

Pumps & Pipes 5: *New Horizons*



Monday, December 5, 2011

The Methodist Hospital Research Institute | Main Auditorium

*Fostering and building unique research opportunities between energy and medicine —
Houston's largest industries — to enhance and develop resources and technologies.*

PROGRAM DIRECTORS

Alan B. Lumsden, M.D.

Walter W. Fondren III Chair For Medical Director
Methodist DeBakey Heart & Vascular Center
Professor and Chairman, Department of Cardiovascular Surgery
The Methodist Hospital

William E. Kline, Ph.D.

Function Manager, Drilling & Subsurface
ExxonMobil Upstream Research Company

Ioannis A. Kakadiaris, Ph.D.

Hugh Roy and Lillie Cranz Cullen Professor
Department Computer Science
University of Houston

Stephen R. Igo

Director, Entrepreneurial Institute
Methodist DeBakey Heart & Vascular Center

Mark G. Davies, M.D., Ph.D., M.B.A.

Director, Research and Education
Methodist DeBakey Heart & Vascular Center

Methodist

**DeBakey Heart
& Vascular Center**SM

UNIVERSITY of
HOUSTON

ExxonMobil



Pumps & Pipes 5: New Horizons

DECEMBER 5, 2011 | The Methodist Hospital Research Institute, Main Auditorium

7:00 - 8:00 Registration and Breakfast

Promising as the Morning Horizon

- 8:00 - 8:15 **Welcome to Pumps & Pipes 5**
Alan B. Lumsden, M.D.
Methodist DeBakey Heart & Vascular Center
- 8:15 - 8:30 **Strategic Serendipity: Around the World & Back Again**
William Kline, Ph.D.
ExxonMobil
- 8:30 - 8:50 **Collaboration & Open Innovation in Government**
Jeffrey Davis, M.D.
NASA, Johnson Space Center

Touching the Horizon ■ Is There a Doctor in the House?

- 8:50 - 9:15 **What if...Connecting the Dots**
David Horsup, Ph.D.
Nalco Company
- 9:15 - 9:25 **Microbial Induced Corrosion: A Big O&G Problem**
William Kline, Ph.D.
- 9:25 - 9:45 **Imaging Bacteria During Biofilm Formation**
Jacinta Conrad, Ph.D.
University of Houston
- 9:45 - 10:00 BREAK
- 10:00 - 10:30 **Video at 10:00: Gravel Pack Imaging II**
Pietro Valsecchi, Ph.D., ExxonMobil
Christof Karmonik, Ph.D., Methodist DeBakey Heart & Vascular Center
- 10:30 - 11:00 **I'll Take Your Help in a Heartbeat!
The HeartBeat Simulator**
Stephen Little, M.D.
Methodist DeBakey Heart & Vascular Center
- 11:00 - 12:00 **Tours, Demonstrations & Networking**
Methodist Institute for Technology, Innovation & Education (MITIESM), NanoLabs
- 12:00 - 12:15 BREAK—Pickup Lunch
- 12:15 - 1:00 **LUNCH KEYNOTE PRESENTATION
Pumps & Pipes: In the Beginning**
Denton A. Cooley, M.D.
Texas Heart Institute

Exploring the Horizon

- 1:00 - 1:20 **Blood vs. Oil**
Ron Webb
Cameron
- 1:20 - 1:50 **Alternative Energy Systems & Atomic Hearts**
Vic Poirier, M.B.A.
Thermo CardioSystems (Retired)
- 1:50 - 2:10 **Wellbore Tractors: Little Engines That Can**
Jeff Whittaker
Welltec
- 2:10 - 2:30 **15-Year Quest: Shape Memory Polymers for Treating Stroke**
Duncan Maitland, Ph.D.
Texas A&M University
- 2:30 - 2:45 BREAK

The Horizon is Here!

- 2:45 - 3:30 **Live Cardiac Surgery Case: Hybrid Suite**
Mahesh Ramchandani, M.D.
Methodist DeBakey Heart & Vascular Center
- Pumps & Pipes Future Directions**
Matthias Loebe, M.D.
Methodist DeBakey Heart & Vascular Center
- 3:30 - 3:50 **NanoTech in Oil & Gas**
Rustom Mody
Baker Hughes
- 3:50 - 4:10 **Next Generation Nanoparticle Contrast Agents**
Ananth Annapragada, Ph.D.
The University of Texas Health Science Center
- 4:10 - 4:30 **Partly Cloudy with a Chance of Discovery:
Cloud Computing for Pumps & Pipes**
Larry Shi, Ph.D.
University of Houston
- 4:30 - 4:50 **Fetal Intervention: When the Womb Becomes the Operating Room**
Sina Haeri, M.D.
Texas Children's Hospital
- 4:50 - 5:15 **Wrap-Up: The Way Forward**
Alan B. Lumsden, M.D.
William Kline, Ph.D.
Ioannis Kakadiaris, Ph.D.

The Evening Horizon

- 5:15 - 7:00 **Social Hour and Reception**
Trevisio's Restaurant