



The
**Society for
Heart
Valve
Disease**



**Heart Valve Society
of America**

7TH BIENNIAL CONGRESS

WWW.SHVD.ORG

22- 25 June 2013
Palazzo del Casinò
(Venice Convention Centre)
Venice, Italy



**The Society for Heart Valve Disease &
Heart Valve Society of America
7th Biennial Meeting
22 – 25 June 2013
Palazzo Del Casinò
Venice, Italy**

POSTGRADUATE COURSE (Sala Perla)

“Valvular Disease in 2012”

Saturday, June 22

Course Directors: Michael Borger and Gino Gerosa,

08:00 – 09:00	Registration, Buffet Breakfast	
08:30	Welcome and Introduction <i>G. Gerosa</i> (Padova, Italy), <i>M. Borger</i> (Leipzig, Germany)	
09:00 – 10.30	Surgical Techniques: Long Term Results. Chairman: <i>O. Alfieri</i> (Milano, Italy), <i>F. Mohr</i> (Leipzig, Germany) The Alfieri stitch - <i>O. Alfieri</i> (Milano, Italy) Artificial chordae – <i>C. Zussa</i> (Reggio Emilia, Italy) Annular procedures – <i>S. Bolling</i> (Ann Arbor, USA) Respect rather than resect – <i>P. Perrier</i> (Bad Neustadt, Germany)	
10.30 – 11.00	Coffee break	
11.00 – 13.00	The Big Debates: Chairman: <i>A. Trento</i> (Los Angeles, USA), <i>S. Iliceto</i> (Padova, Italy), <i>V. Falk</i> (Zurich, Switzerland)	
	MIS vs conventional surgery	<i>H. Vanermen</i> (Aalst, Belgium), <i>D. Adams</i> (New York, USA)
	Mitral robotic vs Heartport	<i>A. Trento</i> (Los Angeles, USA) <i>E. Greco</i> (Roma, Italy)
	Patients selection in MIS: pros/cons	<i>L. Salvador</i> (Vicenza, Italy) <i>G. Gerosa</i> (Padova, Italy)
	The mitral clip: pros/cons	<i>A. Grassi</i> (Mestre, Italy) <i>L. Menicanti</i> (Milano, Italy)
13.00 – 14.00	Lunch	



14.00 - 15.00	Hands On Demonstration Interventional and surgical anatomy of the mitral valve <i>G. Thiene</i> (Padova, Italy)
15.00	Wrap-up and final remarks <i>V. Falk</i> (Zurich, Switzerland)
17.00 – 18.00	Biennial Meeting Welcome Reception (Atrium)



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All invited presentations: 15 minutes in length + 5 minutes of discussion

MAIN SCIENTIFIC PROGRAMME -

Sunday, June 23

08.00 – 08.15

Welcome

Gino Gerosa, MD

08.15 – 10.00

Plenary Session: C. Walton Lillehei Award

Moderators: *Gino Gerosa, MD; Jose Pomar, MD; Jeffrey Borer, MD;
Maurice Sarano, MD
(Abstracts (7 @15 mins))*

444. Video-assisted Right Thoracotomy Approach Allows To Achieve A More Than 90% Mitral Repair Rate In A Center With Structured Minimally Invasive Valve Surgery Program. Michele Murzi, Antonio Miceli, Marco Solinas, Mattia Glauber. Fondazione Monasterio, Massa, Italy.

129 A Novel Hybrid Self Regenerative Heart Valve. S. Hamed Alavi, Arash Kheradvar. University of California Irvine, Irvine, CA, USA.

395 Impact Of Aortic Valve Area Indexation In Aortic Valve Stenosis. Evaluation In Adult Patients Seena Padayattil Jose, M.D., Diletta Peluso, M.D., Denisa Muraru, M.D., Umberto Cucchini, M.D., Luigi P. Badano, M.D., Renato Razzolini, M.D., Sabino Illiceto, M.D.. University of Padua, Padua, Italy.

320 Comprehensive Analysis Of Left Ventricular Geometry And Function By Three-dimensional Echocardiography In 200 Healthy Adults. LUCIA DAL BIANCO, Jr., DENISA MURARU, DILETTA PELUSO, UMBERTO CUCCHINI, SEENA PADAYATTIL, GIACOMO ZOPPELLARO, MARCELO MIGLIORANZA, GONENC KOCABAY, LUIGI PAOLO BADANO, SABINO ILICETO. CARDIOLOGY, PADOVA, Italy.



301 *Flna Mutations Associated With Valvular Dystrophy Alter The Rho/rac Balance In A Melanoma Cell Model.* Damien DUVAL¹, Thierry Le TOURNEAU¹, Russel A NORRIS², Adrian H CHESTER³, Robert A LEVINE⁴, Jean-Jacques SCHOTT¹, Jean MEROT¹. ¹Institut du thorax, Nantes, France, ²Department of Regenerative Medicine and Cell Biology, Charleston, SC, USA, ³Imperial College of London, Harefield, United Kingdom, ⁴Noninvasive Cardiac Laboratory Department of Medicine, Boston, MA, USA.

227 *Aortic Root Replacements in Patients with Very Low Ejection Fractions _ Midterm Results to Re-evaluate Morbidity, Mortality and Risk* Fenton McCarthy, Zachary Fox, Justin George, Patrick Moeller, Prashanth Vallabhajosyula, Wilson Szeto, Joseph Bavaria, Nimesh Desai. The Hospital of the University of Pennsylvania, Philadelphia, PA, USA.

143 *Failed Pulmonary Autografts Demonstrate Reduced Tissue Stiffness Compared to Native Aortic Roots.* Aart Mookhoek, MD¹, Sam Chitsaz, MD, PhD², Heide Kuang², Andrew D. Wisneski, BSc², Paul H. Schoof, MD, PhD³, Ad J J C Bogers, MD, PhD¹, Johanna J M Takkenberg, MD, PhD¹, Elaine E. Tseng, MD². ¹Erasmus University Medical Center, Rotterdam, Netherlands, ²University of California at San Francisco Medical Center and San Francisco Veterans Affairs Medical Center, San Francisco, CA, USA, ³Utrecht University Medical Center, Utrecht, Netherlands.

10.00 – 10.30 **Poster Session I and Refreshments**

10.30 – 11.30 **Presidential Address**
Gino Gerosa, MD

11.30 – 13.00 **Plenary Session: Top Rated Abstracts II**
Moderators: Michael Borger, MD and Robert Bonow, MD
Abstracts (6 @ 15mins)

350 *Right Ventricular Function In Organic Mitral Regurgitation. Impact Of Biventricular Impairment On Post-operative Outcome.* Thierry Le Tourneau¹, Guillaume Deswarte¹, Nicolas Lamblin², Claude Hossein-Foucher³, Jean-Noel Trochu¹, Georges Fayad³, Maurice Enriquez-Sarano⁴, Christophe Bauters³. ¹Institut du Thorax, Nantes, France, ²University Hospital, Lille, France, ³University Hospital, Lille, France, ⁴Mayo Clinic, Rochester, MN, USA.

430 *Operative Mortality and Morbidity After the Ross Procedure: A 26-Year Learning Curve* Paul Stelzer, Shinobu Itagaki, Aaron Weiss, Robin Varghese, Ashwin Kamath, Joanna Chikwe. Mount Sinai Medical Center, New York, NY, USA.

387 *Usefulness of Type-B Natriuretic Peptide in Aortic Stenosis.* Marie-Annick Clavel, Joseph Malouf, Hector Michelena, Maurice Enriquez-Sarano. Mayo Clinic, Rochester, MN, USA.



359 Long Term Function of Homografts used for Right Ventricular Outflow Tract Reconstruction in Congenital Heart Disease Marc S. Rebel, Thomas L. Gentles, Kirsten A. Finucane. The Green Lane Paediatric and Congenital Cardiac Service at Starship Children's Hospital, Auckland, New Zealand.

392 Usefulness of Aortic Valve Calcium Scoring in Patients with Aortic Stenosis and Discordant Doppler-Echocardiographic Findings. Marie-Annick Clavell¹, David Messika-Zeitoun², Philippe Pibarot³, Shivani Aggarwal¹, Phillip Araoz¹, Hector Michelena¹, Caroline Cuffe², Eric Larose³, Romain Capoulade³, Maurice Enriquez-Sarano¹. ¹Mayo Clinic, Rochester, MN, USA, ²Hôpital Bichat, Paris, France, ³Institut Universitaire de Cardiologie et de Pneumologie de Québec, Québec, QC, Canada.

349 Should Transcatheter Aortic Valve Replacement be Employed in Patients with Homograft Degeneration to Avoid Redo Aortic Root Replacement? Arminster S. Jassar, Nimesh Desai, Prashanth Vallabhajosula, Fenton McCarthy, Rita Milewski, Patrick Moeller, William Moser, Wilson Szeto, Joseph Bavaria. University of Pennsylvania Medical Center, Philadelphia, PA, USA. A. S. Jassar, None.. N. Desai, None.. P. Vallabhajosula, None.. F. McCarthy, None.. R. Milewski, None.. P. Moeller, None.. W. Moser, None.. W. Szeto, None.. J. Bavaria, None.

13.00 – 14.00

Lunch

14.00 – 16.00

Concurrent Session 1: Mitral Valve Repair I

Main Auditorium (Sala Perla)

Moderators: Ottavio Alfieri, MD and Fred Mohr, MD

14.00 – 14.15

"20 years of the edge-to-edge repair: What have we learned?"
Ottavio Alfieri, MD

14.15 – 14.30

"Surgery for myxomatous disease in the era of transcatheter therapy"
Fred Mohr, MD

14.30 – 16.00

Abstracts (6 @ 15 mins)

120 A Newly Developed Total Stroke Work Index Predicts Survivor after Mitral Valve Repair in End-Stage Heart Failure Patients with Idiopathic Dilated Cardiomyopathy. Yasushige Shingu, Dai Araki, Satoru Wakasa, Tomonori Ooka, Tsuyoshi Tachibana, Suguru Kubota, Yoshiro Matsui. Hokkaido university, Sapporo, Japan.

376 Ischemic Mitral Regurgitation: Cut, Transfer Chordae and Papillary Muscle Repositioning On-pump. Samuele Bichi, Pasquale Pellegrino, Marianna Redaelli, Camillo Luca Poloni, Davide Patrini, Giuseppe Nicola Valerio, Giuseppe Nicola Valerio, Giampiero Esposito. Humanitas Gavazzeni Clinic, Bergamo, Italy.



223 *Quantitative Assessment of a Clinically Relevant Large Animal Model of Advanced Heart Failure with Severe Functional Mitral Regurgitation. Muralidhar Padala, Bryant McIver, Weiwei Shi, Jakob V. Johansen, Vinod H. Thourani, Robert A. Guyton. Emory University, Atlanta, GA, USA.*

256 *Predictors Of Hospital Mortality After Surgery For Ischemic Mitral Regurgitation. Abdelsalam M. Elhenawy, Khaled algarni, Manjula Maganti, Stephanie Brister, Vivek Rao, Terry Yau. Toronto General hospital, Toronto, ON, Canada.*

42 *Mid-term Results of Mitral Complex Reconstruction for Functional Mitral Regurgitation. Yoshiro Matsui, Satoru Wakasa, Yasushige Shingu, Tomonori Ooka, Tsuyoshi Tachibana, Suguru Kubota. Hokkaido University Graduate School of Medicine, Sapporo, Japan.*

191 *Flow Induced Remodeling of the Anterior Mitral Leaflet after Tailored Relief of LVOT Obstruction in Hypertrophic Obstructive Cardiomyopathy(HOCM). Muralidhar Padala¹, Ryo Torii², Sarah Moharem³, Bryant V. McIver¹, Adrian H. Chester⁴, Mohamed Donya³, Ahmed ElGuindy³, Ahmed M. Afifi³, Magdi H. Yacoub⁴. ¹Emory University, Atlanta, GA, USA, ²University College London, London, United Kingdom, ³Aswan Heart Center, Aswan, Egypt, ⁴Imperial College London, London, United Kingdom.*

14.00 – 16.00 **Concurrent Session 2: Valve Replacement I** **Breakout Room 1 (Sala Delle Feste)**
Moderators: *Tomislav Mihaljevic, MD and Jose Pomar, MD*

14.00 – 14.15 "When should the ischemic mitral valve be replaced?"
Tomislav Mihaljevic, MD

14.15 – 14.30 "New developments in mechanical valve replacement therapy"
Jose Pomar, MD

14.30 – 16.00 *Abstracts (6 @ 15 mins)*

277 *Outcome and Impact of Surgery in Paradoxical Low Flow, Low Gradient Severe Aortic Stenosis and Preserved Left Ventricular Ejection Fraction: A Cardiac Catheterization Study. Dania MOHTY¹, Mathieu DELTREUIL¹, Victor ABOYANS¹, Najmeddine ECHAHIDI¹, Claude CASSAT¹, Julien MAGNE², Patrice VIROT¹, Philippe PIBAROT³, Marc J. LASKAR¹. ¹University Hospital Dupuytren, Limoges, France, ²CHU Sart-Tilman, Liège, Belgium, ³Quebec Heart & Lung Institute, Quebec City, QC, Canada.*

296 *Long-term Outcome after Aortic Valve Replacement with the Stentless Freestyle Bioprosthesis in Japan: Results from J-FEATURE study. Yasushi Yoshikawa¹, Yukikatsu Okada², Masaaki Toyama³, Yutaka Okita⁴, Junjiro Kobayashi⁵, Tatsuhiko Komiya⁶, Shuichiro Takanashi⁷, Hiroki Yamaguchi⁸, Tomoki Shimokawa⁹, Yoichi Kikuchi¹⁰, Yoshiki Sawa¹. ¹Osaka University Graduate School of Medicine, Suita, Japan, ²Kobe*



City Medical Center General Hospital, Kobe, Japan, 3Kameda Medical Center, Kamogawa, Japan, 4Kobe University Graduate School of Medicine, Kobe, Japan, 5National Cardiovascular Center, Suita, Japan, 6Kurashiki Central Hospital, Kurashiki, Japan, 7Sakakibara Heart Institute, Tokyo, Japan, 8Shin Tokyo Hospital, Matsudo, Japan, 9Teikyo University, Tokyo, Japan, 10Obihiro Hospital, Obihiro, Japan.

18 *Effects of Preoperative Indexed Left Ventricular Dimension on Recovery of Left Ventricular Function and Long Term Survival after Aortic Valve Replacement for Chronic Aortic Regurgitation. Hiroyuki Saisho, Koichi Arinaga, Yuichiro Hirata, Koji Akasu, Tomokazu Kosuga, Hiroshi Tomoeda, Hidetoshi Akashi, Hiroyuki Tanaka. Kurume university, Kurume, Japan.*

117 *Survival Rates After Repair Versus Replacement Of Mitral Valves In Ischaemic Mitral Regurgitation. Aravinda Page¹, Richard Parker², Balakrishnan Mahesh¹, Susan Davies¹, Francis Wells¹, Sukumaran Nair¹. 1Papworth Hospital, Cambridge, United Kingdom, 2Institute of Public Health, University of Cambridge, Cambridge, United Kingdom.*

142 *Cardiologist And Cardiac Surgeon View On Decision-making In Prosthetic Aortic Valve Selection: Does Specialty Matter? Nelleke M. Korteland¹, Jolanda Kluin, MD PhD², Robert JM Klautz, MD PhD³, Jolien W. Roos-Hesselink, MD PhD¹, Michel IM Versteegh, MD³, Ad JJC Bogers, MD PhD¹, Johanna JM Takkenberg, MD PhD¹. 1Erasmus MC, Rotterdam, Netherlands, 2UMC Utrecht, Utrecht, Netherlands, 3LUMC, Leiden, Netherlands.*

193 *Does Optimized Hemodynamic Performance of Bioprostheses Predict Improved Survival Without Structural Degeneration ? Dan Rusinaru¹, Ahmed Sahli², Joseph Nader², Faouzi Trojette², Pierre Maitrias², Alessandro Piccardo³, Christophe Tribouilloy², Thierry Caus². 1Centre Hospitalier Saint Quentin, Saint Quentin, France, 2Centre Hospitalier Universitaire d'Amiens, Amiens, France, 3Centre Hospitalier Universitaire de Limoges, Limoges, France.*

14.00 – 16.00	Concurrent Session 3: Valve Biology I	Breakout Room 2 (Sala Mosaici 1)
	Moderators: Jonathan Butcher, MD and Jose Luis de la Pompa, MD	
14.00 – 14.15	"Role of inflammation in heart valve disease" Jonathan Butcher, MD	
14.15 – 14.30	"Strategies to limit early valve stenosis" Jose Luis de la Pompa, MD	
14.30 – 16.00	Abstracts (6 @ 15 mins)	



50 *Bicuspid Aortic Valve Disease: Effect of Cusp Fusion Pattern on Aortic Flow Abnormalities.* Malenka M. Bissell, MD1, Aaron T. Hess, PhD1, Luca Biasioli, PhD1, Steffan J. Glaze1, Margaret Loudon, MRCP1, Alex Pitcher, MRCP1, Anne Davis, BSc (Hons)1, Michael Markl, PhD2, Alex J. Barker, PhD2, Stefan Neubauer, MD1, Saul G. Myerson, MD1. 1University of Oxford, Oxford, United Kingdom, 2Northwestern University Feinberg School of Medicine, Chicago, IL, USA.

239 *The Role Of Inorganic Pyrophosphate In Aortic Valve Calcification.* Swetha Rathan1, W. Charles O'Neill2, Ajit P. Yoganathan3. 1School of Chemical and Biomolecular Engineering, Georgia Institute of Technology, Atlanta, GA, USA, 2Renal Division, Emory University School of Medicine, Atlanta, GA, USA, 3Wallace H. Coulter Department of Biomedical Engineering, Georgia Institute of Technology, Atlanta, GA, USA.

385 *Aspirin Reduces in Vitro Pro-calcific Differentiation of Interstitial Aortic Valve Cells.* Elisa Bertacco, Elisabetta Faggini, Massimo Puato, Giorgio Arrigoni, Renato Millioni, Cinzia Franchin, Paolo Pauletto, Marcello Rattazzi. University of Padova, Padova, Italy.

160 *The Role of Integrins in Regulation of the Stiffness in Mitral Valve Leaflets.* Marzieh Zamani1, Murali Padala2, Padmini Sarathchandra1, Magdi Yacoub1, Adrian Chester1. 1Imperial College London, Harefield, United Kingdom, 2Emory University, Atlanta, GA, USA.

214 *Expression and Function of Hypoxia Inducible Factor-1 alpha in Normal and Diseased Mitral Valves* Kareem Salhiyyah, Padmini Sarathchandra, Magdi Yacoub, Prof, Adrian Chester. Imperial College London, Harefield, United Kingdom.

115 *Pulmonary Valve MMP3 Gene Expression Is Tonicly Inhibited By Mechanical Forces.* Fariba Chalajour, Arpi Siyahian, Xiaoyuan Ma, Yasuhiro Fujii, Frank Hanley, R. Kirk Riemer. Stanford University, Stanford, CA, USA,

14.00 – 16.00

Concurrent Session 4: Epidemiology

Breakout Room 3 (Sala Mosaici 2)

Moderators: Jeffrey Borer, MD and Johanna Takkenberg, MD

14.00 – 14.15

"Regulatory approval for cardiovascular devices: How important are randomized trials?"

Jeffrey Borer, MD

14.15 – 14.30

"Cardiovascular registries: Format and function"

Johanna Takkenberg, MD

14.30 – 16.00

Abstracts (6 @ 15 mins)



282 *Burden and Clinical Outcome of Idiopathic Tricuspid Regurgitation in the Community.* Yan Topilsky, Sr.1, Maurice Enriquez Sarano, MD2. 1Tel Aviv Medical Center, Tel Aviv, Israel, 2Mayo Clinic, Rochester, MN, USA.

274 *Acute Aortic Dissection In Asian Vs. Western Patients: Differences In Patient Presentation.* Bart Meuris1, Motohiko Goda2, Tomoyuki Minami3, Kiyotaka Imoto4, Munetaka Masuda2. 1University Hospitals Leuven, Leuven, Belgium, 2Yokohama City University Hospital, Yokohama, Japan, 3Yokohama Municipal Citizens Hospital, Yokohama, Japan, 4Yokohama City University Medical Center, Yokohama, Japan.

33 *Sixteen Year Analysis of First Incidence, Aortic and Mitral Valve Procedures in Rheumatic and Non-rheumatic Patients in Capetown, South Africa.* Akinwumi B. Ogunrombi1, Paul Human2, Peter Zilla2. 1Obafemi Awolowo University, Ile-Ife, Nigeria, 2University of Capetown, Capetown, South Africa.

402 *Traumatic Valvular Disease: Myth And Realities*Thierry G. Langanay, Cecile Martin, Amedeo Anselmi, Erwan Flecher, Herve Le Couls, Alain Leguerrier. University hospital of Rennes, Rennes, France.

199 *Risk Stratification In Acute Native Aortic Valve Endocarditis.* Arvid Neumann, Christian Binner, Pascal Maria Dohmen, Martin Misfeld, Michael Borger, Friedrich Wilhelm Mohr. Heart Center Leipzig, Leipzig, Germany.

266 *Results And Midterm Survival Of Octogenarian Patients Undergoing Aortic Valve Surgery*Pedro P. Lima-Cañadas, Alfonso Cañas, Luis F. Lopez-Almodovar, Jose A. Buendia, Emilio Monguió. Complejo Hospitalario de Toledo, Toledo, Spain.

16.00 – 16.30 **Poster Session I (cont.) and Refreshments**

16.30 – 18.00 **Concurrent Session 5: Ross/Homograft** **Main Auditorium (Sala Perla)**
Moderators: Roland Hetzer, MD and Hans Sievers, MD

16.30 – 16.45 "Homografts for destructive endocarditis"
 Roland Hetzer, MD

16.45 – 17.00 "The Ross procedure: Working towards nature's valve"
 Hans Sievers, MD

17.00 – 18.00 Abstracts (4 @ 15 mins)

210 *Wall Biomechanics of Dilated Pulmonary Autograft after the Ross Procedure.* Ryo Torii1, Michael Ibrahim2, Ismail El-Hamamsy2, Mohamed Donya3, Tarun Mittal4, Yun Xu2, Magdi H. Yacoub2. 1University College London, London, United Kingdom,



2Imperial College London, London, United Kingdom, 3Aswan Heart Centre, Aswan, United Kingdom, 4Harefield Hospital, Harefield, United Kingdom.

16 *Reinforcement Of The Pulmonary Artery Autograft With A Polyglactin And/or Polydioxanone Mesh In The Ross Operation: Experimental Study In The Growing Lamb.* Sylvio Olivito, Francesco Nappi, Nadjib Hammoudi, Pierre Fouret, Juan-Carlos Chachquès, Christophe Acar. Hôpital Salpêtrière, Paris, France.

263 *Modified Ross Procedure to Prevent Autograft Dilatation: Insight of the Surgical Technique and Preliminary Results.* Jawad Hechadi, Laurent De Kerchove, David Glineur, Philippe Noirhomme, Gebrine El Khoury. Cliniques Universitaires Saint Luc, Université Catholique de Louvain, Brussels, Belgium.

148 *No Signs of Mechanical Remodelling in Pulmonary Autograft Leaflets after Ross Procedure.* Aart Mookhoek, MD1, Heide Kuang2, Andrew D. Wisneski, BSc2, John Chen2, Ad J J C Bogers, MD, PhD1, Johanna J M Takkenberg, MD, PhD1, Elaine E. Tseng, MD2, Paul H. Schoof, MD, PhD3. 1Erasmus University Medical Center, Rotterdam, Netherlands, 2University of California at San Francisco Medical Center and San Francisco Veterans Affairs Medical Center, San Francisco, CA, USA, 3Utrecht University Medical Center, Utrecht, Netherlands.

16.30 – 18.00 Concurrent Session 6: Aortic Valve Repair Breakout Room 1 (Sala Delle Feste)
Moderators: Jochen Schaefers, MD and Michel van Dyck, MD

16.30 – 16.45 "Matching the aortic valve sparing procedure to the patient"
Jochen Schaefers, MD

16.45 – 17.00 "Echocardiographic predictors of a successful aortic valve repair"
Michel van Dyck, MD

17.00 – 18.00 Abstracts (4 @ 15 mins)

32 *Long-term Outcome Following Mitral Valve Repair for Severe Degenerative Mitral Regurgitation.* Yukikatsu Okada, Yu Shomura, Takashi Murashita, Naoto Fukunaga, Yasunobu Konishi. Kobe City Medical Center General Hospital, Kobe, Japan.

105 *Aortic Valve Repair In Pediatric Patients.* Hiroaki Takahashi, MD, PhD, Diana Aicher, MD, Takashi Kuniyama, MD, PhD, Marco Franciulli, MD, Raffaele Gargiulo, MD, Hans-Joachim Schäfers, MD, PhD. Department of Thoracic and Cardiovascular Surgery, University Hospital of Saarland, Homburg / Saar, Germany.



27 *Florida Sleeve or Reverse Florida Sleeve as Aortic Root Remodeling Operation for Aortic Root Aneurysm Takeshi Komoda¹, Petra Gehle¹, Satsuki Komoda¹, Felix Berger¹, Robert Hammerschmidt¹, Michael Huebler², Roland Hetzer¹. ¹Deutsches Herzzentrum Berlin, Berlin, Germany, ²University Children's Hospital Zurich, Zurich, Switzerland.*

124 *Aortic Valve-Sparing Operation with Reimplantation Technique: a 14-years Experience. Maria C. Escarain, Maria P. Duczynski, Gustavo Giunta, Roberto R. Favaloro. Favaloro Foundation University Hospital, Buenos Aires, Argentina.*

16.30 – 18.00 **Concurrent Session 7: Tissue Engineering I** **Breakout Room 2 (Sala Mosaici 1)**
Moderators: *Simon Hoerstrup, MD and Artur Lichtenberg, MD*

16.30 – 16.45 "Prenatally engineered autologous heart valves: Reality or science fiction?"
Simon Hoerstrup, MD

16.45 – 17.00 "Rising technologies for engineering heart valves - cellular and extracellular cues from bench to bed"
Artur Lichtenberg, MD

17.00 – 18.00 *Abstracts (4 @ 15 mins)*

111 *Decellularized Versus Standard Cryopreserved Pulmonary Allografts For Right Ventricular Outflow Reconstruction During The Ross Operation - Seven-years Of Follow-up. Francisco D A da Costa, Ana Beatriz B A da Costa, Daniele Fornazari, Claudinei Colatusso, Eduardo M. Balbi, Filho, Ana Claudia B A da Costa, Andressa G. Sagrado. Santa Casa de Curitiba - PUCPR, Curitiba, Brazil.*

126 *Remodeling of a Novel ECM-Derived Trileaflet Valve in an Ovine Model. Anna Fallon¹, Traci Goodchild², James Cox³, Robert Matheny¹. ¹CorMatrix Cardiovascular, Alpharetta, GA, USA, ²Saint Joseph's Translational Research Institute, Atlanta, GA, USA, ³Washington University, Saint Louis, MO, USA.*

220 *Heart Valve Engineering: Unseeded Elastomeric Single Leaflets Retain Function and Remodel After Implant In Ovine Pulmonary Outflow Tract. Ahmed S. Bayoumi¹, Antonio D'Amore², Alexander T. Cubberley¹, Nicholas Amoroso², Peter Chen¹, Ruei Z. Lin¹, Kayle Shapero¹, David W. Brown¹, Elena Aikawa³, Robert Padera³, Frederick Schoen³, William R. Wagner², Michael Sacks⁴, John E. Mayer, Jr¹. ¹Boston Children's Hospital, Boston, MA, USA, ²McGowan Institute, University of Pittsburgh, Pittsburgh, PA, USA, ³Brigham and Women's Hospital, Boston, MA, USA, ⁴Institute for Computational Engineering and Sciences, The University of Texas at Austin, Austin, TX, USA.*

181 *Mimicking Extracellular Matrix Anisotropy For Heart Valve Engineering. Jerome Sohier, Ivan Carubelli, Najma Latif, Padmini Sarathchandra, Adrian Chester, Magdi Yacoub. Imperial College - Harefield Heart Science Centre, Harefield, United Kingdom.*



16.30 – 18.00	Concurrent Session 8: Timing of Intervention	Breakout Room 3 (Sala Mosaici 2)
	Moderators: <i>Maurice Sarano, MD and Blase Carabello, MD</i>	
16.30 – 16.45	"Asymptomatic MR. When to intervene?" <i>Maurice Sarano, MD</i>	
16.45 – 17.00	"Aortic stenosis patients undergoing non-cardiac surgery: What to do?" <i>Blase Carabello, MD</i>	
17.00 – 18.00	<i>Abstracts (4 @ 15 mins)</i>	
	258 <i>Does Presence of Raphe and Aortic Valve Phenotype relate to Aortic Valvular Function and Ascending Aortic Dimensions in Bicuspid Aortic Valve?</i> Hong Ju Shin, MD, Jun-Seok Kim, MD, Hyun Keun Chee, Je Kyoun Shin, MD, Meong Gun Song, MD, Sung Min Ko, MD. Konkuk University Medical Center, Seoul, Korea, Republic of.	
	302 <i>Prognostic Value of Left Ventricular Dysfunction in Mitral Regurgitation Due to Flail Leaflets: a Multicenter Analysis.</i> Christophe Tribouilloy ¹ , Dan Rusinaru ² , Francesco Grigioni ³ , Jean-Louis Vanoverschelde ⁴ , Jean-Francois Avierinos ⁵ , Andrea Barbieri ⁶ , Maurice Enriquez-Sarano ⁷ . ¹ Centre Hospitalier Universitaire d'Amiens, Amiens, France, ² Centre Hospitalier Saint Quentin, Saint Quentin, France, ³ University of Bologna, Bologna, Italy, ⁴ University Hospital Saint-Luc, Bruxelles, Belgium, ⁵ Centre Hospitalier Universitaire de Marseille, Marseille, France, ⁶ University Hospital of Modena, Modena, Italy, ⁷ Mayo Clinic, Rochester, MN, USA.	
	346 <i>Predictors of Type-B Natriuretic Peptide in Aortic Stenosis.</i> Marie-Annick Clavel, Joseph Malouf, Hector Michelena, Maurice Enriquez-Sarano. Mayo Clinic, Rochester, MN, USA.	
	448 <i>Increased Preoperative B-Type Natriuretic Peptide Levels Predict Early Clinical Outcomes and Midterm Survival After Aortic Valve Replacement.</i> Antonio Miceli, Michele Murzi, Danyiar Gilmanov, Simone Simeoni, pier A. Farneti, Marco Solinas, Mattia Glauber. Fondazione G. Monasterio, CNR-regione Toscana, Massa, Italy.	
18:00 – 18:30	Annual General Meeting (Members Only)	
18:30 – 19:00	Reception in Poster Hall	



Monday, June 24

08.00 - 10.00 **Concurrent Session 9: Mitral Valve Repair II** **Main Auditorium (Sala Perla)**

Moderators: *David Adams, MD and Harry Rakowski, MD*

08.00 – 08.15 "Can we achieve 100% mitral valve repair rates?"
David Adams, MD

08.15 – 08.30 "3D TEE for mitral valve repair: How useful is it?"
Harry Rakowski, MD

08.30 – 10.00 *Abstracts (6 @ 15 mins)*

161 *Late Recurrent Mitral Regurgitation after Valve Repair in Barlow's Disease: Echocardiographic Characteristics and Technical Considerations for Surgery. Jerome Jouan, Paul Achouh, Alain Berrebi, Alain Carpentier, Jean-Noël Fabiani. Georges Pompidou European Hospital, Paris, France.*

254 *Evolving Strategy and Long-term Surgical Outcome of Mitral Valve Repair in Congenital Mitral Valve Stenosis. Eva Maria Delmo Walter, Roland Hetzer. Deutsches Herzzentrum Berlin, Berlin, Germany.*

294 *Mid-term Result of Mitral Patch Valvuloplasty Technique. Meong Gun Song, MD, Je Kyoun Shin, MD, Hyun Keun Chee, MD, Jun Seok Kim, MD. Konkuk University Medical Center, Seoul, Korea, Republic of.*

287 *Evolution of Mitral Valve Repair for Mitral Valve Prolapse: From Leaflet Resection to Nechoardal Resuspension. Mehrdad Ghoreishi, Murtaza Y. Dawood, Chetan Pasrija, Stephen T. Bartlett, Bartley P. Griffith, James S. Gammie. University of Maryland Medical Center, Baltimore, MD, USA.*

339 *Myxomatous Mitral Valve Repair: What are the mechanisms of failure? Hillit Cohen, Micha Feinberg, Yoram Agmon, Leonid Sternik, Boris Orlov, Shany Levin, Ehud Raanani. Sheba Medical Center, Ramat Gan, Israel.*

460 *Utilization of dETlogix Remodeling Ring for Repair of Barlow's Mitral Valve. Pravin M. Shah, Aidan A. Raney. Hoag Heart Valve Center, Newport Beach, CA, USA.*

08.00 - 10.00 **Concurrent Forum 1: Robotic and Minimal Invasive Mitral Valve Surgery**

Chair: *Evelio Rodriguez, MD*

08.00 - 8.20 How to perfuse and avoid complications
Juan Grau, MD



08.20 - 08.40 Minimally Invasive and robotic MV surgery: Is it really better than sternotomy"

Joseph Woo, MD

08.40 - 09.00 Robotic/Mini/Sternotomy: Matching the approach to the proper patient

Clark Hargrove, MD

09.00- 09.20 Minimally Invasive MV surgery: Redos and complex cases

Frank Van Praet, MD

09.20 – 09.40 Robotic MV Surgery: 13 years later

W. Randolph Chitwood, MD

09.40 – 10.00 Facts and Fiction of Robotic Mitral Valve Surgery

Rakesh Suri, MD

08.00 - 10.00 Concurrent Forum 2: SHVD / Japanese Heart Valve Disease Joint Session

Chairs: *Yutaka Okita, MD and Gino Gerosa, MD*

08.00 - 10.00 Concurrent Session 10: Congenital

Moderators: *Matt Gillespie, MD and Chris Caldarone, MD*

08.00 – 08.15 "Novel approaches to RVOT dysfunction"

Matt Gillespie, MD

08.15 – 08.30 "Atrioventricular valve repair in single ventricle physiology"

Chris Caldarone, MD

08.30 – 10.00 Abstracts (6 @ 15 mins)

21 *Allograft Conduit Function over Time after Right Ventricular Outflow Tract Reconstruction* Mostafa Mokhles¹, Ibrahim Onsesveren¹, Pieter van de Woestijne¹, Peter de Jong¹, Maarten Witsenburg², Laurens Koopman³, Johanna J. Takkenberg¹, Ad J. Bogers¹. ¹Dept of Cardiothoracic Surgery, Erasmus University Medical Center, Rotterdam, Netherlands, ²Depts of Congenital and Pediatric Cardiology, Erasmus University Medical Center, Rotterdam, Netherlands, ³Dept of Pediatric Cardiology, Erasmus University Medical Center, Rotterdam, Netherlands.

284 *Outcome Of Standard And Bicuspidalized Cryopreserved Homograft Used For Right Ventricular Outflow Tract Reconstruction* Gianluigi Perri, Angelo Polito, Fabrizio Gandolfo, Sonia B. Albanese, Adriano Carotti. Bambino Gesù Children Hospital, Roma, Italy.

245 *Microstructural Differences in Normal and Bicuspid Aortic Valve* Ankush Aggarwal¹, Vanessa Aguilar¹, Giovanni Ferrari², Joseph H. Gorman², Robert C. Gorman², Michael S. Sacks¹. ¹University of Texas at Austin, Austin, TX, USA, ²University of Pennsylvania, Philadelphia, PA, USA



47 *Deterioration of Mitral Regurgitation After the Repair of Atrial Septal Defect in Adults. Shohei Yoshida, Yasushi Tsutsumi, Osamu Monta, Satoshi Numata, Sachiko Yamazaki, Hiroyuki Seo, Takaaki Samura, Hirokazu Ohashi. Fukui Cardiovascular Center, Fukui, Japan.*

324 *A Novel Technique for Reconstruction of Right Ventricular Outflow Tract with Fresh Pericardial Valved Conduit. Chirantan V. Mangukia, Saket Agarwal, Subodh Satyarthi, Deepak Satsangi. G B Pant Hospital, New Delhi, India, new delhi, India.*

252 *Various Repair Techniques to Correct Tricuspid Valve Incompetence in Ebstein's Anomaly and their Impact on Long-term Ventricular Function and Functional Outcome. Roland Hetzer, Eva Maria Delmo Walter. Deutsches Herzzentrum Berlin, Berlin, Germany.*

10:00 – 10:30

Poster Session II and Refreshments

10.30 - 12.30

Concurrent Session 11: Transcatheter Valve Therapy

Moderators: *Olaf Franzen, MD and Francesco Maisano, MD*

10.30 – 10.45

"Current trends in percutaneous edge-to-edge repair"
Olaf Franzen, MD

10.45 – 11.00

"New transcatheter mitral valve devices"
Francesco Maisano, MD

08.30 – 10.00

Abstracts (6 @ 15 mins)

83 *Feasibility Of Contrast Echocardiography For Assessment Of Total Aortic Regurgitation Following Tavi. Marian Kukucka, Miralem Pasic, Axel Unbehaun, Alexander Mladenow, Hermann Kuppe, Helmut Habazettl, Roland Hetzer. German Heart Institute Berlin, Berlin, Germany.*

440 *Impact of the Method used for Aortic Annulus Measurement on Transcatheter Aortic Valve Implantation results - A Transesophageal Echocardiography and Multislice Computed Tomography Comparison. David Messika-Zeitoun, Agnes Charbonnel, Martina Sordi, Dominique Himbert, Eric Brochet, Alec Vahanian. Bichat Hospital, Paris, France.*

278 *Mitraclip Repair In Octogenarians. Nicola Buzzatti, Maurizio Taramasso, Micaela Cioni, Paolo Denti, Alessandro Candrea, Antonio Colombo, Ottavio Alfieri, Francesco Maisano. San Raffaele University Hospital, Milan, Italy.*



298 *Transapical And Transaortic Native Valve Resection Using Endovascular Circular Blade And Collection Chamber.* Parla Astarci, Xavier Bollen, David Glineur, Laurent De Kerchove, Benoît Raucent, Gebrine El Khoury. University Hospital Saint-Luc, Brussels, Belgium.

91 *Transcatheter Aortic Valve Replacement Risk Neutralizes the Increased Mortality in Extremes of Body Mass Index Compared to Surgical Aortic Valve Replacement.* Tom C. Nguyen, Vasilis C. Babaliaros, Patrick D. Kilgo, Robert A. Guyton, Chandan M. Devireddy, Christian C. Shults, Kreton Mavromatis, Mihir Kanitkar, Bradley G. Leshnower, Peter Block, Stam Lerakis, Vinod H. Thourani. Emory University, Atlanta, GA, USA.

118 *Short- and Mid-Term Outcomes in Transcatheter Aortic Valve Replacement in Fifty-Nine Nonagenarians.* Vinod H. Thourani, Chandan Devireddy, Robert Guyton, Kreton Mavromatis, Patrick Kilgo, Tom C. Nguyen, George Comas, Mihir Kanitkar, Peter Block, Stam Lerakis, Bradley Leshnower, Vasilis Babaliaros. Emory University, Atlanta, GA, USA.

10.30 - 12.30

Concurrent Forum 3: Aortic Valve Repair
Chair: Emmanuel Lansac, MD

10.30 - 12.30

Concurrent Forum 4: Mitral Valve Biology
Chairs: TBD, MD and Adrian Chester, MD

10.30 - 12.30

Concurrent Forum 5: Mitral Valve Symposium
Joint with European Association of Cardiovascular Imaging

10:30

Welcome and introduction

G. Gerosa (Padova, Italy), P. Lancellotti (Liege, Belgium).

10.40 - 11.30

Imaging ECHO

Chairman: F. Rigo (Mestre, Italy), G. Habib (Marseille, France)

Live from Padova Echo Lab:

3D reconstruction of mitral leaflets and annulus morphology.

L. Badano (Padova, Italy), D. Muraru (Padova, Italy)

11.30 - 12.30

Round table: Current indications for MV Surgery

Chairman: M. Enriquez-Sarano (Rochester, USA), P. Lancellotti (Liege, Belgium)

North American perspectives – M. Enriquez-Sarano (Rochester, USA)

European perspectives – P. Lancellotti (Liege, Belgium)

Panelists: F. Grigioni (Bologna, Italy), G. La Canna (Milano, Italy),

R. Rosenhek (Wien, Austria), C. Tribuillo (Paris, France), G. Habib (Marseille, France)



10.30 - 12.30

Concurrent Session 12: Anti-Thrombotic Therapy

Moderators: *Heinrich Koertke, MD and John Chambers, MD*

10.30 – 10.45

"Patient self-management of anti-thrombotic medications"

Heinrich Koertke, MD

10.45 – 11.00

"Effect of valve type on anticoagulation dosing for mechanical valves"

John Chambers, MD

08.30 – 10.00

Abstracts (6 @ 15 mins)

224 *Microfabricated Trenches Augment Endothelial Retention And Reduce Platelet Adhesion On Mechanical Heart Valve Surfaces. Christopher Frendl¹, Scott Tucker¹, Andres Garcia², Jonathan Butcher¹. ¹Cornell University, Ithaca, NY, USA, ²Georgia Institute of Technology, Atlanta, GA, USA.*

222 *Prevalence of Risk Factors and Low Response to Antiplatelet Medications in the Prospective Randomized On-X Anticoagulation Clinical Trial (PROACT). Dennis D. Nichols¹, Marc W. Gerdisch², Allen H. Graeve¹, Reed D. Quinn³, Birger E. Rhenman⁴, John D. Puskas⁵. ¹Multicare Tacoma General Hospital, Tacoma, WA, USA, ²St. Francis Hospital, Indianapolis, IN, USA, ³Maine Medical Center, Portland, ME, USA, ⁴Southern Arizona VA Hospital, Tucson, AZ, USA, ⁵Emory University, Atlanta, GA, USA.*

268 *Mid-term Results Of The Self-testing Of The International Normalized Ratio In Adults With A Mechanical Heart Valve. Kasra Azarnoush, Enrica Dorigo, Bruno PEREIRA, Benoit Legault, Lionel Camilleri. CHU Clermont-Ferrand, Clermont-Ferrand, France.*

150 *Thrombocytopenia After Sorin Freedom Solo Stentless Valve Implantation: Qualitative Analysis Of An Epiphenomenon Of No Clinical Significance. Jonida Bejko, Tomaso Bottio, Vincenzo Tarzia, Luca Spiezia, Elena Campello, Maria Bon, Paolo Simioni, Gino Gerosa. Cardiac surgery, Padova, Italy.*

271 *Half-Dose Enoxiparin versus Full-dose Enoxiparin for Postoperative Bridging Therapy in Patients after Heart Surgery: Which one is the better? Stefan Brose, Andreas Weiss, Katrin Ploetze, Klaus Matschke. Heart Centre Dresden, Dresden, Germany.*

450 *Short and Long Term Anticoagulation after Mitral Valve Repair or Replacement with Bioprosthesis. Is Warfarin Necessary? Nikolaos Nikolaidis, Saud Khawaja, Christina Bannister, Steve Livesey. University Hospital of Southampton, Southampton, United Kingdom.*



12.30 – 13.30

Lunch

13.30 – 14.30

Honorary Lecture: “Innovation in Heart Valve Surgery”

Tirone David, MD

Introduced by: Fred Mohr, MD

14.30 – 15.30

Top Rated Abstracts II (4 Papers x 15 Minutes)

Moderators: *Adrian Chester, MD and Hartzell Schaff, MD*

67 *Pravastatin Reduces Osteogenic Activation of Valvular Interstitial Cells in Asymptomatic Aortic Sclerosis while Enhances Transdifferentiation in Severe Aortic Stenosis Patients: Insights into the Statin Paradox in Human Valve Cell Phenotype* Paolo Poggio¹, Emanuela Branchetti¹, Rachana Sainger¹, Juan B. Grau², Alessandro Parolari³, Robert C. Gorman¹, Micheal S. Sacks⁴, Joseph E. Bavaria¹, Giovanni Ferrari¹. ¹University of Pennsylvania, Glenolden, PA, USA, ²Valley - Columbia Heart Center, Ridgewood, NJ, USA, ³Centro Cardiologico Monzino University of Milan, Milan, Italy, ⁴University of Texas at Austin, Austin, TX, USA.

165 *Increased and Aberrant Expression of Smooth Muscle Cells and Regulators, Myocardin and MRTFA/B in Calcific Aortic Valve Disease.* NAJMA LATIF, PADMINI SARATHCHANDRA, ADRIAN CHESTER, MAGDI H. YACOB. IMPERIAL COLLEGE, MIDDX, United Kingdom.

234 *C-type Natriuretic Peptide Inhibits Myofibroblast Differentiation of Valvular Interstitial Cells via Interactions Between Smad3 and cGK.* Kuiru Wei, Mark C. Blaser, Craig A. Simmons. University of Toronto, Toronto, ON, Canada.

195 *Valvular Osteoclasts In Calcification And Aortic Valve Stenosis Severity.* Edit Nagy, Per Eriksson, Mohamed Yousry, Kenneth Caidahl, Erik Ingelsson, Göran K. Hansson, Anders Franco-Cereceda, Magnus Bäck. Karolinska Institutet, Stockholm, Sweden.

15.30 – 16.00

Poster Session II (cont.) and Refreshments

16.00 - 18.00

Concurrent Session 13: Transcatheter Valve Therapy: Aortic I

Moderators: *Thomas Walther, MD and Nicolo Piazza, MD*

16.00 – 16.15

"TAVI: Transapical access should be the first choice"

Thomas Walther, MD



16.15 – 16.30 "TAVI: Transfemoral access should be the first choice"
Nicolo Piazza, MD

16.30 – 18.00 Abstracts (6 @ 15 mins)

14 Aortic Valve Replacement in Heart Failure Patients: Full Sternotomy or Minimally Invasive Access? Sven Lehmann, Christian D. Etz, Sergey Leontyev, Anne Funkat, Jens Garbade, Martin Misfeld, Friedrich W. Mohr. Heartcenter Leipzig, Leipzig, Germany.

308 MRI guided Transapical Perceval S valve Implantation and Midterm Results. Keith A. Horvath, Dumitru Mazilu, Junfeng Cai, Ming Li. National Institutes of Health, Bethesda, MD, USA.

321 Incidence of Cerebrovascular Accidents in Patients Undergoing Minimally Invasive Valve Surgery. Angelo La Pietra¹, Orlando Santana¹, Steven De Beer², Christos G. Mihos¹, Joseph Lamelas, MD¹. ¹Mount Sinai Heart Institute, Miami Beach, FL, USA, ²Mount Sinai Medical Center, Miami Beach, FL, USA.

408 Sutureless Aortic Valve Replacement in Right Anterior Minithoracotomy: Single Center Experience. Mattia Glauber, Daniyar Gilmanov, Antonio Miceli, Marco Solinas, Pierandrea Farneti, Matteo Ferrarini, Alfredo G. Cerillo, Michele Murzi. G. Pasquinucci Heart Hospital - G. Monasterio Foundation, Massa (MS), Italy.

447 Early Outcomes in Minimally Invasive Mitral Valve Surgery and Depressed Ejection Fraction. Antonio Miceli, Michele Murzi, Simone Simeoni, Daniyar Gilmanov, Pier A. Farneti, Marco Solinas, Mattia Glauber. Fondazione G. Monasterio, CNR-regione Toscana, Massa, Italy.

449 Minimally Invasive Cardiac Surgery for Redo-Operations without Aortic Cross-Clamping. Giacomo Bianchi, Marco Solinas, Pier Andrea Farneti, Egidio Varone, Simone Simeoni, Mattia Glauber. Istituto Ospedaliero e di Ricerca CREAS IFC CNR - Massa - Ospedale del Cuore, Massa, Italy.

16.00 - 18.00

Concurrent Session 14: Device

Moderators: W. Randolph Chitwood, MD and Martin Misfeld, MD

16.00 – 16.15 "What does the future valve surgeon look like?"
W. Randolph Chitwood, MD

16.15 – 16.30 "Sutureless aortic valves"
Martin Misfeld, MD

16.30 – 18.00 Abstracts (6 @ 15 mins)



110 *Systemic Application of a Completely Autologous Aortic Valved Conduit (BIOVALVE Type VII) Prepared by In Body Tissue Architecture Technology in a Goat Model.* Yasuhide Nakayama¹, Yoshiaki Takewa¹, Hirohito Sumikura¹, Masashi Yamanami¹, Kentaro Omuma¹, Keiichi Kanda², Eisuke Tatsumi¹. ¹National Cerebral and Cardiovascular Center Research Institute, Osaka, Japan, ²Kyoto Prefectural University of Medicine, Kyoto, Japan.

380 *Novel Material for the Use as Leaflets in Biomimetic Heart Valve Prostheses.* Ingo Nadzeyka, Maximilian Küttling, Ana Kardulovic, Sarah Winzen, Ulrich Steinseifer. CVE AME Helmholtz, Aachen, Germany.

416 *Evaluation Of The Local Thrombogenic Potential Of Heart Valves In Vitro Using Porcine Blood.* Torsten Linde, Johanna Clauser, Ulrich Steinseifer. CVE AME Helmholtz RWTH Aachen University, Aachen, Germany.

79 *Comparison Of The Permanent Pacemaker Implantation Rate After Mitral Valve Replacement As Opposed To Mitral Valve Repair In Patients Undergoing Simultaneous Aortic-Mitral Valve Surgery.* Marian Urban, Peter Ivak, Ivan Netuka, Ondrej Szarszoi, Jan Pirk. Institute for Clinical and Experimental Medicine Prague, Prague 4, Czech Republic.

108 *Prospective Long Term Study of the Carbomedics Annuloflex System Implanted as an Open Band in Mitral Valve Repairs for Degenerative Disease* Claudio Pragliola¹, Andrea Mazza¹, Carlo Cellini¹, Massimo Chello². ¹Università Cattolica S. Cuore, roma, Italy, ²Università Campus Biomedico, roma, Italy.

157 *In Vitro Investigations on Prosthetic Valve Thrombosis by Ultrasound Phonocardiography.* Giacomo Melan, Angela Bellato, Francesca M. Susin, Tomaso Bottio, Vincenzo Tarzia, Vittorio Pengo, Gino Gerosa, Andrea Bagno, Sr.. University of Padova, Padova, Italy.

16.00 - 18.00

Concurrent Session 15: Endocarditis

Moderators: Jae-Won Lee, MD and Carlos Mestres, MD

16.00 – 16.15

"Early surgery for infective endocarditis"
Jae-Won Lee, MD

16.15 – 16.30

"Does valve prosthesis type matter during endocarditis surgery?"
Carlos Mestres, MD

16.30 – 18.00

Abstracts (6 @ 15 mins)



97 Outcome of Aortic Valve Surgery in Acute Infective Aortic Valve Endocarditis Patients With Chronic Haemodialysis? Pascal M. Dohmen¹, Christian Binner¹, Ömur Akhavuz¹, Meinhard Mende², Farhad Bakhtiary¹, Christian D. Etz¹, Bettina Pfannmüller¹, Piroze Daviewala¹, Michael A. Borger¹, Martin Misfeld¹, Friedrich W. Mohr¹. ¹Heart Centre Leipzig, University of Leipzig, Leipzig, Germany, ²Coordinating Centre for Clinical Studies Leipzig, University of Leipzig, Leipzig, Germany.

12 Aortic Valve Reconstruction using Autologous Pericardium to Treat Infective Endocarditis. Isamu Kawase, Shigeyuki Ozaki, Hiromasa Yamashita, Shin Uchida, Yukinari Nozawa, Takayoshi Matsuyama, Mikio Takatoh, So Hagiwara. Toho University Ohashi Medical Center, Tokyo, Japan.

122 Aortic Root Replacement with Aortic Homograft in Patients with Active Aortic Valve Endocarditis: a 17-years Experience Maria C. Escarain, Agostina Fava, Maria P. Duczynski, Gustavo Giunta, Eduardo Dulbecco, Hector Raffaelli, Jose A. Abud, Roberto R. Favaloro. Favaloro Foundation University Hospital, Buenos Aires, Argentina.

289 Endocarditis And Calcification Of An Aortic Root Homograft: Successful Treatment By Combining Conventional And Transcatheter Techniques. Herko Grubitzsch, Michael Laule, Karl Stangl, Alexander Lembcke, Michael Sander, Torsten Christ, Wolfgang Konertz. Charité - Universitätsmedizin Berlin, Berlin, Germany.

206 Splenectomy In Acute Endocarditis: Two Step Better Than Simultaneous? Christian Binner¹, Sven Bayer², Kathrin Binner-Oussenek³, Pascal Maria Dohmen¹, Michael Borger¹, Martin Misfeld¹, Friedrich Wilhelm Mohr¹. ¹Heart Center Leipzig, Leipzig, Germany, ²Park Krankenhaus Leipzig, Leipzig, Germany, ³Parkkrankenhaus Leipzig, Leipzig, Germany.

329 Determinants For Increased Resource Utilization After Surgery For Prosthetic Valve Endocarditis. Herko Grubitzsch, Andreas Schäfer, Marc Kastrup, Michael Sander, Wolfgang Konertz. Charité - Universitätsmedizin Berlin, Berlin, Germany.

16.00 - 18.00

Concurrent Session 16: Imaging

Moderators: Matthias Gutberlet, MD and Robert Gorman, MD

16.00 – 16.15

"MRI for heart valve disease: When and why?"
Matthias Gutberlet, MD

16.15 – 16.30

"Mechanistic insights gained from 3D TEE"
Robert Gorman, MD

16.30 – 18.00

Abstracts (6 @ 15 mins)



354 *Reference Values of Right Ventricular Longitudinal Strain by Speckle Tracking Echocardiography in 219 Healthy Volunteers.* Gentian Denas, Luigi P Badano, Denisa Muraru, Lucia Dal Bianco, Davide Ermacora, Simona Casablanca, Diletta Peluso, Giacomo Zoppellaro, Umberto Cucchini, Sabino Iliceto. *Cardiology Clinic, Padova, Italy.*

372 *Good Accuracy and Reproducibility of Transthoracic Three-Dimensional Echocardiography for Mitral Valve Quantitative Analysis: Head-to Head Comparison with Three-Dimensional Transoesophageal Approach* Marcelo H. Miglioranza¹, Denisa Muraru², Sorina Mihaila², Luigi P. Badano², Lucia Dal Bianco², Diletta Peluso², Gonenc Kocabay², Umberto Cucchini², Simona Casablanca², Sabino Iliceto². *1Instituto de Cardiologia do Rio Grande do Sul, Porto Alegre, Brazil, 2University of Padua, Department of Cardiac, Thoracic and Vascular Sciences, Padua, Italy.*

406 *Comparability of Echocardiographic and Cardiac Magnetic Resonance assessment of Aortic Stenosis Severity.* Rosica Panayotova¹, Nik Abidin², Anita Macnab¹, Matthias Schmitt¹. *1University Hospital of South Manchester, Manchester, United Kingdom, 2Salford Royal Hospital NHS Trust, Manchester, United Kingdom.*

11 *Assessing the Accuracy of a Mitral Valve Segmentation Method for Real-Time 3D Echocardiography.* Andrew W. Siefert¹, David A. Icenogle¹, Jean-Pierre M. Rabbah¹, Neelakantan Saikrishnan¹, Jarek Rossignac², Stamatios Lerakis¹, Ajit P. Yoganathan¹. *1Georgia Institute of Technology and Emory University, atlanta, GA, USA, 2Georgia Institute of Technology, atlanta, GA, USA.*

119 *The Usefulness of Ascending Aorta Examination and Aortic Annulus Measurement by Computed Tomography in Patients Undergoing Less Invasive Aortic Valve Replacement Through Right Minithoracotomy.* Jarosław Stoliński, Maciej Krupiński, Artur Bartoszcze, Paweł Kruszczyński, Jacek Myśliwiec, Robert Sobczyk, Małgorzata Urbańczyk, Jerzy Sadowski. *John Paul II Hospital, Krakow, Poland.*

237 *Serial Echocardiograms During 5-Year Follow-up After Aortic Valve Replacement In The PROACT Trial.* Marc W. Gerdisch¹, Dennis D. Nichols¹, Allen H. Graeve², Reed D. Quinn³, Birger E. Rhenman⁴, Charles Anderson², Michael F. McGrath⁵, Bobby K. Kong⁶, John D. Puskas⁷. *1St. Francis Hospital, Indianapolis, IN, USA, 2Multicare Tacoma General Hospital, Tacoma, WA, USA, 3Maine Medical Center, Portland, ME, USA, 4Southern Arizona VA Hospital, Tucson, AZ, USA, 5Sentara Norfolk General Hospital, Norfolk, VA, USA, 6St. Joseph Mercy Hospital, Ypsilanti, MI, USA, 7Emory University, Atlanta, GA, USA.*



Tuesday, June 25

08.00 - 10.00

Concurrent Session 17: Transcatheter Valve Therapy: Aortic II

Moderators: *David Cohen, MD and Volkmar Falk, MD*

08.00 – 08.15

"Quality of life post-TAVR: Where's the evidence?"

David Cohen, MD

08.15 – 08.30

"New TAVR devices: Where are we going?"

Volkmar Falk, MD

08.30 – 10.00

Abstracts (6 @ 15 mins)

5 *Minimal Invasive versus Full Median Sternotomy Approach in Aortic Surgery. Sven Lehmann, Ingo Noehring, Sergey Leontyev, Jens Garbade, Joerg Seeburger, Martin Misfeld, Michael Borger, Friedrich W. Mohr. Heartcenter Leipzig, Leipzig, Germany.*

133 *Endoscopic-assisted Mini-thoracotomy Approach As A Routine Approach For Mitral Valve Surgery. Kazuma Okamoto, Hiroto Kitahara, Atsushi Nemoto, Shinichi Fukuhara, Hironobu Takaki, Shinji Kawaguchi, Mikihiro Kudo, Ryohei Yozu. Keio University, Tokyo, Japan.*

401 *Early Experience With Aortic Valve Replacement With The Edwards Intuity Valve System. Francesca Chiaramonti, Jr.1, Marco Solinas1, Antonio Miceli1, Stefano Bevilacqua1, Federica Marchi2, Simone Simeoni1, Mattia Glauber1. 1Ospedale del Cuore - Cardiocirurgia Adulti, Massa, Italy, 2Ospedale del Cuore - Cardiologia Adulti, Massa, Italy.*

404 *Minimally Invasive Mitral Valve Surgery In Elderly: A Propensity Score-adjusted Retrospective Analysis. Giacomo Bianchi, Egidio Varone, Simone Simeoni, Marco Solinas, Pier Andrea Farneti, Mattia Glauber. Istituto Ospedaliero e di Ricerca CREAS IFC CNR - Massa - Ospedale del Cuore, Massa, Italy.*

451 *Novel System For Aortic Valve Bypass In The Treatment Of High Risk Aortic Stenosis. Gabriele Di Giammarco, Carlo Canosa, Massimiliano Foschi. University of Chieti, Pescara, Italy.*

453 *Minimally Invasive Approach For Radical Resection Of Cardiac Myxomas. Giacomo Bianchi, Marco Solinas, Pier Andrea Farneti, Enkel Kallushi, Alfredo G. Cerillo, Egidio Varone, Simone Simeoni, Mattia Glauber. Istituto Ospedaliero e di Ricerca CREAS IFC CNR - Massa - Ospedale del Cuore, Massa, Italy.*



08.00 - 10.00

Concurrent Session 18: Valve Replacement II

Moderators: *Ismail El-Hamamsy, MD and Jean Dumesnil, MD*

08.00 – 08.15

"Biologic root replacement: Matching the valve to the patient"

Ismail El-Hamamsy, MD

08.15 – 08.30

"Patient-prosthesis mismatch post-mitral valve replacement"

Jean Dumesnil, MD

08.30 – 10.00

Abstracts (6 @ 15 mins)

19 *Stentless versus Stented Bioprosthetic Aortic Valve Replacement in Octogenarians: A Propensity Score Matched Analysis. Tomasz Timek¹, Robert L. Hooker¹, Alan T. Davis², Charles L. Willekes¹, Edward T. Murphy¹, John C. Heiser¹, Lawrence H. Patzelt¹. ¹Meijer Heart and Vascular Institute at Spectrum Health, Grand Rapids, MI, USA, ²Grand Rapids Education Partners, Grand Rapids, MI, USA.*

36 *Single Center Midterm Results from the FDA Pivotal Trial of the St. Jude Medical Trifecta Pericardial Aortic Valve Bioprosthesis. Joseph E. Bavaria, Scott McClure, Rohan S. Menon, Wilson Szeto, Sofiane Lazar, Melanie Freas, Virginia Buckley-Blaskovich, Nimesh D. Desai. University of Pennsylvania, Philadelphia, PA, USA.*

92 *Long-term Results of the Medtronic Mosaic Biological Prosthesis in the Aortic Position. Amedeo Anselmi, Erwan Flécher, Vito Giovanni Ruggieri, Celine Chabanne, Hervé Corbineau, Thierry Langanay, Jean-Philippe Verhoye, Alain Leguerrier. Division of Thoracic and Cardiovascular Surgery, Pontchaillou University Hospital, Rennes, France.*

145 *Hemodynamic and Clinical Outcomes with Biocor Valve in Aortic Position: a 15-year Experience. Tomaso Bottio, Marina Comisso, Jonida Bejko, Massimiliano Carrozzini, Vincenzo Tarzia, Giulio Rizzoli, Gino Gerosa. Cardiac surgery, Padova, Italy.*

168 *Dynamic Event Prediction in Joint Models of Longitudinal and Time-to-Event Data: a concept applied to patients with severe aortic stenosis. Eleni-Rosallina Andrinopoulou, Rizopoulos Dimitris, Geleijnse Marcel, Lesaffre Emmanuel, Bogers Ad, Takkenberg Johanna. Erasmus Medical Center, Rotterdam, Netherlands.*

189 *Novel Anti-Calcification Treatment Significantly Reduces Bioprosthetic Valve Calcification While Preserving Valve Performance, Durability, and Safety. Angela de la Fuente¹, Kathleen Young¹, Jane Olin, DVM¹, Jerzy Sadowski, MD, PhD², Krzysztof Bartus, M.D., PhD², Boguslaw Kapelak, MD, PhD², Francis G. Duhay, MD¹. ¹Edwards Lifesciences, Irvine, CA, USA, ²Department of Cardiovascular Surgery and Transplantation, Jagiellonian University, John Paul II Hospital, Krakow, Poland.*



08.00 - 10.00

Concurrent Session 19: Tissue Engineering II

Moderators: Gino Gerosa, MD and Axel Haverich, MD

08.00 – 08.15

"Testing and development of tissue engineered heart valves"

Gino Gerosa, MD

08.15 – 08.30

"Will 3D laser printing play a role in tissue engineering?"

Axel Haverich, MD

08.30 – 10.00

Abstracts (6 @ 15 mins)

226 Prescribed Matrix Environments within 3D Tissue Printed Tri-leaflet Heart Valves Promote Differentiated Phenotypes of Adipose Derived Mesenchymal Stem Cells. Laura A. Hockaday, Bin Duan, Edi Kapetanovic, Kevin H. Kang, Patrick Armstrong, Lauren Lee, Jonathan T. Butcher. Cornell University, Ithaca, NY, USA.

34 In Vivo Evaluation Of Cross-linked Matrices For Heart Valve Tissue Engineering. Pamela Somers¹, Filip De Somer², Maria Cornelissen¹, Hubert Thierens¹, Guido Van Nooten². ¹University of Gent, Gent, Belgium, ²University Hospital Gent, Gent, Belgium.

188 Novel Heart Valve Replacement Solutions Based On Self-assembling Peptide-functionalized Acellular Pericardium. Monica Dettin¹, Roberta Danesin¹, Sabrina Facciolo², Annj Zamuner¹, Laura Iop², Michele Spina³, Gino Gerosa². ¹Department of Industrial Engineering, University of Padova, Padova, Italy, ²Department of Cardiac, Thoracic and Vascular Sciences, University of Padova, Padova, Italy, ³Department of Biology, University of Padova, Padova, Italy.

151 A 3D Microfluidic Platform to Model the Valvular Microenvironment. Michelle B. Chen, Suthan Srigunapalan, Aaron R. Wheeler, Craig A. Simmons. University of Toronto, Toronto, ON, Canada.

419 Decellularized Tissue-Engineered Heart Valves Repopulate and Remodel Rapidly in Sheep. Petra E. Dijkman¹, Anita Driessen-Moll¹, Laura Frese², Maximilian Y. Emmert², Juerg Gruenenfelder², Michele Sidler², Bennedikt Weber², Bart Sanders², Rudi Jenni², Frank P T Baaijens¹, Simon P. Hoerstrup². ¹Eindhoven University of Technology, Eindhoven, Netherlands, ²University and University Hospital Zurich, Zürich, Switzerland.

26 Development of a Novel Autologous Aortic Valve with Stent (Biovalve Stent) for TAVI. Yoshiaki Takewa¹, Yasuhide Nakayama¹, Mamoru Arakawa¹, Masashi Yamanami¹, Kentaro Ohnuma¹, Hirohito Sumikura¹, Tsutomu Tajikawa², Keiichi Kanda³, Yoshiyuki Taenaka¹, Eisuke Tatsumi¹. ¹National Cerebral and Cardiovascular Center, Osaka, Japan, ²Kansai University, Osaka, Japan, ³Kyoto Prefectural University of Medicine, Kyoto, Japan.



08.00 - 10.00

Concurrent Session 20: Tricuspid Valve

Moderators: *Robert Klautz, MD and Alain Berrebi, MD*

08.00 – 08.15

"Should tricuspid valve repair be performed more commonly?"

Robert Klautz, MD

08.15 – 08.30

"Echocardiographic assessment of the tricuspid valve"

Alain Berrebi, MD

08.30 – 10.00

Abstracts (6 @ 15 mins)

314 Clinical Outcomes of Tricuspid Valve Surgery in Redo Heart Valve Surgery. Naoto Fukunaga, Yukikatsu Okada, Yasunobu Konishi, Takashi Murashita, Tadaaki Koyama. Kobe City Medical Center General Hospital, Kobe, Japan.

106 The Natural History of Functional Tricuspid Regurgitation when left unrepaired during Mitral Valve Surgery. Sean Bello, Emma Godfrey, Bushra Rana, Frank Wells, Sukumaran Nair. Papworth Hospital, Cambridge, United Kingdom.

381 Experiences With an Optimized Design of a Novel Anatomically Adapted Interventional Heart Valve for the Tricuspid Position. Desiree Pott¹, Jan Roggenkamp¹, Ulrich Steinseifer¹, Rüdiger Autschbach², Jan Spillner², Andrea Amerini². ¹CVI AME Helmholtz, Aachen, Germany, ²Department of Cardiothoracic- and Vascular Surgery, RWTH Aachen, Aachen, Germany.

465 Mid-term Results of Aggressive Tricuspid Annuloplasty Using the MC3 Ring for Functional Tricuspid Regurgitation Hiroki Hata, Junjiro Kobayashi, Tomoyuki Fujita, Yusuke Shimahara, Shunsuke Sato. National Cerebral and Cardiovascular Center, Suita, Osaka, Japan.

136 Tricuspid Valve Replacement: The Effect of Gender on Operative Results Dror Ben Leviner, Benjamin Medalion, Inbal Baruch, Alex Sagie, Eitan Snir, Erez Sharony, Avi Fuks, Anna Almog, Irit Glik, Philip Biderman, Ram Sharony. Rabin Medical Center, Petach Tiqva, Israel.

394 Total Tricuspid Valve Reconstruction using Porcine Extracellular Matrix: Functional and Biomechanical Aspects. Diana M. Ropcke¹, Sten L. Nielsen¹, Henrik Jensen¹, Morten Ø. J. Jensen², Jesper L. Hønge¹, Vibeke E. Hjortdal¹. ¹Dpt. of Cardiothoracic and Vascular Surgery, Aarhus University Hospital - Skejby, Denmark, ²Dpt. of Biomedical Engineering, Aarhus University, Denmark.



10.00 – 10.30 Poster Session III and Refreshments

10.30 - 12.30 Concurrent Session 21: Minimal Invasive Surgery
Moderators: *Michael Borger, MD and Hugo Vanermen, MD*

10.30 – 10.45 "Evidence for minimal invasive aortic valve surgery"
Michael Borger, MD

10.45 – 11.00 "Is minimal invasive mitral valve surgery learnable?"
Hugo Vanermen, MD

11.00 – 12.30 *Abstracts (6 @ 15 mins)*

431 *Impact of Bleeding on Transcatheter Aortic Valve Implantation Outcome: focus on Valve Academic Research Consortium-2 Classification. Valeria Gasparetto¹, Massimo Napodano¹, Chiara Fraccaro¹, Augusto D'Onofrio², Paolo Bujal¹, Gianpiero D'Amico¹, Anna Baritussio¹, Michela Facchin¹, Anna Chiara Frigo³, Giambattista Isabella¹, Sabino Iliceto¹, Gino Gerosa², Giuseppe Tarantini¹. ¹Cardiology Division. Department of Cardiac, Thoracic and Vascular Sciences. University of Padova, Padova, Italy, ²Cardiac Surgery. Department of Cardiac, Thoracic and Vascular Sciences. University of Padova, Padova, Italy, ³Laboratory of Epidemiological Methods and Biostatistic. Department of Cardiac, Thoracic and Vascular Sciences. University of Padova, Padova, Italy.*

436 *Comparisons of the new EuroSCORE II with the Logistic EuroSCORE and the Society of Thoracic Surgeons Score - Implications for Transcatheter Aortic Valve Implantation. David Messika-Zeitoun, Dimitri Arangalage, Andrea Chiampan, Claire Cimadevilla, Dominique Himbert, Alec Vahanian. Bichat Hospital, Paris, France.*

445 *Measurement of the Aortic Annulus Diameter using Transesophageal Echocardiography and Multislice Computed Tomography - Are they Interchangeable? David Messika-Zeitoun, Jean-Michel Serfaty, Dominique Himbert, Alec Vahanian. Bichat Hospital, Paris, France.*

152 *Transcatheter Aortic Valve Implantation: When It's Time To Convert. Philipp Kiefer, Jörg Seeburger, Marcel Vollroth, Thilo Noack, Friedrich W. Mohr, David M. Holzhey. Heart Center Leipzig, Leipzig, Germany.*

424 *Quality of Life after Transcatheter Aortic Valve Implantation (TAVI). Manuela Bender, Barbara Schuba, Verena Schuetz, Helmut Mair, Rene Schramm, Ralf Sodian, Christian Hagl, Martin Greif, Philipp Lange, Christian Kupatt, Christoph Schmitz. University of Munich, München, Germany.*



201 *Textile Valve Prosthesis: In Vitro Fatigue Performances.* FREDERIC HEIM¹, FLORENCE DIEVALI, BERNARD DURAND¹, NABIL CHAKFE². ¹Université de Haute Alsace / LPMT, MULHOUSE, France, ²Hopitaux Universitaires de Strasbourg, STRASBOURG, France.

10.30 - 12.30

Concurrent Session 22: Functional MR

Moderators: Rakesh Suri, MD and Luc Pierard, MD

10.30 – 10.45

"Achieving a durable MV repair in patients with ischemic MR"
Rakesh Suri, MD

10.45 – 11.00

"Is exercise echo mandatory for functional MR patients?"
Luc Pierard, MD

11.00 – 12.30

Abstracts (6 @ 15 mins)

231 *Mitral Valve Remodeling in Functional Mitral Regurgitation.* Kanika Kalra, Bryant V. McIver, Weiwei Shi, Jakob Vinten Johansen, Vinod H. Thourani, Robert A. Guyton, Muralidhar Padala. Emory University, Atlanta, GA, USA.

253 *Posterior Leaflet Augmentation Technique For Repair Of Ischemic Mitral Incompetence: A New Strategy And Concept.* Roland Hetzer, Natalia Solowjowa, Henryk Siniawski, Eva Maria Delmo Walter. Deutsches Herzzentrum Berlin, Berlin, Germany.

49 *Mitral Valve and Left Ventricular Reverse Remodeling after Surgical Repair of Submitral Left Ventricular Aneurysms Assessed with Multi-Slice Computed Tomography.* Natalia Solowjowa, Adam Penkalla, Michael Dandel, Miralem Pasic, Yuguo Weng, Roland Hetzer, Ch Knosalla. Deutsches Herzzentrum Berlin, Berlin, Germany.

367 *Simultaneous Surgical Correction Of Functional Mitral Valve Incompetence And Coronary Artery Malperfusion. A Straight Forward But Challenging Procedure In Heart Failure Patients.* Rahel Kluttig, Jens Garbade, Denis Merk, David Holzhey, Martin Misfeld, Matthias Sauer, Michael Borger, Friedrich-Wilhelm Mohr. Heart Center Leipzig, Leipzig, Germany.

471 *Repair of Functional Mitral Regurgitation with Duran versus the Geoform Annuloplasty Ring.* Robert L. Hooker, Jr.1, Tomasz Timek¹, Alan Davis², Kevin Patterson³, Nicolas Statzer³. ¹Spectrum Health, Grand Rapids, MI, USA, ²Grand Rapids Medical Education Partners, Grand Rapids, MI, USA, ³Michigan State College of Human Medicine, Grand Rapids, MI, USA.



233 *A High Fidelity, Micro-structural & Anatomically Accurate 3d Finite Element Model For Functioning Heart Mitral Valve.* Michael Sacks¹, Chung-Hao Lee¹, Joseph H. Gorman, III², Robert C. Gorman², Jean-Pierre Rabbah³, Ajit P. Yoganathan³. ¹University of Texas at Austin, Austin, TX, USA, ²University of Pennsylvania, Philadelphia, PA, USA, ³Georgia Tech, Atlanta, GA, USA.

10.30 - 12.30

Concurrent Session 23: Valve Biology II

Moderators: Craig Simmons, MD and Adrian Chester, MD

10.30 – 10.45

"Matricellular signaling in valve interstitial cells"
Craig Simmons, MD

10.45 – 11.00

"Regulation of valve cell biomechanics"
Adrian Chester, MD

11.00 – 12.30

Abstracts (6 @ 15 mins)

144 *Effect of Shear Stress and Side-Specific Valve Endothelial Cells on the Production of Extracellular Matrix by Valve Interstitial Cells in Aortic Valves.* Napachanok Mongkoldhumrongkul, Magdi H. Yacoub, Adrian H. Chester. Imperial College London, London, United Kingdom.

177 *Expression of Cadherin-5 (CD144) in Canine Myxomatous Mitral Valve Degeneration (MMVD).* Chih Chien Lu¹, Meng Meng Liu¹, David Argyle², Geoff Culshaw², Anne French³, Brendan Corcoran¹. ¹Roslin Institute, Edinburgh, United Kingdom, ²Royal (Dick) School of Veterinary Study, Edinburgh, United Kingdom, ³University of Glasgow, Glasgow, United Kingdom.

390 *Pyrophosphate Release by Aortic Valve Cells Prevents Serum-driven Calcification of Collagen Matrix.* Elisa Bertacco, Elisabetta Faggin, Massimo Puato, Alessandra Sponchiado, Paolo Pauletto, Marcello Rattazzi. University of Padova, Padova, Italy.

235 *Interlayer Micromechanics Of Semilunar Heart Valve Leaflets.* Michael Sacks, Rachel Buchanan. University of Texas at Austin, Austin, TX, USA.

247 *Morphologic Findings in Explanted Pericardial Bioprostheses in Young Patients.* Enrico Donegani¹, Rossella Barberis², Marco Galloni³. ¹Maggiore della Carità University Hospital, Novara, Italy, ²Life and Device srl. Academic spin-off University of Torino, Italy, Torino, Italy, ³Veterinary Morphophysiology Department. University of Torino, Torino, Italy.

370 *In Vitro Screening of Potential Anti-fibrotic Drugs Using Activated Fibroblasts from Porcine Aortic Valves.* Petra Büttner, Katrin Plötze, Klaus Matschke, Thomas Waldow. Heart Center Dresden, Dresden, Germany.



10.30 - 12.30	Concurrent Session 24: Inflammatory Heart Disease Moderators: <i>Takeewasak Chotivatanapong, MD and Mariana Mirabel, MD</i>
10.30 – 10.45	"Rheumatic mitral valve surgery" <i>Takeewasak Chotivatanapong, MD</i>
10.45 – 11.00	"Echocardiographic assessment of rheumatic valve disease" <i>Mariana Mirabel, MD</i>
11.00 – 12.30	<i>Abstracts (6 @ 15 mins)</i> <p>197 <i>Rheumatic Heart Disease is the Underlying Factor for Infective Endocarditis Requiring Surgery in Southern Africa. Jithan J. Koshy¹, Paul Human¹, Justin Batcheller², Johan Brink¹, Peter Zilla¹. ¹University of Cape Town, Cape Town, South Africa, ²Brown University, Providence, RI, USA.</i></p> <p>362 <i>Effect of Statins on the Long-Term Progression of Rheumatic Mitral Valve Disease. Sara Shimoni, Ira Foigenferov, MD, Sorel Goland, MD, Orly Edri, Jacob George, Prof. Kaplan Hospital, Rehovot, Israel.</i></p> <p>317 <i>A Tailored Approach to Active Aortic Valve Endocarditis Treatment: Long Term Follow-up. David Glineur, Anthony Vanerman, Philippe Noirhomme, Laurent de Kerchove, Gebrine El Khoury. Cliniques Universitaires St luc, Brussels, Belgium.</i></p> <p>360 <i>Role Of Apoptosis In Right Ventricular Dysfunction In Rheumatic Mitral Valve Stenosis. Shantanu Pande, Prabhat Tewari, Surendra K. Agarwal, Vikas Agarwal, Vinita Agarwal. Sanjay Gandhi Postgraduate Institute of Medical Sciences, Lucknow, India.</i></p> <p>135 <i>Surgical Treatment For Aortic Periannular Abscess Caused By Infective Endocarditis. Takeshi Inoue, Yutaka Okita, Kenji Okada, Hitoshi Minami, Atsushi Omura, Toshihito Sakamoto, Yoshikatsu Nomura, Shunsuke Miyahara, Tomonori Shirasaka. Kobe University Graduate School of Medicine, Kobe, Japan.</i></p> <p>428 <i>Temporal Trends in Infective Endocarditis: The Results of Voronezh Cardiac Surgery Center. Sergey A. Kovalev¹, Alexander I. Zhdanov², Andrey V. Bulynin¹, Dmitry V. Griaznov¹. ¹Voronezh Regional Clinical Hospital &#8470;1, Voronezh, Russian Federation, ²Voronezh Burdenko State Medical Academy, Voronezh, Russian Federation.</i></p>
12.30	Programme Concludes



Poster Session 1

- 398 *The Low-Fidelity Simulator For Aortic Valve Surgery, A Choice For Training* Abdullrazak Hossien, Saeed Ashraf. *Morriston University Hospital, Swansea, United Kingdom.*
- 400 *Self Construction Of Mitral Valve Simulator Will Improve The Understanding Of The Complexity Of Mitral Valve.* Abdullrazak Hossien, Tom Combella, Saeed Ashraf. *Morriston University Hospital, Swansea, United Kingdom.*
- 229 *Paradoxical Septal Motion Causes Tricuspid Regurgitation after a Left Ventricular Inferior Wall Infarction.* Bryant McIver, Weiwei Shi, Jakob V. Johansen, Vinod H. Thourani, Robert A. Guyton, Muralidhar Padala. *Emory University, Atlanta, GA, USA.*
- 139 *An Experimental Study on Extending Post-Mortem Harvesting Time of Cryopreserved Pulmonary Ovine Valves in the Juvenile Sheep Model.* Francis E. Smit¹, Dreyer Bester¹, Johannes van den Heever¹, Lezelle Botes², Pascal M. Dohmen³. *1University of the Free State, Bloemfontein, South Africa, 2Central University of Technology, Bloemfontein, South Africa, 3University of Leipzig, Leipzig, Germany.*
- 426 *Mechanical Properties Of Mitral Allografts Are Not Reasonably Influenced By Cryopreservation In Sheep Model.* Jaroslav Hlubocký¹, Vít Nováček², Aleš Mokrý³, Robert Novotný¹, Petra Kochová², Jan Klepáček⁴, Jan Vojáček⁵, Jaroslav Lindner¹, Jaroslav Špatenka⁶. *1Cardiovascular Surgery, General University Hospital and 1st Medical Faculty of Charles University, Prague, Czech Republic, 2New Technologies Centre, University of West Bohemia, Plzeň, Czech Republic, 3Department of Cardiac Surgery, Hospital & eské Budějovice, Czech Republic, 4Department of Mechanics, University of West Bohemia, Plzeň, Czech Republic, 5Department of Cardiac Surgery, University Hospital, Hradec Králové, Czech Republic, 6Department of Cardiac Surgery & Transplant Center, University Hospital Motol, Prague, Czech Republic.*
- 176 *Preclinical Evaluation Of Ice-free Cryopreserved Heart Valves.* Milan Lisy¹, Kelvin GM Brockbank², Guenay Kalender¹, Katja Schenke-Layland³, Andres Beiras⁴, Anton Moritz⁴, Ulrich A. Stock⁴. *1Hospital Frankfurt Hoechst, Frankfurt am Main, Germany, 2Cell & Tissue Systems, Inc., North Charleston, SC, USA, 3Institute for Interfacial Engineering and Biotechnology (IGB), Stuttgart, Germany, 4University Hospital Frankfurt, Frankfurt am Main, Germany.*
- 216 *Cardiovascular Magnetic Resonance Quantification Of Mitral Regurgitation In Asymptomatic Patients: Prediction Of Clinical Outcome.* Joanna d'Arcy¹, Jonathan P. Christiansen², Raad Mohiaddin³, Theodoros D. Karamitsos¹, Jane M. Francis¹, Adrian P. Banning⁴, Stefan Neubauer¹, Saul G. Myerson¹. *1University of Oxford, Oxford, United Kingdom, 2North Shore Hospital, Auckland, New Zealand, 3CMR Unit, Royal Brompton Hospital, London, United Kingdom, 4Oxford University Hospitals, Oxford, United Kingdom.*



343 *Aortic Dissection: Genetic Criteria And New Surgical Indications.* Calogera Pisano, Emiliano Maresi, Carmela Rita Balistreri, Sara Vacirca, Giovanni Ruvolo. University of Palermo, Palermo, Italy, Italy.

87 *Tissue-Engineered Canine Mitral Valve Constructs As In vitro Research Models For Myxomatous Mitral Valve Disease.* Mengmeng M. Liu¹, Tom C. Flanagan², Stefan Jockenhoevel³, Alexander Black⁴, David J. Argyle¹, Anne T. French⁵, Brendan M. Corcoran¹. ¹The Roslin Institute, The University of Edinburgh, Edinburgh, United Kingdom, ²Healthy Sciences Centre, University College Dublin, Dublin, Ireland, ³Department of Tissue Engineering and Textile Implants, Applied Medical Engineering, Helmholtz Institute, RWTH Aachen University, Aachen, Germany, ⁴Department of Anatomy, Faculty of Medicine & Health Sciences, National University of Ireland-Galway, Galway, Ireland, ⁵The University of Glasgow, Glasgow, United Kingdom.

243 *Simulation Of The Role Of Oscillatory Shear Stress On Mesenchymal Stem Cell Proliferation And Extracellular Matrix Production In Engineered Heart Valve Tissue Formation.* Michael Sacks, Joao Soares. University of Texas at Austin, Austin, TX, USA.

405. *A New Approach For Heart Valve Tissue Engineering Based On Modifying Autologous Human Pericardium By Dynamic Loading.* Frantisek Straka¹, David Schornik², Jaroslav Masin¹, Elena Filova², Zuzana Burdikova³, Tomas Mirejovsky¹, Hynek Chlup⁴, Lukas Horny⁴, Jan Vesely⁴, Jan Pirk¹, Lucie Bacakova². ¹Institute for Clinical and Experimental Medicine, Prague, Czech Republic, ²Dept. of Biomaterials and Tissue Engineering, Institute of Physiology Academy of Sciences of the Czech Republic, Prague, Czech Republic, ³Department of Biomathematics, Institute of Physiology, Prague, Czech Republic, ⁴Laboratory of Biomechanics, Faculty of Mechanical Engineering, Czech Technical University, Prague, Czech Republic.

171. *In Situ Cardiovascular Tissue Engineering Using Circulating Cells Only.* Hanna Talacua¹, Anthal Smits², Dimitri Muylaert¹, Jan Willem van Rijswijk¹, Aryan Vink¹, Marianne Verhaar¹, Anita Driessen-Mol², Lex A. van Herwerden¹, Carlijn V.C Bouten², Jolanda Kluin¹, Frank P.T. Baaijens². ¹University Medical Center Utrecht, Utrecht, Netherlands, ²Eindhoven University of Technology, Eindhoven, Netherlands.

89 *Detergents Residues And Biocompatibility Degree Of Heart Valve Tissues After The Most Promising Decellularization Procedure.* Filippo Naso¹, Michele Spina², Monica Dettin², Irene Zancan¹, Laura Iop¹, Gino Gerosa¹. ¹University Hospital of Padua, Padova, Italy, ²University of Padua, Padova, Italy.

209. *Surface Modification, Endothelial Cell Coating, and Bioreactor Testing of Mechanical Heart Valves.* Leslie Sierad, Lane Shaw, Agneta Simionescu, Jiro Nagatomi, Dan Simionescu. Clemson University, Clemson, SC, USA.



352. *Bioresorbable External Reinforcement Induces Histological Rearrangement Of Pulmonary Autograft In A Experimental Model Of Ross Operation.* Francesco Nappi¹, Cristiano Spadaccio², Franca Di Meglio³, Stefania Montagnani³, Massimo Chello², Elvio Covino², Christophe Acar⁴. ¹Centre Cardiologique du Nord, Paris, France, ²University Campus Bio-Medico, Rome, Italy, ³University Federico II of Naples, Naples, Italy, ⁴Hopital La Pitie Salpetriere, Paris, France.

342. *In Vitro Assessment of a One Step Process for Storage and Minimization of Allograft Immunogenicity.* Kelvin G. Brockbank¹, Lia H. Campbell¹, Laura E. Niklason², Zhenzhen Chen¹, Elizabeth D. Greene¹, Justin T. Strader³, Peggy Dey³, Shannon L.M. Dahl³, Ulrich A. Stock⁴, Martina Seifert⁵. ¹Cell & Tissue Systems, N. Charleston, SC, USA, ²Yale University, New Haven, CT, USA, ³Humacyte, Research Triangle Park, NC, USA, ⁴University Hospital Frankfurt, Frankfurt, Germany, ⁵Charité Universitätsmedizin, Berlin, Germany.

147. *Long-term Results of Isolated Mitral Valve Replacement with a Biocor Porcine Valve* Marina Comisso, Tomaso Bottio, Vincenzo Tarzia, Jonida Bejko, Michele Gallo, Giacomo Bortolussi, Giulio Rizzoli, Alban Lika, Gino Gerosa. Cardiac surgery, Padova, Italy.

137. *Insulin-like Growth Factor-1 In Human Aortic Valve Calcification.* Antonio Pinto, Bhawana Poudel-Bochmann, Najla Sadat, Artur Lichtenberg, Payam Akhyari. Heinrich-Heine-University, Medical Faculty, Cardiovascular Surgery, Düsseldorf, Germany.

149. *C-E Perimount Magna Ease or Sorin Freedom Solo in aortic position: a matched comparison on prospectively collected hemodynamic data.* Michele Gallo, Tomaso Bottio, Giacomo Bortolussi, Jonida Bejko, Vincenzo Tarzia, Alban Lika, Gino Gerosa. Cardiac surgery, Padova, Italy.

186. *Mitral Valve Replacement with the Medtronic Mosaic Bioprosthesis: 17-Year Clinical And Hemodynamic Follow-up.* Michele Celiento¹, Stefania Blasi¹, Andrea De Martino¹, Aldo Milano², Stefano Pratali¹, Uberto Bortolotti¹. ¹Cardiothoracic and Vascular Department, Pisa University Hospital, Pisa, Italy, ²Department of Cardiac Surgery, University of Verona, Verona, Italy.

170. *Mitral Procedure Selection in Patients on Dialysis: Does Mitral Repair Influence Outcomes?* Christina Vassileva¹, Matthew Brennan², James Gammie³, Shubin Sheng⁴, Theresa Boley¹, Paramita Saha-Chaudhuri⁵, Stephen Hazelrigg¹. ¹Southern Illinois University School of Medicine, Springfield, IL, USA, ²Duke University Medical Center, Durham, NC, USA, ³University of Maryland Medical Center, Baltimore, MD, USA, ⁴Duke University and Duke Clinical Research, Durham, NC, USA, ⁵Duke University and Duke Clinical Research Center, Durham, NC, USA.



44. *The Influence of Additional Cusp Intervention on Mid-term Valve Performance in Patients Undergoing Valve-sparing Aortic Root Replacement. A Single Center Experience of 54 Consecutive Patients.* Monica Moz, Martin Misfeld, Sergej Leontyev, Farhad Bakhtiary, Michael A. Borger, Friedrich W. Mohr. Herzzentrum Leipzig, Leipzig, Germany.
46. *Mid-term Results Of Mitral Valve Repair With Fresh Autologous Pericardium In Pediatric Patients.* Hiroaki Takahashi, MD, PhD¹, Tasuku Kadowaki, MD², Yutaka Okita, MD, PhD¹, Yoshihiro Oshima, MD, PhD². ¹Division of Cardiovascular Surgery, Department of Surgery, Kobe University Graduate School of Medicine, Kobe, Japan, ²Department of Cardiovascular Surgery, Kobe Children's Hospital, Kobe, Japan.
124. *Aortic Valve-Sparing Operation with Reimplantation Technique: a 14-years Experience.* Maria C. Escarain, Maria P. Duczynski, Gustavo Giunta, Roberto R. Favaloro. Favaloro Foundation University Hospital, Buenos Aires, Argentina.
- 175 *Quality Of Life After Mitral Valve Repair In Asymptomatic Patients With Severe, Degenerative Mitral Regurgitation.* Fabienne M. van Hout¹, Meindert Palmen¹, Michel Versteegh¹, Nina Ajmone¹, Robert Dion², Robert Klautz¹. ¹Leiden University Medical Centre, Leiden, Netherlands, ²Ziekenhuis Oost-Limburg, Genk, Belgium.
- 228 *Moderate Mitral Regurgitation in Aortic Root Replacement Surgery - Comparing Mitral Repair Versus No Mitral Repair.* Fenton McCarthy, Nimesh Desai, Zachary Fox, Justin George, Prashanth Vallabhajosyula, Patrick Moeller, Wilson Szeto, Joseph Bavaria. The Hospital of the University of Pennsylvania, Philadelphia, PA, USA.
- 251 *The Double Orifice Valve Technique To Treat Tricuspid Valve Incompetence* Eva Maria Delmo Walter, Roland Hetzer. Deutsches Herzzentrum Berlin, Berlin, Germany.
- 273 *Ten-year Experience with Valve-Sparing Aortic Root Replacement Using the Valsalva Graft: Predictors for Recurrent Aortic Valve Regurgitation.* Pietro Giorgio Malvindi, Antioco Cappai, Giuseppe Raffa, Alessio Basciu, Alessandro Barbone, Giuseppe Tarelli, Fabrizio Settepani. Humanitas Clinical and Research Center, Rozzano (MI) – Italy, Rozzano (Milano), Italy.
- 378 *Annular Dynamics of the Sorin Memo 3D Ring after Mitral Valve Repair - Real-Time 3-Dimensional Transesophageal Echocardiography Study.* HIROYUKI NISHI, KOICHI TODA, SHIGERU MIYAGAWA, YASUSHI YOSHIKAWA, SATSUKI FUKUSHIMA, DAISUKE YOSHIOKA, TETSUYA SAITO, TAKAYOSHI UENO, TORU KURATANI, YOSHIKI SAWA. Department of Cardiovascular Surgery, Osaka University Graduate School of Medicine, Osaka, Japan.



470 *Long-term Outcomes Following Aortic Valve Resuspension During Aortic Repair for Acute Type A Aortic Dissection.* Tomonori Haraguchi, Takuro Tsukube, Ritsu Matsukawa, Shuichi Kozawa, Kyoichi Ogawa. Japanese Red Cross Kobe Hospital, Kobe, Japan.

Poster Session 2

90 *Long-Term Results of Mitral Valve Repair with Semi-Rigid Posterior Band Annuloplasty.* David W. Yaffee, Didier F. Loulmet, Elias A. Zias, Patricia A. Ursomanno, Annette E. Rabinovich, Aubrey C. Galloway, Eugene A. Grossi. NYU School of Medicine, New York, NY, USA.

125 *Novel Anterior Mitral Valve Leaflet Repair By Trimming And Suture, Rough-zone Trimming Procedure.* Yasuko Miyaki, MD, Tetsuya Higami, MD, Ph.D., Kazutoshi Tachibana, MD, Nobuyuki Takagi, MD, Ph.D.. Sapporo Medical university, Sapporo, Japan.

166 *Surgical Results of Valve Sparing Aortic Root Replacement with Aortic Arch Reconstruction.* Kenji Minatoya, Hitoshi Matsuda, Hiroaki Sasaki, Hiroshi Tanaka, Yutaka Iba, Tatsuya Oda, Junjiro Kobayashi. National Cerebral and Cardiovascular Center, Osaka, Japan.

215 *Preformed Bovine Pericardial Strips For Mitral Chordae Tendinea Replacement: Mid Term Results.* João Carlos Leal¹, Orlando Petrucci², Francisco Gregori, Júnior³, Luis Ernesto Avancini¹, Domingo Marcolino Braile². ¹Medicine School at São José do Rio Preto, São José do Rio Preto, Brazil, ²University of Campinas, Campinas - SP, Brazil, ³State University in Londrina, Londrina, Brazil.

264 *Adjustable Tricuspid Annuloplasty.* Hiroshi Iida, Syunichi Kondo. Iwaki Kyoritsu Hospital, Iwaki, Japan.

307 *Aortic Root Dynamics After Aortic Valve Repair Using an Expandable Aortic Ring Annuloplasty.* Emmanuel Lansac¹, Huriet Wuliya¹, Alain Berrebi¹, Daniel Czitrom¹, Leila Mankoubi¹, Milena Noghin¹, Laurens Mitchell-Heggs¹, Marie-Christine Malergue¹, Isabelle Di Cetta², Mathieu Debauchez¹. ¹Department of Cardiac Pathology, Paris, France, ²Vascular Surgery Unit, Suresnes, France.

330 *Patient Specific Virtual Mitral Prolapse Repair Using Finite Element Modeling.* Liang Ge¹, Alison Ward², Zhihong Zhang¹, Julius Guccione¹, Eugene Grossi², Mark Ratcliffe¹. ¹University of California San Francisco, San Francisco, CA, USA, ²New York University, New York, NY, USA.



348 *Early Results of Suture Annuloplasty in Aortic Valve Repair.* Diana Aicher, Ulrich Schneider, Wolfram Schmied, Takahashi Kuniyoshi, Raffaele Gargiulo, Hans-Joachim Schäfers. Universitätskliniken des Saarlandes, 66424 Homburg, Germany.

459 *Composite Mechanical Root Replacement: Is it the Best Solution For Young Patients with Bicuspid Valves?* Christian D. Etz, Felix Gírrbach, Konstantin von Aspern, Roberto R. Battellini, Maximilian Luehr, Pascal Dohmen, Martin Misfeld, Michael A. Borger, Friedrich W. Mohr. Leipzig Heart Center, Leipzig, Germany.

462 *Long-term Outcome After Composite Aortic Root Replacement: A Gender Based Analysis.* Christian D. Etz, Felix Gírrbach, Sandra Eifert, Pascal Dohmen, Konstantin von Aspern, Martin Misfeld, Michael A. Borger, Friedrich W. Mohr. Leipzig Heart Center, Leipzig, Germany.

29 *Wall Stress Comparison of Patient-Specific Computational Models of Ascending Thoracic Aortic Aneurysms in Tricuspid vs. Bicuspid Aortic Valve.* Andrew Wisneski¹, Aart Mookhoek¹, Heide Kuang¹, Kiyoaki Takabe¹, Michael D. Hope, MD¹, Liang Ge, PhD¹, Elaine E. Tseng². ¹University of California at San Francisco Medical Center and San Francisco VA Medical Center, San Francisco, CA, USA, ²University of California at San Francisco Medical Center and San Francisco VA Medical Center, South San Francisco, CA, USA.

114 *Impact Of Modified Effective Orifice Area Index On Prosthesis-patient Mismatch And Early Mortality After Aortic Valve Replacement.* Takashi Kuniyoshi, Christopher Grün, Hiroaki Takahashi, Raffaele Gargiulo, Dierk Heimann, Diana Aicher, Hans Joachim Schäfers. University Hospital of Saarland, Homburg, Germany.

182 *Clinical Evaluation of the Sorin Bicarbon Prosthesis at 17-year Follow-up.* Michele Celiento¹, Luca Filaferro¹, Aldo Milano², Gerardo Anastasio¹, Gabriele Ferrari¹, Uberto Bortolotti¹. ¹Cardiothoracic and Vascular Department, Pisa University Hospital, Pisa, Italy, ²Department of Cardiac Surgery, University of Verona, Verona, Italy.

183 *Septal Myectomy For Hypertrophic Cardiomyopathy With Midventricular Obstruction.* Alexandr Bogachev-Prokophiev, Sergey Zheleznev, Michail Fomenko, Alexandr Karaskov. State Research Institute of Circulation Pathology, Novosibirsk, Russian Federation.

207 *Our Clinical Experience and Results with the Freedom SOLO Stentless Aortic Valve in 423 Patients.* Olaf Stanger¹, Markus Thalmann², Tobias Koenig³, Josef Kaiblinger², Lars Englberger³, Richard Krausler⁴, Franz Veit², Thierry Carrel³. ¹Brompton, London, United Kingdom, ²Hietzing, Vienna, Austria, ³Inselspital, Bern, Switzerland, ⁴University Hospital, Salzburg, Austria.



37 *The Sutureless Perceval S Reduces The Surgical Time And It Also Results In An Improved Patient's Outcome.* Giuseppe Santarpino, Steffen Pfeiffer, Ferdinand Vogt, Theodor Fischlein. Klinikum Nürnberg, Nuremberg, Germany.

121 *Twelve-year of Experience With The ATS Mechanical Heart Valve Prostheses* Shinichiro Taniguchi, Koji Hashizume, Tsuneo Ariyoshi, Yoichi Hisata, Kazuyoshi Tanigawa, Takashi Miura, Kiyoyuki Eishi. Nagasaki University Hospital, Nagasaki, Japan.

174 *Posterior Ventricular Rupture After Mitral Valve Replacement: A 46 Year Experience In 4038 Patients.* Vincenzo Tarzia, Tomaso Bottio, Maurizio Rubino, Cosimo Guglielmi, Giacomo Bortolussi, Michele Gallo, Jonida Bejko, Chiara Tessari, Marina Comisso, Massimiliano Carrozzini, Giulio Rizzoli, Gino Gerosa. University of Padua, Padova, Italy.

270 *What are the Barriers to Teaching Residents Aortic Root Surgery?* Joanna Chikwe, Aaron J. Weiss, Antonio Polanco, Andrew Breglio, Shinobu Itagaki, Paul Stelzer. Mount Sinai Medical Center, New York, NY, USA.

337 *Is Aortic Valve Sparing Root Replacement Better Than Modified Bentall With a Bioprosthesis?* Juan P. Umana, Carlos Obando, Néstor Sandoval, Jaime Camacho. Fundacion Cardioinfantil, Bogota, Colombia.

365 *17-Year Experience with the Carpentier-Edwards PERIMOUNT Standard Aortic Valve at a Single Japanese Center.* Koichi Arinaga, Hiroshi Tomoeda, Koji Akusu, Tomokazu Kosuga, Hiroyuki Saisho, Yuichiro Hiratai, Hidetoshi Akashi, Hiroyuki Tanaka. Kurume University School of Medicine, Kurume, Japan.

433 *Midterm Results of Biological Prosthetic Valves in the Pulmonary Position in Patients with Congenital Heart Disease.* Tomasa Centella, María Jesús Lamas, Luis Fernández-Pineda, Elvira Garrido-Lestache, Ana Coca, César Perez-Caballero, Ricardo Gómez. Ramon y Cajal Hospital, Madrid, Spain.

95 *Prosthesis-Patient Mismatch Due To 19mm Bioprosthesis For Patients With Small Aortic Annulus.* Yorihiro Matsumoto, Tomoyuki Fujita, Hiroki Hata, Yusuke Shimahara, Shunsuke Sato, Junjiro Kobayashi. National Cerebral and Cardiovascular Center, Suita, Osaka, Japan.

158 *Echocardiographic assessment of Bi-leaflet Mechanical Heart Valves Dysfunction and Patient Prosthesis Mismatch in Mitral Position.* Evin Morgane¹, Carine Guivier-Curien, PhD¹, David Tanné, PhD², Lyes Kadem, PhD³, Philippe Pibarot⁴, Régis Rieu¹. ¹Institut du science du mouvement, Marseille cedex 09, France, ²Protomed, Marseille, France, ³Laboratory of Cardiovascular Fluid Dynamics, Concordia University, Montréal, QC, Canada, ⁴Quebec Heart and Lung Institute, Laval University, Québec, QC, Canada.



- 249 *14 Years Valve Replacement With Sorin Bicarbon Prosthesis: A Single Institution Experiences.* VAN H. DUNG, PHAN KIM PHUONG, NGUYEN VAN PHAN, NGUYEN MINH TRI VIEN. THE HEART INSTITUTE HCMC, HO CHI MINH, Viet Nam.
- 262 *Comparison of the Validity of Five Scores on the Mortality Prediction about a Consecutive Survey of 507 Isolated Aortic Valve Replacements.* Emmanuelle BEGOT, Marc Jean LASKAR, Alessandro PICCARDO, Sebastien PONSONNARD, Claude CASSAT, Mathieu DELTREUIL, Dania MOHTY, Victor ABOYANS. University Hospital Dupuytren, Limoges, France.
- 285 *Does the Pattern of 30-Day Mortality after Aortic Valve Replacement Change in 20 Years.* Wilhelm P. Mistiaen, MD, PhD1, Philip Muylaert, MD2, Philip Van Cauwelaert, MD2. 1Artesis University College, Antwerp, Belgium, 2ZNA Middelheim Hospital, Antwerp, Belgium.
- 356 *Impact Of Surgical And Clinical Experience In Sutureless Aortic Valve Implantation.* Otto Dapunt, Jerry Easo, Harald C. Eichstaedt. Klinik für Herzchirurgie, Oldenburg, Germany.
- 403 *Comparison of Hemodynamic Performance of the Trifecta and Mitroflow Aortic Valve Prostheses.* Rakesh M. Suri, Murat Ugur, Richard Daly, Joseph Dearani, Soon J. Park, Lyle D. Joyce, Harold Burkhart, Kevin L. Greason, Hartzell V. Schaff. Mayo Clinic, Rochester, MN, USA.
- 15 *Aortic Valve Replacement For Severe Aortic Stenosis In Patients With Ejection Fraction Of 20% Or Less.* Tomasz A. Timek1, Robert L. Hooker1, Alan T. Davis2, Charles L. Willekes1, Edward T. Murphy1, John C. Heiser1, Lawrence H. Patzelt1. 1Meijer Heart and Vascular Institute at Spectrum Health, Grand Rapids, MI, USA, 2Grand Rapids Education Partners, Grand Rapids, MI, USA.

Poster Session 3

- 20 *Mid-Term Results And Prognostic Factors Of Tricuspid Annuloplasty. Single Centre Experience With 180 Cases.* Kasra Azarnoush1, Ahmad Shaiq Nadeem1, Bruno PEREIRA2, Lionel Camilleri1. 1CHU Clermont-Ferrand, Clermont-Ferrand, France, 2Délégation Recherche Clinique & Innovation, CHU Clermont-Ferrand, Clermont-Ferrand, France.
- 123 *Effectiveness of intraoperative direct Visualization Of Aortic Cusp During Aortic Root Reimplantation.* Takanori Oka1, Yutaka Okita2, Koichi Akiyama1, Shunsuke Miyahara2. 1Takatsuki General Hospital, Osaka, Japan, 2Kobe university hospital, Kobe, Japan.



194 *Aortic Valve and Root Geometry in Tri-Leaflet Aortic Insufficiency.* J. Scott Rankin¹, Peter M. Fries², Diana Aicher², Hans-Joachim Schäfers², Philip S. Crooke¹. ¹Vanderbilt University, Nashville, TN, USA, ²University of Saarland, Homburg, Germany.

325 *Aortic Root Geometry in Competent Aortic Valves - Essentials regarding Reconstructive Surgery.* Armin W. Gorski, Anuschka Strube, Jens-Holger Krannich, Sebastian Herrmann, Rainer G. Leyh. University Clinic Wuerzburg, Wuerzburg, Germany.

344 *Posttraumatic Stress Disorder before and after Mitral Valve Surgery: Relationships to Postoperative Somatic Symptoms and to Health Related Quality of Life Outcomes.* Tali Bayer-Topilsky¹, Maurice Enriquez-Sarano². ¹Meyers-JDC-Brookdale Institute, Jerusalem, Israel, ²Mayo Clinic, Rochester, MN, USA.

399 *Is Possible to Shorten The Mitral Chords Easy and Efficiently? (New Technique)* ignacio moriones, juan luis fernandez, Ramon Sanchez, luis jimenez, Rafael Sadaba, felix gomez. hospital de navarra, pamplona, Spain.

421 *Surgical Anatomy Of Aortic Annuloplasty.* Nizar KHELIL¹, Michele PALLADINO¹, Rémi ESCANDE¹, Mahmoud FOUDA¹, Kostantinos ZANNISI¹, Isabelle DI CENTA², Mathieu DEBAUCHEZ¹, Emmanuel LANSAC¹. ¹institut mutualiste montsouris, paris, France, ²hopital Foch, Suresnes, France.

446 *Modified Valve-Sparing Reimplantation Technique For Para-commissural Coronary Ostia.* Jawad Hechadi, Laurent De Kerchove, David Glineur, Philippe Noirhomme, Gebrine El Khoury. Department of Cardiothoracic and Vascular Surgery, Cliniques Universitaires Saint Luc, Université Catholique de Louvain, Brussels, Belgium.

479 *Early Results Of Tricuspid Repair In Rheumatic Population: An Institutional Report.* Mansoor A. Siddiqui, Anubhav Gupta, Vijay Grover, Vijay Kumar Gupta. PGIMER and Dr RML Hospital, New Delhi, India.

477 *Inconsistent Echocardiographic Grading of Aortic Stenosis: is the Left Ventricular Outflow Tract Important?* Hector Michelena¹, Edit Margaryan¹, Fletcher Miller¹, Mackram Eleid¹, Joseph Maalouf¹, Rakesh Suri¹, David Messika-Zeitoun², Patricia Pellikka¹, Maurice Enriquez-Sarano¹. ¹Mayo Clinic, Rochester, MN, USA, ²Bichat Hospital, Paris, France.

25 *Strain Rate Imaging Reveals Functional Similarities Despite Gender Related Geometric Differences In Severe Aortic Stenosis.* Aleksandra Miskovic¹, Nadejda Monsefi¹, Anton Moritz¹, Tudor Poerner². ¹Department of Thoracic & Cardiovascular Surgery of Johann Wolfgang Goethe University, Frankfurt am Main, Germany, ²1st Dept. of Medicine, University Hospital of Jena, Jena, Germany.



192 Validation of a New Mitral Valve Scoring System by Real-time Three-dimensional Echocardiography Against Operative Findings in Patients with Rheumatic Heart Disease. Hussien Kassem, Dina Labib, Ahmed Gaafar, Tarek Marei, Maged Salah, Soliman Ghareeb. Cairo University Hospital, Giza, Egypt.

363 Ascending Aorta Diameters Measured with Echocardiography Using Both Leading Edge-to-Leading Edge and Inner Edge-to-Inner Edge Conventions In Healthy Volunteers. Gonenc Kocabay¹, Luigi Paolo Badano², Diletta Peluso², Denisa Muraru², Lucia Dal Bianco², Sorina Mihaila³, Marcelo Haertel-Miglioranza⁴, Seena Padayattil-Josè², Laura Ucci², Sabino Illiceto². ¹Dpt of Cardiology, Kartal Koşuyolu Yüksek İhtisas Education and Research Hospital, İstanbul, Turkey, ²Dpt of cardiac, thoracic and vascular sciences, University of Padua, Padua, Italy, ³University of Medicine and Pharmacy „Carol Davila”, Bucharest, Romania, ⁴Instituto de Cardiologia do Rio Grande do Sul, FUC, Porto-Alegre, Brazil.

94 Thirty Three Years' Experience Of Modified Bentall Procedure. Hiroyuki Seo, Yasushi Tsutsumi, Osamu Monta, Satoshi Numata, Sachiko Yamazaki, Shouhei Yoshida, Takaaki Samura, Hirokazu Ohashi. Fukui cardiovascular center, Fukui, Japan.

146 Long Term Results After Aortic Valve Replacement For Bicuspid Aortic Valve. Satoshi Numata, Yasushi Tsutsumi, Osamu Monta, Sachiko Yamazaki, Hiroyuki Seo, Shohei Yoshida, Takaaki Samura, Hirokazu Ohashi. Fukui Cardiovascular Center, Fukui, Japan.

198 Redo Mitral Valve Replacement: Early And Late Outcome In 193 Patients As A Single Centre Experience. Sergey Leontyev, Joerg Seegurger, Maren Peters, Marcel VoIroth, Thilo Noack, Martin Misfeld, Michael A. Borger, Friedrich W. Mohr. Heart Center, University of Leipzig, Leipzig, Germany.

291 Early-to-midterm Outcomes of Bioprosthetic Aortic Valve Replacement in 60 to 70 year old patients. Rafik F. B Soliman¹, Michael Parker², Dumbor L. Ngaage¹. ¹Basildon University Hospital, Basildon, United Kingdom, ²Anglian Ruskin University, Chelmsford, United Kingdom.

304 Medium-term Results After Implant Of A New Generation Stentless Aortic Prosthesis: Hemodynamic Performance Of Medtronic 3f at Rest And Under Exercise At 5 Years In 120 Patients. Guglielmo Stefanelli, Sr.¹, Davide Gabbieri¹, Clorinda Labia¹, Giuseppe D'Anniballe¹, Domenico Sarandria², Rosaria Santangelo¹, Giuseppe Gioia¹. ¹Hesperia Hospital Modena IT, Modena, Italy, ²Villa Berica Hospital, Vicenza, Italy.

318 Aortic Valve Replacement in Octogenarians and Nonagenarians. Uday Dandekar, Mohammad Eldiasty, Sunil Bhudia, Jitendra Parmar, Ramesh Patel. University Hospitals Coventry and Warwickshire, Birmingham, United Kingdom.



217 *Outcomes of Aortic Valve Replacement in Children with Single Ventricle and Conotruncal Congenital Heart Defects. Mark Ruzmetov, Dale M. Geiss, Randall S. Fortuna. University of Illinois College of Medicine at Peoria, Peoria, IL, USA.*

417 *One-year Clinical and Echocardiographic Outcomes of the 19 mm Trifecta Aortic Bioprosthesis in a Selected Female Patient Sample with Small Body Surface Area Marisa De Feo¹, Alessandro Della Corte¹, Eduardo Vitagliano¹, Veronica D'Oria¹, Paolo Pepino², Raffaella Provenzano², Ciro Bancone¹, Gianantonio Nappi¹. ¹Second University of Naples, Naples, Italy, ²Pineta Grande Hospital, Castelvoturno, Italy.*

466 *Biovalsalva Composite Valved Stentless Conduit: Single Center Experience. Sofia Martin-Suarez, Giacomo Murana, Giovanni Pellicciari, Giuseppe Barberio, Sebastiano Castrovinci, Davide Pacini, Marco Di Eusanio, Roberto Di Bartolomeo. Ospedale S. Orsola Malpighi, Bologna, Italy.*

351 *Impact Of Chronic Kidney Disease On Outcomes Of Patients Undergoing Surgical Aortic Valve Replacement And Transcatheter Aortic Valve Replacement. Augusto D'Onofrio, Valeria Gasparetto, Laura Besola, Roberto Bianco, Giuseppe Tarantini, Massimo Napodano, Chiara Fraccaro, Isabella Gianbattista, Iliceto Sabino, Gino Gerosa. University of Padova, Padova, Italy.*

361 *Development of Swine Aortic Stenosis Model for the Experiment of Transcatheter Aortic Valve Replacement. Cheong Lim¹, Dong Jin Kim², Dong Joong Kim², Tae Hun Kim², Jun Sung Kim², Kay-Hyun Park¹. ¹Seoul National University, Seongnam-shi, Korea, Republic of, ²Seoul National University Bundang Hospital, Seongnam-shi, Korea, Republic of.*

427 *First-in-man Transcatheter Valve Implantation In A Native Mitral Valve Christoph Schmitz, Sabina GUenther, Rene Schramm, Christoph Becker, Florian Schwarz, Thomas Schachtner, Christian Kowalski, Joerg Hausleiter, Steffen Massberg, Christian Hagl, Christian Kupatt. University of Munich, München, Germany.*

429 *Direct-Aortic Access for Trans-Catheter Aortic Self-Expanding Valves Implantation: Single Centre Experience. Luca Botta, Giuseppe Bruschi, Federico De Marco, Aldo Cannata, Paola Colombo, Tiziano Colombo, Sandra Nonini, Michele Mondino, Francesca Cislighi, Silvio Klugmann, Luigi Martinelli. Niguarda Ca' Granda Hospital, Milan, Italy.*

468 *Quantification of Flow Characteristics for Varying Implantation Positions in Transcatheter Aortic Valve Implantation In-Vitro. Ahmad Falahatpisheh, Elliott Groves, Jimmy L. Su, Arash Kheradvar. University of California, Irvine, Irvine, CA, USA.*



205 *Complications During Transcatheter Aortic Valve Intervention Requiring Surgical Treatment: A Single Center Experience.* *simone schleger, Johannes Rieber, Michael Lieber, Markus Deichstetter, Ellen Hoffmann, Jenoe Szolnoky, Walter Eichinger.* *Klinikum Bogenhausen, munich, Germany.*

261 *Tavi Websites: Does The Internet Inform Or Mislead?* *Ashok K. Kar, Esq., Jonathan R. Finch.* *Royal Brompton Hospital, London, United Kingdom.*

420 *Risk Stratification In Transcatheter Aortic Valve Implantation*
Nora Goebel, Hardy Baumbach, Matthias Voehringer, Stephan Hill, Samir Ahad, Adrian Ursulescu, Marc Albert, Ulrich F.W. Franke. *Robert-Bosch-Hospital, Stuttgart, Germany.*

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