

18<sup>th</sup> Annual Meeting  
Of The Scandinavian Society for  
Research in Cardiothoracic  
Surgery

Geilo, Norway  
February 7<sup>th</sup> - 9<sup>th</sup> 2008

**PROGRAM AND ABSTRACTS**



## PROGRAM

Thursday, Feb 7<sup>th</sup>, 2008

**14.00 – 15.00 Arrival and registration**

**15.00 – 15.15**

**Welcome**

**Mari-Liis Kaljusto, SSRCTS Program Director 2008**

**15.15 – 17.00 ORAL SESSION I**

**Chairman: Tómas Guðbjartsson, Reykjavik, Iceland**

**15.15 – 15.30**

**Regional cardiac natriuretic peptide expression after pulmonary valve replacement.**

J. Smith, C.B. Andersen, L. Søndergaard, N. Vejstrup, J. P. Goetze (Copenhagen, Denmark)

**15.30 – 15.45**

**Assessment of the immunologic response towards decellularized porcine mitral valve tissue in a mouse model.** H. Waziri, J. M. Nielsen, M. Smerup, E. Falk, J. M. Hasenkam

(Aarhus, Denmark)

**15.45 – 16.00**

**Transit-time flow measurements in the LIMA graft. Impact of competitive flow and stenosis of the anastomosis in a porcine model.** H. B. Nordgaard, D. Nordhaug, L. Løvstakken, I. Kirkeby-Garstad, R. Haaverstad (Trondheim, Norway)

**16.00 – 16.15**

**Outcome of Operations using a heart-lung machine in 25 adult members of Jehovah's**

**Witnesses.** S. Kumar, D. Ferguson, R. White, M. Cross, C.M. Munsch, Ph.H. Kay (Leeds, UK)

**16.15 – 16.30**

**Bleeding is increased after Off Pump compared to Conventional On Pump bypass surgery.** H. Sigurjonsson, B. Torfason, B. G. Vidarsson, T. Gudbjartsson (Reykjavik, Iceland)

**16.30 - 16.45**

**Minimally invasive mitral valve surgery - an attractive and safe alternative to**

**conventional sternotomy.** M Tang, KE Klaaborg, H Egeblad, H Mølgaard, S Hvidtfeldt, M Smerup, P Wierup (Aarhus, Denmark)

**16.45 – 17.00**

**Surgery for Coarctation of the Aorta: Results from a Nation-Wide Study in Iceland.** S.I.

Gunnarsson, B. Torfason, G. Sigfusson, H. Helgason, T. Gudbjartsson (Reykjavik, Iceland)

**17.00 – 17.30 Coffee break**

**17.30 – 18.30 POSTER SESSION I**

**Chairman: Timo Savunen, Turku, Finland**

**01 A novel experimental model on chronic right ventricular volume overload.** C. Klopsch,

C. Yerebakan, E. Sandica, S. Prietz, A. Kaminski, M.Ugurlucan, G. Steinhoff (Rostock, Germany)

**02 Myocardial deformation assessed by speckle tracking echocardiography – in vitro**

**investigation of potential limitations and pitfalls.** K.Sivesgaard, S. Dahl Christensen, H.

Nygaard, J. M. Hasenkam and E. Sloth (Aarhus, Denmark)

**03 Effect of myocardial ischemia-reperfusion on the constitutive nitric oxide synthase (cNOS). An experimental model of regional ischemia-reperfusion.** A. Rungatscher, G. Faggian, H. Suzuki, R. Ragusa, E. Darra, K. Shojy, A. Carcereri de Prati, D. Cugola, M. Tessari, A. Mazzucco (Verona, Italy)

**04 Cardiac Diffusion Tensor Magnetic Resonance Imaging for Evaluation of Right Ventricular Dilatation.** P. Agger, M Smerup, EA Nielsen, S Ringgaard, M Pedersen, P Vestergaard-Poulsen, J Frandsen, JR Nyengaard, J Andersen, V Hjortdal (Aarhus, Denmark)

**05 Blockage of glutamate transporters attenuates ischemic injury in the isolated, perfused rat heart.** V. Martinov, Y. Dehnes, K. Shimamoto, N.C. Danbolt, G. Valen (Oslo, Norway)

**06 The Right Ventricular Three-dimensional Architecture is Preserved During Experimentally Induced Right Ventricular Hypertrophy - Assessment with Diffusion Tensor Magnetic Resonance Imaging.** E.A. Nielsen, M. Smerup, P.A. Nielsen, S. Ringgaard, M. Pedersen, P. Vestergaard-Poulsen, J. Frandsen, J.R. Nyengaard, J. Andersen, and V. Hjortdal (Aarhus, Denmark)

**07 Open Lung Biopsies for Suspected Interstitial Lung Disease. A Preliminary Results from a Nation-wide Study in Iceland.** M. I. Sigurdsson, G. Gudmundsson, H. J. Isaksson, T. Gudbjartsson (Reykjavik, Iceland)

**08 Regional Wall Motion In Ischemic Heart Failure Assessed by Tagged Cardiac MRI.** S. Vind-Kezunovic, H. Jensen, A. Rutz, R. Vestergaard, S. Ringgaard, J. M. Hasenkam (Aarhus, Denmark)

**09 Levosimendan: inotropic treatment of severe peroperative heart failure.** S. Moss Kolseth, D. Nordhaug, R. Stenseth, A. Wahba (Trondheim, Norway)

**10 Erosion of a banding through the aortic wall.** S. Dahl Christensen, K. Sivesgaard, U. Baandrup, J. Erik Nielsen-Kudsk, E. Sloth and J. M. Hasenkam (Aarhus, Denmark)

**18.30 – 18.45 Coffee break**

**18.45 – 20.15 ORAL SESSION II**

**Chairman: Guro Valen, Oslo, Norway**

**18.30 – 18.45**

**Evaluation of S-nitroso human serum albumin (S-NO-HSA) as a cardioprotective drug during regional myocardial ischemia and reperfusion.** A. Rungatscher, G. Faggian, H. Suzuki, R. Ragusa, A. Carcereri de Prati, E. Darra, M. Tessari, C. Dalpiaz, A. Mazzucco (Verona, Italy)

**18.45 – 19.00**

**Interferon-beta protects from vascular leakage via upregulation of CD73.**

J. Kiss, G.G. Yegutkin, K. Koskinen, T. Savunen, S. Jalkanen and M. Salmi (Turku, Finland)

**19.00 – 19.15**

**Water channels in the heart: the possible role of aquaporins in heart physiology and cardiac ischemia-reperfusion injury.** M. Amin, A. Rutkovskiy, K-O Stensl kken, M. Amiry-Moghaddam, G. Valen, O.P. Ottersen, J. Vaage (Oslo, Norway)

**19.15 – 19.30**

**A possible role for heme oxygenase 1 in myocardial protection afforded by hypoxia inducible factor 1 alpha.** J. Sagave, G. Czibik, V. Martinov, G. Valen (Oslo, Norway)

**19.30 – 19.45**

**Levosimendan and hypothermic circulatory arrest.** H. Kaakinen, E. Niemelä, T. Mäkelä, J. Mäkelä, F. Yannopoulos, K. Alestalo, M. Pokela, K. Kiviluoma, H. Tuominen, V. Anttila and T. Juvonen (Oulu, Finland)

**19.45 – 20.00**

**Perfusion of isolated hearts phosphorylates the survival kinase pathway of pre-and postconditioning.** A. Rutkovskiy, K-O Stensløkken, M-L Kaljusto, A. Hafstad, T. S. Larsen and J. Vaage (Oslo, Norway)

### *Dinner (buffet)*

**Friday, Feb 8<sup>th</sup>, 2008**

**14.00 – 15.30 ORAL SESSION III**

**Chairman: Stephen Westaby, Oxford, UK**

**14.00 – 14.15**

**Comparison of subcoronary vs. supracoronary aortic stenosis for induction of left ventricular hypertrophy in pigs.** M. Sørensen, H. Jensen, E. Sloth, J.M. Hasenkam (Aarhus, Denmark)

**14.15 – 14.30**

**Saddle-shaped Mitral Valve Annuloplasty Rings Provide Superior Annular Force Distribution.** M. Ø. Jensen, H. Jensen, M. Smerup, R.A. Levine, A. P. Yoganathan, H. Nygaard, J.M. Hasenkam, S. Lyager Nielsen (Aarhus, Denmark)

**14.30 – 14.45**

**Fate of mitral regurgitation following isolated aortic valve replacement for severe stenosis.** M.D. García-Cossío, I. Valverde, M. Álvarez, P. Lima, L.F. López Almodóvar, A. Cañas, L. Rodríguez Padial (Toledo, Spain)

**14.45 – 15.00**

**Remote delivery of DNA encoding for hypoxia-inducible factor 1 alpha is protective against myocardial remodeling in vivo.** G. Czibik, J. Gravning, V. Martinov, H. Attramadal, G. Valen (Oslo, Norway)

**15.00 – 15.15**

**Geometric Culprits of Papillary Muscle Displacement in Functional Ischemic Mitral Regurgitation Assessed by 3D Magnetic Resonance Imaging.** H. Jensen, M.Ø. Jensen, S. Ringgaard, M.H. Smerup, T.S. Sørensen, P. Wierup, J. M. Hasenkam, S. Lyager Nielsen (Aarhus, Denmark)

**15.15 – 15.30**

**Identification of mediators of reverse remodeling of the left ventricle in a murine model of reversible pressure overload.** J. Bjørnstad, I. Sjaastad, S. Nygård, A.V. Finsen, A. Karahasan, G. Christensen, T. Tønnessen (Oslo, Norway)

**15.30 – 15.45 Coffee break**

**15.45 – 16. 45 POSTER SESSION II****Chairman: J. Michael Hasenkam, Aarhus, Denmark****11 Pulmonary valve replacement in patients with prior surgery for congenital heart defects.** H. H. Møller Nielsen, K.A. Terp, V. E. Hjortdal, K. Sørensen (Aarhus, Denmark)**12 Pulmonary fibrous solitary tumors in Iceland. A nation-wide study 1984-2006.** T. Thorgeirsson, H. J. Isaksson, T. Gudbjartsson (Reykjavik, Iceland)**13 Stentless Heart Valve Flexibility.** J.A. Funder, M.W. Frost, S. Ringgaard, K.E. Klaaborg, P. Wierup, V. Hjortdal, H. Nygaard, J.M. Hasenkam (Aarhus, Denmark)**14 Leaflet dynamics of stentless heart valves.** M.W. Frost, J.A. Funder, K.E. Klaaborg, P. Wierup, H. Nygaard, J.M. Hasenkam (Aarhus, Denmark)**15 Resection of Pulmonary Metastasis from Renal Cell Carcinoma. Who would benefit from surgery?** S.J. Oddsson, S. Hardarson, V. Petursdottir, E. Jonsson, G.V. Einarsson, T. Gudbjartsson (Reykjavik, Iceland)**16 Assessment of hemodynamic conditions in a-v shunts using CFD.** A.K. Niemann, E.T. Fründ, S.A. Kock, S.E. Petersen, J.M. Hasenkam (Aarhus, Denmark)**17 Cardiopulmonary function following the Nuss procedure for pectus excavatum - A prospective controlled study.** M. Lesbo, M. Tang, N.C. Melsen, S. Hvitfeldt Poulsen, J. Frøkiær, E. Lundorf, H. Pilegaard, V. Hjortdal (Aarhus, Denmark)**18 Correlation of MRI Viability Scanning and Post Mortem assessment of Myocardial Infarct Size in a Posterior Left Ventricular Infarct Model in Pigs.** M.F. Bjerre, H. Jensen, S. Ringgaard, W.Y. Kim, M. Smerup, P. Wierup, S. Lyager Nielsen, J. M. Hasenkam (Aarhus, Denmark)**19 Does Ostene™ improve bone healing and reduce inflammatory response compared with Bone Wax after sternotomy?** R. Vestergaard, H. Jensen, K. Søballe, N. Trolle Andersen, Ch. Abildgaard Hansen, T. Vestergaard Jakobsen, J. M. Hasenkam (Aarhus, Denmark)**16.45 – 17.15 Coffee break****17.45 – 19.00 MAIN TOPIC AND POSTGRADUATE COURSE****MYOCARDIAL REMODELING – WHAT’S SURGEONS DO WITH IT...****Chairman: Jarle Vaage, Oslo, Norway****17.45 – 18.15 MECHANISMS OF MYOCARDIAL REMODELING IN PRESSURE OVERLOAD**  
**Theis Tønnessen, Oslo, Norway****18.15 – 18.45 MYOCARDIAL REMODELING – SURGICAL OPTIONS**  
**Morten Smerup, Aarhus, Denmark****18.45 – 19.00 Coffee Break**

**19.00 – 19.30 SURGICAL MANAGEMENT OF END STAGE HEART FAILURE**  
Stephen Westaby, Oxford, UK

**19.30 – 20.00 RECONSTRUCTION OF THE LEFT VENTRICLE – LESSONS  
LEARNED OVER THE LAST 10 YEARS**  
Friedhelm Beyersdorf, Freiburg, Germany

**20.00 – 20.30 BEER AND BUSINESS & ANNOUNCEMENT OF YOUNG  
INVESTIGATOR AWARDS**



*Dinner (buffet)*

**Saturday, Feb 9<sup>th</sup>, 2008**

**14.00 – 15.15 ORAL SESSION IV**

**Chairman: Sten Lyager Nielsen, Aarhus, Denmark**

**14.00 – 14.15**

**Postconditioning reduces infarct size in an open-chest porcine acute ischemia-reperfusion model.** R.H. Lie, J.M. Hasenkam, T. Toftegård Nielsen, R. Poulsen and E. Sloth (Aarhus, Denmark)

**14.15 – 14.30**

**Intracoronary Genistein Acutely Increases Coronary Blood Flow in Anesthetized Pigs through  $\beta$ -Adrenergic Mediated Nitric Oxide Release and Estrogenic Receptors.** E. Grossini, C. Molinari, D.A.S.G. Mary, F. Uberti, P.-P Caimmi, N. Surico and G. Vacca (Novara, Italy)

**14.30 – 14.45**

**Whole Blood Thromboelastometry for evaluating the Effect of Hemostatic Agents (rFVIIa and fibrinogen) after Extracorporeal Circulation (ECC).** H.S. Asvaldsdottir, P.T. Önundarson, B. Sörensen (Reykjavik, Iceland)

**14.45 – 15.00**

**Transcriptional regulation in acute myocardial hypoxia.** R.Borup, Ch. Holdflod Møller, D.Steinbrüchel, F.C. Nielsen, and J.P.Goetze (Copenhagen, Denmark)

**15.00 – 15.15**

**Composite bilateral internal thoracic grafting: is the flow enough for left coronary artery?** A. Cañas, LF. López Almodóvar, P. Lima, J. Buendía (Toledo, Spain)

**15.15 – 15.45 Coffee Break**

**15.45 – 16.20 POSTER SESSION III**

**Chairman: Mari-Liis Kaljusto, Oslo, Norway**

**20 A practical regimen for amiodarone use in preventing postoperative atrial fibrillation after coronary artery bypass grafting: A randomised controlled trial.** L.R. Zebis, T.D. Christensen, H.F. Thomsen, V.E. Hjortdal (Aarhus, Denmark)

**21 Levosimendan acutely induce an increase of NO production through PI3K/Akt, ERK/MAPKs and p38/MAPK pathways in porcine coronary endothelial cells.**

**Involvement of  $K_{ATP}$  channels.** E. Grossini, P.-P. Caimmi, F. Uberti, C. Molinari, G. Vacca (Novara, Italy)

**22 The Effect of Lipid Core Placement on Fibrous Cap Stress Levels.** S.A. Kock, J.V. Nygaard, A.K. Niemann, A. Klærke, W. Paaske, E. Falk, and W.Y. Kim (Aarhus, Denmark)

**23 Sevoflurane Reduces Myocardial Infarct Size in a Porcine Model of Ventricular Hypertrophy.** J. Rolighed Larsen, M. Smerup, J.M. Hasenkam, S.Dahl Christensen, K. Sivesgaard and E. Sloth (Aarhus, Denmark)

**24 Bone Wax Influences Sternal Wound Infection Rate? Results of a Prospective Audit.** P. Bhimagunta, R.S. Jutley, I.M. Mitchell (Nottingham, UK)

**25 Bronchopleural Fistula Following Pneumonectomy for Non-Small-Cell Lung Cancer Can Often Be Treated Without Surgical Intervention.** T. Guðbjartsson, P. Jonsson, E. Gyllstedt (Reykjavik, Iceland)

**26 Can we measure infarct size with real time RT PCR ?** K-O Stensløkken, S. Ellefsen, A. Rutkovskiy, M-L Kaljusto, G. Nilsson and J. Vaage (Oslo, Norway)

**16.20 – 17.00 Coffee Break**

**17.00 – 19.00 WET LAB**

**PRACTICAL EXERCISES ON EX VIVO PIG HEARTS: VALVE PLASTY/  
REPLACEMENT, DOR' PLASTY ETC**

**20.00 PRESIDENTIAL DINNER (3 COURSE MENU) WITH POMPOUS SPEECHES**

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