

The Society for Heart Valve Disease

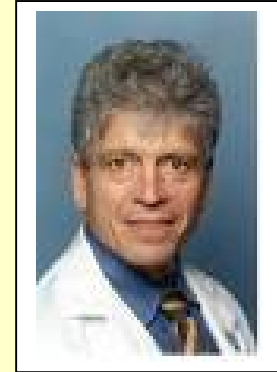
Winter '06 Issue 1



Contents:

President's Message	1
Letter from the Editor	2
Secretariat News	2
List of New Members	2
Council Members	9
Working Groups	10
News from Working Groups	4
Reflections on Vancouver '05	5
New York '07	3
Meeting Reviews	6
Hilton Head – Advances in Innovative Technologies	
San Francisco – New Interventions in Transcatheter Valve Techniques	
Valve Meetings Worldwide	7
Society Journal	8
Contents of latest issue	

Dear Friends and Colleagues,



VALVULAR HEART DISEASE 2007

Heart valve disease (VHD) is having its 15 minutes of fame and then some. Well-attended courses on valve disease are springing up all over the world and for the first time in recent memory 2 Plenary sessions at the AHA focused on VHD. In my view there are 4 major causes of this increased interest in our sub-specialty.

First, in many countries, the mean age of the population is increasing and VHD are diseases that increase with age. Prevalence of VHD is on the rise.

Second, the lack of randomized trials that produce evidence-based practice in most other areas of Cardiology are almost entirely absent in VHD. While it is relatively straightforward for the practitioner to get solid information about the treatment of myocardial infarction, heart failure and rhythm disturbances, much written about VHD is based more on opinion than fact. Thus the practitioner is hungry for information about the best way to treat patients with valve problems.

Third, successful percutaneous therapy for coronary artery disease has refocused the attention of heart surgeons on practicing the most elegant valve surgery possible. In the US only about half of mitral valves were repaired last year, far fewer than those that should have been repaired and the surgical community is striving to improve upon this record.

Fourth, percutaneous approaches to both aortic and mitral valve disease are stirring interest, promise and controversy.

With the spotlight focused on our sub-specialty, now is our time to shine. We have an obligation to promote best practice in VHD, to develop evidence-based practice through randomized trials where they are ethical and practical and to combine the efforts of cardiologists, heart surgeons, engineers, pathologists and anesthesiologists to determine when, where and how percutaneous techniques should be applied.

Our Society should be at the forefront of these efforts. We have a wonderful journal as our exponent, an exciting meeting in which to present new discoveries and enormous talent within our ranks. Shame on us if we don't use all of these tools to improve the lot of our patients with VHD.

Regards
Blase Carabello
President of SHVD

Compiled & Edited by:
Adrian Chester
Secretary/Treasurer
Karen Durham
Administrative Assistant

Welcome to the first issue of the Newsletter for the Society for Heart Valve Disease. The aim of this newsletter is to try and provide a forum for the members of the Society to exchange ideas and information as well as promote the aims of the Society. Initially, I would like to try and publish 2 issues per year, but with an aim to eventually provide an issue every quarter. However, the success of this venture is essentially in the hands of the members! Please send me feedback on what you think of the newsletter and what type of articles you might wish to see in future issues. If you go to an exciting meeting or read an important paper – would you be willing to provide a report or review? Comments on guidelines, clinical practice or research would all be welcome. You may even wish to help edit the Newsletter. Over to you!

Please remember your membership fees are now due for 2007. If you know of anyone interested in heart valve disease, please encourage them to become a member.



Adrian Chester

Secretariat News

As of December '06 Secretariat Headquarters are now based at the Heart Science Centre, Harefield Hospital, UK
Contact Details:
secretariat@shvd.org
Tel: +44 (0)1895 828977
Fax: +44 (0)1895 828902



New Members

We are delighted to introduce the following new members to the Society for 2006:-

Dr Tim Attman	University of Kiel, Germany
Dr Tomaso Bottio	Brescia, Italy
Dr Adrian Chester	Heart Science Centre, Harefield, UK
Dr Taweesak Chotivatanapong	Chest Disease Institute, Meung, Thailand
Dr Joao Cravino	Hospital de Santa Maria, Lisbon, Portugal
Professor Bastian de Mol	Academic Med Centre, Amsterdam, Netherlands
Professor Dr Birgit Glasmacher	University of Hanover, Germany
Dr Hiroshi Izumoto	Okayama University School of Med, Japan
Dr Hani Kamal Najm	King Abdulaziz Med Centre, Riyadh, Saudi Arabia
Dr Ehsan Natour	Oldenburg Heart Centre, Germany
Miss Lana Osman	Heart Science Centre, Harefield, UK
Dr Konstadinos Plestis	Mount Sinai Medical Centre, New York
Dr Nalini Rajamannen	Feinberg Cardiovascular Research Ins, Chicago
Dr Anand Ramamurthi	Clemson Uni & Medical Uni, South Carolina
Dr Harold Roberts	Lauderdale Lakes, Florida
Dr Jaroslav Spatenka	Transplant Centre, Prague, Czech Rep
Dr Kyriakos Spiliopoulos	Munchen Bogenhausen Clinic, Munich, Germany
Dr Ulrich Stock	Brandenburg Heart Centre, Bernau, Germany
Dr James Warnock	Dept of Agric & Bio Eng, Mississippi State Univ
Dr William C Wood	Brody School of Med, East Carolina University

Deadline for abstract submission: 31st January 2007

Abstract submission: Only electronically at www.shvd.org.

Subject Categories

Valve biology
Developmental biology
Tissue engineering
Epidemiology
Rheumatic heart disease
Valve repair
Functional mitral regurgitation
Timing of surgery
Devices
Percutaneous valve surgery
Anticoagulation
Late breaking trials

General Information

Venue: The Hotel Pennsylvania, 401 Seventh Avenue (at 33rd St) New York, NY, 10001-3412

Official organizer: Venue West Conference Services Ltd, #645-375 Water Street, Vancouver, BC, V6B 5C6, Canada
Tel: (604) 681-5226, Fax: (604) 681-2503
email: congress@venuewest.com

Website : www.shvd.org

Registration (open at www.shvd.org):

The registration fee includes congress documentation, admission to all sessions, welcome reception at The Hotel Pennsylvania and coffee breaks during the meeting. Please note that presenting authors must also pay the registration fee. There is, however, no registration fee for spouses. They can attend the opening reception and visit the exhibit area as guests of the Society.

	Member	Non-Member	Trainees/Technician Nurse
Registration from 1 November	550 USD	600 USD	325 USD
Registration on site	650 USD	650 USD	350 USD

Hotel accommodation (reservations open at www.shvd.org)

Rooms are reserved for participants at preferential rates at the Hotel Pennsylvania. For details please visit the meeting web site.

Program Committee

Sir Magdi Yacoub (Chair)
David Adams
Gene Blackstone
Endre Bodnar
Blase A Carabello
Adrian Chester
Karyn Kunzelman
Daniel Loisanche
Friedrich Mohr
Frederick Schoen

DEVELOPMENTAL ANATOMY AND CARDIOVASCULAR PATHOLOGY

The Working Group on Developmental Anatomy and Cardiovascular Pathology gathers the few morphologists working in the field of embryology, teratology, anatomy and pathology of valve diseases and valve prostheses.

In particular:

- 1) Great attention is given to developmental aspects, since congenital valve disease are a significant burden of interest for the pediatric cardiologist and cardiac surgeon.
- 2) Pathologist is required to make surgical pathology reports on resected valves at surgery, either during valve replacement or repair. Morphological analysis is the opportunity to make a precise diagnosis of the underlying morbid entity and has relevant impact in terms of therapy and epidemiology.
- 3) The study of prosthetic valve explants is mandatory to assess cause of failure, particularly structural valve deterioration. This also bears legal implications. Improvements in valve design and biocompatibility have been accomplished during the years, thanks to information coming from thorough, independent explant analysis. Training of pathologists with such a skill is one of the missions of the WG.
- 4) Increase in longevity of bioprosthetic valve is the objective of ongoing research. Subcutaneous implants as well as implant in the circulating system of large animals represent an obligatory step according to FDA requirements. The pathologist is asked to make analysis of explant, with an expertise covering gross, histology, ultrastructure and spectroscopy. There are very few centers in the world able to cope with such demand in a professional and independent way. Qualified Labs should be implemented and certified to this aim. The Society for Cardiovascular Pathology and the Association for European Cardiovascular Pathology should join the Society for Heart Valve Disease and its WG to this purpose.

Gaetano Thiene MD





The 3rd Biennial Meeting of the Society for Heart Valve Disease was held in Vancouver, Canada from June 17th-20th, 2005. The meeting has been deemed an overwhelming success. The Program Committee received nearly 500 abstracts from 35 countries and formulated an excellent scientific program with 127 podium presentations and 174 poster presentations. The postgraduate course was an exceptional success with 19 invited faculty remarkably organized by Dr. David Adams and Dr. Pravin Shah. The Arrangements Chairman for the 2005 meeting was Dr. W R Eric Jamieson and he was ably assisted by a Local Arrangements Committee consisting of Dr. Peter Skarsgard, Dr. Virginia Gudas, Dr. Shahzad Karim and Kevin Shillitto.

The overall meeting attracted 825 delegates and attendees to the scientific sessions and the post-graduate course. The meeting realized a 36% profit for the Society to contribute to publication of the manuscripts in the Journal of Heart Valve Disease, administrative costs of the Society and activity for the advancement of the Society.

The post-graduate course held on the Friday of the meeting focused on Current Concepts in valvular heart disease, with sessions on aortic valve disease (moderated by Professor Magdi Yacoub & Dr. Randolph Chitwood), evolving concepts (moderated by Dr. Craig Miller & Dr. Farzan Filsoufi), mitral valve disease (moderated by Dr. Pravin Shah & Dr. Aiden Raney) and new technologies (moderated by Dr. Phillip Bonhoeffer & Dr. Friedrich Mohr). There was also a mini-video symposium on anterior leaflet repair. Over 200 delegates attended the course.

The multi disciplinary nature of clinical work and research into heart valve disease was reflected by the diversity of the sessions and presentations made over the course of the meeting. Two sessions were devoted to tissue engineering and another to molecular biology of heart valves. New topics were also represented with presentations on robotics and percutaneous valve repair, while the most recent observations relating to bioprosthetic valves, risk factors, calcification and the Ross Procedure were also reported. Dr. Robert Frater gave the Honored Lecturer on "The Mitral Valve Paradigm" and the Lillehei Prize was won by Dr. Allen Cheng from Stanford University Department of Cardiothoracic Surgery.

It has been a distinct privilege to serve the Society as Arrangements Chairman for the 3rd Biennial Meeting of the Society for Heart Valve Disease in Vancouver. I acknowledge and extend appreciation to the industrial companies for their extensive contributions that supported this successful meeting. I express gratitude to all involved who played a very significant role in the success of this meeting, including the Society Head Office in London, the Executive of the Society including Dr. Ranny Chitwood, Mr. John Pepper and Dr. Endre Bodnar, Editor of the Journal of Heart Valve Disease and the webmaster for the Society.

*W R Eric Jamieson MD
Chair, Organising Committee*

Advances in Innovative Technologies & Tissue Engineering – Hilton Head

On March 2-5, 2006 Bob Nerem and Magdi Yacoub organized the 10th Annual Hilton Head Workshop and 2nd Biennial Heart Valve Meeting - Advances in Innovative Technologies and Tissue Engineering for the Treatment of Heart Valve Disease in the Sea Pines Resort, on Hilton Head Island in South Carolina, USA. 180 participants from 12 countries devoted 3 days to basic and applied science on heart valves.

The program started with a one-day-toolbox for Valve Biologists and Engineers focusing on Gene & Cell Marker Expression, Extracellular Matrix, Inflammatory mediators, Stem Cells, Choice of Scaffold, Bioreactors, how to stimulate & validate the mechanical function of valves and a final presentation on In Vitro and In Vivo Testing. The carefully chosen speakers, experts from in and outside the heart valve area, stimulated a vivid discussion and fostered a collaborative approach.

Dominating topics of the subsequent two days included the discussion of potential endogenous causes of valve calcification and degeneration, as well as the demonstration of novel computational models regarding stress distribution and failure models. A controversial session on mitral valve surgery, with emphasis on the best way to approach repair, concluded the second day. The final day of the meeting focused on the evolving field of endovascular valve technologies. Exciting results pertaining to pulmonary valve replacements in patients with calcified and stenotic pulmonary allografts were presented and discussed. Similar work describing initial, premature, results pertaining to aortic valve replacements were also shared. In this context increasing involvement of large biomedical companies will help to reduce hardly acceptable human trials

The organisers understood again in this 10th Hilton Head meeting the importance of bringing together basic scientists and clinicians thereby highlighting the importance of translational research in heart valve disease and treatment.

Ulrich A. Stock MD (Berlin, Germany) and Katja Schenke-Layland PhD (Los Angeles, USA)

New Interventions in Transcatheter Valve Techniques – San Francisco

Carlos Ruiz and Phillip Bonhoeffer organized an outstanding symposium on New Interventions in Transcatheter Valve Techniques in San Francisco (27-28 April 2006). This third meeting of its own succeeded the previous two in London and Chicago bringing together more than 240 people from the clinical arena with the largest groups of interventional cardiologists (35%) and cardiac surgeons (25%), industry (19%), non-industry engineering (15%) and others such as regulatory agents and venture capitalists (3%).

During the two days it became pretty clear that objectives to pursue this exciting new field differ significantly in the particular groups. Paediatric cardiologists urge to find new ways to reconstruct stenotic pulmonary valves and RVOTs with or without pulmonary insufficiency in patients who received already a conduit, even so this will not eliminate but delay the next surgical procedure. For sole pulmonary valve insufficiency there is not a valved stent available.

Cardiac surgeons appreciate new alternatives to offer patients with aortic valve disease in end stage heart failure and high co-morbidity, or an extremely high risk not to survive surgery, an honest treatment option. Cardiologists dealing with adult patients are motivated by the latter and the option to broaden their treatment spectrum. Unfortunately, they have to overcome a lot of problems, i.e. paravalvular leakages, emboli or mitral valve insufficiency after percutaneous aortic valved stent implantation before this therapy can be generally offered.

Purpose of the industry is to identify and market new products. Due to the relative small number of patients with pulmonary valve diseases the current research efforts are focused on the aortic and mitral valve. An overall of 15 different devices (8 for aortic and 7 for mitral valves) were presented, the majority still in early development. Each session was followed by entertaining panel discussions with carefully chosen discussants and defenders.

At the time about 30 percutaneous valve programs are being developed by 24 different companies, and percutaneous valves account for about 40% of all valves in development. Most percutaneous valve technology is still in the early stages. Seventy percent of the programs are in the early stages of development or pre-clinicals (e.g., animal tests) and 30% are in human clinical trials. About half of the programs are focusing on the mitral valve, 40% on the aortic valve, and the remainder on the pulmonary and tricuspid valves.

Prof. Mohr is to be congratulated for his clear statement that it does not make real sense to pursue percutaneous treatments concept that have been abandoned or restricted to very distinct valve pathologies (e.g. A2-P2 prolaps that occur in only 15% of all patients with mitral regurgitation) such as the edge-edge repair.

It seems sensible that controlled clinical studies will be mandatory in order to prove superiority of the new endovascular valve technologies. Interestingly, a survey revealed different opinions as to whether the control group should be medically treated or receive conventional surgery. While cardiologists preferred medical treatment, surgeons believe that only the matching of surgery and endotherapies will clarify the use and benefit of the latter.

The current practice of conducting human trials in third world countries was judged as unacceptable and condemned by the majority of the attendees. Attempts by companies to justify this by the motivation to speed up licensing were not convincing.

Carlos Ruiz and Phillip Bonhoeffer are to be congratulated on this honest and stimulating meeting bringing together a group of involved physicians, researchers and industry on an extremely exciting new and evolving field in the treatment of heart valve disease.

Ulrich A. Stock MD (Berlin, Germany)

Valve Meetings Worldwide

VI Annual Postgraduate Course – Surgery of the Aortic Root Stentless – Valves and Aortic Repair

15–16 January 2007

Katowice, Poland

marekjas@poczta.onet.pl

Valve Technology Symposium

18–19 January 2007

London, UK

www.valvetechnology-sgh.co.uk

National Mitral Valve Meeting

7 February 2007

The Radisson SAS Hotel, Manchester, UK

Ajimarketing2@aol.com

First Annual Florida Valve Symposium – Current Controversies in Valve Management

28–30 March 2007

Renaissance Vinoy Resort, St Petersburg, Florida, USA

www.floridavalvesymposium.com

Valves in the Heart of the Big Apple: Evaluation & Management of Valvular Heart Diseases 2007

12–14 April 2007

New York City, New York, United States

www.heartvalvesocietyofamerica.org/anmeeting.html

Extending the Horizons in Valvular Heart Disease – The First in the Series

10 May 2007

Abington Memorial Hospital

www.promedicacme.com

MITRAL VALVE DISEASE

[Editorial: How can we best describe the components of the mitral valve?](#)

Robert H. Anderson MD, Robert W. M. Frater MD

736

[Steps, Arches, and Struts Supporting the Aortic Leaflet of the Mitral Valve](#)

Vijaya M. Nayak MS, Solomon Victor FRCP

740

[The Impact of Unrepaired versus Repaired Mitral Regurgitation on Functional Status of Patients with Ischemic Cardiomyopathy at One Year after Coronary Artery Bypass Grafting](#)

Jolanta Vaskelyte MD, Neris Stoskute MD, Egle Ereminiene MD, Remigijus Zaliunas MD, Rimantas Benetis MD, Edmundas Sirvinskas MD

747

AORTIC VALVE DISEASE

[The Influence of Prosthesis Size and Design on Exercise Dynamics after Aortic Valve Replacement](#)

Niaz F. Ali FRCS, Vinod S. Mahadevan MRCP, Andrew Muir FRCS, David Young PhD, Gianfranco Campalani MD, Norman P. S. Campbell FRCP, Mark H. D. Danton MD

755

BIOPROSTHETIC VALVES

[Long-Term Follow-up of the Biocor Porcine Bioprosthesis in the Mitral Position](#)

Pablo M. A. Pomerantzeff MD, Carlos M. A. Brandão MD; João M. A. C. Albuquerque MD, Noedir A. G. Stolf MD, Max Grinberg MD, Sérgio A Oliveira MD

763

[Perimount Pericardial Bioprosthesis for Aortic Calcified Stenosis](#)

[A 20-Year-Experience with 1,133 Patients](#)

Michel R. Aupart MD, Alain Mirza MD, Yvon A. Meurisse MD, Agnes L. Sirinelli MD, Paul H. Neville MD, Michel A. Marchand MD

768

[Long-Term Cardiac Allograft Valves after Heart Transplant are Functionally and Structurally Preserved, in Contrast to Homografts and Bioprostheses](#)

Mathias H. Wilhelm MD, Christoph Bara MD, Theo Kofidis MD, Michaela Wilhelmi MD, Maximilian Pichlmaier MD, Axel Haverich MD

777

[Annuloplasty for Valve Repair with a New Biodegradable Ring:](#)

[An Experimental Study](#)

Afksendiyos Kalangos MD, Jorge Sierra MD, Dominique Vala MD, Mustafa Cikirikcioglu MD, Beat Walpoth MD, Xavier Orrit MD, José Pomar MD, Carlos Mestres MD, Sonia Albanese MD, Dhanjay Jhurry PhD

783

MECHANICAL VALVES

[In-Vivo Experience with the Triflo Trileaflet Mechanical Heart Valve](#)

Robert P. Gallegos, Andrew L. Rivard, Phillip T. Suwan, Sylvester Black, Stefan Bertog, Uli Steinseifer, Anibal Armien, Matthew Lahti, Richard W. Bianco

791

[Effect of Hinge Gap Width on the Microflow Structures in 27-mm Bileaflet Mechanical Heart Valves](#)

Hwa-Liang Leo, Hélène A. Simon, Lakshmi P. Dasi, Ajit P. Yoganathan

800

[Comparison of Fondaparinux, Low Molecular-Weight Heparin and Unfractionated Heparin in Preventing Thrombus Formation on Mechanical Heart Valves: Results of an In-Vitro Study](#)

Axel Schlitt, Kathrin Hamilton, Lars Maegdefessel, Manfred Dahm, Cathrin Theis, Michael Eichler, Olaf Brockmann, Ulrich Steinseifer, Baerbel Hauroeder, Walter E. Hitzler, Hans J. Rupprecht

809

TISSUE ENGINEERING

[Phenotypic Characterization of Isolated Valvular Interstitial Cell Subpopulations](#)

Tracy L. Blevins PhD, Joshua L. Carroll, Alina M. Raza, K. Jane Grande-Allen PhD

815

[Histological Evaluation of Tissue-Engineered Heart Valves Implanted in the Juvenile Sheep Model: Is There a Need for In-Vitro Seeding?](#)

Pascal M. Dohmen, Francisco da Costa, Sergio Yoshi, Sergio V. Lopes, Filipe P. da Souza, Ricardo Vilani, Antonio F. Wouk, Marine da Costa, Wolfgang Konertz

823

CASE REPORTS

[Severity of Mitral Regurgitation may be Underestimated in the Presence of a Left Atrial Myxoma](#)

Alfried Germing MD, Michael Lindstaedt MD, Andreas Mügge MD, Axel Laczkovics MD, Markus Fritz MD

830

[Gemella Endocarditis: Consider the Colon](#)

Susan F. FitzGerald MD, Anne C. Moloney MD, Brian J. Maurer MD, William W. Hall MD

833

[Native Double-Valve Endocarditis by Mycobacterium fortuitum following Percutaneous Coronary Intervention](#)

Sathiakar Paul Collison DNB, Naresh Trehan MD

836

[Morquio's Syndrome: Severe Aortic Regurgitation and Late Pulmonary Autograft Failure](#)

Michael O. Barry MD, Michael A. Beardslee MD, Alan C. Braverman MD

839

LETTER TO THE EDITOR

[In response to Kazui T, Izumoto H, Yoshioka K, Kawazoe K. Dynamic morphologic changes in the normal aortic annulus during systole and diastole.](#)

[J Heart Valve Dis 2006;15:617-21](#)

Christophe Acar, Shaïda Varnous.

843

Council Members

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