

## 20th Annual Congenital Heart Disease in the Adult

A Combined International Symposium

June 6-9, 2010  
Skamania Lodge  
Stevenson, WA

Sponsored by Oregon Health & Science University, Portland, Oregon, USA • Co-Sponsored by the American College of Cardiology Foundation



# 20th Annual Congenital Heart Disease in the Adult

A Combined International Symposium



### Program Co-Directors

**David J. Sahn, MD, MACC**  
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June 6-9, 2010

Skamania Lodge Stevenson, Washington

### Program Overview

This is the twentieth annual program of this comprehensive, state-of-the-art series of programs on Congenital Heart Disease in the Adult. The course format has evolved in size and depth in response to very helpful feedback by participants and faculty, and has always received wonderful ratings. The meeting once again is a partnership between the faculties of Oregon Health & Science University in Portland, Oregon, the University of Toronto, the Toronto Cardiac Center for Adults, and now the Cincinnati Adolescent and Adult Congenital Heart Center. This year's program incorporates new long-range follow-up information, new depth on heart failure management and resynchronization, and an in-depth session on cardiac MRI.

The expertise necessary and the multidisciplinary strategies required for caring for congenital heart disease in the adult will be stressed in a manner that allows the practicing cardiologist and cardiac nurse to appreciate and plan for managing these patients in his/her practice. Every year more patients graduate from pediatric cardiology and surgery programs into adult programs. In addition, ongoing immigration patterns increase the likelihood that the cardiologist will need to be able to plan diagnosis and management for post-operative care, and even for unoperated adults with congenital heart disease.

The Working Group on Research in Adult Congenital Heart Disease was convened in September 2004 under the sponsorship of NHLBI and the Office of Rare Diseases, NIH/DHHS, to make recommendations on research needs. The Working Group, in its report published in the Journal of the American College of Cardiology in 2005, recommended development of outreach programs, a network of specialized adult congenital heart disease regional centers, technology development to support advances in imaging and modeling, and a consensus on appropriate training for physicians to provide care for adults with congenital heart disease.

This program is designed to present a comprehensive review of problems and issues related to the more common forms of congenital heart disease in the adult, including:

- Methods of Diagnosis
- Methods of Treatment
- Career and Lifestyle Counseling
- Pregnancy – Care and Counseling
- Latest Large Multicenter Studies Related to Natural History of CHD in Adults and Treatment Outcomes
- Postoperative Residua of Congenital Disease (Functional Results of Congenital Heart Surgery and Post-operative Electrophysiological Sequelae, Arrhythmias, and Their Management)

Sessions are oriented to stress the management and physiology of unoperated, as well as post-operative, congenital heart disease. Participants will have the opportunity to attend small group breakout sessions with the faculty to discuss problem cases brought by either the faculty or by the participants. These sessions are a wonderful opportunity for you to bring and present your own problem cases for discussion with the faculty, as are the sessions in cardiac MRI and CT, resynchronization and heart failure/diastolic function. There will also be many opportunities for case presentations both by faculty and participants.

A distinguished faculty of pediatric and adult cardiologists, surgeons, and other specialists with expertise in medical treatment, diagnosis, cardiac imaging and postoperative care and evaluation of adults with congenital heart disease has been assembled to provide a comprehensive four-day program focused on these patients and their impact on the spectrum of cardiology practice. The program is intended for pediatric and adult cardiovascular specialists, internists, and surgeons, nurses and technicians involved in cardiovascular disease care. The faculty won't just be flying in and out for giving a lecture; they'll be staying to hike, and play golf and sing with participants, and they are there to answer your questions and advise you on your need. That's what makes this course and its retreat-like environment so very special!

### Target Audience

The Symposium is designed for a broad spectrum of health professionals including Pediatric and Adult Cardiovascular specialists, Cardiovascular Surgeons, specialists in Cardiac Imaging, Internal Medicine specialists, Nurse Clinicians and Nurse Practitioners who share an interest in this challenging and growing population.

### Learning Objectives

Upon completion of the program, attendees should be able to:

- Better differentiate and evaluate the spectrum of congenital heart disease in the adult population
- Formulate an approach to the diagnosis of the adult patient with congenital heart disease
- Acquire an approach towards the counseling and care of patients facing pregnancy with congenital heart disease – a unique adult challenge
- Develop an algorithm for the follow-up of common groups of adult patients with congenital heart disease
- Appreciate the unique adult problems such as heart failure and arrhythmias, and how these impact on their treatment.
- Understand the impact of the ongoing growth of this population and their complex health care needs related to the lack of trained specialists to care for them.

### Location

The course will again be held at Skamania Lodge, situated in the beautiful Columbia River Gorge. June is a peak flower time in the Gorge, with warm and sunny weather for scenic drives or walks beneath towering cliffs, waterfalls, and old-growth forests. Skamania Lodge, a rustically designed but modernly appointed "Grand Cascade Lodge," is only 32 miles from the Portland Airport, five minutes from the renowned "Bridge of the Gods," and, thus, also relatively close to both the Washington and Oregon coasts. Lodge room options include mountain or river views as well as some rooms with fireplaces. The Lodge has enhanced and expanded meeting space, and new luxury features and amenities, right there in the Cascadian Forest. For recreational activities, the Lodge offers horseback riding, tennis, swimming, golf, an athletic club, spa, and a gourmet restaurant. The area also provides wonderful opportunities for hiking, whitewater rafting, fishing, and a scenic "heritage railway" trip to Mount Hood. A variety of excursions and/or group hikes will be available for you to consider on our free afternoon. We do suggest that you bring good hiking boots, a water bottle, and a rain jacket or poncho if you do plan to hike in the area.

An evening dinner cruise aboard the historic sternwheeler, "Columbia Gorge," has been arranged for course attendees and their families. This cost is included in the price of the meeting for the participants. Tickets for family members can be purchased on site.



## Information

### Refunds

Cancellation requests must be received in writing prior to June 14, 2010, and a cancellation fee of \$100 will apply. No refunds can be issued in response to requests received after that date.

### Cancellation

Should conditions warrant, OHSU reserves the right to cancel this program with a full tuition refund. No liability can be assumed for expenses incurred by registrants in connection with travel or other arrangements.

### Accreditation

Oregon Health & Science University School of Medicine is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

The OHSU Center for Learning and Change Management is an approved provider of continuing nursing education by the Washington State Nurses Association, an accredited approver by the American Nurses Credentialing Center's Commission on Accreditation.

### Credit

OHSU School of Medicine, Division of CME, designates this educational activity for a maximum of 25.5 AMA PRA Category 1 Credits™. Physicians should only claim credit commensurate with the extent of their participation in the activity.

OHSU Center for Learning and Change Management designates this activity for a maximum of 27.5 Nursing CE contact hours. Each participant should claim only those hours actually spent in the activity.

For questions about registration, please contact the OHSU Division of Continuing Medical Education. Phone: 503-494-8700 or 800-452-1048; e-mail [cme@ohsu.edu](mailto:cme@ohsu.edu); fax 503-494-0392.

For all other inquiries, please contact Dr. David Sahn's office, 503-494-2191.

### Lodging

To secure your room at the Skamania Lodge, please call (800) 221-7117 and state that you will be attending the International Adult Congenital Heart Disease Symposium. The single/double room rates are \$195.00, \$215.00, and \$235.00 per night. There are a few larger family accommodations available as well at a special rate; please ask about them if interested. The hotel room block is scheduled to be held until April 1, 2010, but may be sold out before this date. Therefore, we advise you to register and reserve your lodging as soon as possible. When you make your reservation, please be sure to ask about any additional resort fees, early departure fees, or cancellation penalties.

Transport between the Lodge and Portland International Airport is available from Blue Star Shuttle. If you want to make a reservation with them, call (800) 247-2272 or (503) 249-1837. It may be more convenient to rent a car. The drive is short, the roads are good, and the scenery in the Gorge is superb!

We encourage participation by all individuals. If you have a disability, advance notification of any special needs will help us better serve you. Please contact Judy Schultheis at [schulthj@ohsu.edu](mailto:schulthj@ohsu.edu) or 503-494-4172 by May 10, 2010.

### Please Note

The American Heart Association has provided small educational grants from the Councils of Anesthesiology and Cardiology in the Young, Clinical Cardiology, Cardiovascular Surgery & Anesthesia and Cardiovascular Nursing.

Smoking is not allowed in any of the meeting rooms.

Faculty and program subject to change without notice. Space is limited, register early.

# Registration

Membership Number (if applicable) \_\_\_\_\_

Registration Fees (check appropriate category; payment must accompany registration):

|                  |                      |                    |
|------------------|----------------------|--------------------|
|                  | Postmarked or faxed* |                    |
|                  | by May 20, 2010      | after May 20, 2010 |
| • ACC/AHA member | _____ \$1050.00      | _____ \$1150.00    |
| • Nonmember      | _____ \$1150.00      | _____ \$1250.00    |
| • Reduced Fees   | _____ \$ 850.00      | _____ \$ 950.00    |

(Please check category and see the Registration Information section for documentation which must accompany registration.)

\_\_\_\_ Fellow in Training \_\_\_\_ Resident \_\_\_\_ Nurse  
 \_\_\_\_ Physician Assistant \_\_\_\_ Technologist \_\_\_\_ Emeritus ACC/AHA Member

Payment form (please indicate):

\_\_\_\_ I have enclosed my check made payable to **OHSU Continuing Medical Education** for \$ \_\_\_\_\_ (U.S. Currency).  
 \_\_\_\_ Please charge my Visa /MasterCard for \$ \_\_\_\_\_

Number \_\_\_\_\_ Exp. \_\_\_\_\_ Security Code \_\_\_\_\_

Name \_\_\_\_\_  
 (Please use one form per registrant and clearly print or type information)

Address \_\_\_\_\_

City, State, Zip \_\_\_\_\_

Day Phone \_\_\_\_\_ Fax No. \_\_\_\_\_

Email address \_\_\_\_\_

Professional Degree:  MD  DO  PhD  RN  PA  NP  ARNP

Practice Emphasis (check one):

Adult Cardiology  Pediatric Cardiology  CV Surgery  
 Internal Medicine  Pharmacology  Radiology  
 Family/General  Other (specify) \_\_\_\_\_

Please return form and payment to:

CME-L602, Oregon Health & Science University, 3181 SW Sam Jackson Pk Rd, Portland, OR 97239-3098. For credit card payment you may fax form to 503-494-0392.

## Registration Information

### Fee

Payment by check or credit card must accompany your registration. There is a \$100 discount for registrations postmarked or fax stamped on or before May 20, 2010. To claim a reduced fee as an ACC/AHA member or emeritus member, please include your membership number in the space provided on the form. Physicians who are fellows or residents must provide a letter signed by their program director verifying their status.

Syllabus, continental breakfasts, breaks, lunches, and dinner cruise for the registrant are included in the registration fee. Guest tickets for the dinner cruise may be purchased on site.

# Schedule

## Combined International Symposium

All sessions will be held at the Skamania Lodge, Columbia River Gorge, Stevenson, Washington. Meeting room locations will be provided on site. Meeting site telephone: (509) 427-7700. Views expressed during this program are those of the individual speakers and do not necessarily reflect views of OHSU or the American College of Cardiology Foundation

### Sunday, June 6

|                  |   |                       |  |                |   |
|------------------|---|-----------------------|--|----------------|---|
| 7:00 a.m.        | Registration and Continental Breakfast  |                       | Experts: Drs. Balaji, Gatzoulis, Redington, Perloff and Landzberg, Ms. Miner and Ms. Pearson | 2:20-2:45 p.m. | Medical treatment<br>Dr. Stout  |
| 8:00 a.m.        | Opening Remarks<br>Drs. Sahn and Kaul   |                       |  | 2:45-3:10 p.m. | Resynchronization<br>Dr. Harris   |
| 8:10 a.m.        | <b>Concurrent Session A</b><br><b>Diagnostic Methods:</b> How to image coarctation of the aorta and stented vessels? How to image Ebstein's anomalies? How to image Fontans?<br>Dr. Sahn, presiding | 10:15-10:45 a.m.      | Break  | 3:10-3:35 p.m. | A surgeon's perspective on heart failure<br>Dr. Spray   |
| 8:15 – 8:35 a.m. | MRI physics for the clinician<br>Dr. Jeresch-Herold   |                       |  | 3:35-3:50 p.m. | Questions and Discussion  |
| 8:35 – 8:55 a.m. | Case examples: Clinical ACHD questions answered by MRI<br>Drs. Broberg, Bardo and Meadows   | 10:45 – 11:10 a.m.    | Lecture by the ISACHD President: International Perspectives on Centers<br>Dr. Mulder         | 3:50-4:10 p.m. | Break   |
| 8:55-9:15 a.m.   | Uses and capabilities of CT - When does it fit?<br>Drs. Crean and Bardo   | 11:10 a.m.-11:40 p.m. | Special Lecture: The ACHA Vision 2020 Vision Initiative<br>Dr. Webb                          | 4:10-4:40 p.m. | <b>Case Studies</b><br>Chair, Dr. Colman: Drs. Oechslin, Weiss, Aboulhosn, Ms. Pearson  |
| 9:15-9:35 a.m.   | Catheterization / Echo<br>Drs. Landzberg, Siu and Hornung   | 11:40 a.m.-12:10 p.m. | Patient Perspective: What should be happening for us<br>Ms. Koplan, Mr. Zamora               | 4:40-5:20 p.m. | <b>Debate: Septal Device Closure in Pulmonary Hypertension</b><br>Pro: Put devices in them all then treat them pharmacologically<br>Dr. Landzberg<br>Con: Isn't the ASD pop-off valve?<br>Dr. Gatzoulis |
| 9:35-9:55 a.m.   | Exercise/Functional Testing<br>Ms. Fernandes  | 12:10-12:30 p.m.      | Questions and Discussion.  | 5:20 p.m.      | Adjournment   |
| 9:55-10:15 a.m.  | Discussion and Questions  | 12:30 p.m.            | Lunch<br>Continuing Registration   | 6:00 p.m.      | Complimentary Northwest Regional Wine Reception   |
| 8:10 a.m.        | <b>Concurrent Session B</b><br><b>Clinical Case Studies: You Can Get All the Advice You Ever Wanted from the Experts and from the Participants</b><br>Dr. Webb, moderator                           | 1:30-1:55 p.m.        | Early detection: Right and left ventricular dysfunction<br>Dr. Redington                     | 7:15-9:30 p.m. | <b>Special Nursing Symposium:</b><br>Ms. Miner, Chair<br>Research Abstract Presentations and Poster Display<br>(Dinner will be provided for health professionals attending this symposium)              |
|                  |   | 1:55-2:20 p.m.        | Diastolic dysfunction: the curse of aging with CHD<br>Dr. Aboulhosn                          |                |   |

### Monday, June 7

|                  |  |                  |   |                     |   |
|------------------|--|------------------|---|---------------------|---|
| 7:00 a.m.        | Continental Breakfast  | 11:00-11:30 a.m. | Pregnancy management<br>Dr. Siu   |                     | Mulder,<br>Ms. Miner,<br>Ms. Pearson  |
|                  | <b>The Right Ventricle: What Is It? How Good Is It? How to Keep It Happy or Restore It</b><br>Dr. Spray, presiding | 11:30-11:55 AM   | Gender issues in ACHD<br>Dr. Mulder   |                     |   |
| 8:00-8:30 a.m.   | What is an RV? Where did it come from? What can it do?<br>Dr. Sahn   | 11:55-12:15 p.m. | Questions and Discussion  | 3:15-3:45 p.m.      | Break<br><b>Pre-cruise session – riverboat preparedness</b>   |
| 8:30-9:00 a.m.   | Assessing RV function and mechanics – My perspective<br>Dr. Gatzoulis  | 12:15-1:15 p.m.  | Lunch   | 3:45-4:30 p.m.      | <b>Case Studies</b><br>Chair, Dr. Sahn:<br>Drs. Therrien, Veldtman, Silversides, and Gurvitz, Ms. Fernandes   |
| 9:00-9:30 a.m.   | What do we know about recovery of RV function? What are the thresholds?<br>Dr. Therrien                            | 1:15-3:15 p.m.   | <b>Workshops (Choose two)</b>   | 4:35 p.m.           | Adjournment   |
| 9:30-10:00 a.m.  | Percutaneous pulmonary valve implantation – Indications and results<br>Dr. Deanfield                               |                  | <b>Surgery and Catheter Intervention</b><br>Chair, Dr. Spray: Drs. Landzberg, Burch, Van Arsdell, and Horlick   | 6:15 p.m.           | Sternwheeler Dinner Cruise on the Columbia River<br>(Included in registration fee; guests' meal tickets available for sale.)  |
| 10:00-10:30 a.m. | Is there a role for remote preconditioning before surgery in adults undergoing re-do surgeries?<br>Dr. Redington   |                  | <b>Arrhythmia Management</b><br>Chair, Dr. Balaji: Dr. Harris, Ms. Timberg  | Post-Cruise Bonfire | (Roast the Faculty) Faculty, participants and guests are invited to the fire ring in front of the Lodge for singing, charades, jokes and whatever by the river. Can we raise the ancient spirits of this canyon and will they sing with us? |
| 10:30-10:40 a.m. | Questions and Discussion   |                  | <b>Improving Quality of Life Outcomes in Adults with CHD:</b><br>"Transition" and Beyond Chair, Dr. Kovacs: Ms. Fernandes, Ms. Canobbio, Ms. Schlater, Ms. Verstappen, Ms. Koplan |                     |   |
| 10:40-11:00 a.m. | Break  |                  | <b>Contraceptive and Pregnancy Challenges in CHD</b> Chair, Dr. Siu; Drs. Silversides and   |                     |   |

### Tuesday, June 8

|                |  |                  |   |                       |  |
|----------------|--|------------------|---|-----------------------|--|
| 7:00 a.m.      | Continental Breakfast  | 9:00-9:40 a.m.   | EP thresholds reflecting the need for redo surgery. What can we do?<br>Dr. Harris | 11:40 a.m.-12:30 p.m. | Advances in medical and catheter ablation therapies for arrhythmias in patients with CHD<br>Dr. Balaji   |
| 8:00-8:30 a.m. | <b>The Written Record, the Road Upward:</b> Milestones in the Published Body of Knowledge about Characterization, detection and treatment of CHD<br>Dr. Morrison | 9:40-10:15 a.m.  | Strategies I use for revising Fontan procedures in adults<br>Dr. Spray            |                       |  |
|                | <b>Fontan Survivors: Circulatory Failure</b><br>Dr. Webb, presiding  | 10:15-10:40 a.m. | Outcomes data related to Fontan revisions<br>Dr. Gersony                          |                       |  |
| 8:30-9:00 a.m. | Medical thresholds reflecting the need to redo a Fontan<br>Dr. Veldtman  | 10:40-11:00 a.m. | When should I push for a transplant in my Fontan patient?<br>Dr. Weiss            |                       | (Afternoon free for activities) We suggest participants and their families bring good walking/hiking shoes, water bottles, and rain jackets or ponchos for hiking and other outdoor activities around the area. A group hike led by faculty will be organized. |
|                |  | 11:00-11:15 a.m. | Questions and Discussion  |                       |  |
|                |  | 11:15-11:40 a.m. | Break   |                       |  |

### Wednesday, June 9

|                  |   |                       |  |                |   |
|------------------|---|-----------------------|--|----------------|---|
| 7:00 a.m.        | Continental Breakfast   | 10:35-11:00 a.m.      | Break  | 1:45-2:10 p.m. | Transcatheter treatment of coarctation and recoarctation in adults: Methods and outcomes<br>Dr. Armsby  |
| 7:30-7:45 a.m.   | Regionalization of ACHD care: The case of the Pacific Northwest<br>Dr. Weiss  | 11:00 a.m.-12:00 noon | <b>Workshops (Choose one)</b>  | 2:10-2:50 p.m. | <b>Debate</b><br>Every narrowing of the aorta must be dilated<br>Pro: Dr. Mulder<br>Con: Dr. Horlick  |
| 7:45-8:00 a.m.   | Regionalization of ACHD care in Australia/New Zealand<br>Dr. Hornung  |                       | <b>Surgery and Catheter Intervention</b><br>Chair, Dr. Williams: Drs. Spray, Landzberg, Burch, Van Arsdell, and Horlick  | 2:50-3:10 p.m. | What are the best methods for aortic surveillance and prediction of risk in patients with aortic valve disease or those with post-op coarctation repair?<br>Dr. Deanfield |
|                  | <b>Grown up CHD: What do you expect After what they have been through?</b><br>Dr. Sahn, presiding   |                       | <b>Providing for Comprehensive Regional Care: Meeting the Needs of ACHD Patients and Providers</b><br>Chair, Ms. Canobbio: Ms. Verstappen, Ms. Schlater, Mr. Zamora, Dr. Kovacs, Ms. Pearson, Ms. Koplan | 3:10-3:20 p.m. | Questions and Discussion  |
| 8:00-8:30 a.m.   | Neuro-developmental follow-up of infants predicts that they will adapt poorly as adults: What should be done about it?<br>Dr. Wernovsky   |                       | <b>Imaging in Adult CHD</b><br>Chair, Dr. Broberg: Drs. Jeresch-Herold, Crean, Hornung, Rickers and Therrien   | 3:20-3:45 p.m. | Break<br><b>Course evaluation, CME certificates will be mailed to participants</b>  |
| 8:30-9:00 a.m.   | Addressing the psychosocial needs of ACHD patients<br>Dr. Kovacs  |                       | <b>Medical Pharmacological Management Issues</b><br>Chair, Dr. Webb: Drs. Colman, Gersony, Silversides, and Wernovsky  | 3:45-4:30 p.m. | I should do a valve sparing root replacement in my BAV patient with an aorta of 5 cm<br>Pro: Dr. Langley  |
| 9:00-9:25 a.m.   | What can surgeons do to minimize the risk of neurodevelopmental problems in post-op patients?<br>Dr. Van Arsdell  | 12:00-1:15 p.m.       | Lunch  | 4:30 p.m.      | <b>The Mentor's Lecture</b><br>Dr. Sahn, presiding  |
| 9:25-10:20 a.m.  | <b>Special Session</b><br>Dr. Mulder, presiding   |                       | <b>Catheter Treatment of Anatomical Problems</b><br>Dr. Gersony, presiding   |                | Why did I choose to focus on care of adults with congenital heart disease for my career?<br>Drs. Perloff and Broberg  |
| 9:25-10:20 a.m.  | Surgical tips: What are the key things that need to be done in the OR for Fontan Redos, Repeat surgery for Tetralogy of Fallot, Failing Mustard, Mitral Regurgitation<br>Drs. Spray, Langley, Van Arsdell | 1:15 1:45 p.m.        | Advances in catheter intervention for CHD: What's the latest?<br>Drs. Armsby and Horlick   | 5:00 p.m.      | Adjournment   |
| 10:20-10:35 a.m. | Questions and Discussion  |                       |  |                |   |

# Faculty

### Program Co-Directors

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Information concerning faculty relationships with industry will be available at registration on site.