTTAGHY</b>, Aachen (GER) <i>Introduction</i></p> <p><b>S. UHLIG</b>, Aachen (GER) <i>Mechanisms of ventilator-induced lung injuries</i></p> <p><b>M. QUINTEL</b>, Göttingen (GER) <i>Extracorporeal long-term support of the lung</i></p>	

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	<p><b>Hermann REICHENSPURNER</b>, Hamburg (GER) Catheter-based aortic valve replacement using the repositionable and retrievable direct flow device</p> <p><i>Supported by Edwards / Corevalve / Direct Flow Medical</i></p>	<p><i>Supported by 4Competence / Thoratec / Levitronix</i></p>	<p><b>S. ROUSSEAU</b>, Berlin (GER) Extracorporeal breathing pump support to wean patients from mechanical ventilation</p> <p><b>A. KILIC</b>, Berlin (GER) Use of pulsatile ventricular assist device (Berlin Heart EXCOR®) and an interventional lung assist device (NovaLung®) in an animal model</p> <p><b>Y. YAMAMOTO</b>, Kagawa (JPN) Experimental study of the regeneration pattern of canine tracheal cartilage</p> <p><i>Partly supported by Novalung</i></p>		
13.30 - 15.00	<p><b>ORAL SESSION</b></p> <p><b>Kidney I - Clinical Outcome</b></p> <p><u>Chair:</u> H. Mann, Aachen (GER) M. Burnier, Lausanne (SUI)</p> <p><b>O37</b> World Apheresis Registry 2003-2007 data <u>Bernd G. Stegmayr</u>, et al, Umea, (SWE)</p> <p><b>O38</b> Saving lives with peritoneal dialysis in potentially fatal acute renal failure following childhood wasp sting <u>Prayong Vachvanichsanong</u>, et al, Hat Yai, (THA)</p> <p><b>O39</b> Assessment of the risk for cardiovascular mortality and morbidity in hemodialysis patients <u>Stefan Arsov</u>, et al, Groningen, (NLD)</p> <p><b>O40</b> High cut-off haemodialysis lowers inflammatory status in chronic dialysis patients <u>Colin A. Hutchison</u>, et al, Birmingham, (GBR)</p>	<p><b>ORAL SESSION</b></p> <p><b>Cardiac Assist Devices I</b></p> <p><u>Chair:</u> H. Schima, Vienna (AUT) E. Khabiri, Geneva (SUI)</p> <p><b>O43</b> A blood pump flow visualization using a wall-PIV technique <u>André Berthé</u>, et al, Berlin, (GER)</p> <p><b>O44</b> The influence of end-diastolic timing on the flow within a pulsatile pediatric ventricular assist device <u>Benjamin T. Cooper</u>, et al, University Park, (USA)</p> <p><b>O45</b> Hydrodynamic analysis of transventricular apical aortic cannulation <u>Ikuo Fukuda</u>, et al, Hirosaki, Aomori, (JPN)</p> <p><b>O46</b> Geometry and flow optimization of the Aachen Total Artificial Heart "ACCOR" <u>Marco Laumen</u>, et al, Aachen, (GER)</p>	<p><b>ORAL SESSION</b></p> <p><b>Various Medical Implants</b></p> <p><u>Chair:</u> U.R. Kertscher, Berlin (GER) P. Frey, Lausanne (SUI)</p> <p><b>O49</b> Long-term implantation of subcutaneously implantable artificial sphincters <u>Yun Luo</u>, et al, Sendai, (JPN)</p> <p><b>O50</b> Urocartin is released from ischemic, though viable, cardiac cells, before the occurrence of irreversible injury. Is a new clinical marker of sublethal cardiac ischemia born? <u>Giuseppe Faggian</u>, et al, Verona (ITA)</p> <p><b>O51</b> Mitochondrial relocation of PKC-ε in urocartin-positive cardiac myocytes of patients undergoing on-pump cardiac surgery <u>Giuseppe Faggian</u>, et al, Verona (ITA)</p>		

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<p><b>O41</b> A pilot randomized controlled trial of high-volume hemofiltration in rhabdomyolysis <u>Demetrios J. Kutsogiannis</u>, et al, Edmonton, (CAN)</p> <p><b>O42</b> Long-term (≥30 years) renal replacement therapy (RRT) survivors in slovenia <u>Jadranka Buturovic-Ponikvar</u>, et al, Ljubljana, (SLO)</p>	<p><b>O47</b> Hydro-dynamic identification of an axial flow ventricular assist device <u>Francesco Moscatò</u>, et al, Rende, (ITA)</p> <p><b>O48</b> Input compliant chamber improves the unloading of the native ventricle in pulsatile mcs applications. <u>Daniel Rodriguez-Martinez</u>, et al, Madrid, (ESP)</p>	<p><b>O52</b> Polyethylenimine derivatives for targeted gene delivery <u>Dejing Kong</u>, et al, Tianjin, (CHN)</p> <p><b>O53</b> Nitric oxide in rat model of acute respiratory distress syndrome <u>Gi-Beum Kim</u>, et al, Jeonju, (KOR)</p> <p><b>O54</b> Straight and flared stent grafts in venous anastomoses of arteriovenous access for hemodialysis <u>Ulif Krueger</u>, et al, Berlin, (GER)</p>	<p><b>Moderated Poster Session - II</b> <b>3<sup>rd</sup> floor CMU</b></p> <p><b>Bio-artificial Tissues II – (P8-P14)</b> <u>Chair: G. Catapano, I. Kreiji</u></p> <p><b>Cardiac &amp; Lung Support / Animal Models – (P30-P37)</b> <u>Chair: U. Losert, K. Mottaghy</u></p> <p><b>Cardiac Assist Device - Technical II – (P56-P62b)</b> <u>Chair: V. Steinseffer, C. Vachey</u></p> <p><b>Cell Culture II – (P93-P98)</b> <u>Chair: A. Bader, C. Gonnelle</u></p> <p><b>Computer Modelling and Robotics II – (P130-P136b)</b> <u>Chair: P. Ladyzynski, U. Kertscher</u></p> <p><b>Kidney-CV Complications and Metabolic Aspects – (P143-P150)</b> <u>Chair: M. Polenakovic, P. Saudan</u></p> <p><b>Kidney-High Risk Treatments and Complications – (P159-P166)</b> <u>Chair: Z. Massy, M. Burnier</u></p> <p><b>Liver Support II – (P182-P186)</b> <u>Chair: D. Falkenhagen, J.-B. Buchs</u></p> <p><b>Transplantation II – (P207-P215)</b> <u>Chair: H. Leuvenink, Ph. Morel</u></p>	<p><b>Biomaterials II – (P23-P29)</b> <u>Chair: W. Schütt, B. Nottelet</u></p> <p><b>Cardiac Assist Device - Clinical II – (P44-P48)</b> <u>Chair: Z. Nawrat, A. Panos</u></p> <p><b>Cardiac Stents – (P63-P67)</b> <u>Chair: M. Kutryk, P.-F. Keller</u></p> <p><b>Cell Transplantation &amp; Tissue Engineering II – (P108-P115b)</b> <u>Chair: D. Kong, Y. Barrandon</u></p> <p><b>Kidney-Technical Aspects – (P167-P175)</b> <u>Chair: U. Baurmeister, S. Bowry</u></p> <p><b>Medical Implants II – (P193-P198)</b> <u>Chair: N. L'Heureux, A. Rungtatscher</u></p>
<p>15.00 - 16.00</p>	<p><b>Moderated Poster Session - II</b> <b>3<sup>rd</sup> floor CMU</b></p> <p><b>Bio-artificial Tissues II – (P8-P14)</b> <u>Chair: G. Catapano, I. Kreiji</u></p> <p><b>Cardiac &amp; Lung Support / Animal Models – (P30-P37)</b> <u>Chair: U. Losert, K. Mottaghy</u></p> <p><b>Cardiac Assist Device - Technical II – (P56-P62b)</b> <u>Chair: V. Steinseffer, C. Vachey</u></p> <p><b>Cell Culture II – (P93-P98)</b> <u>Chair: A. Bader, C. Gonnelle</u></p> <p><b>Computer Modelling and Robotics II – (P130-P136b)</b> <u>Chair: P. Ladyzynski, U. Kertscher</u></p> <p><b>Kidney-CV Complications and Metabolic Aspects – (P143-P150)</b> <u>Chair: M. Polenakovic, P. Saudan</u></p> <p><b>Kidney-High Risk Treatments and Complications – (P159-P166)</b> <u>Chair: Z. Massy, M. Burnier</u></p> <p><b>Liver Support II – (P182-P186)</b> <u>Chair: D. Falkenhagen, J.-B. Buchs</u></p> <p><b>Transplantation II – (P207-P215)</b> <u>Chair: H. Leuvenink, Ph. Morel</u></p>			

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Friday 5	Room A	Room B	Room C	Room D
16.00 - 17.30	<p><b>ORAL SESSION</b></p> <p><b>Kidney II - Complications and Biologic Effects</b></p> <p><u>Chair:</u> A. Buscaroli, Bologna (ITA) P. Saudan, Geneva (SUI)</p> <p><b>O55</b> Effects of sequential convective therapy (SCT) based on relative blood volume (BV) changes on intradialytic hypotension episodes. A multicenter trial <u>Giovanni M. Frasca</u>, et al, Ancona, (ITA)</p> <p><b>O56</b> Solute removal when modifying only hemodialysis duration <u>Sunny Eloit</u>, et al, Gent, (BEL)</p> <p><b>O57</b> Development of recombinant food grade lactic acid bacterium for removal of urea in treatment of renal failure <u>Deling Kong</u>, et al, Tianjin, (CHN)</p> <p><b>O58</b> Reduction of NT-PROBNP after hemodialysis. <u>Bernd G. Stegmayr</u>, et al, Umea, (SWE)</p> <p><b>O59</b> The magnitude of serum antioxidant capacity impairment during hemodialysis <u>Robert A. Stolarek</u>, et al, Lodz, (POL)</p> <p><b>O60</b> Bacterial eradication in existing microbial biofilms by Zuragen™ (methylene blue, citrate, antiseptic solution) <u>Stephen R. Ash</u>, et al, Lafayette, (USA)</p>	<p><b>ORAL SESSION</b></p> <p><b>Cardiac Assist Devices II and Lung Support</b></p> <p><u>Chair:</u> B. Meyns, Leuven (BEL) D. Morel, Geneva (SUI)</p> <p><b>O61</b> Functional examination of an artificial myocardium with shape memory alloy fibre in chronic animal experiment <u>Yasuyuki Shiraishi</u>, et al, Sendai, (JPN)</p> <p><b>O62</b> Initial results of the clinical trial with a new Ivad providing synchronous pulsatile flow <u>Carlo Pellegrin</u>, et al, Pavia, (ITA)</p> <p><b>O63</b> Predictability of outcome after weaning from left ventricular assist devices in patients with idiopathic dilated cardiomyopathy <u>Michael Dandel</u>, et al, Berlin, (GER)</p> <p><b>O64</b> Intermacs-classification is unable to predict survival in bridging to transplantation; less invasive vad-therapy may improve survival <u>Jef Geens</u>, et al, Leuven, (BEL)</p> <p><b>O65</b> Mean retention time (mrt): a new indicator optimizing oxygenators design <u>Hadi Tabesh</u>, et al, Aachen, (GER)</p> <p><b>O66</b> Cellular accumulations on poly-methylpentene membranes decreased efficiency of extracorporeal membrane oxygenation <u>Karla Lehle</u>, et al, Regensburg, (GER)</p>	<p><b>ORAL SESSION</b></p> <p><b>Bioartificial Tissue: Musculo-Skeletal</b></p> <p><u>Chair:</u> C. Legallais, Compiègne (FRA) J. Menetrey, Geneva (SUI)</p> <p><b>O67</b> Expression of matrix metalloproteinases and xenobiotic metabolism-related enzymes in a full-thickness skin equivalent <u>Karsten R. Mewes</u>, et al, Düsseldorf, (GER)</p> <p><b>O68</b> BMP-7 loaded microspheres as a new delivery system for the cultivation of human chondrocytes in a collagen type-I gel: the common nude mouse model <u>Karsten Gavenis</u>, et al, Aachen, (GER)</p> <p><b>O69</b> Hematopoietic stem cells in acute spinal cord injury: experimental in wistar rats <u>Katherine A.T. Carvalho</u>, et al, Curitiba, (BRA)</p> <p><b>O70</b> Intervertebral disc augmentation - an alternative <u>E. Bono</u>, et al, Wädenswil, (SUI)</p> <p><b>O71</b> Polyhydroxybutyrate (PHB) from sugar cane as biomaterial for bone tissue engineering using mesenchymal stem cells derived from human dental pulp <u>Vinicius Marchiori-Silva</u>, et al, São Paulo, (BRA)</p> <p><b>O72</b> Development of a cell encapsulation approach for human anti-tumor immunotherapy <u>Nicolas Mach</u>, et al, Geneva, (SUI)</p>	
17.30 - 18.00	<b>ESAO GENERAL ASSEMBLY</b>			<b>CONGRESS DINNER</b>
			19.00	



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**ESAO 3-6 SEPTEMBER 2008** **SCIENTIFIC PROGRAMME** **SATURDAY 6 September**

Saturday 6	Room A	Room B	Room C	Room D
08.30 - 09.30		<p><b>PLENARY SESSION</b> - KIDNEY -</p> <p>Chair: M. Polenakovic, Skopje (MKD) P.-Y. Martin, Geneva (SUI) H.J. Gurland, Augsburg (GER)</p> <p><b>Raymond VANHOLDER</b>, Ghent (BEL) <i>Best supportive therapy for end-stage renal disease</i></p> <p><b>Jürg STEIGER</b>, Basle (SUI) <i>New aspects of renal transplantation</i></p> <p><b>Mike LYSAGHT</b>, Boston (USA) / <b>Edward LEONARD</b>, New York (USA) <i>New directions for treating ESRD: back to the future</i></p>		

**EUROPEAN SOCIETY FOR ARTIFICIAL ORGANS:**  
**2008 ANNUAL MEETING**  
*Towards Future Biomedical Technologies*

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A certificate of attendance will be included in the congress bag. It can be used by the participant to claim CME points in his/her own country.

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All manuscripts can be handed in at Wichtig Editore's desk during the congress, or sent by e-mail to [ijao@wichtig.it](mailto:ijao@wichtig.it). They will be considered for publication after peer-review in the official ESAO journal, **the International Journal of Artificial Organs**, which has now an **Impact Factor of 1.277**, and it is 28th of 44 journals in the "Engineering & Biomedical" category, and 18th of 21 journals in the "Transplantation" category.



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## ESAO 3-6 SEPTEMBER 2008

## SCIENTIFIC PROGRAMME

## SATURDAY 6 SEPTEMBER

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Saturday 6	Room A	Room B	Room C	Room D
09.30 - 11.00	<p>Working Group Session - EUTOX -</p> <p><u>Chair:</u> R. Vanholder, Ghent (BEL) B. Stegmayr, Umea (SWE)</p> <p><b>Griet GLORIEUX</b>, Ghent (BEL) <i>New insights in the toxicity of protein bound molecules</i></p> <p><b>Ziad MASSY</b>, Amiens (FRA) <i>Vascular calcification and CVD in CKD</i></p> <p><b>Joachim JANKOWSKI</b>, Berlin (GER) <i>Metabolic research and CKD</i></p>	<p>ORAL SESSION</p> <p><b>Angiogenesis in Cardiovascular Implants</b></p> <p><u>Chair:</u> G. Steinhoff, Rostock (GER) M. Jaconi, Geneva (SUI)</p> <p><b>O73</b> Biotubes designed for large animals: auto-implantation to the carotid artery of the beagle dogs <u>Tajiri Watanabe</u>, et al, Kyoto, (JPN)</p> <p><b>O74</b> Custom design of microenvironment for cardiac tissue engineering <u>Claudia M. Haller</u>, et al, Bern, (SUI)</p> <p><b>O75</b> Successful endoluminal implantation of small diameter autologous tissue-covered stents "biocovered stents" to animals: rapid tissue regeneration in vivo <u>Keiichi Kanda</u>, et al, Kyoto, (JPN)</p> <p><b>O76</b> Mechanical properties and in vivo evaluation of electrospun small caliber vascular grafts <u>Christian Grasl</u>, et al, Vienna, (AUT)</p> <p><b>O77</b> Myocardial assistance by grafting a new upgraded bioartificial myocardium (magnum trial): clinical results at 2 years <u>Juan C. Chachques</u>, et al, Paris, (FRA)</p> <p><b>O78</b> Intramyocardial bone marrow stem cell therapy in cabg surgery for chronic ischemia <u>Gustav Steinhoff</u>, Rostock, (GER) <i>INVITED SPEAKER</i></p>	<p>ORAL SESSION</p> <p><b>Computer Modelling</b></p> <p><u>Chair:</u> P. Verdonck, Ghent (BEL) K. Affeld, Berlin (GER)</p> <p><b>O79</b> Miniature-sized sensor for measuring pressure distribution in artificial organs <u>Masaki Akiyama</u>, et al, Tokyo, (JPN)</p> <p><b>O80</b> Microfluidic analysis of erythrocyte deformation for studying flow-induced hemolysis <u>Takanobu Yagi</u>, et al, Tokyo, (JPN)</p> <p><b>O81</b> Adequacy indices for dialysis in acute renal failure: kinetic modeling <u>Malgorzata Debowska</u>, et al, Warsaw, (POL)</p> <p><b>O82</b> Visualization of basic flow pattern in a subarachnoid hemorrhage model with PIV-measurement system <u>Dieter Liepsch</u>, et al, München, (GER)</p> <p><b>O83</b> Numerical prediction of thrombus formation and growth in medical devices <u>Catrin Bludszuweit-Philipp</u>, et al, Rostock, (GER)</p> <p><b>O84</b> Transient flow field simulation through a mechanical trileaflet heart valve prosthesis <u>Torsten Linde</u>, et al, Aachen, (GER)</p>	<p>Working Group Session - HEART I -</p> <p><u>Chair:</u> J. del Canizo, Madrid (ESP) G. Wieselthaler, Vienna (AUT)</p> <p><b>1.</b> Options for shear stress reduction in rotary blood pumps <u>J. Mueller</u>, K. Graichen, J. Mueller, P. Nuesser</p> <p><b>2.</b> The Completely implantable DLR-VAD: in vivo and in vitro results <u>B. Vodermayr</u>, T. Schmid., W. Schiller, A. Welz, D. Liepsch, G. Hirzinger</p> <p><b>3.</b> BestBeat VAD: preliminary results of the ongoing clinical study as bridge to transplant and plans for upcoming study on heart recovery <u>S. Rinaldi</u>, S. Sauri</p> <p><b>4.</b> Ongoing projects in Vienna <u>E. Shima</u>, H. Bergmeister, G. Wieselthaler</p> <p><b>5.</b> Method to investigate the flow in the vicinity of the wall in bloodpumps <u>U. Kertzscher</u></p> <p><b>6.</b> Plate-plate shearing device to shear and simultaneously observe platelets <u>K. Affeld</u></p> <p><b>7.</b> Ongoing projects at the HIA: an update <u>U. Steinseiffer</u></p>

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**SCIENTIFIC PROGRAMME**

**SATURDAY 6 SEPTEMBER**

Saturday 6	Room A	Room B	Room C	Room D
<p>11.30 - 13.00</p>	<p><b>ORAL SESSION</b></p> <p><b>Kidney III - Coagulation and Vascular Access</b></p> <p>Chair: A. Sikole, Skopje (MKD) B. von Albertini, Lausanne (SUI)</p> <p><b>O85</b> Access blood flow &amp; dialysis efficiency <u>Beat von Albertini</u>, Lausanne (SUI) <i>INVITED SPEAKER</i></p> <p><b>O86</b> Hemodiafiltration and hemolysis <u>Luca E. Bernardi</u>, et al, Como, (ITA)</p> <p><b>O87</b> In vitro citrate clearance in dialysis <u>Jens Hartmann</u>, et al, Krems, (AUT)</p> <p><b>O88</b> Self-centering central venous catheter for dialysis (Centros™), initial clinical results <u>Stephen R. Ash</u>, et al, Lafayette, (USA)</p> <p><b>O89</b> A dual lumen venous catheter for optimised haemofiltration use <u>Saad Abdel-Sayed</u>, et al, Lausanne, (SUI)</p> <p><b>O90</b> Complications associated with tunneled cuffed dialysis catheters <u>Patrick Saudan</u>, et al, Geneva, (SUI)</p>	<p><b>ORAL SESSION</b></p> <p><b>Stem Cells in Bioengineering</b></p> <p>Chair: P. Ladyzynski, Warsaw (POL) D. Kong, Tianjin (CHN)</p> <p><b>O91</b> Enabling bio-technologies for a glandular stem cell-cardiomyopathy <u>Norbert W. Guldner</u>, et al, Lübeck, (GER)</p> <p><b>O92</b> Pulmonary tissue engineering using dual-compartment polymer constructs with integrated vascular tree <u>Clemens Fritsche</u>, et al, Berlin, (GER)</p> <p><b>O93</b> Collagen and fibronectin substrates mediated local SDF-1 gene expression induces stem cells homing <u>Nan Ma</u>, et al, Rostock, (GER)</p> <p><b>O94</b> Imaging of human myoblast transplant by bioluminescence using renilla-luciferase transgene expression <u>Thomas Laumonier</u>, et al, Genève, (SUI)</p> <p><b>O95</b> Are cord blood cells better than bone marrow cells for myocardial cell therapy and tissue engineering? <u>Christof Stamm</u>, et al, Berlin, (GER)</p> <p><b>O96</b> Nuclear reprogramming of adipocytes by the high mobility group protein HMGA2 <u>Jörn Bullerdiek</u>, et al, Hannover, (GER)</p>	<p><b>ORAL SESSION</b></p> <p><b>Computer Modelling and Robotics</b></p> <p>Chair: J. Wojcicki, Warsaw (POL) N. Stergiopoulos, Lausanne (SUI)</p> <p><b>O97</b> Endothelial no release and vasodilatation under continuous or pulsatile CPB: modellistic study and clinical investigation <u>Giuseppe Faggian</u>, et al, Verona, (ITA)</p> <p><b>O98</b> Hydrodynamics of arterial perfusion in extracorporeal circulation: from reality to virtual simulation <u>Ikuo Fukuda</u>, et al, Hiorosaki, Aomori, (JPN)</p> <p><b>O99</b> In vitro dynamic piv flow field analyses of the mechanical bi-leaflet valves: influence of pulse waveform and working fluid viscosity <u>T. Akutsu</u>, et al, Yokohama (JPN)</p> <p><b>O100</b> Behaviour modification and electric gastric stimulation <u>Bashir A. Zikria</u>, et al, New York, (USA)</p> <p><b>O101</b> Improving motor relearning efficacy by applying functional movements with a therapy robot <u>Stefan Mina</u>, et al, Wr. Neustadt, (AUT)</p> <p><b>O102</b> Man-machine interface optimization. steering console of polish cardiac surgery robot robin heart <u>Zbigniew Nawrat</u>, et al, Zabrze, (POL)</p>	<p><b>Working Group Session - HEART II -</b></p> <p>Chair: J. del Canizo, Madrid (ESP) G. Wieselthaler, Vienna (AUT)</p> <p><b>8.</b> Current projects in Leuven B. Meyns</p> <p><b>9.</b> Mechanical circulatory support in a Spanish Hospital A. Pinto, M. Ruiz, J. Roda, R. Perez-Caballero</p> <p><b>10.</b> Update on the adult and pediatric support programme at the University of Geneva M. Cikirikioğlu, E. Pektok, J. Sierra, D. Vala, B.H. Walpoth, A. Kalangos</p> <p><b>11.</b> Experimental and clinical data on pulsatile versus non-pulsatile cardio pulmonary bypass G. Rakhorst</p> <p><b>12.</b> The state of the art of clinical utilization of the Polish Pneumatic Cardiac Assist System POLCAS and future prospects R. Kustosz</p> <p><b>13.</b> First validation of the new hybrid circulatory model prototype: testing of parallel ventricular assistance (joint cooperative Italian-Polish project) K. Zielinski , M. Kozarski, G. Ferrari, K. Gorczynska, K. J. Palko, D. Bozewicz, M. Darowski.</p> <p><b>14.</b> Third Generation Assist Devices M. Morshuis</p>

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<p><b>Saturday 6</b></p>	<p style="text-align: center;"><b>Room B</b></p> <p style="text-align: center;"><b>CLOSING CEREMONY</b></p> <p style="text-align: center;"><b>B. MEYNS</b> Incoming President 2008-2010</p> <hr/> <p style="text-align: center;"><b>ESAO-WICHTIG-RESEARCH AWARD 2008</b> Awardee Presentation</p> <p style="text-align: center;">Sponsored by</p> <div style="text-align: center;">  <p>WICHTIG EDITORE MEDICAL PUBLISHER</p> </div> <hr/> <p style="text-align: center;"><b>C. LEGALLAIS</b> Congress Organiser 2009</p> <p style="text-align: center;"><b>B. H. WALPOTH</b> Outgoing President 2006-2008</p>	<p style="text-align: center;"><b>ESAO 2009</b></p> <div style="text-align: center;">  </div> <div style="display: flex; justify-content: space-around; align-items: center;">   </div>
<p>14.00</p>	<p style="text-align: center;"><b>FAREWELL COCKTAIL</b></p>	