

Thu. Jul 5, 2018

第1会場

海外招請講演

海外招請講演1 (I-IL01)

Transcatheter Treatment of Post Operative  
Pulmonary Artery Stenosis & Pulmonary Valve  
Dysfunction: development of a novel stent  
& transcatheter pulmonary valve

座長: 富田 英 (昭和大学病院 小児循環器・成人先天性心疾患セン  
ター)

5:40 PM - 6:20 PM 第1会場 (メインホール)

[I-IL01-01] Transcatheter Treatment of Post Operative  
Pulmonary Artery Stenosis & Pulmonary  
Valve Dysfunction: development of a novel  
stent & transcatheter pulmonary valve  
○ John P Cheatham (Nationwide Children's  
Hospital)

第4会場

海外招請講演

海外招請講演2 (I-IL02)

座長: 前野 泰樹 (聖マリア病院 新生児科)

6:00 PM - 6:40 PM 第4会場 (303)

[I-IL02-01] TBA  
○ Gurleen Sharland (Evelina Children's Hospital)

Fri. Jul 6, 2018

第2会場

海外招請講演

海外招請講演3 ( II-IL03)

International Medical Contribution Platform

座長:石野 幸三 (昭和大学病院 小児循環器・成人先天性心疾患センター)

10:10 AM - 10:50 AM 第2会場 (301)

[II-IL03-01] International Medical Contribution  
Platform

○Shunji Sano (Professor of Surgery, Division of  
Pediatric Cardiothoracic Surgery, University  
California San Francisco )

海外招請講演

海外招請講演4 ( II-IL04)

座長:坂本 喜三郎 (静岡県立こども病院 心臓血管外科)

3:00 PM - 3:40 PM 第2会場 (301)

[II-IL04-01] TBA

○James D. St. Louis (Department of Surgery,  
Children's Mercy Hospital, USA)

海外招請講演

海外招請講演5 ( II-IL05)

Cutting edge of pediatric heart intervention, PVI  
and VSD closure

座長:杉山 央 (東京女子医科大学心臓病センター 循環器小児科)

3:50 PM - 4:30 PM 第2会場 (301)

[II-IL05-01] Cutting edge of pediatric heart  
intervention, PVI and VSD closure

○Nikolaus A. HAAS (Department of Pediatric  
Cardiology and Intensive Care, Ludwig  
Maximilians University, Munich, Germany)

海外招請講演

## 海外招請講演1 ( I-IL01)

### Transcatheter Treatment of Post Operative Pulmonary Artery Stenosis &Pulmonary Valve Dysfunction: development of a novel stent &transcatheter pulmonary valve

座長:富田 英 (昭和大学病院 小児循環器・成人先天性心疾患センター)

Thu. Jul 5, 2018 5:40 PM - 6:20 PM 第1会場 (メインホール)

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#### [I-IL01-01] Transcatheter Treatment of Post Operative Pulmonary Artery Stenosis &Pulmonary Valve Dysfunction: development of a novel stent &transcatheter pulmonary valve

○John P Cheatham (Nationwide Children's Hospital)

(Thu. Jul 5, 2018 5:40 PM - 6:20 PM 第1会場)

## [I-IL01-01] Transcatheter Treatment of Post Operative Pulmonary Artery Stenosis & Pulmonary Valve Dysfunction: development of a novel stent & transcatheter pulmonary valve

○John P Cheatham (Nationwide Children's Hospital)

Pulmonary artery stenosis (PAS) is a relatively common problem after surgical correction of complex CHD, especially Tetralogy of Fallot. Treatment of PAS is performed in the cardiac catheterization laboratory. Balloon angioplasty was the initial treatment 1st performed in 1983. However, elastic recoil and risk of vessel injury made this therapy less satisfactory than balloon expandable stents (BES), which were introduced in 1988. There are basically 2 designs for BES: closed cell and open cell. Stents were composed of 316L stainless steel. However, a "hybrid" design may be more beneficial in patients with PAS. A hybrid cobalt-chromium PAS stent was designed and tested and is awaiting CFDA review. Bioresorbable stents are now being developed to improve results.

Transcatheter Pulmonary Valve (TPV) implant was 1st performed in 2000 and was the 1st transcatheter heart valve implanted in humans. This was initially used for dysfunctional RV-PA conduits and consisted of a bovine jugular vein valve sutured to a BES. However, ~77% of patients have RVOT reconstruction without a conduit and are left with severe PR. The 1st TPV for these patients was performed in 2009 and consisted of a cloth covered self-expandable stent (SES) with a porcine pericardial valve. There are currently clinical trials for TPV to treat severe PR in the US, Asia, and Europe. A new design for this TPV with porcine pericardium covering and valve is being tested in China. Ultimately, a tissue engineered TPV will be designed and may have a longer functional life than the current tissue valves.

海外招請講演

## 海外招請講演2 ( I-IL02 )

座長:前野 泰樹 (聖マリア病院 新生児科)

Thu. Jul 5, 2018 6:00 PM - 6:40 PM 第4会場 (303)

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[I-IL02-01] TBA

○Gurleen Sharland (Evelina Children's Hospital)

(Thu. Jul 5, 2018 6:00 PM - 6:40 PM 第4会場)

[I-IL02-01] TBA

○Gurleen Sharland (Evelina Children's Hospital)

TBA

海外招請講演

## 海外招請講演3 ( II-IL03 )

### International Medical Contribution Platform

座長:石野 幸三 (昭和大学病院 小児循環器・成人先天性心疾患センター)

Fri. Jul 6, 2018 10:10 AM - 10:50 AM 第2会場 (301)

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#### [II-IL03-01] International Medical Contribution Platform

○Shunji Sano (Professor of Surgery, Division of Pediatric Cardiothoracic Surgery,  
University California San Francisco )

(Fri. Jul 6, 2018 10:10 AM - 10:50 AM 第2会場)

## [II-IL03-01] International Medical Contribution Platform

○Shunji Sano (Professor of Surgery, Division of Pediatric Cardiothoracic Surgery, University California San Francisco )

An estimated 15 million children die annually by treatable or preventable heart disease in low-middle income countries. Global efforts should have focused on reducing death from low-middle income countries with little to no attention focusing on pediatric congenital and acquired heart disease. Lack of awareness of congenital and acquired heart disease, access to care, poor health care infrastructure, competing health priorities, and a critical shortage of specialists are important reasons why pediatric heart disease has not been addressed in low resourced settings.

There are 3 types of international medical contribution. 1)Accept oversee patients to treat in Japan. 2)Visit each country to treat the patients. 3)Educate local medical people.

Since I was back from Melbourne, I started Volunteer operations in Philippine, Indonesia and China. I realized two things during time period. 1) Volunteer work doesn't last long without supporters and fund. 2)Educate local peoples are more important to save more patients.

Since 2010, our Vietnam project has been supported by JICA and Heart Link. We visit Vietnam several times a year with a team and accept them at Okayama/UCSF to teach. Cardiac units in Vietnam where they had no experience of open heart surgery less than 10kg, did more than 100 neonates and Fontan by themselves since 2010. In Vietnam, more than 7000 patients with CHD have been treated annually by local medical team now.



海外招請講演

## 海外招請講演4 ( II-IL04 )

座長:坂本 喜三郎 (静岡県立こども病院 心臓血管外科)

Fri. Jul 6, 2018 3:00 PM - 3:40 PM 第2会場 (301)

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[II-IL04-01] TBA

○James D. St. Louis (Department of Surgery, Children's Mercy Hospital, USA)

(Fri. Jul 6, 2018 3:00 PM - 3:40 PM 第2会場)

## [II-IL04-01] TBA

○James D. St. Louis (Department of Surgery, Children's Mercy Hospital, USA)

TBA

海外招請講演

## 海外招請講演5（II-IL05）

### Cutting edge of pediatric heart intervention, PVI and VSD closure

座長:杉山 央（東京女子医科大学心臓病センター 循環器小児科）

Fri. Jul 6, 2018 3:50 PM - 4:30 PM 第2会場 (301)

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#### [II-IL05-01] Cutting edge of pediatric heart intervention, PVI and VSD closure

○Nikolaus A. HAAS（Department of Pediatric Cardiology and Intensive Care, Ludwig  
Maximilians University, Munich, Germany）

(Fri. Jul 6, 2018 3:50 PM - 4:30 PM 第2会場)

## [II-IL05-01] Cutting edge of pediatric heart intervention, PVI and VSD closure

○Nikolaus A. HAAS (Department of Pediatric Cardiology and Intensive Care, Ludwig Maximilians University, Munich, Germany)

For a long time pulmonary valve replacement as well as closure of a ventricular septal defect (VSD) have been performed by a surgical approach only. Today, cutting edge technology in interventional techniques can offer minimally invasive interventional treatment for many of these lesions

Interventional VSD closure was first described in 1988 and is now considered as an alternative to surgical VSD closure in selected cases. Initially the Amplatzer devices improved safety and the results for VSD closure, but an unacceptable high rate of permanent AV block was detected and the widespread use was abandoned. Device technology however has improved since then and VSD coil devices without the development of permanent AV block were developed. Other device companies have produced more flexible devices with better design and flexibility and so far promising results.

Percutaneous pulmonary valve implantation was first performed in 2000 and gained widespread use in Europe and the USA from 2010 onwards with the introduction of the Melody® valve and the Edwards® valves later on. Improved understanding of the preparation of the RVOT and the influence of coronary artery anatomy have made this procedure safe and suitable for many patients with acceptable long term results. Improved design of the valves and delivery system made this technique suitable for children up to a weight of 14 kg. The risk of bacterial endocarditis seems related to the biological valve components and can be minimized by the use of modern valve design.

In summary the new device generations enrich the armentarium of interventionalists for a safe approach in VSD closure and PPVI.