

**26<sup>th</sup> Annual Meeting ASCVTS, Moscow, Russia (24-27 May 2018)**

**Program at a glance**

Time	DAY-04 / May 27 (Sun)						
Venue	Foyer 1F	Congress Hall, 2F			Press Hall, 2F	Hall 1F	
		A	B	C			
07:30							
08:00							
08:30	<b>Registration</b>	<b>Cardiology and Imaging in Cardiac Surgery</b>	<b>GA 07 Aortic</b>	<b>GA 08 Comorbidity</b>	<b>RHICS 16th Expert Forum Roland Hetzer</b>	<b>Exhibition</b>	
09:00							
09:30							
10:00		<b>Coffee Break (10:00-10:30)</b>					
10:30		<b>GA 09 End-stage Heart Failure/Heart Transplantation /VADs/ ECMO</b>	<b>21 CCSS</b>	<b>GA 10 Minimally Invasive and Robotic Cardiac Surgery</b>	<b>RHICS 16th Expert Forum Roland Hetzer</b>		
11:00							
11:30							
12:00		<b>Closing Ceremony (12:00-12:30)</b>					
12:30							

## DAY-04 / May 27 (Sunday)

### Congress Hall, 2F– A

08:30 – 10:00

## Cardiology and Imaging in Cardiac Surgery/Intraoperative and Early Assessment of the Results of Surgery

### SESSION – 1

**Chairpersons:** Elena Z. Golukhova (Russia), Olga L. Barbarash (Russia), Olga L. Bockeria (Russia)

- CI/INT-01- #563  
O-1 **Development of Diastolic Dysfunction in the Postoperative Period in Patients with Acquired Heart Diseases** 7 min.  
Irina Averina, Olga Bockeria, Marina Mironenko (Russia)
- CI/INT-01- #1071  
O-2 **Clinical Application of the Three-dimensional Transesophageal Echocardiography and Mitral Valve Quantification in Mitral Valve Surgery** 7 min.  
Violeta Dzhanketova, Elena Z. Golukhova, Tatiana V. Mashina, Gufyon A. Shamsiev, David V. Mrikaev (Russia)
- CI/INT-01- #822  
O-3 **The Intraoperative 4D Transesophageal Echocardiography in Patients with Organic Mitral Valve Insufficiency** 7 min.  
Nadezhda O. Sokolskaya, Ivan I. Skopin, Natalia S. Kopylova, Elena V. Skripnik, Alexey V. Ivanov (Russia)
- CI/INT-01- #767  
O-4 **Diagnostic Value of Quantitative PET/CT Measures of Myocardial Blood Flow and Coronary Flow Reserve for the Assessment of Hemodynamic Significance of Coronary Stenoses** 7 min.  
Margarita G. Shavman, Leo A. Bockeria, Irakliy P. Aslanidis, Irina V. Shurupova, Tatiana A. Trifonova, Irina V. Ekaeva (Russia)
- CI/INT-01- #439  
O-5 **CT Angiography of the Heart in the Diagnosis of Abnormal and Atypical Coronary Artery Anatomy in Adult Patients of the Cardiac Surgical Profile** 7 min.  
Inna Rychina, Maria Shlyappo, Vladimir Makarenko (Russia)
- CI/INT-01- #549  
O-6 **3D Hologram Evaluation for Cardiovascular Surgery Using a New Workstation Visalious 3D** 7 min.  
Takeo Tedoriya, Kenichi Kamiya, Masaomi Fukuzumi, Yoko Gatate, Tadamasu Miyauchi (Japan)
- CI/INT-01- #687  
O-7 **Three-dimensional Computed Tomographic Analysis of Normal and Aneurysmal Aortic Roots: Is there a True Geometric Pattern in the Aortic Root Anatomy?** 7 min.  
Minho Ju, Jae Won Lee, Sang Young Oh, Dong Hyun Yang, Joon-Won Kang, Jun Bum Kim, Song Ho Jung, Chul Hyun Chung, Tae-Hwan Lim, Suk Jung Choo (South Korea)
- CI/INT-01- #1093

O-8 **Normobaric Hypoxic-hyperoxic Training: a Novel Technique in Cardiac Rehabilitation** 7 min.  
Natalia Vasyukova, Tea Kakuchaya, Tamara Dzhitava, Nona Pachuashvili, Angelina Filatova, Arjana Kuular, Aydin Saparbayev (Russia)

**Discussion** 30 min.

**Coffee Break (10:00 – 10:30)**  
(Exhibition area, Floor 1)

**10:30 – 12:00**

**Adult Cardiac Surgery/End-stage Heart Failure/  
Heart Transplantation/VADs/ ECMO**

**SESSION – 1**

**Chairpersons:** Anvay Mulay (India), Vitaly Poptsov (Russia)

AC/END-01- #255  
O-1 **Mechanical Circulatory Support - The FULCRUM of Heart Transplant Unit** 7 min.  
Anvay Mulay, Ashish Gaur, Sandeep Sinha, Neeraj Kamat, Satish Javali (India)

AC/END-01- #1032  
O-2 **Left Ventricular Assist Device Implantation Following Percutaneous Mitraclip Procedure** 7 min.  
Tanil Ozer, Ozge Altas, Yerlikhan, Mustafa Mert Ozgur, Mustafa Karaaslan, Mehmet Aksut, Sabit Sarikaya, Kaan Kirali (Turkey)

AC/END-01- #817  
O-3 **Technical and Clinical Characteristics of a Newly Developed Pediatric Rotary Blood Pump “Sputnik” for Heart Failure Treatment in Children** 7 min.  
Olga Bockeria, Sergey Selichshev, Dmitriy Telyshev, Igor Nesterenko, Maksim Denisov, Tatyana Le, Anna Satyukova, Leo Bockeria (Russia)

AC/END-01- #505  
O-4 **Prolonged Use of Levitronix Right Ventricular Assist Device (RVAD) in Patients with Long Term Left Ventricular Assist Device (LVAD)** 7 min.  
Syed Mohiyaddin, Kamran Kerimzade, Nathan Tyson, Debamalaya Ray, Vincenzo Ciaci (United Kingdom)

AC/END-01- #1152  
O-5 **Single Centre Experience with Ex-Vivo Preservation on Marginal Donors in Heart Transplantation** 7 min.  
Sandro Sponga, Veronica Ferrara, Andrea Lechiancole, Sandro Nalon, Giorgio Guzzi, Chiara Nalli, Enrico Spagna, Vincenzo Tursi, Angela Caragnano, Antonio P. Beltrami, Ugolino Livi (Italy)

AC/END-01- #1011  
O-6 **Outcomes and Factors Associated with Early Mortality in Patients Undergoing Distant ECMO Implantation and Transport to ECMO Centers - Strategies to Improve Results in Newly Launched Programs** 7 min.  
Anton Sabashnikov, Ilja Djordjevic, Antje-Christin Deppe, Elmar W. Kuhn, Dirk Sindhu, Kaveh Eghbalzadeh, Julia Merkle, Carolyn Weber, Johanna Maier, Mohamed Zeriouh, Ferdinand Kuhn-Régnier, Navid Madeshahian, Yeong-Hoon Choi, Thorsten Wahlers (Germany)

AC/END-01- #667

O-7	<b>A Peripheral Venous-Arterial Extracorporeal Membrane Oxygenation (pVAECMO) for Short-Term Mechanical Circulatory Support in Heart Transplant Candidates</b> <u>Vitaly Poptsov</u> , Ekatherina Spirina, Nadezda Koloskova, Sergey Uhrenkov, Anastasiya Dogonashcheva, Elnur Aliev, Vladislav Voronkov, Sergey Masutin, Stanislav Ustin, Valeriy Hatutsky (Russia)	7 min.
AC/END-01- O-8	#553 <b>Application of Right Ventricular Assist Device for the Difficult Weaning off the Cardiopulmonary Bypass Due to the Pulmonary Hypertension</b> <u>Chengbin Zhou</u> , Min Wu, Jinsong Huang, Xiaohua Zhang, Jimei Chen, Jian Zhuang (China)	7 min.
AC/END-01- O-9	#345 <b>Using “LIKE” Score to Predict Prognosis in Postcardiotomy Shock Supported with Extracorporeal Life Support (ECLS)</b> <u>Heng-tsan Ho</u> , Feng-Chun Tsai, Kuo-Sheng Liu, Yu-Yun Nan, Shao-Wei Chen, Jao-Ji Chu, Pyng-Jiang Lin (Taiwan)	7 min.
	<b>Discussion</b>	20 min.

**12:00-12:30**  
**Closing Ceremony**

## Congress Hall, 2F– B

08:30 – 10:00

### Adult Cardiac Surgery/ Aortic

#### SESSION 1

**Chairpersons:** Yutaka Okita (Japan), Eduard R. Charchyan (Russia)

- AC/AOR-01- #495  
O-1 **Does Aggressive Reconstruction of Dissected Neck Artery Prevent Postoperative Stroke in Patients with Type A Aortic Dissection?** 7 min.  
Shinji Masuyama, Tetsuya Ichihara, Takehiko Inoue (Japan)
- AC/AOR-01- #189  
O-2 **Clinical Outcomes of the Location of Primary Intimal Entry in Stanford A Aortic Dissection** 7 min.  
Qing Zhou, Albert Y. Xue, Liang Pan, Dongjin Wang (China)
- AC/AOR-01- #664  
O-3 **United Kingdom Results of Ascending Aorta, Arch Replacement with Concomitant Open Descending Aorta Stenting Using a Hybrid Stent-graft, Frozen Elephant Trunk Technique, for Acute Type A Dissection** 7 min.  
Hassan Kattach, George Asimakopoulos, Haris Bilal, Pedro Catarino, Vamsidhar Dronavalli, John Dunning, Manoj Kuduvalli, James Kuo, Jorge Mascaro, Giovanni Mariscalco, Gavin Murphy, Aung Oo, Cesare Quarto, Jonathan Unsworth-White, Geoffrey Tsang (United Kingdom)
- AC/AOR-01- #693  
O-4 **Florida Sleeve versus Reimplantation Procedure: Mid-term Results** 7 min.  
Alexander Chernyavskiy, Dmitry S. Khvan, Dmitry Sirota, Sergey Alsov, Maxim Lyashenko (Russia)
- AC/AOR-01- #790  
O-5 **Frozen Elephant Trunk Procedure as an Alternative Method of the Treatment in Patients with Aortic Dissection Type B and Concomitant Aortic Arch or Ascending Aortic Pathology** 7 min.  
Eduard R. Charchyan, Denis G. Breshenkov, Alexey A. Skvortsov, Yurii V. Belov (Russia)
- AC/AOR-01- #807  
O-6 **Efficacy and Safety of Intermittent Pressure-augmented Retrograde Cerebral Perfusion for Acute Aortic Dissection Type A in Nonagenarians** 7 min.  
Mitsuhiro Kawata, Tomohiro Murata, Akiko Mano, Takashi Nishimura, Shunei Kyo (Japan)
- AC/AOR-01- #1165  
O-7 **Comparison of Aortic Valve Sparing Operation Methods; Early and Midterm Results of a Single Center Experience** 7 min.  
Oğuz Uğur, Abdullah K. Tuygun, Begüm Kasapoğlu, Mutlu Şenocak, Gözde Tekin (Turkey)
- AC/AOR-01- #1175  
O-8 **Management Strategy in Patients with Type A Aortic Dissection Complicated by Cerebral Malperfusion** 7 min.  
Sergey V. Garmanov, Vladimir A. Mironenko, Nidal A. Darvish, Alexandr S.

Shundrov, Lubov V. Chegrina, Yulia V. Grigoreva (Russia)

AC/AOR-01- #618  
O-9 **Surgical Treatment for Acute Type A Aortic Dissection Associated with End-organ Malperfusion** 7 min.  
Hideyuki Kunishige, Yoshimitsu Ishibashi, Masakazu Kawasaki, Kimihiro Yoshimoto, Nozomu Inoue (Japan)

AC/AOR-01- #1341  
O-10 **Stentless Composite Biological Aortic Valved Conduit for Bentall Operation** 7 min.  
Guglielmo Stefanelli, Fabrizio Pirro, Luigi Steffanon, Vincenzo Smorto, Antonio Mingiano, Luca Weltert (Italy)

**Discussion** 20 min.

**Coffee Break (10:00 – 10:30)**  
(Exhibition area, Floor 1)

**10:30 – 12:00**

**21CCSS**

**«Treatment of Cardio-thoracic diseases in 2018»**  
**Asian Society of Cardiovascular and Thoracic Surgery (ASCVTS-2018)**

**Moderators:** Byung Moon, George Christakis, RJ Cusimano

**Case 1: cardiac tumour in left atrium**  
**“Strategies for the diagnosis and treatment of cardiac tumours”**

Issues to be discussed: 3d printing possibilities to help plan procedures;  
resection plan/issues, mics biopsy, auto transplant,  
cardiac reconstruction materials...

Experts: **Dr. RJ Cusimano:**  
(Toronto Hospital / U of Toronto, Toronto)  
**Dr. Maximilian Emmert:**  
(University Hospital Zurich, Zurich)  
**Dr. Kamal Khabbaz:**  
(Beth Israel Deaconess Medical Center, Boston)  
**Dr. Bob Kiaii:**  
(U of Western Ontario, London, Canada)

**Case 2: AVR with atrial fibrillation:**  
**“Optimal treatment of the patient with aortic regurgitation complicated by atrial fibrillation”**

Issues to be discussed: MICS, SAVR/ Sutureless valve / A fib procedure /  
Monitoring for a fib post procedure

Experts: **Douglas Johnston:**  
(Cleveland Clinic, Cleveland)  
**Chris Malaisrie:**  
(Northwestern University, Feinberg School of Medicine, Chicago)  
**Louis Perrault:**  
(Montreal Heart Institute, Montreal)  
**Randall Wolf:**  
(U of Texas, Houston)

**Case 3: Aortic dissection:**

***“Education, quality and new developments in endovascular treatment of type A aortic dissection”***

Issues to be discussed: TEVAR / Stenting for type A dissection  
How do we ensure proper teaching, research and quality in this realm?

Experts: **George Christakis:**  
(Sunnybrook Health Sciences Centre / U of Toronto, Toronto)  
**Ali Khojnehzad:**  
(Cedars-Sinai Heart Institute, L.A.)  
**Byung Moon:**  
(Southlake Regional Health Centre / U of Toronto, Toronto)  
**Grayson H. Wheatley III:**  
(Centennial Heart & Vascular Institute, Nashville)

***Case 4: Post MI CHF→ VAD  
“Advanced treatments in the management of severe post infarct myocardial dysfunction”***

Issues to be discussed: Ischemic cardiomyopathy issues, post MI Mechanical circulatory support  
Myocardial regenerative strategies during VAD support, future of MCS

Experts: **Steven Boyce:**  
(Medstar Heart and Vascular Institute, Washington DC)  
**Jacob DeLaRosa:**  
(Portneuf Medical Center, Pocatello, ID)  
**Dr. Maximilian Emmert:**  
(University Hospital Zurich, Zurich)  
**James Fonger:**  
(Innovation Perspectives LLC, Atlanta)

***Case 5: Thoracic: patient with cancer  
“Minimal access or robotic thoracic resection of pulmonary tumours and future screening of recurrent cancer”***

Issues to be discussed: minimally invasive vs robot, screening for future cancer

Experts: **Shanda Blackmon:**  
(Mayo Clinic, Rochester)  
**Richard Fischel:**  
(St. Joseph Hospital, Orange, CA)

***Case 6: Mixed CAD/Valve case  
“Combined robotic mitral and coronary repair: are we there yet?  
What about the pulmonary valve?”***

Issues to be discussed: robotic mitral + CABG;  
Are we there yet to do a combined case?  
What about pulmonary valve update

Experts: **Husam (Sam) Balkhy:**  
(U of Chicago Medicine and Biological Sciences, Chicago)  
**Sloane Guy:**  
(Weill-Cornell School of Medicine, New York)  
**Louis Perrault:**  
(Montreal Heart Institute, Montreal)

**12:00-12:30  
Closing Ceremony**

## Congress Hall, 2F– C

08:30 – 10:00

### Adult Cardiac Surgery/Comorbidity

#### SESSION – 1

**Chairpersons:** Nidal Darvish (Russia), Song Wan (Hong Kong)

- AC/COM-01- #120  
O-1 **Comparing Coronary Artery Bypass Grafting with Drug-eluting Stenting in Patients with Diabetes Mellitus and Multivessel Coronary Artery Disease** 7 min.  
Milena Keren, Igor Sigaev, Rustam Yarbekov, Artak Kazaryan, Maxim Starostin, Beka Morchadze, Yulia Tereshina, Leo Bockeria (Russia)
- AC/COM-01- #245  
O-2 **Surgical Tactics in Patients with Carotid Artery Disease (Stenosis) and Coronary Artery Disease** 7 min.  
Arthur Ozolinsh, Mussa Eseneev, Ramilya Valieva, Natalia Svetlova, Shorena Zorandiya (Russia)
- AC/COM-01- #546  
O-3 **Could the Hybrid Treatment of Persistent AF be as Effective as Simultaneous "Dallas lesion set" in CABG Patients?** 7 min.  
Aleksei Kovalev, Andrey Filatov, Sergey Kovalev, Denis Gryaznov, Leo Bockeria (Russia)
- AC/COM-01- #1044  
O-4 **Combination of Coronary Heart Disease and Critical Limb Ischemia: Evolution of Operation Technique** 7 min.  
Evgeny Rosseykin, Andrey Voevodin, Vladlen Bazylev (Russia)
- AC/COM-01- #662  
O-5 **Short-term Results of On-pump Coronary Artery Bypass and Off-pump Bypass Surgery at Simultaneous Interventions on Coronary and Brachiocephalic Arteries** 7 min.  
Alisher Melikulov, Ahtam Jalilov, Vadim Merzlyakov, Ivan Kluchnikov, Anton Skopin, Nidal Darvish, Madina Zhelikhazheva, Sevingi Mamedova, Madina Akhmedova, Mahamadscharif Salomov (Russia)
- AC/COM-01- #679  
O-6 **Cardiac Surgery in Patients after Extensive Radiotherapy on the Mediastinum** 7 min.  
Renat M. Muratov, Svetlana I. Babenko, Natalya N. Soboleva, Ekaterina A. Andrianova (Russia)
- AC/COM-01- #1258  
O-7 **Management of Coronary Artery Disease in Patients with End-staged Chronic Kidney Disease: the Experience of Single Department** 7 min.  
Zalina Kudzoeva, Leo Bockeria, Olga Bockeria, Sripal Bangalore, Michael Yarustovsky, Karen Petrosyan (Russia, USA)
- AC/COM-01- #1295  
O-8 **Heart Surgery in Patients on Dialysis: Who is at High Risk?** 7 min.  
Tadashi Kitamura, Shinzo Torii, Toshiaki Mishima, Hirotohi Ohkubo, Kensuke Kobayashi, Yuki Ohtomo, Kagami Miyaji (Japan)



AC/COM-01- #977  
O-9 **Surgical Treatment of Patients with Combined Atherosclerosis of Coronary and Carotid Arteries** 7 min.  
Andrey Marchenko, Pavel Myaluk, Alexey Vronskiy (Russia)

**Discussion** 20 min.

**Coffee Break (10:00 – 10:30)**  
(Exhibition area, Floor 1)

**10:30 – 12:00**

**Adult Cardiac Surgery/Minimally Invasive and Robotic Cardiac Surgery**

**SESSION – 1**

**Chairpersons:** Yuriy A. Schneider (Russia), Igor I. Chernov (Russia)

AC/MIN-01- #530  
O-1 **Minimally Invasive Tricuspid Valvuloplasty for Isolated Regurgitation Following Left Heart Valve Replacement in Rheumatic Valve Disease** 7 min.  
Huanlei Huang, Zerui Chen, Huiming Guo, Biao Chuan He, Qingshi Zeng, Yingjie Ke, Ren Zhu, Qian Yan, Xiaohua Zhang, Jingsong Huang, Jingsong Huang, Jing Liu, Cong Lu (China)

AC/MIN-01- #772  
O-2 **Ozaki Procedure through a J-ministernotomy: Single Center Experience** 7 min.  
Evgeny Rosseykin, Evgeny Kobzev, Vladlen Bazylev (Russia)

AC/MIN-01- #1024  
O-3 **First Result of Minimally Invasive Mitral Valve Surgery at Viet-Duc Hospital** 7 min.  
Son H. Phung Duy, Uoc H. Nguyen (Viet Nam)

AC/MIN-01- #1182  
O-4 **How Atrioventricular Regurgitation Affects the Outcome and Survival of your TAVI Patient. Data from the Vienna Cardiothoracic Aortic Valve Registry (VICTORY)** 7 min.  
Markus Mach, Bernhard Winkler, David Santer, Harald Pisarik, Gabriel Weiss, Martin Grabenwöger (Austria)

AC/MIN-01- #883  
O-5 **Off-pump Coronary Artery Bypass Grafting through Left-sided Thoracotomy in the Treatment of Patients with Coronary Artery Disease** 7 min.  
Juriy Schneider, Victor Tsoy, Andrew Kotsiyenko, Pavel Shilenko (Russia)

AC/MIN-01- #1185  
O-6 **The Change of Mitral Regurgitation Severity after Transfemoral vs. Transapical Trans-catheter Aortic Valve Implantation (TAVI)** 7 min.  
Markus Mach, David Santer, Harald Pisarik, Gabriel Weiss, Martin Grabenwöger (Austria)

AC/MIN-01- #6/H  
O-7 **Totally Endoscopic Robotically Assisted Atrial Septal Defect Closure in Adults** 7 min.  
Arkipov A., Zubritskiy A., Khapaev T., Bogachev-Prokophiev A., Karaskov A. (Russia)

AC/MIN-01- #1126

O-8	<b>Different Approaches in Surgical Treatment of Mitral Valve Dysplasia</b> <u>Dmitry Kozmin</u> , Igor Chernov, Soslan Enginoev, Sergey Makeev, Dmitry Kondratyev, Gasan Magomedov, Dmitry Tarasov (Russia)	7 min.
AC/MIN-01- O-9	#471 <b>3D Enabled Totally Endoscopic Surgery in Training of Mitral Valve Repair</b> <u>Daniel Hofer</u> , Herbert Hangler, Christoph Krapf, Bastian Schneider, Juliane Kilo, Michael Grimm, Ludwig Mueller (Austria)	7 min.
AC/MIN-01- O-10	#6/H <b>Our experience of Totally Endoscopic Coronary Bypass Grafting with the Da Vinci Robotic System in CAD patients</b> <u>Alsov S.</u> , Efendiev V., Arkhipov A., Demin I., Chernyavskiy A., Karaskov A. (Russia)	7 min.
	<b>Discussion</b>	20 min.

**12:00-12:30**  
**Closing Ceremony**

## Press Hall, 2F

08:30 – 10:00



### **RHICS 16th Expert Forum** Heart Failure Sharing Experiences on Cardiac Surgery Congenital Heart Surgery

#### **SESSION – 1** **HEART AND LUNG FAILURE**

**Moderators:** Roland Hetzer, Gustav Steinhoff

- |      |                        |   |
|------|------------------------|---|
| 8:30 | <b>Welcome Remarks</b> | <b>Roland Hetzer</b>  |
| 8:45 | Roland Hetzer          | Mechanical Circulatory Support: From Experiment to Clinical Practice              |
| 9:00 | Michael Dandel         | Myocardial Recovery   |
| 9:15 | Alexander Weymann      | HeartMate II, HeartMate III und Heartware: Oldenburg Experience                   |
| 9:30 | Eva Maria Delmo Walter | Berlin Heart EXCOR: Role in Bridge to Heart Transplantation in Pediatric Patients |
| 9:45 | Gustav Steinhoff       | Stem cells and heart disease - brake or accelerator?                              |

**Coffee Break (10:00 – 10:30)**  
(Exhibition area, Floor 1)

10:30 – 12:00

#### **SESSION – 2** **SURGERY FOR CORONARY ARTERY DISEASE AND HEART VALVES**

**Moderators:** Jürgen Ennker, Theodor Fischlein

- |                             |                        |   |
|-----------------------------|------------------------|---|
| 10:30                       | Jürgen Ennker          | No stroke-No leg incision: Coronary artery surgery 2018                               |
| 10:45                       | Takeo Tedoriya         | Aortic valve repair   |
| 11:00                       | Theodor Fischlein      | Minimally-invasive aortic valve surgery   |
| 11:15                       | Roland Hetzer          | Mitral valve repair techniques without prosthetic implants                            |
| <b>Surgery for Children</b> |                        |   |
| 11:30                       | Robert Cesjnevar       | Aortic reconstruction in pediatric patients (surgical techniques and neuroprotection) |
| 11:45                       | Eva Maria Delmo Walter | Mitral valve repair for congenital mitral valve lesions in children                   |

**Posters:**

Extraanatomic bypass procedures for congenital aortic lesions  
Anterior leaflet retention plasty for hypertrophic obstructive cardiomyopathy

**12:00-12:30**

**Closing Ceremony**