Thursday Program Highlights Included Rory McDonald, Innovations Accelerator Session, Thoracic Masters, Cardiac Sessions and Posters

The ISMICS Annual Meeting continued a successful run on Thursday with multiple sessions and innovative presentations.

Keynote Speaker
Rory McDonald, PhD, Harvard Business School Professor, provided an engaging and stimulating presentation examining the principles of disruptive innovation and how they influence and drive businesses and how, in turn, they affect our lives.

Dr. McDonald provided many examples of the concept, including the influence of mini-mill technology on the steel marketplace, the evolution of the video rental industry (Blockbuster vs. Netflix), and recent advances in video game systems. “Sony developed PlayStation 3 to create a better product for their current video gamer market. Nintendo wanted to broaden their appeal to those who were not current users and stepped outside of their core gamer demographic and created the Wii,” explained Dr. McDonald.

When asked for examples within health care, audience members cited pacemakers, the advancement of cardiologists into the surgeons’ domain, and the actual creation of ISMICS almost twenty years ago, as instances where disruptive innovation caused a shift in the environment.

“Sustaining innovations improve products and services along dimensions of performance that mainstream customers care about. Disruptive innovations are initially inferior on the historic performance dimensions, but offer a novel mix of attributes that appeal to fringe customers.”

Citing additional examples, Dr. McDonald noted how the introduction of minute clinics has disrupted the healthcare industry, not by doing it better along traditional dimensions, but by doing it differently; how the increased use of TurboTax has affected H & R Block; and “although Google docs is not as good as Microsoft Word, it is certainly good enough for many tasks.”

Looking forward to future innovations, Dr. McDonald noted several reasons to be excited, including Amazon’s drones delivery of packages, Facebook’s Oculus Virtual

(continued on page 3)
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Thursday’s Program Highlights

Reality headset, and Google glass - a wearable computer with an optical head-mounted display.

Dr. McDonl concluded his presentation with an acknowledgment that “Innovation is hard. Avoiding some of the pitfalls of innovation can be made a little easier.”

Late Breaking News

Candace Lee, MD, presented an update on “Titanium Knots in Cardiac Surgery: The First Eight Years” which reviewing the development of the Cor-Knot titanium knot fasteners from the pioneering study at Lankenau Hospital in Philadelphia in March of 2007, to its current successful application in over 50,000 cardiac patients throughout the world. Dr. Lee highlighted many of the innovative uses of the technology and explored its potential to further enhance cardiac patient surgical outcomes.

Innovations Accelerator Session

A panel of thought leaders and innovators gathered to discuss current and future technologies. Moderated by Vinod Thourani and Thomas Walther, panelists included both inventors and those who work with industry to modify existing technologies: Lishan Aklog, Anson Cheung, Gregory Fontana, Jörg Kempfert, and Murali Padala.

Attendee Reception Tonight at the Isabella Stewart Gardner Museum

ISMICS invites all registered meeting attendees to join us for the Attendee Reception at the Isabella Stewart Gardner Museum. Your ISMICS Badge is required for entry to the Museum. A lasting legacy of the late Isabella Stewart Gardner, the Museum displays an art collection of world importance, including works that rank among the most significant of their type. Isabella Stewart Gardner collected and carefully displayed a collection comprised of more than 2,500 objects—paintings, sculptures, furniture, textiles, drawings, silver, ceramics, illuminated manuscripts, rare books, photographs and letters—from ancient Rome, Medieval Europe, Renaissance Italy, Asia, the Islamic world and 19th-century France and America. Built to evoke a 15th-century Venetian palace, the Museum itself provides an atmospheric setting for Isabella Stewart Gardner’s inventive creation.

The evening will feature full access to the museum and its gardens, docents to explain the works of art, activities for children in the education center, a string trio, and a sumptuous buffet and open bar.

The Reception will run from 7:00 pm to 9:00 pm and transportation is available from the Marriott Copley Place. Or follow the walking directions below for a stroll through the city to the Museum.

Walking Directions: Head west toward Huntington Ave. Slight left onto Huntington Ave. Turn right onto Belvidere St. Turn left toward St Stephen St. Continue straight onto St Stephen St. Turn right onto Speak Pl/St Stephen St. Turn right toward Fenway. Turn right onto Fenway. Turn left to stay on Fenway. Turn left onto Evans Way. Destination will be on the right. Isabella Stewart Gardner Museum, 280 Fenway.

Thoracic and Cardiac

The Thoracic Masters Class, co-chaired by Hiran C. Fernando, Daniel L. Miller, Ricardo Santos, and Ralph A. Schmid, included three sessions on Thursday: Lung Cancer, Endoscopic Therapies for the Thoracic Surgeon, and Mediastinum, Chest Wall and Esophagus.

Cardiac Sessions on Thursday included twenty-three presentations and moderated posters in three sessions on valve transcatheter therapies, revascularization, and aortic & endovascular.

All abstracts, and many of the key presentations, are available on the ISMICS website: www.ismics.org

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EXHIBITION HALL HOURS  
FRIDAY 30 MAY  
07.00 – 10.30 & 13.30 – 16.00
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Concern about peri-operative stroke remains the main factor for the decreased acceptance of coronary artery bypass grafting (CABG) despite its well documented long-term superiority in patients with three vessel disease and left main stenosis. An important technical advance has been the avoidance of aortic manipulation to reduce stroke; yet, approximately half of CABG-related strokes occur in the post-operative period surgery, and are most often related to new-onset atrial fibrillation (AF).1,2-4

New-onset AF is a common complication, occurring in close to 20% patients following CABG.2 Recent studies have documented increased incidence of stroke with new-onset AF after CABG surgery. In a recent study of 16169 consecutive isolated CABG patients with no prior history of AF, postoperative stroke risk was significantly greater for patients who developed new-onset AF vs. those who did not (3.2% vs. 1.3%, p<0.001). Further, new postoperative AF was associated with a 21% relative increase in mortality over a mean follow up of 6 years, even after controlling for 32 covariates.

As with other forms of AF, the primary mechanism of stroke secondary to postoperative AF is believed to originate from within left atrial appendage (LAA). In another recent report (2067 patients, 81% CABG), postoperative AF was associated with a nearly three-fold increase in stroke (OR=2.79). Among patients who developed postoperative AF, those who had undergone concomitant LAA ligation had significantly lower risk of stroke than those who had not (0.0% vs. 6.1%, p=0.003)4

New epicardial clip devices have been shown to provide easy, reliable, safe and durable exclusion during cardiac surgery procedures, without leaks or significant residual LAA cavity.7,8 An additional benefit of epicardial device-enabled LAA exclusion is electrical isolation.9 Silencing the LAA may be crucial in certain patients, underscoring the incremental advantage of isolation of the LAA provided by epicardial clip approaches.

Despite earlier conceptions as benign, postoperative AF carries significant risk for late cerebral injury following non-eventful cardiac surgery. LAA closure may be an important adjunct to all cardiac procedures to reduce the risk of postoperative AF-related cerebrovascular accident in selected patients. The current generation of epicardial LAA closure devices may make routine concomitant management of LAA easier, safer and more effective than past approaches.

References
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