

# Scientific session

- 13:30      On the Origin of Cardiovascular Sounds Recorded from the Ear**  
Bjarke Gardbæk (PhD stud)  
*Department of Electrical and Computer Engineering, Aarhus Universitet*
- 13:45      Mechanical and Geometric Characterization of a Novel 2-Ply Vacuum-Pressed Biological Scaffold Patch Design for Posterior Mitral Valve Reconstruction**  
Johannes Jedrzejczyk (MD), Frederik Andersen (MD), Jacob Petersen (MS), Alexander Emil Kaspersen (MD), Urjosee Sahana (MS), Søren Skov (MSc, PhD), Jens Væsel (MD), Michael Hasenkam (MD, DMSc), Marcell Tjørnild (MD, PhD)  
*Institut for Klinisk Medicin, Aarhus Universitet*
- 14:00      Experimental and Numerical Study of Solid Needle Insertions into Human Stomach Tissue**  
Sif Julie Friis (erhvervs-PhD stud.), Torben Strøm Hansen (MSc, Engineer, Novo Nordisk), Camilla Olesen (adjunkt), Mette Poulsen (PhD, Engineer, Novo Nordisk), Hans Gregersen (MD, PhD), Jens Vinge Nygaard (PhD, lektor, AU)  
*Department of Biological and Chemical Engineering, Aarhus University*
- 14:15      A novel expandible aortic annuloplasty ring for aortic valve repair**  
Tanita Drejer Jeppesen, Johannes Høgfeldt Jedrzejczyk, Søren Nielsen Skov, Mariam Noor, Rasmus Ellerup Kraghede, Jacob Petersen, Frederik Thørholm Andersen, Markus Hasbak, Mads Rohde Harthimmer, Peter Johansen, J. Michael Hasenkam, Leila Louise Benhassen  
*Department of Cardiothoracic and Vascular Surgery, Aarhus University Hospital. Department of Clinical Medicine, Aarhus University. Department of Electrical and Computer Engineering, Faculty of Technical Sciences, Aarhus University.*
- 14:30      Utilizing machine learning to predict episodes of atrial fibrillation based on sleep parameters extracted from an in-bed sleep sensor**  
Mathushan Gunasegaram (MSc), Birthe Dinesen (MSc, PhD), Kristine Røge (MSc), Dorthe Svenstrup (MD, PhD), Lars Frost (MD, dr.med), Andy Eie Albertsen (MD, PhD), Mads Jochumsen (Med, PhD)  
*Institut for Medicin og Sundhedsteknologi, Aalborg Universitet*
- 14:45      Automatically sampling flow cytometer for reducing operation costs of optimization studies in biomanufacturing**  
Lasse P. Kristiansen (PhD stud), Carl Emil S. Kovsted (PhD stud), Yingchao Li (PhD stud), Jaco Botha (Postdoc)\* and Emil B. Kromann (Associate Professor)\*. \*shared last authors  
*Sundhedsteknologi, Danmarks Tekniske Universitet*
- 15:00      Training equipment for CT-guided lung biopsies**  
Anton Meldgaard Esbjerg (MSc stud), Emil Hertz Degn (B.Eng), William Ludvigsen (B.Eng), David Alberg Peters (Cand.scient.med., ph.d.), Kristian Horsager (Medical Doctor)  
*Institut for Elektro- og Computerteknologi Aarhus Universitet*