

March 26, 2022 / Track 1

8:10-8:50

Invited Lecture :
Patients' Safety

Moderators: Shinichi Takamoto (Keio University, San-ikukai Hospital, Japan)

IL High Stakes and High Risk: A Targeted Review of Hazards During Cardiac Surgery

Paul Barach

Thomas Jefferson University, USA

9:00-9:40

Morning Seminar(Pediatric) :
Pulmonary vein stenosis

Moderators: Kisaburo Sakamoto (Shizuoka Children's Hospital, Japan)

MS-1 Diagnosis and Therapy by Catheter Intervention

Athar M. Qureshi

Texas Children's Hospital, USA

MS-2 Surgical management of pulmonary vein stenosis

Christopher A. Caldarone

Texas Children's Hospital, USA

9:50-10:50

Oral/Video abstract session 1 :

Moderators: Hajime Ichikawa (National Cerebral and Cardiovascular Center, Japan)
Jia Bing (Children's Hospital of Fudan University, Shanghai, China)

P-Ab1-1 A Public-Private Business Model for Sustaining a Quality Pediatric Cardiac Surgery Program in Low- and Middle-Income Countries

Stephany Kim

University of Texas Southwestern Medical Center, United States

P-Ab1-2 Neo-aortic root dimensions and aortic regurgitation in children after Ross operation

Yuta Kuwahara

Sakakibara Heart Institute, Japan



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P-Ab1-3 Main pulmonary artery translocation for juxta-ductal and peripheral pulmonary artery stenosis

Ryo Kawabata

Kobe Children's Hospital, Hyogo, Japan

P-Ab1-4 Truncus Arteriosus: Address to Truncal Valve Insufficiency

Motonori Ishidou

Mt. Fuji Shizuoka Children's Hospital, Japan

11:00-12:30

Targeted session :
[TOF] long-term outcomes and new approach

Moderators: Akio Ikai (Mt. Fuji Shizuoka Children's Hospital, Japan)
Jia Bing (Children's Hospital of Fudan University, Shanghai, China)

P-T1-1 Midterm outcome of valve-sparing surgery for patients with tetralogy of Fallot and small pulmonary valve annulus

Hiroki Ito

Mt. Fuji Shizuoka Children's Hospital, Japan

P-T1-2 Blalock-Taussig Shunt versus Ductal Stenting as Palliation for Duct-Dependent Pulmonary Circulation

Hamood Al Kindi

Sultan Qaboos University Hospital, Oman

P-T1-3 Surgical strategy and anatomic factors to achieve pulmonary valve-sparing repair in patients with tetralogy of Fallot

Yasuhiro Kotani

Okayama University, Japan

P-T1-4 Pulmonary Annulus Growth Pattern In Patients With Tetralogy Of Fallot Prior To Surgical Repair

Hamood Al Kindi

Sultan Qaboos University Hospital, Oman

P-T1-5 Unifocalization for MAPCA in PAVSD

Akio Ikai

Mt. Fuji Shizuoka Children's Hospital, Japan

P-T1-6 Long-term outcomes after TOF repair: perspective from China

Jia Bing

Children's Hospital of Fudan University, Shanghai, China

13:50-15:20

Award session :

Furuse award

Moderators: Yuichi Ueda (Nara Prefectural Hospital Organization, Japan)
Yutaka Okita (Kobe University, Takatsuki General Hospital, Japan)

AS-1 Effect of three-dimensional-printed hearts used in left ventricular outflow tract obstruction: A multicenter study

Xianzhi Wang

The First People's Hospital of Guangyuan, China

Discussant: Takashi Kunihara

The Jikei University School of Medicine, Japan

AS-2 Virtual Reality Simulation for Minimally Invasive Coronary Artery Bypass Grafting with Aortic No-touch and Total Arterial Grafting Technique

Kazutoshi Tachibana

Hakodate Goryoukaku Hospital, Japan

Discussant: Takeo Tedoriya

Ageo Central Hospital, Japan

AS-3 Predicting early and long-term outcomes by the GERAADA risk score in Japanese patients with acute type A aortic dissection

Shingo Hirao

Kurashiki Central Hospital, Japan

Discussant: Kenji Minatoya

Kyoto University, Japan

AS-4 Long-term outcome of Fontan completion and the factors associated with interstage mortality in the patients with right isomerism

Junko Kobayashi

Okayama University Hospital, Japan

Discussant: Naoki Yoshimura

University of Toyama, Graduate School of Medicine, Japan

AATS award

AS-5 New staging and advices for lung cancer

Ismail Sarbay

Istanbul University Cerrahpasa Medical Faculty, Turkey

Discussant: Jun Nakajima

University of Tokyo Graduate School of Medicine, Japan



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AS-6 Various Recurrence Dynamics for Non-small Cell Lung Cancer Depending on Pathological Stage and Histology after Surgical Resection

Hyeong Ryul Kim

Seoul Asan Medical Center, Korea

Discussant: Hiroshi Date

Kyoto University, Japan

AS-7 The first successful living-donor lobar lung transplantation for a patient with COVID-19 associated lung failure

Itsuki Yuasa

Kyoto University, Japan

Discussant: Jheon Sanghoon

Seoul National University Bundang Hospital, Korea

15:40-16:30

Adult Cardiac mini Oral 1 : CABG

Moderators: Kazuma Okamoto (Kindai University, Japan)

Kimikazu Hamano (Yamaguchi University, Graduate School of Medicine, Japan)

C-m01-1 How to start MICS-CABG safely

Akitoshi Yamada

Kita Harima Medical Center, Japan

C-m01-2 Comparison between CABG and PCI for patients with severe coronary artery disease and reduced ejection fraction

Yuwen Chen

Kaohsiung Chang Gung Memorial Hospital and Chang Gung University College of Medicine, Kaohsiung, Taiwan

C-m01-3 Mid-term Outcome of Off-pump Coronary Artery Bypass Grafting in Octogenarians

Shizuya Shintomi

Tokyo Women's Medical University, Japan

C-m01-4 Early-term Results of Second Redo Minimally Invasive OPCAB Surgery

Doosang Kim

Veterans Health Service Medical Center, Seoul Veterans Hospital, Korea

C-m01-5 Collateral robustness-stratified short and long-term outcomes of surgical revascularization using epicardial echoimaging for CTO in LAD.

Kenji Iino

Kanazawa University, Japan

C-m01-6 The back approach technique of endoscopic saphenous vein harvesting in coronary artery bypass grafting

KIYOSHI TAMURA

Soka Municipal Hospital, Japan

C-m01-7 Effect of Nicorandil, Diltiazem, or Isosorbide Mononitrate for Antispastic Therapy after CABG Using Radial-artery Grafts: A Protocol for Pilot Trial

Yunpeng Zhu

Ruijin Hospital Shanghai Jiao Tong University School of Medicine, China

C-01-4 A systematic review of contemporary outcomes of continuous-flow left ventricular assist devices (LVAD)

Harry Narroway

Gosford Hospital, Australia

16:40-17:15

Adult Cardiac mini Oral 2 :

Moderators: Yasushi Takagi (Fujita Health University School of Medicine, Japan)

Hiroyuki Nishi (National Hospital Organization, Osaka National Hospital, Japan)

C-m02-1 Hemodynamic performance of INSPIRIS RESILIA aortic bioprosthesis for severe aortic stenosis: 2-year follow-up

Naoto Fukunaga

Hyogo Prefectural Amagasaki General Medical Center, Japan

C-m02-2 Totally endoscopic approach facilitates excellent conduct in aortic valve replacement in a rare dextrocardia case

Ilias Skaltsiotis

National University Hospital Singapore, Singapore

C-m02-3 Aortic valve replacement using Suture less valve is useful for elder patients.

Senri Miwa

Okamura Memorial Hospital, Japan

C-m02-5 Short and mid-term results of aortic valve leaflet reconstruction with equal three autologous pericardium based on STJ size

Tadamasa MIYAUCHI

Ageo general central hospital, Japan

C-m02-6 To evaluate the clinical and hemodynamic results of transcatheter replacement of the aortic valve with the MedLab CT prosthesis

Vladlen Bazylev

Federal Centre of Cardiovascular Surgery of the RF Ministry of Public Health, Penza, Russian Federation



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C-m02-7 Trans-apical transcatheter valve replacement in complex valve disease with J-Valve system

Qing Zhou

The Affiliated Drum Tower Hospital of Nanjing University Medical School, China

C-m02-8 Surgical outcomes and cardiac reintervention after transcatheter aortic valve implantation

Ryo Suzuki

Yamaguchi University Graduate School of Medicine, Japan

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9:00-9:40

Morning Seminar 1 :
Mallinckrodt Pharmaceuticals

Moderators: Minoru Ono (Department of Cardiovascular Surgery, Graduate School of Medicine, The University of Tokyo, Japan)

MS1-1 Utility of inhaled nitric oxide (iNO) in cardiac surgery

Koichi Toda

Department of Cardiovascular Surgery Osaka University Graduate School of Medicine, Japan

9:50-10:40

Thoracic aorta 1

Moderators: Suk-Won Song (Cardiovascular Surgery, Gangnam Severance Hospital, Korea)
Akihiro Yoshitake (Saitama Medical University International Medical Center, Japan)

A-Ab1-1 Early and late outcomes of aortic arch aneurysm repair -Proper selection of open surgery or TEVAR

Naritomo Nishioka

Teine Keijinkai Hospital, Japan

A-Ab1-2 Brain isolation perfusion to prevent embolic events in aortic arch surgery for patients with shaggy aorta

Tomohiro Mizuno

Tokyo Medical and Dental University, Japan

A-Ab1-3 The optimal timing of TEVAR for aortic remodeling in Stanford type B aortic dissection

Kentaro Kiryu

Akita University School of Medicine, Japan

A-Ab1-4 Does resternotomy increase risk in total arch replacement?

Noriyuki Takashima

Shiga University of Medical Science, Japan

A-Ab1-5 Virtual imaging analysis for preoperative planning in a reoperation case of thoracic descending aortic aneurysm after the coarctation aortic repair.

Yuji Matsubayashi

Shiga University of Medical Science, Japan



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10:50-11:40

Thoracic aorta 2, Acute Type A Aortic Dissection 1 :

Moderators: Takayuki Kadohama (Akita University Graduate School of Medicine, Japan)
Hideyuki Shimizu (Keio University, Japan)

A-Ab2-1 The outcome of debranch TEVAR for zone 0 and zone 1

Akihito Matsushita

Seikeikai Chiba Medical Center, Japan

A-Ab2-2 Endovascular Total Arch Repair Using In Situ Fenestration for Thoracic Aortic Aneurysm and Chronic Aortic Dissection.

Yoshiki Endo

Iwaki city medical center, Japan

A-Ab2-3 Short(hyphen)term clinical outcomes of thoracic endovascular aortic repair for arch aneurysms with the Najuta stent-graft system

Takashi Hashimoto

Tokyo Dental College, Ichikawa General Hospital, Japan

A-Ab2-5 Are the current scoring systems of acute type A aortic dissection valid for our patients?

Bongyeon Sohn

Sejong General Hospital, Korea

11:50-12:30

Miscellaneous Aortic Issues 1 :

Moderators: Norihiko Shiiya (First Department of Surgery, Hamamatsu University School of Medicine, Japan)
Hiroshi Tanaka (Cardiovascular surgery, Brain and Heart Center, Himeji, Hyogo, Japan)

A-Ab3-1 Toward the best surgical strategy for mycotic aneurysms of the thoracic-iliac arteries

Naoto Fukunaga

Hyogo Prefectural Amagasaki General Medical Center, Japan

A-Ab3-2 Treatment strategy for aorto-esophageal fistula

Tatsuki Fujiwara

Tokyo Medical and Dental University, Japan

A-Ab3-4 The Impact of Dialysis Dependency in Aortic Surgical Patients with Chronic Kidney Disease

Kang Min Kim

Seoul National University Bundang Hospital, Korea

A-Ab3-5 Early outcomes of open descending and thoracoabdominal aortic replacements from a single center in Hong Kong

Jacky Yan Kit Ho

Prince of Wales Hospital, Shatin, Hong Kong SAR, Hong Kong

12:50-13:40

Luncheon Seminar 5 :

W. L. Gore & Associates G.K.

Moderators: Toshihisa Asakura (Department of Cardiovascular Surgery, Saitama Medical University International Medical Center, Japan)

TEVAR strategy for better long-term outcome for Type B dissection

LS5-1 The Design Secret of Proximal Conformability of Type B Aortic Dissection

Chun-Che Shih

*Director of Taipei Heart Institute, Taipei Medical University ,
Professor, Department of Surgery, School of Medicine, College of Medicine, Taipei Medical University ,
Deputy Superintendent, Taipei Municipal Wanfang Hospital (Managed by Taipei Medical University)*

LS5-2 Strategy for TBAD using TAG® Conformable Stent Graft 'with ACTIVE CONTROL System

Kazuo Shimamura

Department of Cardiovascular Surgery, Osaka University Graduate School of Medicine, Japan

14:25-15:55

Targeted Oral/Video session 1 :

Systemic AtrioVentricular-valve surgery in pediatric population

Moderators: Shingo Kasahara (Okayama University, Okayama, Japan)
Talwar Sachin (All India Institute of Medical Sciences, Ansari Nagar, New Delhi, India)

P-T2-1 Systemic AtrioVentricular-valve surgery in pediatric population

Talwar Sachin

All India Institute of Medical Sciences, Ansari Nagar, New Delhi, India

P-T2-2 Management for atrioventricular valve regurgitation with single ventricle physiology: Before Glenn shunt.

Hiroki Ito

Mt. Fuji Shizuoka Children's Hospital, Japan

P-T2-3 Biventricular repair of atrioventricular septal defect with double outlet right ventricle: successful repair with two-patch technique

Jae Hong Lee

Seoul National University Hospital, Korea



P-T2-4 Surgical results of atrioventricular septal defects -two patch repair vs modified single patch repair

Shingo Kasahara

Okayama University, Japan

P-T2-5 Surgical management of unbalanced AVSD

David Overman

Mayo Clinic-Children's Minnesota Cardiovascular Collaborative, USA

16:15-17:20

Oral/Video abstract session 2

Moderators: Shingo Kasahara (Okayama University, Okayama, Japan)
Kisaburo Sakamoto (Shizuoka Children's Hospital, Japan)

P-Ab2-1 Evaluation of the usefulness of Sutureless angioplasty for peripheral pulmonary artery stenosis

Daisuke Toritsuka

Mt. Fuji Shizuoka children's hospital, Japan

P-Ab2-3 Feasibility of Three-dimensional Printing Technology in the Diagnosis for the Complex Congenital Heart Disease in the Undeveloped Southwest China

Dianyuan Li

The Affiliated Suzhou Hospital of Nanjing Medical University, Nanjing, China

P-Ab2-4 Three-Dimensional Virtual and Printed Prototypes in Complex Congenital and Pediatric Cardiac Surgery

Laszlo Kiraly

National University Hospital Singapore, Singapore

P-Ab2-5 Clinical nomogram for Predicting the Prognosis of Patients with Pulmonary Venous Obstruction after TAPVC Repair

Ling Chen

Fujian Medical University, China

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9:00-9:40

Morning Seminar 2 :

Cook Medical Japan G.K.

MS2-1 Experience and Lessons Learned From Thoracic Endovascular Treatment

Tilo Kölbel

Professor Vascular Surgery, University Medical Center Hamburg, Hamburg, Germany

Discussant: Hitoshi Matsuda

National Cerebral and Cardiovascular Center, Japan

Kazuo Shimamura

Osaka University Hospital, Japan

10:00-10:50

Lung cancer 2 :

Moderators: Sanghoon Jheon (Seoul National University Bundang Hospital, Korea)
Masanori Tsuchida (Niigata University Graduate School of Medical and Dental Sciences, Japan)

T-03-1 Integral lymph node descriptor system including location, station, and number

Woohyun Jung

Seoul National University Bundang Hospital, Korea

T-03-2 Comparison of Surgery after Neoadjuvant Therapy and Salvage Surgery in Stage 3B Non-Small Cell Lung Cancer

Gizem Ozcibik Isik

Istanbul University-Cerrahpasa Cerrahpasa Medical Faculty, Turkey

T-03-3 Pleural Photodynamic Therapy and Surgery for Patients with Non-small Cell Lung Cancer and Ipsilateral Pleural Metastases

Kuan-Hsun Lian

National Taiwan University Hospital, Taiwan

T-03-4 Prognosis of 10-year lung cancer survivors and the necessity of long-term postoperative surveillance

Satoshi Shiono

Yamagata Prefectural Central Hospital, Japan



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11:10-12:10

Thoracic Video :

Moderators: Punnarerk Thongcharoen (Siriraj Hospital, Mahidol University, Thailand)
Masaaki Sato (University of Tokyo, Japan)

T-VI-1 Combined left thoracoscopic and median sternotomy approach to resect an aortopulmonary mediastinal paraganglioma following feeding artery embolization

Kota Itagaki

Tohoku University Hospital, Japan

T-VI-3 Infrared thoracoscopic pulmonary segmentectomy for an unpalpable tumor with intravenous indocyanine green administration using preoperative simulation

Hitoshi Igai

Japanese Red Cross Maebashi Hospital, Japan

T-VI-4 Uniportal thoracoscopic lateral and posterior basal (S9+10) segmentectomy by using modified version of the intersegmental tunneling method

Hitoshi Igai

Japanese Red Cross Maebashi Hospital, Japan

T-VI-5 Robot-assisted segmentectomy for early lung cancer: The strategy employed by Kyoto University Hospital

Akihiro Ohsumi

Kyoto University Hospital, Japan

T-VI-6 The right medial-basal segmentectomy (S7) for the lung cancer with an incomplete fissure between the middle and lower lobes

Makoto Endoh

Yamagata prefectural central hospital, Japan

12:50-13:40

Luncheon Seminar 6 : Covidien Japan Inc.

Moderators: Masahiro Tsuboi (National Cancer Center Hospital East Department of Thoracic Surgery, Japan)

**Sublobar resection for lung cancer
~ Anatomy and planning, indications, how to manage intersegmental
LS6-1**

Keijyu Aokage

National Cancer Center Hospital East Department of Thoracic Surgery, Japan

LS6-2

Hisashi Saji

St. Marianna University School of Medicine Department of Thoracic Surgery, Japan

14:20-15:20

Thoracic 1 :

Moderators: Ali Zamir Khan (Blackpool Victoria Hospital, UK)
Masayuki Chida (Department of General Thoracic Surgery, Dokkyo Medical University, Japan)

T-04-2 Minimally Invasive Thymectomy Could Be Tried In Locally Advanced Thymic Malignancies: A Propensity-matched Study

Xiuxiu Hao

Shanghai Chest Hospital, Shanghai Jiao Tong University, China

T-04-3 Outcomes of Surgical Resection after Induction Immunotherapy for Resectable Non-Small Cell Lung Cancer

Feichao Bao

Shanghai Chest Hospital, Shanghai Jiao Tong University, China

T-04-4 Results of treatment after induction therapy for N2 lung cancer performed at our facility

Takashi Inoue

Dokkyo Medical University, Japan

T-04-5 Superior Vena Cava Syndrome Secondary to Anterior Mediastinal Tumor : Role of General Practitioner as the Frontliner

Hendwell Hendwell

Umbu Rara Meha Hospital, East Nusa Tenggara, Indonesia

T-04-6 Safety of robotic surgery with or without perioperative continuation of antiplatelet agents

Takefumi Doi

Kobe University Graduate School of Medicine, Japan

15:30-16:30

Thoracic 2 :

Moderators: Akif Turna (Istanbul University-Cerrahpasa Cerrahpasa Medical School, Turkey)
Hiroshi Date (Thoracic surgery, Kyoto University, Japan)

T-05-1 Robotic Assisted left cardiac sympathetic denervation

Nikolaos Panagiotopoulos

University College London Hospitals UCLH, United Kingdom



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T-05-2 Endoscopic transthoracic sympathectomy is a safe and useful option for severe intractable angina and catecholaminergic polymorphic ventricular tachycardia

Mitsuhiro Kamiyoshihara

Japanese Red Cross Maebashi Hospital, Japan

T-05-3 Completely portal robotic right upper lobectomy for lung cancer: How to do it.

Makoto oda

Shin-yurigaoka General Hospital, Japan

T-05-4 Dynamic right ventricular outflow tract obstruction in severe pectus excavatum

Zhao Kai Low

KK Women's and Children's Hospital, Singapore, Singapore

T-05-5 A retrospective multi-institutional survey of characteristics of surgically treated spontaneous hemopneumothorax patients

Hitoshi Igai

Japanese Red Cross Maebashi Hospital, Japan

T-05-6 Patients' Clinical Characteristics and Postoperative Course After Surgery for Spontaneous Pneumothorax According to Body Mass Index

Chikara Nakagami

Yamagata prefectural central hospital, Japan

16:40-17:40

Thoracic aorta 3 & Acute Type A Aortic Dissection 2 :

Moderators: Shinji Miyamoto (Oita University, Japan)

Takuro Tsukube (Japanese Red Cross Kobe Hospital, Japan)

A-Ab4(m)-1 Surgical Facilitation of a Zone Zero Landing

Jacob Jamesraj

The Madras Medical Mission, India

A-Ab4(m)-2 Zone zero total debranching thoracic endovascular aortic repair with bilateral femoral arteries inflow

Yohei Yamamoto

Tsuchiura Kyodo General Hospital, Japan

A-Ab4(m)-3 A Case of Impending Rupture of Type B Aortic Dissection treated by Total Arch Replacement with Frozen Elephant Trunk

Takashi Hashimoto

Tokyo Dental College, Ichikawa General Hospital, Japan

A-Ab4(m)-4 Petticoat Valve Conduit for Recurrent Aortic Valve Detachment in Behcet's Disease

Guanhua Li

Sun Yat-sen Memorial Hospital, China

A-Ab4(m)-5 Left subclavian artery, to cover or not to cover?

krystal dinh

Westmead Hospital, Australia

A-Ab4(m)-6 Surgical Techniques of our one-stage hybrid total aortic arch repair for extended aortic arch disease

Tomohiro Mizuno

Tokyo Medical and Dental University, Japan

A-Ab4(m)-8 Risk factors of postoperative acute kidney injury in patients with acute type A aortic dissection

Yohnosuke Wada

Nerima hikarigaoka hospital, Japan

A-Ab4(m)-9 Full PETTICOAT procedure after total aortic arch replacement with frozen elephant trunk in type A aortic dissection.

Masashi Yada

Nara prefecture general medical center, Japan

A-Ab4(m)-10 Surgical and medical outcomes of type A acute aortic dissection in nonagenarians.

Yumeka Tamai

Kakura memorial hospital, Japan

A-Ab4(m)-11 Efficacy of In Situ Fenestrated Open Stent Technique(FeneOS) for the surgery of Acute Aortic Dissection type A

Shuhei Azuma

Kyoto Katsura Hospital, Japan

A-Ab4(m)-12 Surgical results using FROZENIX, the only device made in Japan for FET

Ikuo Katayama

Shonan Kamakura general hospital, Japan



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9:40-11:10

STS/ASCVTS Database session : **Adult Cardiac Surgery**

Moderators: Chris Malaisrie (Northwestern Medicine, Northwestern Memorial Hospital , USA)
Yutaka Okita (Kobe University, Takatsuki General Hospital, Japan)

DS1-1 Type-A Aortic Dissection and Cerebral Perfusion: The Society of Thoracic Surgeons Database Analysis

Joanna Chikwe
, USA

DS1-2 Technique and rationale for subclavian or innominate artery cannulation for ATAAD

Joseph Coselli
Baylor College of Medicine, USA

DS1-3 How to do it: Cerebral protection during direct aortic cannulation for ATAAD

Wilson Y. Szeto
University of Pennsylvania School of Medicine, USA

DS1-4 How to do it: Cerebral protection during extended arch surgery for ATAAD

Edward Chen
, USA

DS1-5 Trend and Current Status of Surgical Aortic Valve Replacement in Japan: Japan Cardiovascular Surgery Database Analysis

Tomonobu Abe
Gunma University, Japan

DS1-6 The Clinical Outcomes of Japanese National TAVR Registry; From the analysis of Japan Transcatheter Valve Therapies (JTVT) Registry.

Shinichi Shirai
, Japan

11:20-12:40

STS/ASCVTS Database session :
General Thoracic Surgery

Moderators: Jessica Donington (University of Chicago, USA)
Alan Sihoe (Gleneagles Hospital, Hong Kong, China)

DS2-1 Frailty Assessment: Validated tools and Implementation strategies

Maria Lucia L. Madariaga

The University of Chicago Medicine & Biological Sciences, USA

DS2-2 Utility of Mophomics in Thoracic Surgery

Jules Lin

, USA

DS2-3 Prehabilitation: Maximizing on nutrition and exercise to improve outcomes

Thomas Varghese

University of Utah, USA

DS2-4 Use of wearable devises in surgical prehabilitation

David Finley

, USA

DS2-5 A report from the Japanese joint committee of lung cancer registry

Hidemi Suzuki

, Japan