AIMS AND SCOPE

This conference is geared toward exposing engineers to the state-of-the-art in the understanding and treatment of a wide array of cardiovascular diseases with special emphasis in identifying and explaining knowledge gaps in understanding the pathophysiology of cardiovascular diseases, with emphasis on the technological challenges faced in the treatment of these diseases.

Discussions will expose attendees to a vast array of specific topics. These topics will include molecular and cellular pathophysiology of cardiovascular diseases, and specific challenges to the achievement of efficacious and durable therapies for these diseases.

CARDIOVASCULAR DISEASES

- Ischemia: coronary and peripheral arterial occlusive disease
- Valvular: aortic and mitral valve disease
- Congenital/cardiac malformations
- Cardiac failure

DIAGNOSIS AND THERAPEUTICS

- Novel diagnostic imaging: echocardiography, magnetic resonance imaging, positron emission tomography
- State-of-the art pharmacotherapies
- Cell-based therapies: stem cells and related cell-based strategies
- Device-based therapies: cardiac valvular prostheses, arterial stents and stent-grafts, short-and long-term mechanical circulatory support

CONFIRMED SPEAKERS

Billy Cohn, M.D., (Director, Center for Technology and Innovation; Director, Cullen Cardiovascular Research Laboratories, Director, Texas Heart Institute)
John Cooke, M.D., Ph.D., (Joseph C. “Rusty” Walter and Carole Walter Looke Presidential Distinguished Chair in Cardiovascular Disease Research, Houston Methodist)
John Criscione, M.D., Ph.D., (Associate Professor, Texas A&M University)
Charles Fraser Jr., M.D., (Surgeon-in-Chief, Chief of Congenital Heart Surgery, Texas Children’s Hospital/Baylor College of Medicine)
O.H. “Bud” Frazier, M.D., (Chief Cardiopulmonary Transplantation, Program Director and Chief, Center for Cardiac Support, Director of Cardiovascular Surgery, Research, Texas Heart Institute)
K. Lance Gould, M.D., (The Martin Bucksbaum Distinguished University Chair in Heart, UT Houston/Memorial Hermann Hospital)
Igor Gregoric, M.D., (Chief and Program Director, Surgical Division, Center for Advanced Heart Failure, UT Houston/Memorial Hermann Heart and Vascular Institute)
Biswajit Kar, M.D., (Chief and Program Director, Medical Division, Center for Advanced Heart Failure, UT Houston/Memorial Hermann Heart and Vascular Institute)
Christof Karmonik, Ph.D., (Houston Methodist Hospital and Research Institute)
Rajesh Krishnamurthy, M.D., (Section Chief, Radiology Research and Cardiac Imaging, Director for Research, EB Singleton Department of Pediatric Radiology, Texas Children’s Hospital)
Tom Nguyen, M.D., (Director, Minimally Invasive Valve Surgery, UT Houston/ Memorial Hermann Hospital)
Keshava Rajagopal, M.D., Ph.D., (Surgical Director of Lung Transplant, UT Houston/Memorial Hermann Hospital)
Egemen Tuzun, M.D., (Scientific Director, Texas A&M Institute for Preclinical Studies, Texas A&M University)
William Zoghbi, M.D., (Weill Cornell Medical College professor of medicine, Cardiologist at the Methodist DeBakey Heart & Vascular Center/Houston Methodist)
MONDAY, MARCH 14
10:00 to 10:30 a.m. Workshop Inauguration
G. Laine, Ph.D.; N.K. Anand, Ph.D.; A. Polycarpou, Ph.D.; C. Georgiades, Ph.D.
10:30 to 11:15 a.m. O.H. “Bud” Frazier, M.D.
11:15 to 11:30 a.m. Discussion
11:30 to 11:45 a.m. Break
11:45 a.m. to 12:30 p.m. Igor Gregoric, M.D.
12:30 to 12:45 p.m. Discussion
12:45 to 2:00 p.m. Lunch
2:00 to 2:45 p.m. Kishava Rajagopal, M.D., Ph.D.
2:45 to 3:00 p.m. Discussion
3:00 to 3:15 p.m. Break
3:15 to 4:00 p.m. Egemen Tuzun, M.D., Ph.D.
4:00 to 4:15 p.m. Discussion
4:15 to 4:30 p.m. Break
4:30 to 5:15 p.m. John Criscione, M.D., Ph.D.
5:15 to 5:30 p.m. Discussion

TUESDAY, MARCH 15
10:00 to 10:45 a.m. K. Lance Gould, M.D.
10:45 to 11:00 a.m. Discussion
11:00 to 11:15 a.m. Break
11:15 a.m. to 12:00 p.m. Rajesh Krishnamurthy, M.D.
12:00 to 12:15 p.m. Discussion
12:15 to 2:00 p.m. Lunch
2:00 to 2:45 p.m. William Zoghbi, M.D.
2:45 to 3:00 p.m. Discussion
3:00 to 3:15 p.m. Break
3:15 to 4:00 p.m. Tom Nguyen, M.D.
4:00 to 4:15 p.m. Discussion
4:15 to 4:30 p.m. Break
4:30 to 5:15 p.m. Christof Karmonik, Ph.D.
5:15 to 5:30 p.m. Discussion

WEDNESDAY, MARCH 16
10:00 to 10:45 a.m. Bisjawit Kar, M.D.
10:45 to 11:00 a.m. Discussion
11:00 to 11:15 a.m. Break
11:15 a.m. to 12:00 p.m. John Cooke, M.D., Ph.D.
12:00 to 12:15 p.m. Discussion
12:15 to 2:00 p.m. Lunch
2:00 to 2:45 p.m. Billy Cohn, M.D.
2:45 to 3:00 p.m. Discussion
3:00 to 3:15 p.m. Break
3:15 to 4:00 p.m. Charles Fraser Jr., M.D.
4:00 to 4:15 p.m. Discussion
4:15 to 5:00 p.m. Concluding Session: Discussion of future workshops

WORKSHOP CHAIR
Kumbakonam Rajagopal, Ph.D.

ORGANIZING COMMITTEE

Register for the workshop
For more information:

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