

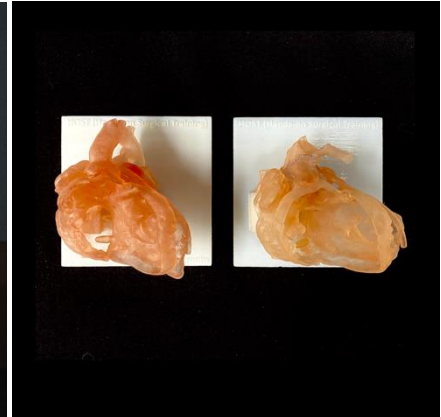
# HANDS-ON SURGICAL TRAINING (HOST) 2020

## CONGENITAL HEART DISEASE SURGERY WITH 3D PRINT MODELS

### On-line Course on Arterial Switch Operation

Dates: November 28-29, 6:00-9:30 pm / December 5-6, 8:00-11:30 am

Hospital for Sick Children, Toronto, Canada



♥ Generously Supported by Fabiola and Peter Butler ♥

The registration fee will be waived for the surgeons in training.



Peter and Fabiola Butler live in Toronto and have generously supported the Labatt Family Heart Centre and the HOST Training Program. Peter was born in 1959 with Tetralogy of Fallot. In 1961, Peter had his first surgery; a right Blalock-Taussig shunt followed by the full repair, performed by Dr. William Mustard at the Hospital for Sick Children in 1969. In 1988, Peter had a pulmonary valve replacement performed by Dr. William Williams of SickKids at The Toronto General Hospital.

Peter and Fabiola graduated from Ryerson University each with Business degrees in 1986. They married in 1989. Peter has worked in the technology industry for more than 30 years and in 1998 he co-founded VocaLinks Inc. VocaLinks Inc. is recognized as a leading integrator of speech recognition and assistive technologies for Business, Education, Healthcare, and Law Enforcement. Fabiola left a career in the Financial Services industry to join the fledgling company in 2002 and has quietly guided the team ever since.

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## PROGRAM

Day 0: Priming session with lectures			
<b>November 28</b>			
8:40-9:00 am	Log-in to Zoom		
8:50-9:00 am	Introduction to the course		S. Yoo
9:00-9:30 am	Transposition of the great arteries, morphological overview		S. Yoo
9:30-10:00 am	Surgical principles and modifications of arterial switch operation		D. Barron
10:00-10:40 am	Pre-, intra- and postoperative echocardiographic assessment of ASO		A. Dragulescu
10:40-11:00 am	HOST-CHS assessment tool for arterial switch operation		N. Hussein
<b>HOST Day 1</b>			
<b>November 28</b>	<b>December 5</b>		
5:40-6:00 pm	7:40-8:00 am	Log-in to Zoom	
6:00-6:10 pm	8:00-8:10 am	<b>Opening address</b>	D. Barron
6:10-7:00 pm	8:10-9:00 am	<b>Demonstration:</b> Arterial switch operation, TGA 1LCx2R	D. Barron /O. Honjo
7:00-7:15 pm	9:00-9:15 am	Getting started	Z. Uçar / N. Hussein
7:15-8:30 pm	9:15-10:30 am	<b>Hands-on Session 1:</b> ASO, TGA 1LCx2R	All surgeons
8:30-8:50 pm	10:30-10:50 am	<b>Evaluation / Q &amp; A</b>	All surgeons
8:50-9:05 pm	10:50-11:05 am	<b>A patient's perspective:</b> Flattening the worldwide standard of congenital heart surgery	P. Butler
9:05-9:30 pm	11:05-11:30 am	<b>Demonstration:</b> Arterial switch operation, TGA 1L2RCx	G. van Arsdell
<b>HOST Day 2</b>			
<b>November 29</b>	<b>December 6</b>		
5:40-6:00 pm	7:40-8:00 am	Log-in to Zoom	
6:00-7:00 pm	8:00-9:00 am	<b>Hands-on Session 2:</b> ASO, TGA 1L2RCx	All surgeons
7:00-7:15 pm	9:00-9:15 am	<b>Evaluation / Q &amp; A</b>	All surgeons
7:15-7:40 pm	9:15-9:40 am	<b>Demonstration:</b> Taussig-Bing malformation	D. Barron
7:40-9:10 pm	9:40-11:10 am	<b>Hands-on Session 3:</b> Taussig-Bing malformation	All surgeons
9:10-9:30 pm	11:10-11:30 am	<b>Evaluation / Q &amp; A</b>	All surgeons
9:30 pm	11:30 am	<b>Final remark</b>	D. Baron

#### Proctors:

David Barron, Head of Cardiovascular Surgery Appointee, Hospital for Sick Children, Toronto  
 Osami Honjo, Staff Cardiovascular Surgeon, Hospital for Sick Children, Toronto  
 Christoph Haller, Staff Cardiovascular Surgeon, Hospital for Sick Children, Toronto  
 Glen van Arsdell, Chief of Cardiovascular Surgery, Ronald Reagan UCLA Medical Center, USA

#### Course Coordinators:

Shi-Joon Yoo, Staff Cardiac Radiologist, Hospital for Sick Children, Toronto  
 Zeynep Uçar, Research Fellow, 3D Print Heart Program, Hospital for Sick Children, Toronto  
 Brandon Peel, 3D Printing Program Manager, Hospital for Sick Children, Toronto  
 Caroline Robertson, Administrative Assistant, Hospital for Sick Children, Toronto

### Course Format:

This on-line course is focused on the arterial switch operation. The course will be held twice for 30 applicants each from different time zones to choose the convenient session to attend. The registered applicants will be provided with 3D-printed surgical simulation models in advance by mail. After the demonstration of the procedure by the experienced surgeons, the attendees will practice the procedure, which will be viewed in real-time by the proctors through a webcam. The proctors will monitor the attendee's procedure to give technical advice and take questions. After the course, the attendees can assess their procedures themselves using the assessment tool and measure the time they spent. They may also send the models back to the organizers for in-depth assessment of the outcome by the proctors.

### Models and simulation table setting:

The surgical simulation models are printed with soft flexible materials and mounted on a flat plate. The models can simply be stuck down on a table to perform operation. The environment and surgical ergonomics in the operating room can further be simulated by using a purchasable Chest-wall Operating-table Simulator (photo attached, <https://threedmedprint.biomedcentral.com/articles/10.1186/s41205-020-00067-4>). This reusable Simulator is applicable for most HOST models developed for surgeries in infants and young children. It is particularly helpful when an assistant is not available. The attendees should set a high-resolution webcam that is properly angled and zoomed to capture the surgical scene for recording and real-time technical advice from the proctor.

### Course requirements:

Provided by the Course Organizers:

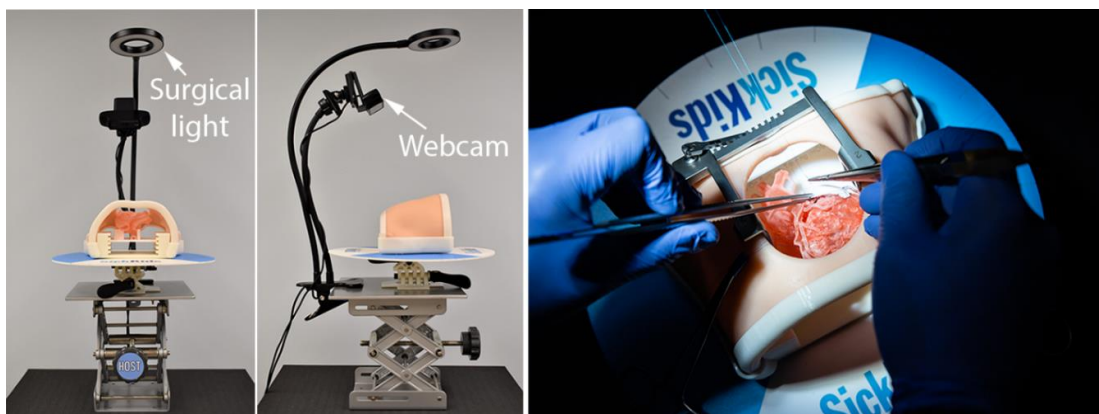
1. 3D printed simulation heart models
2. 3D printed patch
3. Demonstration Videos of the procedures (available at: <https://www.3dprintheart.ca/host-videos-assessments>)
4. Assessment tools (available at: <https://www.3dprintheart.ca/host-videos-assessments>)

Equipment required by attendees:

1. Laptop computer and Zoom® account
2. Surgical instruments
3. Sutures
4. Chest-wall Operating-table Simulator (optional)
5. Webcam and surgical light (included in Chest-wall Operating-table Simulator)

**Chest-wall Operating table Simulator** (<https://threedmedprint.biomedcentral.com/articles/10.1186/s41205-020-00067-4>).

Can be purchased at Canadian \$1500 on advanced order by September 15)



**Eligible applicants:** Cardiovascular surgeons on staff position or in fellowship training for congenital heart surgery

**Registration fee:** Canadian \$1500 (**Waived for surgeons in training with official proof of status and deposit of \$500**)

Registration fee does not include shipping charges and applicant's local import duties/tax for the models.

**Registration deadline:** September 15, 2020. Accepted on a first-come, first-served basis.

**Registration:** visit <https://www.3dprintheart.ca/events>

**Contact Ms. Caroline Robertson or Dr. Shi-Joon Yoo for further information.**

E-mail: [caroline.robertson@sickkids.ca](mailto:caroline.robertson@sickkids.ca), [shi-joon.yoo@sickkids.ca](mailto:shi-joon.yoo@sickkids.ca) / Phone: 1-416-813-6029