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# Multidisciplinary Congress in Cardio-Thoracic Healthcare

August 17–20, 2006, 16th World Congress of the World Society of Cardio-Thoracic Surgeons, Ottawa, Canada

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The Multidisciplinary Congress in Cardio-Thoracic Healthcare was held in Ottawa, Canada, August 17–20, 2006. The Congress focused on some of the fastest-evolving areas in cardio-thoracic healthcare, namely medical devices, interventional procedures, pharmaceutical agents, imaging technologies, cell-based therapies and surgical approaches. The Congress Chairs were Sir Magdi Yacoub, Joel D Cooper and C David Mazer.

## Objective

The Congress was designed to allow participants the opportunity to obtain and exchange the latest information from around the globe on the various scientific frontiers in the prevention, diagnosis, treatment and rehabilitation of diseases of the heart and lungs. The Congress consisted of a series of plenary, abstract and poster sessions along with an extensive program of Satellite Symposia. The Congress also hosted a technical exhibition that featured the latest technological and pharmaceutical advances in cardio-thoracic healthcare. A major highlight of the program was the Living Legends awards, which honored key individuals who have significantly helped to shape the current practice of cardio-thoracic healthcare.

During the development of the Congress program, the organizers focused on several key aspects that would result in a truly unique congress, including:

- Multidisciplinary approach involving cardiac-thoracic surgeons, anesthesiologists, cardiologists, research scientists, medical residents, biomedical engineers, clinical engineers, nurses, perfusionists, respiratory technologists, industry, government and hospital representatives, and others;
- Wide-ranging scope, including research, prevention, diagnosis, treatment and rehabilitation;
- International participation to ensure dissemination of clinical information and best practices to all countries, especially including those with developing healthcare systems;
- Public access, allowing the public the opportunity to participate in the Congress through numerous open-access events, such as the ask the experts session, the public forum and the Living Legends ceremonies;
- Self-sustaining, program was funded without financial support from the government or government agencies.

The multidisciplinary team approach, which received strong support from the Board of Trustees of the World Society, was intended to better reflect the day-to-day realities in the field of cardio-thoracic healthcare. While most major medical conferences tend to segregate various disciplines, the Congress organizers recognized the importance and value of allowing interaction and dialog between disciplines. Thus, from the earliest planning stages the program

was designed to cut across traditional discipline boundaries and involve the entire cardio-thoracic healthcare delivery team as well as other important stakeholders, such as those from government, industry and the community. To accomplish this goal, the organizers actively encouraged participation across the entire spectrum of cardio-thoracic healthcare.

The overall theme of the Congress was 'A Multidisciplinary Congress in Cardio-Thoracic Healthcare: from research to clinical innovation in prevention, diagnosis, treatment and rehabilitation'.

## Congress

Day 1 of the Congress began with a series of eight satellite symposia. *Management of Heart Failure in the 21st Century*, moderated by Haissam Haddad and Thierry Mesana, focused on current and emerging approaches in the treatment of heart failure. Topics included both medical and surgical approaches to heart failure, as well as in-depth discussions on the use of statins and angiotensin receptor blockade (ARB) in the heart failure patient population.

*Smoking Cessation: Transforming Clinical Practice*, moderated by Andrew Pipe, focused on clinical approaches to smoking cessation and methods to implement and integrate hospital-based smoking cessation programs. Two major smoking cessation program experiences were presented, namely the experiences of the Ottawa and Boston programs.

*Current Considerations and Techniques for the Surgical Treatment of Valvular Heart Disease*, moderated by Mark Slaughter, focused on valve surgery in high-risk patients, prosthetic valve selection, as well as emerging techniques for aortic valve replacement.

*Stenting in the Treatment of Aortic Diseases*, moderated by Juan Parodi and Tomas Salerno, focused on reviewing stent technology and the management

of complex aortic pathologies. The use of stenting for traumatic aortic injuries was also discussed.

*Lone Atrial Fibrillation: Current Spectrum of Therapy and Lessons Learned*, moderated by B Khanh Lam, focused on the evolution of the Cox–Maze procedure, the genetics of atrial fibrillation, as well as emerging techniques and results with minimally invasive ablation approaches.

*Pulmonary Hypertension: Modern Physiology, Management and Trials*, moderated by Ross Davies, focused on clinical guidelines and also examined the role of endothelin in pulmonary hypertension. The use of pulmonary thromboendarterectomy for hypertension due to pulmonary emboli was also discussed.

*Cardiac Hormones as Biomarkers and Therapeutic Agents*, moderated by Adolfo de Bold, focused on examining cardiac hormones and inflammation as well as the use of atrial natriuretic factor and brain natriuretic peptide as both biomarkers and therapeutic agents in acute heart failure and coronary syndromes.

*Symposium of Valvular Surgery*, moderated by Tomas Salerno, focused on bio-prosthetic heart valves, valve repair for mitral regurgitation and advances in beating heart valvular surgery.

Following the day's comprehensive satellite symposia program, the Congress officials hosted the international delegates for a welcome reception in the Exhibit Hall.

Day 2 of the Congress began with the breakfast symposia: *Antiplatelets and Serine Protease Inhibition in Cardiothoracic Surgery: Evidence and Practice*, moderated by James Robblee, focussed on the use of antiplatelet therapy in cardiovascular medicine, including patient management and best practices for the treatment of bleeding in surgical patients.

*Knowledge Translation: Successful Strategies for Implementing Guidelines in Practice*, led by Heather Sherrard, focused on translating guidelines into clinical practice and the key facilitators for ensuring successful guideline implementation.

Following the breakfast symposia, the official opening ceremonies for the Congress were held. Vytautas Sirvydis, the

immediate Past President of the World Society of Cardio–Thoracic Surgeons, called the meeting to order and introduced the incoming President (Tofy Mussivand). Senator Wilbert J Keon, representing the Canadian Government, welcomed the delegates to Canada and Robert Roberts, on behalf of the Host Organization (Medical Devices Centre, University of Ottawa Heart Institute) welcomed the delegates to Ottawa. Peter Liu (Scientific Director, Institute of Circulatory and Respiratory Health, Canadian Institutes of Health Research) congratulated the Congress President, organizing committees and host organization for developing a strong scientific program. Tofy Mussivand introduced the Congress Chairs, Joel D Cooper and David C Mazer. Following the formal opening ceremonies, the 16th Congress plenary sessions began.

*The Future of Surgery*, moderated by Thierry Mesana and Sudhir Sundaresan, focused on the emerging issues and advances in cardiac and thoracic surgery. The invited speakers for the plenary session included Joel D Cooper (*Future of Thoracic Surgery*), Thierry Mesana (*Future of Cardiac Surgery*), Ray Chiu (*Cardio–Thoracic Surgery: Quo Vadimus?*) and Gerard Guiraudon (*The Future of Surgery: Under Darwinian Duress*).

*What's New in Imaging for the Cardio–Thoracic Surgery Patient*, moderated by Rob Beanlands and Carole Dennie, focused on advances in imaging techniques for cardio–thoracic patients. The invited speakers for the plenary session included Andreas Kumar (*Magnetic Resonance Imaging: Role in the Cardio–Thoracic Patient*), Roxana Campisi (*Cardiac PET/CT Imaging: Myocardial Viability and Flow in Decision Making for Cardiac Surgery and Interventions*), Benjamin Chow (*CT and CT Angiography Imaging for the Cardiothoracic Patient*) and Francois Benard (*PET/CT of the Lung and Thorax Directing Investigation and Surgical Management*).

Following the lunch break, during which the delegates had the opportunity to visit the posters and exhibits, the afternoon involved 22 abstract sessions on a wide variety of topics, including

minimally invasive approaches and off-pump surgery, cardiac and cell transplantation, rhythm management and atrial fibrillation, bioengineering and innovation, thoracic surgery, lung cancer, mechanical circulatory support, valve surgery, anesthesia, analgesia and pain control, coronary artery bypass, pediatrics, congenital diseases and others.

Day 3 of the Congress began with the breakfast symposia *Ventricular Assist Device Support: Current Indications and Future Technology*, moderated by Mark Slaughter, which focused on mechanical circulatory support in terms of utilization for acute myocardial infarction, improving outcomes with destination therapy, new technology on the horizon and the need for totally implantable systems to overcome current limitations. *Bleeding, Coagulation and Transfusion Issues in Cardiothoracic Surgery*, moderated by C David Mazer, focused on risks of perioperative bleeding and transfusion, guidelines on blood transfusion and conservation in cardiac, heparin-induced thrombocytopenia and the role of recombinant factor VIIa in the cardio–thoracic patient.

Following the breakfast symposia, the plenary sessions began.

*Devices/Techniques for Neurological Protection*, moderated by C David Mazer and Fraser Rubens, focused on emerging approaches to monitor and reduce neurological complications related to cardiac surgery. The invited speakers for the plenary session included Mark Slaughter (*Reducing Emboli in Cardiac Surgery: Does it Make a Difference?*), George Djaiani (*Options for Minimizing Neurological Injury during Cardiac Surgery*) and John Murkin (*Mechanisms and Monitoring for Perioperative Neurologic Dysfunction*).

*Controversies in Revascularization and Valves*, moderated by Haissam Haddad, focused on clinical areas in which some controversy or lack of consensus regarding the best treatment approaches remain. The invited speakers for the plenary session included Michel Le May (*Utilization of PCI for Left Main and Multi-vessel Disease*), Eric Jamieson

(*Indications for Biological and Mechanical Valves*) and Kwan-Leung Chan (*Medical Management of Aortic Stenosis*).

The afternoon consisted of 12 abstract sessions on a wide variety of topics, including coronary artery bypass, valve replacement and repair, cardiopulmonary bypass, myocardial protection, pediatrics and congenital disease thoracic surgery and others.

Following the days' sessions, the delegates attended the Congress Gala evening at Canada's prestigious National Arts Centre. The Gala dinner and awards ceremony included the formal introduction and medal ceremony for the incoming World Society President, the awarding of the Congress abstract and travel awards. It also included several surprise awards (to Wilbert J Keon and Anne Keon for 'Contributions to Humanity' on the occasion of the 30th Anniversary of the founding of the University of Ottawa Heart Institute) and,

the highlight of the evening, which was the presentation of the 2006 Living Legends awards.

The Living Legends awards were first established in 2001 by the Medical Devices Centre at the University of Ottawa Heart Institute. These awards recognize achievements and outstanding contributions to medicine, made by living scientists, aged 60 years and over. The Living Legends honorees have contributed greatly to major scientific and technological advances through their work, teaching and leadership. Previous Living Legend honorees include Kazuhiko Atsumi, Wilfred Bigelow, Sir Roy Calne, Michael DeBakey, Naranjan Dhalla, Wilson Greatbatch, Roland Hetzer, Adrian Kantrowitz, Wilbert Keon, Willelm Kolff, Juro Wada and Sir Magdi Yacoub. The 2006 Living Legend inductees honored at the Congress Gala evening included Donald Beanlands, Denton Cooley, Adolfo de

Bold, Joel D Cooper, O Howard Frazier, Valentin Fuster, Leon Katz, Terry Kavanaugh, Ernst McCulloch, Donald Olsen, Manny Villafaña, John Watson, James T Willerson and Earl Wynands (Figure 1).

Day 4, the final day of the Congress, consisted of two closing plenary sessions: *Cell-Based Therapies: Tissue Engineering, Cell Implantation and Gene Therapy*, moderated by Robert Roberts and James Willerson, focused on genetics and cellular approaches to the treatment of cardiovascular disease. Invited speakers for the plenary session included Robert Roberts (*Pursuit of Genes Contributing to Coronary Artery Disease: An Idea Whose Time Has Come*), James Willerson (*Cellular Therapy for the Heart – A Cardiologist's Point of View*), Marc Ruel (*Cell Therapy for the Heart – A Surgeon's Point of View*) and Lynn Megeney (*Stem Cells – Potential and Limitations*).

Figure 1. Living Legend award inductees with the congress officials at the Congress Gala evening.



**Front row (left to right):** Dr Wilbert Keon (Surprise Award recipient), Mrs Anne Keon (Surprise Award recipient), Dr Earl Wynands, Dr Terry Kavanaugh, Dr Juro Wada (Society Chancellor), Dr Joel D Cooper. **Middle row (left to right):** Mr Michael O'Byrne (Master of Ceremonies), Mr Leon Katz, Dr Donald Beanlands, Dr Denton Cooley, Mr Manny Villafaña, Dr O Howard Frazier. **Back row (left to right):** Dr Donald Olsen, Dr Roy Masters (Local Organizing Committee Chair), Dr Tofy Mussivand (Society President), Dr Thierry Mesana (Program Committee Chair), Dr Adolfo de Bold. **Absent from photo:** Dr Valentin Fuster, Dr Ernst McCulloch, Dr John Watson and Dr James T Willerson.

Photo credit: Mike Pinder Photography.

*Public Forum – Ask the Experts*, the closing event was moderated by Rabbi Reuven Bulka and Tofy Mussivand. The forum was open to the public and consisted of religious scholars and medical experts accepting questions from the audience. This approach allowed an unprecedented opportunity for members of the local community to interact with and question the leading medical experts and religious representatives on key issues, such as organ donation. The religious experts included Rabbi Reuven Bulka (session co-chair), Peter Coffin (Bishop of the Anglican Diocese of Ottawa), Pat Powers (Rector of Notre-Dame Cathedral) and Abdul Rashid (Member of the Ottawa Muslim community, the Christian-Muslim Dialog and the Capital Region Interfaith Council). Medical experts included Frank Markel (President and chief executive officer [CEO], Trillium Gift of Life Network), Frans Leenen (clinical cardiologist and noted expert in hypertension), Robert Roberts (CEO of the University of Ottawa Heart Institute and expert in cardiac genetics), Andrew Pipe (expert in

disease prevention and physician for Canada's Olympic team), Sudhir Sundaresan (Chief, Division of Thoracic Surgery at the Ottawa Hospital), Gerard Guiraudon (expert in surgery for arrhythmias) and Vytautas Sirvydis (past society President).

The Congress officially adjourned and all participants were invited to participate in the 17th Congress, to be held July 11–13, 2007 in Kyoto, Japan.

#### Conclusions

The Multidisciplinary Congress in Cardio-Thoracic Healthcare proved to be a great success, with over 850 presentations across the spectrum of cardio-thoracic healthcare. The multidisciplinary approach also allowed for increased interaction and dialog between the various disciplines tasked with delivering cardio-thoracic healthcare to our patients. The involvement of members of the community through the public forum and other events led to improved community understanding of such vital issues as organ donation. And finally, the opportunity to honor some of the monumental leaders in the field through the

Living Legend awards, provided for a truly unforgettable experience to all those involved.

Undoubtedly, the Congress's ultimate success will be judged not by us, but instead through the countless patients who will receive improved healthcare as a result of the international knowledge exchanged during this event. With representatives from some 65 countries, including many with less advanced healthcare systems, this knowledge exchange will certainly be felt around the globe, which is one of the overriding goals of the Congress.

#### Information resource

Further details on the 17th Congress at [www.wscts2007.com](http://www.wscts2007.com).

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