



NVT-BACTS
Fourth Joint Meeting
Kasteel Vaalsbroek, Vaals Nederland
Friday 21st November 2025

08:00 Registration

08:20 Introduction chairs BACTS-NVT

Session I – Abstract session

Adult Cardiac Surgery - Valve

Chairs: O. Hadani (CHU charleroi), Dr. A.F.M. van Garsse (Radboudumc)

8:30 **Seventeen-year real-world experience with sutureless aortic valve replacement**

M. Van den Bosch, M. Lamberigts, R. Coeckelbergh, C. Dubois, F. Rega

8:45 **Factor XI inhibition with AB023 prevents mechanical valve thrombosis in a porcine pulmonary model**

T. Langenaeken, L. Vanglabek, M. Van Hecke, P. De Meester, T. Verbelen

9:00 **Differences in ten-year outcomes between prosthetic aortic valve models: nationwide head-to-head comparison**

H. de Beaufort, M. Roefs, E. Daeter, W. Li, W. van Boven

9:15 **Biomechanical investigation of the physiological relationship between the tricuspid valve components and the right ventricle**

M. Vandenheede, J. Czapla, F. De Somer, M. Vandenheuvel, T. Bové

9:30 **Concomitant aortic and mitral valve repair: 10-year outcomes**

A. Dijkstra, G. Guiducci, M. Fatani, P. Zacek, O. Bouchot

9:45 **A new three-dimensional aortic valve annuloplasty system tested in a chronic sheep model**

V. Lorenz, X. Bollen, P. Verbrugghe, G. El Khoury, L. de Kerchove

10:00 **Coffee break** – sponsor interaction



Session II – Abstract session

Adult Cardiac Surgery - Complex/Outcomes

Chairs: D. Szeceł (Liège), F. Akca (Catharina Ziekenhuis Eindhoven)

- 10:30 **Single-centre donation after circulatory death heart transplantation: comparing direct procurement and hypothermic oxygenated perfusion with thoraco-abdominal normothermic regional perfusion and static cold storage.**
J. Brouckaert, K. Vandendriessch, K. Degezelle, K. Van de Voorde
- 10:45 **Valve-sparing aortic root replacement: defining high-volume centres using prospective data**
P. Govers, M. Kawczynski, S. Heuts, K. Veen, L. de Kerchove
- 11:00 **Impact of delayed heparin bridging on bleeding and stroke after left ventricular assist device implantation**
P. Jahangiri, Y. Luo, YZ Sener, J. Sjatskig, J. Bunge
- 11:15 **Outcome of patients with preoperative renal dysfunction after off-pump coronary artery bypass grafting**
J. ter Woorst, D. Hussain, J. Olsthoorn, C. Konings
- 11:30 **Management of high-risk acute pulmonary embolism: an emulated target trial analysis**
T. Verbelen, A. Stadlbaue, L. Binzenhöfer, T. Goslar
- 11:45 **Ross-Pears: personalized support for the pulmonary autograft**
A. Durko, A. Kougioumtzoglou, L. Putman, C. Austin, D. Koolbergen
- 12:00 **Lecture: How can AI change the future of cardiac surgery**
W. Oosterlinck
- 12:30 General Assembly NVT
General Assembly BACTS and report Database Committee
- 13:00 **Lunch**



Session III – Abstract session

Innovation/Technology & AI

Chairs: M. de Vos (Brugge)

- 14:00 **Intraoperative intracoronary flow measurement and stenosis quantification by High-Frequency Ultrasound**
M. Pettinari, G. Buttiglione, D. Mascia, V. Lorenz, G. Aphram
- 14:15 **Beyond prosthesis-patient mismatch: the incremental prognostic value of echocardiographic parameters**
B. Velders, M Vriesendorp, R. Groenwol, S. Ito
- 14:30 **Radial artery in coronary artery bypass grafting: a monocentric retrospective study.**
S. Madani, V. Tchana-Sato, JP. Lavigne, M. Radermecker
- 14:45 **The growing value of multicentre, prospective, real-world data: early-outcomes of 1000 patients**
L. Vanglabekke, T. Verbelen, B. Meuris
- 15:00 **AI-assisted pre-operative risk prediction improves mortality estimation for aortic surgery**
E. Patteet, L. Berzenji, K. De Brabandere, J. Coveliers, D. De Bock
- 15:15 **Developing a minimally invasive aortic surgery program through upper-hemi sternotomy**
J. Olsthoorn, K. Lam, E. Farag, T. van Brakel
- 15:30 **Coffee Break – sponsor interaction**

Session IV – abstract session:

Experimental/Translational Research & Specialized Procedures

Chairs: Joeri Van Puyvelde

- 16:00 **Deep Root Dissection: anatomical study of the plane between the aortic root and the pulmonary trunk**
V. Lorenz, S. Mastrobuoni, S. Aydin, M. Pettinari, F. Mabile
- 16:15 **Micra-Hybrid: A Dutch-Belgium randomized trial of multivessel hybrid coronary revascularization**
I. Cenik, W. Oosterlinc, F Akca
- 16:30 **Perioperative albumin decrease and postoperative complications: a call for monitoring and intervention**
A. Dijkstra, S. de Boer, M. Šakić, N. Scholten, L. van Schepen



16:45 Expanding the horizons of lung preservation: two-year experience with hypothermic controlled storage.

A. Barbarossa, J. Van Slambrouck, C. Vanluyten, X. Jin, C. Vandervelde

17:00 Mid-term outcomes after surgical treatment of congenital tracheomalacia

T. Martens, T. Bové, H. Schaballie, J. Willekens, L. Desender

17:15 Towards clinical application of automated decellularized heart valves

L. Coopmans, J. Hjortnaes, M. Engelse, F. BenekeF, A. van den Bogaerd, M. Hazekamp

17:30 Keynote lecture Prof. Dr. Mark Coeckelbergh

Full Professor of Philosophy of Media and Technology at the Philosophy of Department of the University of Vienna, and until recently Vice Dean of the Faculty of Philosophy and Education. He is also ERA Chair at the Institute of Philosophy of the Czech Academy of Sciences in Prague and Guest Professor at WASP-HS and University of Uppsala. Previously he was the President of the Society for Philosophy and Technology (SPT). His expertise focuses on ethics and technology, in particular robotics and artificial intelligence. He is a member of various entities that support policy building in the area of robotics and artificial intelligence, such as the European Commission's High Level Expert Group on Artificial Intelligence, the Expert Council Ethics of AI of the Austrian UNESCO Commission, the Austrian Council on Robotics and Artificial Intelligence, and the Austrian Advisory Council on Automated Mobility. He is University of Vienna's Circle U. Academic Chair for Artificial Intelligence. He is on the advisory board of the University of Milan's Research Center on the Philosophy of Technology (PhilTech@UNIMI) and is also on the editorial board of the journal Cambridge Forum on AI: Law and Governance. He is the author of 21 philosophy books and numerous articles, and is involved in several national and European research projects on AI and robotics.

18:00 Awards Session and happy hour

The Best abstract BACTS and NVT will be awarded with a prize.

19:00 Dinner



**NVT-BACTS
Fourth Joint Meeting
Kasteel Vaalsbroek, Vaals Nederland**

Saturday, November 22nd, 2025

08:00 Registration

08:30 **AI in cardiothoracic Surgery: Concept, clinical use and emerging prospects.**

P. Sardari Nia (MUMC)

THEME SESSION

Chairs: H. Gutermann (ZOI), J.L. Olsthoorn (Isala Zwolle)

Rapid fire abstracts

09:15 **Evaluation of decellularized equine pericardial tissue for vascular and valvular reconstruction in congenital heart**

T. Gros, T. Martens, K. François, T. Bové

AI-driven prediction of ECMO and vital parameters for high-fidelity VR Simulation

B. Schalkwijk, A. van der Mee Mendes, D. van der Mee Mendes, S. Max, E. Mahtab

Towards AI-based prediction of surgical duration to improve operation room planning in cardiothoracic surgery

L. Coopmans, H. Winder, D. van der Mee Mendes, R. Klautz, R. Vos¹, E. Mahtab

Robotic mitral valve repair: A 12-year experience from a single institution.

G. Buttiglione, V. Lorenz, M. Pettinari, S. Mastrobuoni, L. de Kerchove, G. Aphram

Outcome of coronary bypass surgery for single vessel Lad disease through median sternotomy. The Netherlands Heart Registration.

F. Sampon, DQ Gortzen, MM Roefs, JF ter Woort, PAL Tonino, F Akca

Revival of the Ross procedure in adults

N. Saouti¹, A. Duijnhouwer, T. Ten Cate¹, A. van Dijk, R. Heijmen

First-in-human robot-assisted minimally invasive direct coronary artery bypass using the Da Vinci single-port surgical system

M. Algoet, J. François, J. Fleerackers Ph. Ballaux, B. Vaes, K. Cathenis

09:45 **Small aortic annulus, the problem – the solution(s?).**

P. Verbrugge (KUL)



10:15 **Coffee break – sponsor interaction**

10:15 -12:15

BACTS/NVT Techno-college with the support of EDWARDS.

The Bo Yang technique to enlarge the aortic root. Wetlab.

Proctors: T. Bové (Ghent), L. de Kerkhove (UCL St Luc), T.J. van Brakel
(Catharina Ziekenhuis), J. Bekkers (Erasmus MC)

Chairs: S. Siregar (ErasmusMC), V. Lorenz (UC)

10:45 **Keynote speaker on 'AI in personalized medicine of cardiac disease'**

P. Bonizzi (MUMC)

11:15 **ESC/EACTS 2025 guidelines in valvular diseases: The Cardiologist's Perspective**

Prof. Dr. C. Dubois (KUL)

11:45 **ESC/EACTS 2025 guidelines in valvular diseases: The Surgeon's Perspective**

Prof. Dr. R.J.M. Klautz (LUMC)

12:30 **End of the meeting.**

Don't forget to register via www.BACTS.org