International Workshop on Flow-Induced Blood Damage in Rotating Systems 2023

Program

Thursday, August 24

- 09.00 Welcome Session with Short Film Presentation Frank-Hendrik Wurm, University of Rostock
- **09.30** Thrombosis Testing in the Real World: Challenges and Clinical Relevance Michael Simmonds, Griffith University
- 10.00 Multispecies Modelling of Thrombosis Potential in Blood Contacting Medical Devices Kathrine Fraser, University of Bath
- 10.45 Coffee Break
- 11.15 Thrombogenic Risk Assessment of Cardiovascular Implants by Means of Experimental and Numerical Flow Analyses Michael Stiehm, Institut für ImplantatTechnologie und Biomaterialien e.V.
- 12.00 Lunch
- **13.15 Experimental Study of Blood Damage in Different Test Setups** Michael Lommel, Charité Berlin
- 14.00 Hemolysis from a (Bio-)Chemical Point of View: the Underestimated Role of the Porphyrin Heme Marie-T. Hopp, University of Koblenz
- 14.45 Coffee Break
- 15.15 Rheometer-Based Shearing Device for Investigating Sources of Variance in Hemolysis Measurements Christopher Blum, RWTH Aachen University
- 16.00 Impact of Connector Design and Influence of Anticoagulant on in vitro Hemolysis Testing of Artificial Heart Pumps Faisal Zaman, Scandinavian Real Heart
- 16.45 Coffee Break
- 17.00 RostockTestCase Open Access Geometry and High-Fidelity Flow Simulation Results of a Ventricular Assist Device Benjamin Torner, University of Rostock
- 17:30 Leisure Time and Walk to the Beach
- 19.00 BBQ at the Beach

Friday, August 25

- Morning Coffee 08.45
- Particle Migration and the Influence on the Stress Field in Microfluidic Flows 09.00 Finn Knüppel, University of Rostock
 - Ghost Cells as a Transparent Blood Substitute Fluid Microscopic09.45Examination of Cell Shape, Size and DeformabilityBenjamin Schürmann, RWTH Aachen University
 - Coffee Break 10.30
 - On the Effect of the Form of Effective Stress and Turbulence Modeling Technique on the Prediction of Hemolysis in Rotatory Blood Pumps Peng Wu, Soochow University
 - Assessment of Haemolysis Models for a Pulsatile Total Artificial Heart 11.45 Joseph Bornoff, University of Barth
 - Lunch 12.30
 - Open Discussion and News of our (BDW) Hemolysis Testcase 13.30 All (Optional)
 - Eulerian Formulation of Red Blood Cell Morphology Equations for
Strain-Based Hemolysis Modeling
Nico Dirkes, RWTH Aachen University14.00
 - Comparison of Stress-Based and Strain-based Lagrangian Models for Hemolysis Estimation Ilaria Guidetti, Politecnico di Milano
 - Last Coffee Break for Discussions 15.30
 - Future Perspectives and Closing Ceremony 16.00

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End 16.15





