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CCT Appreciates the Support of the Pocket Guide Sponsors













PICS Society

On behalf of our Board, our volunteer committees and our growing global membership, we are honored to introduce the PICS Society, the professional society devoted solely to specialists in minimally invasive treatment of Congenital Heart Disease (CHD). We represent the collective voice of physicians, nurses and technologists in our growing field. We foster the highest quality of care by connecting our community and learning from one another. Join us and strengthen our voice!

Our Vision

A world where anyone who can benefit from minimally invasive techniques to treat CHD can access safe, effective care.

Our Mission

We promote the highest quality care globally for infants, children and adults with CHD through minimally invasive techniques. We partner to further knowledge and skills of all involved, fostering research, education and advocacy on behalf of you and the patients we are privileged to treat.

Background and History

We are new AND we are also celebrating our 25th Silver Anniversary! We have a new name (and a new logo!), but our history runs deep. Since 1997, the PICS Foundation has held the annual Pediatric & Adult Interventional Cardiac Symposium. The Symposium has a proud history of excellence in education for physicians, nurses and technologists in our field. Each year the Symposium focuses on the newest technologies, teaching via live cases, dealing with (and avoiding) challenges, tried-and-true refreshers and much more. The Symposium will continue as best-in-class for many years to come. However...

2020 - Transformation and Growth

In recent years, many reached out to Symposium organizers recommending that our profession needs its own medical professional society devoted solely to our maturing discipline. Common threads emerged, threads which quickly became the core values of our—your — new professional organization. Here are those values:

- Our perspective is truly international
- Our leadership comes from many nations
- Our commitment is to the highest quality care
- Rigorous, high standards for membership are key
- Education is year-round, available anytime
- We must lead in developing guidelines
- We are pursuing universal advocacy principles
- Respectful partnership with national societies is vital
- We take pride in working with our industry partners

PICS Society

- We commit to mentoring the "next generation"
- We will ensure the Symposium continues best in the field
- We are VERY affordable to all who wish to join us

As a result, in our 25th anniversary year, the PICS Foundation has formally transformed into the PICS Society, the professional global "home" for those dedicated to our field. We are equally dedicated to partnering with national societies to ensure their continued growth. This signifies transformation of our global profession into a recognized, unified community of dedicated medical providers.

PICS Society Leadership



ZIYAD M. HIJAZI, MD, MPH, FPICS President Doha, Qatar



DAMIEN KENNY, MD, FPICS





LEE BENSON, MD, FPICS

Board Member Toronto, Canada



MARIO CARMINATI, MD, FPICS

Board Member Milan, Italy



BHARAT DALVI, MD, DM, FPICS

Board Member Mumbai, India



JACQUELINE KREUTZER, MD, FPICS

Board Member Pittsburgh, Pennsylvania USA



CARLOS PEDRA, MD, PHD, FPICS

Board Member Sao Paulo, Brazil

Educational Objectives

PICS will provide physicians, nurses and technologists the opportunity to learn about many aspects of Pediatric and Adult Congenital and Structural Interventional Cardiology. Upon completion of your participation in this educational activity, you will be able to incorporate the following into your practice of medicine:

Learning Objectives

- Utilize new interventional technologies and current strategies developed for the management of children and adults with Congenital and Structural Heart Disease.
- Incorporate into your practice the techniques for the proper placement of percutaneous valves, stents and devices for occlusion of septal defects.
- Initiate advances in diagnosis, evaluation and therapies for children and adults with Congenital Heart Disease.
- Identify the important factors which affect the longterm outcomes and quality of life in children and adults with Congenital Heart Disease.
- Incorporate alternative management strategies to transcatheter management for patients with congenital and structural heart defects.
- Utilize new clinical research advances in the care of children and adults with Congenital Heart Disease.
- Incorporate demonstrated practical techniques related to interventional cardiac therapies in patients with Structural and Congenital Heart Disease.
- Access the results of new research and assess their potential applications to clinical practice.
- Improve basic knowledge and skills relevant to clinical practice.
- Assess the potential of technological innovations and advances to enhance clinical practice and problem solving.

Accreditation

Please refer to the Meeting App and the PICS website for more information about CME/CNE/ASRT credits.









Acknowledgements

The PICS Society & PICS 2021 wish to gratefully thank the following exhibitors for their support of this year's program:

Platinum

Abbott
Canon Medical Systems USA, Inc.
Edwards Lifesciences
GORE
Medtronic Inc.
NuMED For Children
Occlutech
Philips
Sidra Medicine
Siemens Healthineers

Gold

B. Braun Interventional Systems, Inc.
Venus Medtech

Bronze

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PECA Labs
Penumbra, Inc.
pfm Medical
Renata Medical
Scientific Software Solutions

PICS Also Thanks

Congenital Cardiology Today

Acknowledgements

The PICS Society & PICS 2021 wish to gratefully thank the following for their support of this year's program via unrestricted educational grants:

Educational Grants

Canon Medical Systems USA, Inc.
Edwards Lifesciences
GORE
Medtronic Inc.

2021 Live Case Centers

Boston Children's Hospital Boston, Massachusetts, USA

Children's Hospital of Philadelphia Philadelphia, Pennsylvania, USA

Cincinnati Children's Hospital Cincinnati, Ohio, USA

Dante Pazzanese Institutio De Cardiology Sao Paolo, Brazil

King Faisal Cardiac Center for National Guard Jeddah, Saudia Arabia

Nationwide Children's Hospital Columbus, Ohio, USA

New Orleans Children's Hospital New Orleans, Louisiana, USA

> Toronto General Hospital Toronto, Canada

RUSH University Medical Center Chicago, Illinois, USA

Guest Faculty

Jamil Aboulhosn, MD Daniel Aguirre, MD Teiji Akagi, MD Ali Al-Halabi, MD Wail Alkashkari, MD Hesham Al-Saloos, MD Laith Alshawabkeh, MD Mazeni Alwi, MD Zahid Amin, MD Emile Bacha, MD David Balzer, MD Lee Benson, MD Darren Berman, MD Martin Bocks, MD Brian Boe, MD Elchanan Bruckheimer, MD



Gianfranco Butera, MD Ryan Callahan, MD Mario Carminati, MD Ahmet Celebi, MD Sharon Cheatham, PhD, APN Jae Young Choi, MD Matthew Crystal, MD Bharat Dalvi, MD Carrington Dehart, RN Karim Diab, MD Vivian Dimas, MD Yoav Dori, MD Russell D'Sa, MD Makram Ebeid, MD Howaida El-Said, MD Maiy El-Sayed, MD Horacio Faella, MD Thomas Fagan, MD Craig Fleishman, MD Gregory Fleming, MD Thomas Forbes, MD

Alain Fraisse, MD Mark Galantowicz, MD Yun Chin Fu, MD



Francisco Garay, MD Marc Gewillig, MD Olivier Ghez, MD Francois Godart, MD Bryan Goldstein, MD Brent Gordon, MD Sebastian Goreczny, MD Dan Gruenstein, MD Gurumurthy Hiremath, MD Eric Horlick, MD Haytham Ibrahim, MD Nicole Ibrahim, MD Reda Ibrahim, MD Michel Ilbawi, MD Cronin Ileen, RN Alexander Javois, MD Henri Justino, MD Seong Ho Kim, MD Terry King, MD Emily Kish, RN Jacqueline Kreutzer, MD Shelby Kutty, MD Anna Lillis, MD Scott Lim, MD Petru Liuba, MD Kiran Mallula, MD Audrey Marshall, MD Doff McElhinney, MD Joaquim Miro, MD John Moore, MD Phillip Moore, MD Tim Moran, MD Gareth Morgan, MD

Brian Morray, MD

Guest Faculty

Joshua Murphy, MD Rachel Neubrander, MD Alan Nugent, MD David Nykanen, MD Mark Osten, MD Robert Pass, MD Simone Pedra, MD Alejandro Peirone, MD Lynn Peng, MD Christopher Petit, MD Diego Porras, MD Worakan Promphan, MD Brian Quinn, MD Athar Qureshi, MD Shakeel Qureshi, MD Suran Reddy, MD Masood Sadiq, MD Levent Saltik, MD Hasri Samion, MD Shyam Sathanandam, MD Dietmar Schranz, MD Shabana Shahanavaz, MD Horst Sievert, MD K Sivakumar, MD Christopher Smith, MD



Hussam Suradi, MD Nathan Taggart, MD Demkin Taylor, RN Tin Do, MD Alejandro Torres, MD Robert Vincent, MD Kevin Walsh, MD Howard Weber, MD Carlos Zabal, MD Jenny Zablah, MD Jeff Zampi, MD

Course Directors



Directors

Ziyad Hijazi, MD John Cheatham, MD Carlos Pedra, MD Thomas Jones, MD Damien Kenny, MD Evan Zahn, MD

Co-Directors

Cliff Kavisnky, MD
Ralf Holzer, MD
Allison Cabalka, MD
Felix Berger, MD
John Carroll, MD
Aimee Armstrong, MD
Dan Levi, MD
Matt Gillespie, MD
Frank Ing, MD
Gregor Krings, MD
Gejun Zhang, MD

Director Emeritus

William Hellenbrand, MD



Live Case Schedule

Wednesday, September 1st

8:15am-10:30am Session 1 – 40 minutes each site 10:45am-12:45pm Session 2 – 40 minutes each site

King Faisal Cardiac Center King Abdulaziz Medical City for National Guard

Jeddah, Saudi Arabia Wail Alkashkari, Saad Albugami, Rasha Al-Bawardy, Abdullah Alsaiedi

Dante Pazzanese Instituto de Cardiology

Sao Paolo, Brazil

Carlos AC Pedra, Marcelo S. Ribeiro, Rodrigo N. Costa, Talita Ribeiro, Simone F. Pedra, Daniela Kreuzig

Toronto General Hospital

Toronto, Canada Eric Horlick, Mark Osten, Lee Benson, Wendy Tsang, Melitta Mezody



Thursday, September 2nd

8:15am-10:30am Session 1 – 40 minutes each site 10:45am-12:45pm Session 2 – 40 minutes each site

New Orleans Children's Hospital

New Orleans, Louisiana, USA Kiran Mallula & Sergio Bartakian

Rush University Medical Center

Chicago, Illinois, USA

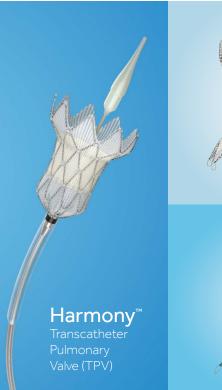
Cliff Kavinsky, Joshua Murphy, Hussam Suradi, Fareed Collado, Antoine Tatooles, Nidhi Madan, Brian Birmingham, Mary Rhee, Abhimanyu Saini

Children's Hospital of Philadelphia (CHOP)

Philadelphia, Pennsylvania, USA
Matthew J. Gillespie, Christopher L. Smith, Jonathan J. Rome,
Mudit Gupta, Ari J. Gartenberg

ONE. PARTNER.

Every step of the way





While you're supporting your patients, we support you. Backed by our commitment to providing solutions and support to you and your CHD patients, our dedicated clinical experts can guide you through all stages of the therapy.

Medtronic

Indications

is indicated for use in the management of pediatric and adult patients with severe pulmonary regurgitation (i.e., severe pulmonary regurgitation as determined by echocardiography and/or pulmonary regurgitant fraction ≥ 30% as determined by cardiac magnetic resonance imaging) who have a native or surgically-repaired right ventricular outflow tract and are clinically indicated for surgical pulmonary valve replacement.

Contraindications

The following are contraindications for the use of this device: active bacterial endocarditis or other active infections, known intolerance to Nitinol (titanium or nickel), or an anticoagulation/

Warnings

General: Implantation of the Harmony TPV system should be performed only by physicians who have received Harmony TPV system training. The transcatheter pulmonary valve (TPV) is to be used only in conjunction with the Harmony delivery catheter promptly. Do not use any of the Harmony TPV system. components if any of the following has occurred: it has been dropped, damaged, or mishandled in any way, or if the use-by

Transcatheter pulmonary valve (TPV): This device was designed

Do not reuse, reprocess, or resterilize the TPV. Reus reprocessing, or resterilization may compromise the structural integrity of the device and/or create a risk of contamination of the device, which could result in patient injury, illness, or death Do not resterilize the TPV by any method. Exposure of the device and container to irradiation, steam, ethylene oxide, or other chemical sterilants renders the device unfit for use. The device is packaged with a temperature sensor. Do not freeze the device. Do not expose the device to extreme temperatures. Do not use the device if the arrow on the sensor points to the symbol that indicates that the temperature limit has been exceeded. Do not use the device if any of the following have occurred: the tamper-evident seal is broken, the serial number tag does not match the container label, the arrow on the sensor points to the symbol that indicates that the temperature limit has been exceeded, or the device is not completely covered by the storage solution. Do not contact any of the Harmony TPV system components with cotton or cotton swabs. Do not expose any of the Harmony TPV system components to organic solvents, such as alcohol. Do not introduce air into the catheter. Do not expose the device to solutions other than the storage and rinse solutions. Do not add or apply antibiotics to the device, the storage solution, or the rinse solution. Do not allow the device to dry. Maintain tissue moisture with irrigation or immersion. Do not attempt to repair a damaged device. Do not handle the valve leaflet tissue or use forceps to manipulate the valve leaflet tissue. Do not attempt to recapture the device once deployment has begun. Do not attempt to retrieve the TPV if any one of the outflow TPV struts is protruding from the capsule. If any one of the outflow TPV struts has deployed from the capsule, the TPV must be released from the catheter before the catheter can be withdrawn. Do not attempt post-implant balloon dilatation (PID) of the TPV during the procedure, which may cause damage to or failure of the TPV leading to injury to the patient resulting in reintervention.

Delivery catheter system (DCS): This device was designed for

Do not reuse, reprocess, or resterilize the DCS. Reuse reprocessing, or resterilization may compromise the structural integrity of the device and/or create a risk of contamination of the device, which could result in patient injury, illness, or death Do not reuse or resterilize the DCS. If resistance is met, do not advance the guidewire. DCS, or any other component without first determining the cause and taking remedial action. Do not remove the guidewire from the DCS at any time during the

General: Clinical long-term durability has not been established for the Harmony TPV. Evaluate the TPV performance as needed during patient follow-up. The safety and effectiveness of Harmony TPV implantation in patients with pre-existing prosthetic heart valve or prosthetic ring in any position has not been demonstrated. The Harmony TPV system has no been studied in female patients of child-bearing potential with

Before use: Exposure to glutaraldehyde may cause irritation of the skin, eyes, nose, and throat. Avoid prolonged or repeated exposure to the chemical vapor. Use only with adequate ventilation. If skin contact occurs, immediately flush the affected area with water (for a minimum of 15 minutes) and seek medical attention immediately. The TPV and the glutaraldehyde storage solution are sterile. The outside of the TPV container nsterile and must not be placed in the sterile field. The TPV and DCS should be used only in a sterile catheterization laboratory (cath lab) environment. Ensure that sterile technique is used at all times. Strictly follow the TPV rinsing procedure. For TPV 25: Ensure that all green sutures have been removed from the attachment suture loops on the TPV before loading onto the DCS. Prevent contamination of the TPV, its storage solution, and the DCS with glove powder. Verify the orientation

of the TPV before loading it onto the DCS. The inflow end of the TPV with attachment suture loops must be loaded fir Do not place excessive pressure on the TPV during loading Inspect the sealed DCS packaging before opening. If the seal is broken or the packaging has been damaged, sterility cannot be assured. Proper functioning of the DCS depends on its integrity. Use caution when handling the DCS. Damage may result fron kinking, stretching, or forceful wiping of the DCS. This DCS is not recommended to be used for pressure measurement or delivery of fluids. Carefully flush the DCS and maintain tight DCS connections to avoid the introduction of air bubbles

During use: The TPV segment is rigid and may make navigation through vessels difficult. Do not advance any portion of the DCS under resistance. Identify the cause of resistance usin fluoroscopy and take appropriate action to remedy the problem before continuing to advance the DCS. Careful management of the guidewire is recommended to avoid dislodgement of the TPV during DCS removal. Once deployment is initiated, retrieval of the TPV from the natient is not recommended. Retrieval of a partially deployed valve may cause mechanical failure of the delivery catheter system or may cause injury to the patient. Refer to the section below for a list of potential adverse events associated with Harmony TPV implantation. During deployment, the DCS can be advanced or withdrawn prior to the outflow struts protruding from the capsule. Once the TPV struts contact the anatomy during deployment, it is not recommended to reposition the device. Advancing the catheter forward once the TPV struts make contact with the anatomy may lead to an indesired deployment or may cause damage to or failure of the TPV and injury to the patient. Refer to the section below for a list of potential adverse events associated with the Harmony TPV implantation. Physicians should use judgment when considering repositioning of the TPV (for example, using a snare or forceps) once deployment is complete. Repositioning the bioprosthesis is not recommended, except in cases where imminent serious harm or death is possible (for example, occlusion of the main left, or right pulmonary artery). Repositioning of a deployed valve may cause damage to or failure of the TPV and injury to the patient. Refer to the section below for a list of potential adverse events associated with the Harmony TPV implantation Ensure the capsule is closed before DCS removal. If increased resistance is encountered when removing the DCS through the introducer sheath, do not force passage. Increased resistance may indicate a problem and forced passage may result in damage to the device and harm to the patient. If the cause of resistance cannot be determined or corrected, remove the DCS and introducer sheath as a single unit over the guidewire, and inspect the DCS and confirm that it is complete. If there is a risk of coronary artery compression, assess the risk and take the necessary precautions. Endocarditis is a potential adverse event associated with all bioprosthetic valves. Patients should make their healthcare providers aware that they have a bioprosthetic valve before any procedure. Post-procedure, administe appropriate antibiotic prophylaxis as needed for patients at risk antibiotic therapy is recommended for patients receiving a TPV before undergoing dental procedures. Post-procedure, administer anticoagulation and/or antiplatelet therapy per physician/clinical judgment and/or institutional protocol Excessive contrast media may cause renal failure. Preprocedure measure the patient's creatinine level. During the procedure, monitor contrast media usage. Conduct the procedure under fluoroscopy. Fluoroscopic procedures are associated with the risk of radiation damage to the skin, which may be painful, disfiguring, and long term

Potential Adverse Events

permanent disability.

TPV may include but are not limited to the following: death valve dysfunction • tissue deterioration • hematoma • heart failure = cerebrovascular incident = perforation = runture of the right ventricular outflow tract (RVOT) • compression of the aortic root ■ compression of the coronary arteries ■ sepsis pseudoaneurysm erosion stent fracture arrhythmias device embolization or migration pulmonary embolism occlusion of a pulmonary artery laceration or rupture of blood vessels • device misorientation or misplacement • valve deterioration = regurgitation through an incompetent valve physical or chemical implant deterioration paravalvular leak valve dysfunction leading to hemodynamic compromise residual or increasing transvalvular gradients progressive stenosis and obstruction of the implant * hemorrh endocarditis thromboembolism thrombosis thrombus ■ intrinsic and extrinsic calcification ■ bleeding ■ bleeding diathesis due to anticoagulant use • fever • pain at the catheterization site allergic reaction to contrast agents ■ infection ■ progressive pulmonary hypertension ■ progressive neointimal thickening and peeling • leaflet thickening hemolysis. General surgical risks applicable to transcatheter pulmonary valve implantation: abnormal lab values (including electrolyte imbalance and elevated creatinine) allergic reaction to antiplatelet agents, contrast medium, or anesthesia

exposure to radiation through fluoroscopy and angiography Please reference the Harmony TPV system instructions for use for more information regarding indications, warnings, precautions, and potential adverse events.

Caution: Federal law (USA) restricts these devices to the sale by or on the order of a physician

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Live Case Schedule

Friday, September 3rd

8:15am-10:30am 10:45am-12:45pm Session 1 - 40 minutes each site Session 2 - 40 minutes each site

Nationwide Children's Hospital

Columbus, Ohio, USA

Brian Boe, Arash Salavitabar, Jacqueline Kreutzer

Cincinnati Children's Hospital

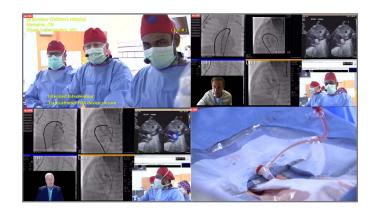
Cincinnati, Ohio, USA

Shabana Shahanavaz, Russel Hirsch, Eimear McGovern, Jonathan Hagel, Shawn Batlivala

Boston Children's Hospital

Boston, Massachusetts, USA

Diego Porras, Nicola Maschietto, Ryan Callahan, Jesse Esch





Hotel Floor Plan

Hotel Floor Plan

Aria 3730 S Las Vegas Blvd Las Vegas, NV 89158

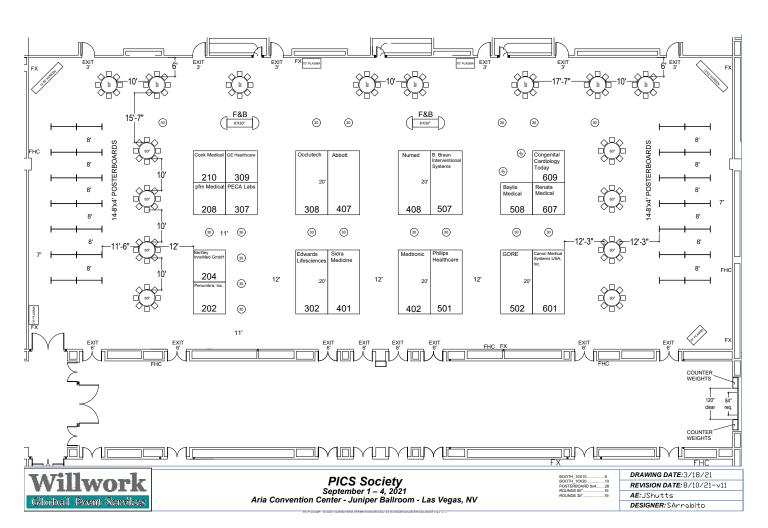
Level Three **Convention Center West**



Exhibitor Information

Exhibitor Floor Plan

Abbott	407	Canon Medical Syster USA, Inc.	ns 601	NuMED	408	Renata Medical	607
Baylis Medical	508	Cook Medical	210	Occlutech	308	Scientific Software Solutions	510
B. Braun Interventional				PECA Labs	307		
Systems	507	Edwards Lifesciences	302			Sidra Medicine	401
				Penumbra, Inc.	202		
Bentley InnoMed		GE Healthcare	309			Venus Medtech	301
GmbH	204			pfm Medical	208		
		GORE	502				
Congenital Cardiology				Philips Healthcare	501		
Today	609	Medtronic	402				





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JOIN US AT PICS 2021 FOR OUR PRODUCT SHOWCASE EVENT

An exclusive opportunity to gain hands-on experience with our most referenced devices and our newest innovations. Each have been developed with your most important patients in mind.

Wednesday, September 1, 2021

Aria Hotel Hospitality Suite *Immediately following the PICS Welcome Reception.*







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Rx Only

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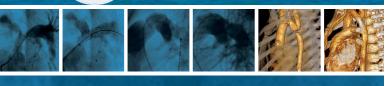


Pediatric and Congenital Interventional Cardiovascular Society

SAVE THE DATE Symposium 2022



7-10 SEPT MARRIOTT CHICAGO DOWNTOWN



Focusing on the latest interventional catheter strategies for congenital and structural heart disease in children and adults.

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Daily Program

Wednesday, September 1st

6:45am-6:00pm Registration Open

Registration Desk – 3rd Floor

Convention Center

7:00-8:30am

Breakfast Available

8:00-8:15am Welcome – Ziyad M. Hijazi

8:15-10:30am Live Case Session #1

General Session - Ironwood 4 & 5

Moderators: Damien Kenny &

Ziyad M. Hijazi

Panelists: Hesham Al-Saloos, Olivier Ghez, Lynn Peng, Seong-Ho Kim,

Dan Aguirre

Digital Moderator: Alejandro Torres

Dante Pazzanese Instituo de Cardiology,

Sao Paolo, Brazil

Toronto General Hospital, *Toronto, Canada* King Faisal Cardiac Center, King Abdulaziz

King Faisal Cardiac Center, King Abdulaziz Medical City for National Guard,

Jeddah, Saudi Arabia

10:30-10:45am Coffee Break





10:45am-12:45pm Live Case Session #2

General Session - Ironwood 4 & 5 Moderators: John Carroll, John Cheatham Panelists: Levent Saltik, Howard Weber, Brian Boe, Olivier Ghez, Horacio Faella Digital Moderator: Vivian Dimas

Dante Pazzanese Instituo de Cardiology,

Sao Paolo, Brazil

Toronto General Hospital, Toronto, Canada King Faisal Cardiac Center, King Abdulaziz

Medical City for National Guard,

Jeddah, Saudi Arabia

12:45-1:45pm Lunch Available - Ironwood Foyer

1:00-1:45pm **Lunchtime Taped Cases**

General Session - Ironwood 4 & 5

Moderators: John Moore, Alan Nugent

1:00-1:15pm **AFR (Dublin)** – Damien Kenny

1:20-1:35pm Mitral Melody Re-dilation vs MitraClip

Scott Lim





Daily Program

	, ,
2.00 4.00	Pulmonary Valve Session
2:00-4:00pm	General Session – Ironwood 4 & 5
	The Impact of tPVR – What is the Data?
0.00.040	Moderators: Shakeel Qureshi, Ahmet Celebi
2:00-2:10pm	What Has Been the Real Benefit of tPVR?
0.44.0.04	John Cheatham
2:11-2:21pm	Putting the Impact of Melody into Perspective
	Thomas Jones
2:22-2:32pm	What Do We Really Know About the
	SAPIEN Valve Outcomes?
	Shabana Shahanavaz
2:33-2:43pm	What's Your Current Algorithm For The
	Fully-grown Patient With a Large, Patched
	RVOT? – Dan Levi
2:44-2:54pm	3D Imaging of the RVOT and Tools for Analysis
	Shelby Kutty
2:55-3:05pm	How I Use Computer Cased Simulation
	Prior to tPVR Cases
	Mario Carminati
	Self-Expanding Valves and Platforms:
3:06-3:11pm	Med Zenith Valve – John Cheatham
3:12-3:17pm	Pulsta Valve – Mario Carminati
3:18-3:23pm	Venus P Valve – Worakan Promphan
3:24-3:29pm	Harmony – Matt Gillespie
3:30-3:35pm	Alterra – Evan Zahn
3:35-4:00pm	Discussion/Q & A
2:00-4:00pm	Tips and Tricks Session
2.0000p	Breakout Session – Ironwood 2 & 3
	Moderators: Phil Moore, Terry King
2:00-2:10pm	Dealing With Curvatures, Angles, and
	Vascular Tortuosity During Interventions in
	CHD – Frank Ing
2:11-2:21pm	A Structured Protocol for Transhepatic
•	Interventions – Makram Ebeid
2:22-2:32pm	Dealing with Porto-systemic Shunts
•	Elchanan Bruckheimer
2:33-2:43pm	Options for the Embolized Stent
•	Henri Justino
2:44-2:54pm	When to Push and When to Fold - Complex
-	Decision Making in CHD Interventions
	David Nykanen
2:55-3:05pm	Establishing an Advanced 3D Imaging
•	Program for the Cath Lab – 10 Tips on
	How to Get Started – Sebastian Goreczny
	Debate: Technological Advances Have
	Improved Outcomes in the last 10 years
3:06-3:16pm	Pro – Dan Gruenstein
3:17-3:27pm	Con – Zahid Amin
3:28-3:38pm	Debate Discussion
3:40-4:00pm	Q/A

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Celebrating 50 Years!



THANK YOU for all you do. We have weathered many storms ... Together we still can.

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Daily Program

2:00-4:00pm PICES Breakout Session - Ironwood 7 & 8

> Theme: Expanding the Interventional Quiver: Available Equipment for the Congenital Interventional Cardiologist PICES Business Meeting: 25 min PICES Case Presenter 1: 15 min PICES Case Presenter 2: 15 min PICES Case Presenter 3: 15 min

Invited Talk: Keeping up with the Jones: How I Manage and Adjust the Equipment in

My Lab - Tom Jones

Coffee Available 3:30-4:00pm

Oral Abstract Presentations 4:00-6:00pm

Room 1: Ironwood 2 & 3

Moderators: David Balzer & Terry King

Room 2: Ironwood 7 & 8

Moderators: Alex Javois & Masood Sadiq

6:00-8:00pm **Welcome Reception**

Juniper Ballroom – Exhibit Hall Open







Thursday, September 2nd

6:45am-6:00pm Registration Open

Registration Desk – 3rd Floor

Convention Center

6:45-8:15am Breakfast Available

Exhibit Hall - Juniper Ballroom

7:00am-6:00pm **POSTER Abstracts Displayed**

Juniper Ballroom

7:00-8:00am Venus MedTech Breakfast Symposium

Ironwood 2 & 3

Moderator: Ziyad M. Hijazi

Panelists: Gejun Zhang, Shakeel Qureshi Scope of the Problem - Lee Benson A Visit to the Guidelines – Daniel Levi MRI Assessment – Gurdeep Man

The Venus P Valve Results of the CE Trial

Shakeel Qureshi

Results of Chinese FDA Trial - Gejun Zhang

Q&A

8:00-8:15am **Update on Live Cases 2020**

General Session – Ironwood 4 & 5

Gurumurthy Hiremath

Live Case Session #1 8:15-10:30am

General Session - Ironwood 4 & 5

Moderators: John Cheatham &

Jacqueline Kreutzer

Panelists: Ralf Holzer, Brian Boe, Alain Fraisse,

Digital Moderator: Gurumurthy Hiremath

New Orleans Children's Hospital New Orleans, Louisiana, USA Rush University Medical Center

Chicago, Illinois, USA

Children's Hospital of Philadelphia Philadelphia, Pennsylvania, USA

10:30-10:45am Coffee Available

Exhibit Hall – Juniper Ballroom

Daily Program

10:45am-12:45pm Live Case Session #2

General Session - Ironwood 4 & 5

Moderators: Allison Cabalka, Thomas Jones

Panelists: Teiji Akagi, Maiy El-Sayed, Hasri Samion, Tom Fagan, Michel Ilbawi Digital Moderator: Brent Gordon New Orleans Children's Hospital

New Orleans, Louisiana, USA Rush University Medical Center Chicago, Illinois, USA

Children's Hospital of Philadelphia Philadelphia, Pennsylvania, USA

Lunch Available 12:45-1:45pm

Exhibit Hall - Juniper Ballroom

Lunchtime Session – Ironwood 4 & 5 1:00-2:00pm

How to Post-process 3DRA: 3 Different

Perspectives

Moderators: Gregor Krings, Damien Kenny

GE Healthcare: Gregory Fleming

Canon: Darren Berman Philips: Jenny Zablah Siemens: Nathan Taggart

*Please visit the 3DRA Hands-on rooms for individualized instruction in 3D Rotational Angiography Post-processing

*The rooms will be open for instruction:

Wednesday, 12:45-2:00pm Thursday, 2:00-3:30pm Friday, 12:45-2:00pm

> Starvine 3 - Canon Starvine 4 - Siemens Starvine 5 - GE Healthcare Starvine 6 - Philips







Opening Fall 2021

Dickinson Image-Guided Intervention Center at Rady Children's Hospital-San Diego

Nation's first pediatric image-guided intervention center

- Interventional Cardiac MRI Suite
- Siemens X-Ray Artis Icono Biplane Systems (2)
- Siemens Magnetom Sola 1.5T MRI System
- Future Advanced Imaging Technology

Cutting-edge pediatric procedures

- Radiation-free MRI Cardiac Catheterization
- Sedation-free Cardiac MRI
- Transcatheter Electrosurgery
- Transcatheter Cavopulmonary Anastomosis
- Leadless Transcatheter Pacemaker Implantation
- Complex Airway Intervention/Bronchial Stenting
- Novel Transcatheter Device Innovation
- Transcatheter Valve Implantation
- Universal Patent Ductus Arteriosus Stenting
- Preterm Infant Patent Ductus Arteriosus Device Closure
- Helen and Will Webster Foundation 3D Innovations Lab

World-class expertise

Howaida El-Said, MD, PhD John Nigro, MD Henri Justino, MD Kanishka Ratnayaka, MD John Moore, MD, MPH James Perry, MD

Sanjeet Hegde, MD, PhD Matthew Brigger, MD, MPH Justin Ryan, PhD

Daily Program

2:00-5:30pm Lymphatic Session

> General Session - Ironwood 4 & 5 Moderators: Elchanan Bruckheimer &

Yoav Dori

2:00-2:12pm **Demystifying the Lymphatic System**

Anna Lillis

2:13-2:25pm Stratifying Fontan Risk by Pre-Op

Lymphatic Imaging – Suren Reddy

2:26-2:38pm Techniques for Accessing the Thoracic

Duct: What are the Options?

Petru Liuba

2:39-2:51pm Defining the Optimum Target - Periportal

Lymphatic vs THE Thoracic Duct

Marc Gewillia

2:52-3:04pm Redirecting Venous Flow for Lymphatic

Decompression – Chris Smith

3:05-3:17pm My Lymphatic Intervention Algorithm:

How I Improve Outcomes - Yoav Dori

3:30-5:15pm Case-Based Learning

Expert Panel: Yoav Dori, Marc Gewillig, Petru

Liuba, Elchanan Bruckheimer



2:00-3:30pm Vascular Obstruction

Breakout Session - Ironwood 2 & 3

Moderators: Frank Ing & Evan Zahn 2:00-2:12pm Options for Thrombolysis and

Thrombectomy - Bryan Goldstein **Options for Systemic Venous Obstruction** 2:13-2:25pm

in Pediatric Practice - Henri Justino

Dealing with Complete Pulmonary Artery 2:26-2:38pm

Occlusion – Athar Qureshi

2:39-2:51pm Recanalizing the Atretic Aorta – Kevin Walsh

2:52-3:04pm **Returning Flow Through Occluded Shunts**

3:05-3:17pm Recanalizing Occluded Vessels in Non-CHD:

Technical Lessons Learned – Evan Zahn

3:20-3:30pm Q/A Discussion

www.rchsd.org

4:00-5:30pm **Taped Cases and Debates**

Breakout Session - Ironwood 2 & 3

Moderators: Robert Pass, Mark Galantowicz

Taped Cases:

4:00-4:15pm Mayo - Potts Shunt - Allison Cabalka

4:20-4:35pm Memphis – Pulmonary Flow Regulator in a

Patient With Truncus Arteriosus

Shyam Sathanandam

Debate: Interventionalists are Working in a Surgical Environment and Should

Undergo Surgical Training

4:40-4:50pm **Pro** – Olivier Ghez 4:51-5:01pm Con – Joaquim Miro

Patient Volume Contributes to Outcomes

in the Cath Lab

5:05-5:15pm Pro – Gareth Morgan

5:16-5:26pm Con – Martin Bocks

Friday, September 3rd

6:45am-6:00pm Registration Open

Registration Desk – 3rd Floor

Convention Center

7:00am-6:00pm **POSTER Abstracts Displayed**

Juniper Ballroom

7:00-8:30am Breakfast Available

Exhibit Hall - Juniper Ballroom

8:00-8:15am Introducing the PICS Society – Norm Linsky

General Session – Ironwood 4 & 5

8:15-10:30am Live Case Session #1

General Session – Ironwood 4 & 5

Moderators: Evan Zahn & Francisco Garay Panelists: Carlos Zabal, Dietmar Schranz,

Ali Al-Halabi, Michel Ilbawi

Digital Moderator: Alejando Peirone Nationwide Children's Hospital

Columbus, OH

Cincinnati Children's Hospital

Cincinnati, OH

Boston Children's Hospital

Boston, MA

10:30-10:45am Coffee Available

Exhibit Hall – Juniper Ballroom

Daily Program

10:45am-12:45pm Live Case Session #2

General Session - Ironwood 4 & 5

Moderators: Ralf Holzer, Gregor Krings,

Panelists: Reda Ibrahim, Yun-Ching Fu Howaida El-Said, Laith Alshawabkeh,

Olivier Ghez, Jeff Zampi

Digital Moderator: Gareth Morgan Nationwide Children's Hospital

Columbus, Ohio, USA

Cincinnati Children's Hospital

Cincinnati, Ohio, USA Boston Children's Hospital Boston, Massachusetts, USA

12:45-1:45pm Lunch Available

Exhibit Hall – Juniper Ballroom

1:00-2:00pm **Industry Sponsored Lunch Symposiums**

Medtronic – Ironwood 2 & 3 Abbott - Ironwood 7 & 8





2:00-3:30pm	PDA Stenting
· ·	General Session – Ironwood 4 & 5
	Moderators: Athar Qureshi, Damien Kenny
2:00-2:12pm	An Algorithmic Approach to PDA Stenting
p	Marc Gewillig
2:13-2:25pm	Optimal Pre-procedural Imaging Modalities
2.13-2.23piii	Greg Fleming
2:26-2:38pm	Impact of Ductal Morphology on Outcomes
2:20-2:30pm	Chris Petit
2.20 2.51	
2:39-2:51pm	Is Airway Compression a Real Concern?
0.50.004	Howaida El-Said
2:52-3:04pm	PDA Stenting in Infants < 2.5 kgs
	Damien Kenny
3:05-3:17pm	DES vs BMS – What Does the Data Tell Us?
	Bryan Goldstein
3:20-3:30pm	Discussion
2:00-3:30pm	Pulmonary Artery Stenting
	Breakout Session – Ironwood 2 & 3
	Moderators: Tom Fagan, Henri Justino
2:00-2:12pm	Stent Modifications for PA Stenting
•	Frank Ing
2:13-2:25pm	Algorithm for Unzipping Small
•	Diameter Stents
	Howaida El-Said
2:26-2:38pm	3-D Imaging to Guide Complex Bifurcation
2.20 2.00p	Stenting – Gregor Krings
2:39-2:51pm	PA Stenting in the Context of tPVR –
2.57-2.51pm	Planning For The Future – Ziyad Hijazi
2:52-3:04pm	Strategic Approach to Diffuse Branch PA
2.32-3.0 4 pm	Stenoses – Tom Forbes
3:05-3:17pm	Long-Term Strategy for PA Rehabilitation
3.03-3.17 pm	
	and Decision-Making – Case Based
	Presentations – Darren Berman
4.00 E.20	Interceptional Treatment of CVACD
4:00-5:30pm	Interventional Treatment of SVASD
	General Session – Ironwood 4 & 5
	Moderators: Ziyad M. Hijazi, Francois Godart
4:00-4:12pm	Preprocedural Imaging to Guide Patient
	Selection – Craig Fleishman
	Debate: All Anatomical Subtypes Can Be
	Treated with Covered Stents
4:13-4:23pm	Pro – K. Sivakumar
4:24-4:34pm	Con – Michel Ilbawi
4:36-4:48pm	Intraprocedural Imaging Modalities
	Haytham Ibrahim
4:49-5:01pm	Procedural Techniques to Facilitate Stent
-	Stability – Hesham Al-Saloos
5:02-5:14pm	Outcomes – Evan Zahn
5:15-5:27pm	Complications – Shakeel Qureshi
•	•

Daily Program



4:00-5:30pm	Bioresorbable Technology Breakout Session – Ironwood 2 & 3 Moderators: Dan Levi, Suren Reddy & Nicole Ibrahim
4:00-4:12pm	Is There a Role for PLLA or Magnesium Coronary Stents in Children? – Suren Reddy
4:13-4:25pm	Advantages and Challenges of Zinc Alloys for Pediatric Stents – Tim Moran
4:26-4:38pm	Horst Sievert
4:39-4:51pm	Use of PLLA Septal Occluders in China Zhiwei Zhang
4:52-5:04pm	Possibilities For the Future: Iron Alloys and Nanoparticles? – Dan Levi
5:05-5:17pm	Regulatory and Commercialization Pathway for a Biodegradable Device in Pediatrics Rachel Neubrander
4:00-5:30pm	Nursing and Associated Professionals Breakout Session – Ironwood 7 & 8 Moderators: Sharon Cheatham & Emily Kish
4:00-4:12pm	Transcatheter Pulmonary Valves: A Historical Perspective – John Cheatham
4:14-4:26pm	Cardiac Anesthesia in the Cath Lab
4:28-4:40pm	Are the Risks Higher in Today's Cath Lab? Taylor Demkin
4:42-4:54pm	How do We Manage Inventory with the High Cost of Technology? Carrington Dehart
4:56-5:08pm	New Cath Lab Guidelines – Emily Kish
5:10-5:22pm	Bioabsorbable Devices: Where are we at? Darren Berman
5:22-5:30pm	Questions/Discussion
6:30-9:30pm	PICS Dinner Event Aria Palms Pool



Saturday, September 4th

6:45am-1:00pm Registration Open Registration Desk – 3rd Floor Convention Center 7:00-8:30am Breakfast Available

Exhibit Hall – Juniper Ballroom

8:00-9:30am ACHD/Structural Session

> General Session - Ironwood 4 & 5 Moderators: Nathan Taggart &

Alejandro Peirone

8:00-8:12am **Update on TV Repair and Potential**

Application to CHD Patients – Scott Lim 8:13-8:25am Interventions for Atrial Hypertension

K. Sivakumar

8:26-8:38am Complex Coronary Artery Fistula in the

Adult – Indications and Techniques for

Closure - Eric Horlick

8:39-8:51am The Adult with ASD and Atrial Arrhythmia -

Decision-Making Algorithm – Jae Young Choi

8:52-9:04am Transapical Techniques for Mitral PVL

Cliff Kavinsky

9:05-9:17am Mitral Valve In Valve - How Far Can

We Push? – Allison Cabalka

8:00-9:30am **Pulmonary Vein Stenosis**

Breakout Session - Ironwood 2 & 3

Moderators: Gregor Krings, Robert Vincent

8:00-8:12am **Understanding Congenital Pulmonary Vein**

Stenosis – Ryan Callahan

8:13-8:25am Surgery is a Better Primary Option

Emile Bacha

8:26-8:38am Transcatheter Intervention is a

Better Option - Henri Justino

8:39-8:51am Multimodality Approach to Treat

Pulmonary Vein Stenosis - Chris Petit

8:52-9:04am Treating PVS - Should This be Restricted to

Specialized Centers? – Matt Crystal

9:05-9:17am Considerations Between Hope and Frustration: When To Treat and Not

to Treat PVS - Audrey Marshall

9:30-10:00am Coffee Break

Juniper Ballroom – Exhibit Hall

Daily Program

10:00-11:30am Interventions in Infants < 2.5 kgs

General Session - Ironwood 4 & 5

Joaquim Miro & Brian Morray

10:00-10:12am It Starts Before Birth: Update on

Fetal Transcatheter Interventions

Simone Pedra

10:13-10:25am Challenges, Risks and Risk Adjustments

for Interventions Performed in Small Infants - Brian Quinn

10:26-10:38am Percutaneous Vascular Access in Small Infants

Shvam Sathanandam

10:39-10:51am Hybrid Procedures In Low Weight Infants

Ralf Holzer

10:52-11:04am Limitations and Challenges of Circulatory

Support and Surgical Bailout in Small Infants

Mark Galantowicz

11:05-11:17am Pulmonary Flow Regulators in Small

Infants – Technical Approach and Outcomes

Dietmar Schranz





10:00-11:30am Aortic Interventions

Breakout Session - Ironwood 2 & 3 Moderators: Giafranco Butera &

Francisco Garay

10:00-10:12am Balloon Angioplasty for Coarctation in

Infancy - Is it a Good Option? Lee Benson

10:13-10:25am Neonatal Balloon Aortic Valvuloplasty -

What Has IMPACT Taught Us?

Brian Boe

10:26-10:38am Treating Coarctation of the Aorta in the

Adult...A Different Kind of Beast

Nathan Taggart

10:39-10:51am Covered Stents Beyond Coarctation

Gareth Morgan

10:52-11:04am Interventional Therapy for Middle Aortic

Syndrome - TBD

11:05-11:17am How to Close Sinus Valsalva Rupture?

Tin Do

11:30am-1:00pm My Nightmare Case In The Cath Lab

General Session - Ironwood 4 & 5

Moderators: Damien Kenny & Alan Nugent

1:00pm Exhibit Hall Closes

1:00pm Closing Remarks

> General Session - Ironwood 4 & 5 Ziyad M. Hijazi & Damien Kenny



Daily Program as of 08.16.21. Additional updates available in the Meeting App.





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1984 NuMED, Inc. established in Hopkinton, NY



1993 TYSHAK® and Z-MED™ receive U.S. approval



1996 Z-5™ Atrioseptostomy Catheter receives U.S. approval



1997 Founding sponsor of first PICS



2003 Allen Tower Sr. receives PICS Lifetime Achievement Award



2003 Balloon in Balloon (BIB®) Catheter receives CE mark for stent placement



2004 CP Stent® receives CE mark for Coarctation of the Aorta



2017 Covered CP Stent™ receives U.S. approval for RVOT



2018 NuDEL[™] all-in-one stent delivery system receives U.S approval for CoA & RVOT



