

## **Morten Olgaard Jensen, PhD, DrMed**

Department of Biomedical Engineering

University of Arkansas, Fayetteville, AR, USA

Ph.: +1 404 431 1031 / E-mail: [mojensen@uark.edu](mailto:mojensen@uark.edu)

Civil Status: Married to Hanna Jensen, MD, PhD

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### **Education:**

- Doctor of Medical Science (DrMed), School of Medicine / Faculty of Health Sciences, The University of Aarhus, Aarhus, Denmark, March 2015
  - Doctor of Philosophy (PhD), School of Medicine / Faculty of Health Sciences, The University of Aarhus, Aarhus, Denmark, November 2008
  - Master of Science (M.Sc.), Biomedical Engineering (GPA: top 10%), Georgia Institute of Technology / Emory University School of Medicine, Atlanta, GA, USA, May 2000
  - Bachelor of Science (B.Sc.) in Engineering with honors, Electrical and Computer Engineering, The Engineering College of Aarhus, Aarhus, Denmark, July 1997
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### **Professional Experience:**

- Associate Professor of Biomedical Engineering and Arkansas Research Alliance Scholar, Department of Biomedical Engineering, University of Arkansas, Fayetteville, AR, USA (*Aug. '15 – present*)
- Chief Technology Officer, Vivas LLC – Company creates flow model phantoms with synthetic medical gel in partnership with Humimic Medical LLC, sales worldwide (*Nov. '17 – present*)
- Associate Professor, Dept. of Cardiothoracic Surg., The Univ. Hosp. of Aarhus, DK (*Jul. '09 – Dec'13, Adjunct Jan '14 - present*)
- Associate Professor and Director of Research, The Scandinavian School of Cardiovascular Technology (*Oct. '09 – Aug. '15*)
- Research Faculty, Department of Biomedical Engineering, Georgia Tech / Emory, Atlanta, GA, USA (*Feb. '14 – Aug. '15*)
- Honorary Senior Lecturer, Department of Mechanical Engineering, University College London, London, UK (*Apr. '13 – Feb.'14*)
- Honorary Clinical Fellow and Senior Lecturer, Cardiology, The Heart Hospital, University College London, London, UK (*Apr. '13 – Feb.'14*)
- Assistant Professor, Department of Biomedical Engineering, Engineering College of Aarhus, Aarhus, DK (*Oct. '07 – Jul. '09*)
- Consulting Services Unit / Worldwide Business Development Group, National Instruments, Austin, TX, USA (*June '00-Aug. '05*)
- Danish Army Corps of Engineers, Communications Unit, Denmark (*Aug. '92 - Jun. '93*)

### **Professional Experience Keywords:**

- Research Leadership; Biofluids & Medical Devices; Biomaterials & Tissue Engineering; Medical Instrumentation; Patient Specific Heart Valve Therapy; TAVR; TMVR; In Vitro, In Vivo; In Silico Modeling; Biomedical Technology and Research; Experimental Cardiac Surgery; Microelectronics-Photonics Program; Innovative Devices for Improved Interventions; Course Development and Teaching; Customer Education; Engineering Leadership Program; International Collaborations and Student Exchange Agreement; Blood Pressure and Flow Measurement; Cardiovascular Fluid Mechanics; Biomechanics; Heart Valve Surgery; Medical Devices; Ultrasound; Nitinol; Minimally Invasive Devices; Pacemakers; Implantable Electronics; Force Measurement in Tissue; Manage Image Acquisition and Motion Control Group; Course Development and Inaugural Execution: Image Acquisition & Processing; Consulting Services; Business Development; Integrated Systems Design; Subsystem Level Proof of Concept; R&D (Research & Development); Certified Professional Instructor: LabVIEW, Data Acquisition (DAQ), Signal Conditioning, IMAQ Machine Vision & Image Processing, Motion Control, Simulation, System Identification, Control Design, TestStand; Marketing Conventions; Show Captain; Medical Device & Manufacturing; Recruiting Manager; Hemodynamic Performance; Design and Improvement of Mechanical and Tissue Engineered Prosthetic Heart Valve Devices: Flow Visualization, Pressure Drop, and other FDA required device testing measurements on both mechanical and bioprosthetic mitral and aortic heart valves, Measurement, Analysis, and Presentation of Turbulent Blood Flow Distal to Artificial Aortic Valves; Medical Imaging Quality Assurance (MRI, CT, X-Ray, Doppler Ultrasound) and Intra-operative Heart Surgery Monitoring Systems; Entrepreneurship; Grant Proposals; Research Funding

## **Awards / Nominations**

- American Heart Association Heart Hero, November 2018
- Biomedical Engineering Society / Medtronic Coulter College Design Scholar Award Mentor, August 2018
- Outstanding Mentor, University of Arkansas Office of Nationally Competitive Awards - for Goldwater Scholar "*Nation's most prestigious award for undergraduate students who plan doctoral studies and research careers in the fields of science, mathematics or engineering*" April 2018
- AcademicKeys Who's Who in Engineering Higher Education (WWEHE)
- Excellence in Research Dissemination Award, College of Engineering, University of Arkansas, May 2017
- Outstanding Teaching Award, Department of Biomedical Engineering, University of Arkansas, May 2017
- Arkansas Research Alliance Scholar Award, August 2015
- Honorary Clinical Fellow, Cardiology, The Heart Hospital Specialist Board, UCLH
- Young Investigator Award, Leducq MITRAL Transatlantic Network, May 2010
- The Danish Engineering Service Award, June 2009
- The Danish Engineering Service Award, January 2009
- The Danish Society of Engineers Honorary Award of Excellence (Elektroprisen), May 2008
- Faculty of Health Sciences 1st Prize Award for Excellent Scientific Contribution at the University of Aarhus Graduate School of Health Sciences, January 2008, Aarhus, Denmark
- Paper Competition Finalist, The Bioengineering Division of the American Society of Mechanical Engineers, June 2008, Marco Island, Florida, USA
- C. Walton Lillehei / St. Jude Medical Young Investigators Award Presentation Finalist, Fourth Biennial Meeting of the Society for Heart Valve Disease, June 2007, New York, NY, USA
- 1st Prize, Award Presentation Session, 25th Danish Annual Congress in Biomedical Engineering, September 2007, Brødstrup, Denmark
- 1st Prize for Excellent Scientific Contribution at the University of Aarhus Graduate School of Health Sciences, January 2006, Aarhus, Denmark
- Young Investigators Award 2nd Place: The Scandinavian Society for Research in CardioThoracic Surgery, 16th Annual Meeting, February 2006, Geilo, Norway

## **Patents / Patent Application Publications / IP**

- Jensen M, Girardot M: "Venous Valve Bio-prosthesis Prepared from Animal Tissue Optimized for Human Implantation" Provisional Patent Filed.
- Jensen M, Brickey K, Harris N: "Acute Ischemic Stroke Clot Dissolver and Capture Device". Provisional Patent Filed.
- Jensen M, Hestekin J, Maier A, White M: "Inexpensive, Reproducible Vasculature Modeling Process". Trade Secret filed with the University of Arkansas Technology Ventures Office.
- Maigaard, T, Jensen, M: "A device for indicating contamination of the abdominal cavity or the like" Ref. ID# PA2011 702452457DK00. Priority Date May 18th, 2011
- Jensen, Gadgaard, Hoest, Madsen, Rasmussen: "Expandable Diffuser", International Patent Filed on June 25, 2009 under No.: PA 2009 00787, Published Internationally on December 29<sup>th</sup>, 2010 (WO/2010/149168A1)
- Balent, JS.; Jensen MO: "Signal Analysis Using Image Processing Techniques", U.S. provisional application Serial No. 60/357,691, U.S. utility application Serial No. 10/365,568; U.S. Patent Publications # 2003-0165259 A1, Patents Official Gazette, September 04, 2003

## **Board of Directors Memberships, Appointments, Committees**

- Mentor at the 2018 American Heart Association Research Leaders Academy, Salt Lake City, Utah
- Department of Defence (DoD) National Defense Science and Engineering Graduate (NDSEG) Fellowships Review Committee

- National Institutes of Health (NIH) F10A Study Section panel member, Center for Scientific Review (CSR) Special Emphasis Panel (SEP) / Fellowship Grant Applications: Physiology and Pathobiology of Cardiovascular and Respiratory Systems (F30, F31, F32, F33)
- National Institutes of Health (NIH) AREA / R15 Study Section panel member, Center for Scientific Review (CSR): Cardiovascular Differentiation and Development (CDD), Electrical Signaling, Ion Transport, and Arrhythmias (ESTA)
- Appointed to the Danish Academy of Engineers
- Member of the Arkansas Research Alliance Academy of Scholars and Fellows
- The Center for Innovative Cardiovascular Technologies (CICT)
- Board of Directors at the Danish Society for Biomedical Engineering (DMTS) (Member 2009-2014, Consultant 2014-present)
- The Danish Accreditation Council
- Board of Advisors for the Danish Cardiovascular Research Academy
- Board of Directors for the Cardiovascular PhD Education, School of Medicine, University of Aarhus
- Academic Assessment Committee, University of Aalborg
- Academic Assessment Committee, University of Aarhus, Faculty of Health

### **Editor / Editorial Board**

- K. Dremstrup, S. Rees, M. Ø. Jensen: Editors, Proceedings of the 15<sup>th</sup> Nordic-Baltic Conference on Biomedical Engineering and Medical Physics, Volume 34, the International Federation for Medical and Biological Engineering, ISBN 1680-0737, Springer DOI 10.1007/978-3-642-21683-1
- Editorial Board of the American Journal of Cardiovascular Disease (PubMed Indexed, [www.ajcd.us](http://www.ajcd.us))

### **Reviewer / Journal Referee**

- Circulation Heart Failure (AHA)
- Journal of Heart Valve Disease
- Cardiovascular Engineering and Technology
- Journal of Biomechanics
- Annals of Biomedical Engineering
- Journal of Cardiovascular Translational Research
- Heart
- Measurement
- American Society of Mechanical Engineers - Journal of Biomechanical Engineering
- Computer Methods in Biomechanics and Biomedical Engineering
- International Journal of Artificial Organs
- Journal of Surgical Research
- Clinical Physiology and Functional Imaging
- Annals of Thoracic Surgery
- Journal of Computational Biology and Bioinformatics Research
- Medical & Biological Engineering & Computing
- Hult International Business School
- University of Bordeaux, IdEx Post-doctoral Fellowships program – evaluate candidates
- Associate Abstract Referee: Danish Annual Congress in Biomedical Engineering

### **Conference Chairman / Moderator**

- Oral Session Chair, Cardiovascular Engineering, Device Technologies and Biomedical Robotics: Vascular Devices and Hemodynamics, Biomedical Engineering Society 2018 Annual Meeting, October 19th, Atlanta, Georgia, USA
- Oral Session Chair, Hemodynamics and Vascular Mechanics, Biomedical Engineering Society 2015 Annual Meeting, October 8th, Tampa, Florida, USA
- Oral Session Moderator, 33<sup>rd</sup> Annual meeting of the Scandinavian Society of ExtraCorporeal Technology, Aarhus, Denmark August 22<sup>nd</sup> - 24<sup>th</sup>, 2013

- Poster Session Moderator, 62<sup>nd</sup> Annual Meeting of Scandinavian Association for Thoracic Surgery, Aarhus, Denmark August 22<sup>nd</sup> - 24<sup>th</sup>, 2013
- Award Presentation Committee Chairman, 31<sup>st</sup> Danish Annual Congress in Biomedical Engineering, September 18<sup>th</sup>, 2013, Brædstrup, Denmark
- Award Presentation Committee Chairman, 30<sup>th</sup> Danish Annual Congress in Biomedical Engineering, September 19<sup>th</sup>, 2012, Brædstrup, Denmark
- Award Poster Presentation Committee Chairman, 30<sup>th</sup> Danish Annual Congress in Biomedical Engineering, September 20<sup>th</sup>, 2012, Brædstrup, Denmark
- Moderator: "Beyond the Limits of Mitral Valve Repair", Mitral Valve Replacement Symposium, September 29<sup>th</sup>, 2011, Aarhus University Hospital, Denmark
- Session Chairman, 60<sup>th</sup> Scandinavian Conference in Cardiothoracic Surgery, Tampere, Finland, 18 - 20 Aug 2011
- International Federation for Medical and Biological Engineering (IFMBE) Young Investigator Awards Committee, June 14-17<sup>th</sup>, 2011, Aalborg, Denmark
- Panel Discussion Member: "Biomedical Engineering Education", 15<sup>th</sup> Nordic – Baltic Conference on Biomedical Engineering and Medical Physics, June 14<sup>th</sup> - 17<sup>th</sup>, 2011, Aalborg, Denmark
- Chairman: "Cardiovascular & Pulmonary Engineering", 15<sup>th</sup> Nordic – Baltic Conference on Biomedical Engineering and Medical Physics, June 14<sup>th</sup> - 17<sup>th</sup>, 2011, Aalborg, Denmark
- 29<sup>th</sup> National Meeting at the Danish Society for Biomedical Engineering, June 14<sup>th</sup> - 17<sup>th</sup>, 2011, Aalborg, Denmark
- Session Chairman, 30<sup>th</sup> Scandinavian Conference in ExtraCorporeal Technology, Oslo, Norway, 26 - 28 Aug 2010
- Session Chairman, PhD-day, Faculty of Health Sciences, Aarhus University, Denmark, January 15<sup>th</sup>, 2010
- Award Presentation Session Committee, 27<sup>th</sup> Danish Annual Congress in Biomedical Engineering, September 22<sup>nd</sup>, 2010, Brædstrup, Denmark
- Award Poster Presentation Session Committee, 27<sup>th</sup> Danish Annual Congress in Biomedical Engineering, September 23<sup>rd</sup>, 2010, Brædstrup, Denmark
- Session Chairman, 19<sup>th</sup> World Congress of the World Society of Cardio-Thoracic Surgeons
- Buenos Aires, Argentina, November 4<sup>th</sup> – 6<sup>th</sup>, 2009
- Award Presentation Session Committee, 28<sup>th</sup> Danish Annual Congress in Biomedical Engineering, September 17<sup>th</sup>, 2009, Brædstrup, Denmark

### **Conference Organizing / Scientific Committee**

- 31<sup>st</sup> National Meeting at the Danish Society for Biomedical Engineering, September 17<sup>th</sup> – 19<sup>th</sup>, 2013, Brædstrup, Denmark
- 30<sup>th</sup> National Meeting at the Danish Society for Biomedical Engineering, September 19<sup>th</sup> – 20<sup>th</sup>, 2012, Brædstrup, Denmark
- 15<sup>th</sup> Nordic – Baltic Conference on Biomedical Engineering and Medical Physics, June 14<sup>th</sup> - 17<sup>th</sup>, 2011, Aalborg, Denmark
- 29<sup>th</sup> National Meeting at the Danish Society for Biomedical Engineering, June 14<sup>th</sup> - 17<sup>th</sup>, 2011, Aalborg, Denmark
- 28<sup>th</sup> National Meeting at the Danish Society for Biomedical Engineering, September 21<sup>st</sup> - 23<sup>rd</sup>, 2010, Brædstrup, Denmark
- 27<sup>th</sup> National Meeting at the Danish Society for Biomedical Engineering, September 22<sup>nd</sup> - 24<sup>rd</sup>, 2009, Brædstrup, Denmark

### **Publications Summary**

- 66 peer reviewed publications (hereof 53 journal papers and 13 refereed conference proceedings)
- 19 magazine articles
- 11 books / book chapters
- 6 conference keynote addresses
- 81 conference oral presentations
- 52 conference poster presentations

- 28 seminars / invited guest speaker
- 6 patents / patent application publications / trade secrets

### **Peer Reviewed Paper Publications**

- 1) Collins RT; Laughlin; Lang S; Bolin E; Daily J; Jensen H; Jensen M: "Real-Time Transthoracic Vector Flow Imaging of the Heart in Pediatric Patients" *Progress in Pediatric Cardiology* 2019, DOI: 10.1016/j.ppedcard.2019.02.003
- 2) Patrick C Bonasso; Kevin W Sexton; Steven C Mehl; Michael S Golinko; Morten O Jensen; Jingxian Wu; Samuel D Smith; Jeffrey M Burford; Melvin S Dassinger: "Lessons learned measuring peripheral venous pressure waveforms in an anesthetized pediatric population." *Biomedical Physics & Engineering Express* 5 035020 <https://doi.org/10.1088/2057-1976/ab0ea8>
- 3) Bonasso PC, Sexton KW, Hayat MA, Wu J, Jensen HK, Jensen MO, Burford JM, Smith SD, Dassinger SM: "Venous physiology predicts dehydration in pediatric patients." *J Surg Res.* 2019 Feb 15;238:232-239.
- 4) Preut A, Laughlin M, Jensen H, Hestekin J, Jensen M: Novel Method for Emboli Analog Formation Towards Improved Stroke Retrieval Devices" *J Biomech.* October 26, 2018 Volume 80, Pages 121–128
- 5) Easson G, Laughlin M, Jensen H, Haney K, Girardot M, Jensen M: "Performance Changes of Venous Valves following Tissue Treatment with Novel In Vitro System"; *Phlebology.* 2018 Oct 18:268355518804360. doi: 10.1177/0268355518804360. [Epub ahead of print]
- 6) Jensen MO, Jensen H, Skov SN, Levine RA, Nygaard H, Hasenkam JM, Nielsen SL: "New Mitral Valve Annuloplasty Concept: Optimizing Annular Dynamics and Force Distribution" *J Heart Valve Dis.* 2018 Jan;27(1):38-46.
- 7) Bonasso, PC; Dassinger, MS; Jensen, MO; Smith, SD; Burford, JM; Sexton, KW: "Optimizing peripheral venous pressure waveforms in an awake pediatric patient by decreasing signal interference", *Journal of Clinical Monitoring and Computing*, 2018 Dec;32(6):1149-1153
- 8) Stephens SE, Liachenko S, Ingels NB, Wenk JF, Jensen MO (2017) High resolution imaging of the mitral valve in the natural state with 7 Tesla MRI. *PLoS ONE* 12(8): e0184042. <https://doi.org/10.1371/journal.pone.0184042>
- 9) Skov SN, Ropcke DM, Tjornild MJ, Ilkjaer C, Rasmussen J, Nygaard H, Hasenkam JM, Jensen MO, Nielsen SL: "Remodeling Mitral Annuloplasty Ring Concept with Preserved Dynamics of the Annular Height" *J Heart Valve Dis.* 2017 May;26(3):295-303
- 10) Skov SN, Røpcke DM, Tjørnild MJ, Ilkjær C, Rasmussen J, Nygaard H, Jensen MO, Nielsen SL: "The effect of different mitral annuloplasty rings on valve geometry and annular stress distribution" *Interact CardioVasc Thorac Surg* 2017;24:683–90.
- 11) Skov SN, Ropcke DM, Tjornild MJ, Ilkjaer C, Rasmussen J, Nygaard H, Jensen MO, Nielsen SL: "Semi-rigid Mitral Annuloplasty Rings Improves Myocardial Stress Adaptation Compared to a Rigid Ring", *European Journal of Cardiothoracic Surgery (EJCTS)*, 2017 May 1;51(5):836-843

- 12) Sasa Grbic, Thomas F. Easley, Tommaso Mansi, Charles H. Bloodworth, Eric L. Pierce, Ingmar Voigt, Dominik Neumann, Julian Krebs, David D. Yuh, Morten O. Jensen, Dorin Comaniciu, Ajit P. Yoganathan: "Personalized Mitral Valve Closure Computation and Uncertainty Analysis from 3D Echocardiography" *Medical Image Analysis Volume 35, January 2017, Pages 238–249*
- 13) Pantoja JL, Morgan AE, Grossi EA, Jensen MO, Weinsaft JW, Levine RA, Ge L, Ratcliffe MB: "Undersized Mitral Annuloplasty Increases Strain in the Proximal Lateral Left Ventricular Wall". *Cover Article in Ann Thorac Surg. 2016 Oct 5 (8 pages).*
- 14) Charles H. Bloodworth IV, B.S.; Eric L. Pierce, B.S.; Thomas F. Easley, M.S.; Andrew Drach, Ph.D.; Amir H. Khalighi, M.S.; Milan Toma, Ph.D.; Morten Ø. Jensen, Ph.D., Dr.Med.; Michael S. Sacks, Ph.D., Ajit P. Yoganathan, Ph.D.: "Ex Vivo Methods for Informing Computational Models of the Mitral Valve", *Ann Biomed Eng. 2017 Feb;45(2):496-507. doi: 10.1007/s10439-016-1734-z. Epub 2016 Oct 3.*
- 15) Eric L. Pierce, Jean Pierre M. Rabbah, Karl Thiele, Qifeng Wei, Brani Vidakovic, Morten O. Jensen, Judy Hung, Ajit P. Yoganathan: "Three-Dimensional Field Optimization Method: Gold-Standard Validation of a Novel Color Doppler Method for Quantifying Mitral Regurgitation" *Journal of the American Society of Echocardiography (JASE) 2016 Oct;29(10):917-925*
- 16) Søren Nielsen Skov, Diana Mathilde Røpcke, Christine Ilkjær, Jonas Rasmussen, Marcell Juan Tjørnild, Jorge H. Jimenez, Ajit P. Yoganathan, Hans Nygaard, Sten Lyager Nielsen, Morten Olgaard Jensen: "New mitral annular force transducer optimized to distinguish annular segments and multi-plane forces", *Journal of Biomechanics, Volume 49, Issue 5, 21 March 2016, Pages 742–748.*
- 17) Eric L. Pierce, Andrew W. Siefert, Deborah M. Paul, Sarah K. Wells, Charles H. Bloodworth, IV, Satoshi Takebayashi, Chikashi Aoki, Morten O. Jensen, Matthew J. Gillespie, Robert C. Gorman, Joseph H. Gorman, III, Ajit P. Yoganathan: "How Local Annular Force and Collagen Density Govern Mitral Annuloplasty Ring Dehiscence Risk" *Annals of Thoracic Surgery (ATS), August 2016, Volume 102, Issue 2, Pages 518–526.*
- 18) DM Ropcke, C Ilkjær, T Hejslet, AV Sørensen, H Jensen, MOJ Jensen, VE Hjortdal, SL Nielsen: "Functional and Biomechanical Performance of Stentless Extracellular Matrix Tricuspid Tube Graft: An Acute Experimental Porcine Evaluation" *The Annals of Thoracic Surgery, 2016 Jan;101(1):125-32.*
- 19) Toma M, Jensen MØ, Einstein DR, Yoganathan AP, Cochran RP, Kunzelman KS.: "Fluid-Structure Interaction Analysis of Papillary Muscle Forces Using a Comprehensive Mitral Valve Model with 3D Chordal Structure." *Annals of Biomedical Engineering 2016, Apr;44(4):942-53*
- 20) Robert Levine, Albert Hagege, Daniel Judge, Muralidhar Padala, Jacob Dal-Bianco, Elena Aikawa, Jonathan Beaudoin, Joyce Bischoff, Nabila Bouatia-Naji, Patrick Bruneval, Jonathan Butcher, Alain Carpentier, Miguel Chaput, Adrian Chester, Catherine Clusel, Francesca Nesta Delling, Harry Dietz, Christian Dina, Ronen Durst, Leticia Fernandez, Mark Handschumacher, Morten Jensen, Xavier Jeunemaitre, Hervé Le Marec, Thierry Le Tourneau, R Markwald, Jean Mérot, Emmanuel Messas, David Milan, Tui Neri, Russell Norris, David Peal, Maelle Perrocheau, Vincent Probst, Michael Puceat, Nadia Rosenthal, Jorge Solis-Martin, Jean-Jacques Schott, Ehud Schwammenthal, Susan Slaugenhaupt, Jae-Kwan Song, and Magdi Yacoub: "Unifying Concepts of Mitral Valve Disease: From Morphology to Mechanisms and Beyond" *Nature Reviews Cardiology 2015 Dec; 12(12),689–710*

- 21) Eric L. Pierce, Charles H. Bloodworth IV, Ajay Naran, Thomas F. Easley, Morten O. Jensen, Ajit P. Yoganathan: "Novel Method to Track Soft Tissue Deformations by Micro-Computed Tomography: Application to the Mitral Valve" *Annals of Biomedical Engineering* 2015 Nov 9. 2016 Jul;44(7):2273-81.
- 22) Søren N. Skov, Diana M. Røpcke, Kristine Telling, Christine Ilkjær, Marcell J. Tjørnild, Hans Nygaard, Sten L. Nielsen, Morten O. Jensen: "Simultaneous in- and out-of-plane Mitral Valve Annular Force Measurements" *Cardiovascular Engineering and Technology 2015 special issue on Mitral Valve Function, Pathology, and Therapeutic Options*, Page 185-192.
- 23) Drach A., Khalighi A.H., ter Huurne F.M., Lee C.H., Bloodworth C., Pierce E.L., Jensen M.O., Yoganathan A.P., Sacks M.S.: "Population-Averaged Geometric Model of Mitral Valve from Patient-Specific Imaging Data" *Journal of Medical Devices*, September 2015, Vol.9, 030952:1-3
- 24) Henrik Jensen, Morten O. Jensen, Sten L. Nielsen: "Surgical Treatment of Functional Ischemic Mitral Regurgitation" *Review paper, J. Heart Valve Dis.* 2015 Jan;24(1):30-42.
- 25) Tommy Bechsgaard, Jesper Langhoff Hønge, Hans Nygaard, Morten Olgaard Jensen: "In Vivo Wireless Monitoring System of Cardiovascular Force Data" *Cardiovascular Engineering and Technology Volume 6, Issue 1 (2015)*, p. 2-7.
- 26) Diana M Ropcke, Morten OJ Jensen, Henrik Jensen, Tine Hejslet, Sten L Nielsen: "Papillary Muscle Force Distribution following Total Tricuspid Reconstruction using Porcine Extracellular Matrix" *The Journal of Heart Valve Disease* 2014;23:788-794.
- 27) Andrew Siefert, Eric Pierce, Madonna Lee, Morten Jensen, Chikashi Aoki, Satoshi Takebayashi, Robert Gorman, Joseph Gorman, Ajit Yoganathan: "Suture Forces in Undersized Mitral Annuloplasty: Novel Device and Measurements" *Ann Thorac Surg* 2014;98:305-9.
- 28) Morten O. Jensen, Jesper L. Hønge, Jon A. Benediktsson, Andrew W. Siefert, Henrik Jensen, Ajit P. Yoganathan, Teresa K. Snow, J. Michael Hasenkam, Hans Nygaard, DMSc, Sten L. Nielsen: "Mitral valve annular downsizing forces: Implications for annuloplasty device development", *J Thorac Cardiovasc Surg.* 2014 Jul;148(1):83-9.
- 29) Henrik Jensen; Morten O Jensen; Farhad Waziri; Jesper L Hønge; Erik Sloth; Morten Fenger-Grøn; Sten L Nielsen: "Transapical Neochord Implantation: Is Tension of Artificial Chordae Tendineae Dependent on Insertion Site?" *J Thorac Cardiovasc Surg.* 2014 Jul;148(1):138-43.
- 30) Morten O. Jensen, Albert A. Hagège, Yutaka Otsuji, Robert A. Levine: "The Unsaddled Annulus: Biomechanical Culprit in Mitral Valve Prolapse?" *Circulation Editorial*, 2013 Feb 19;127(7):766-8
- 31) ES Kraghnaes, JL Hønge, JB Askov, SL Nielsen, H Nygaard, MO Jensen: "In-plane Tricuspid Valve Force Measurements: Development of Strain Gauge Instrumented Annuloplasty Ring" *Cardiovascular Engineering and Technology*, June 2013, Volume 4, Issue 2, pp 131-138.
- 32) Rahmani A, Rasmussen AQ, Hønge JL, Ostli B, Levine RA, Hagège AA, Nygaard H, Nielsen SL, Jensen MO: "In Vitro Simulation Model Shows Adverse Mitral Valve Mechanics Following Leaflet Patch Augmentation" *The Journal of Heart Valve Disease*, 2013;22:28-35.
- 33) H Jensen, MO Jensen, S Vind-Kezunovic, R Vestergaard, S Ringgaard, MH Smerup, JL Hønge, JM Hasenkam, SL Nielsen: "Surgical Relocation of the Papillary Muscles in Functional Ischemic Mitral Regurgitation - What are the Forces of the Relocation Stitch Acting on the Myocardium?" *The Journal of Heart Valve Disease* 2013 Jul;22(4):524-31.

- 34) Røpcke DM, Hjortdal VE, Toft GE, Jensen MO, Kristensen SD: "Remote ischemic preconditioning reduces thrombus formation in the rat", *Journal of Thrombosis and Haemostasis*, Volume 10, Issue 11, 2013, 2405-2406.
- 35) JB Askov, JL Hønge, MO Jensen, H Nygaard, JM Hasenkam, SL Nielsen: "Significance of Force Transfer in Mitral Valve - Left Ventricular Interaction: In Vivo Assessment" *The Journal of Thoracic and Cardiovascular Surgery*, 2013 Jun;145(6):1635-41.
- 36) Morten O. Jensen, Henrik Jensen, Hans Nygaard, J. Michael Hasenkam, Sten L. Nielsen: "External Approach to In Vivo Force Measurement On Mitral Valve Traction Suture", *Journal of Biomechanics*, 45, (2012): 908–912.
- 37) Ostli B, Vester-Petersen J, Askov JB, Hønge JL, Levine RA, Hagege AA, Nielsen SL, Hasenkam JM, Nygaard H, Jensen MO: "In Vitro System for Measuring Chordal Force Changes Following Mitral Valve Patch Repair", *Cardiovascular Engineering and Technology: Volume 3, Issue 3* (2012), Page 263-268.
- 38) Jensen MO, Jensen H, Levine RA, Yoganathan AP, Andersen NT, Nygaard H, Hasenkam JM, Nielsen SL "Saddle-shaped mitral valve annuloplasty rings improve leaflet coaptation geometry", *The Journal of Thoracic and Cardiovascular Surgery* 2011 September;142(3):697-703.
- 39) Mathieu Granier\*, Morten O. Jensen\*, Jesper L. Hønge, Alain Bel, Philippe Menasché, Sten L. Nielsen, Alain Carpentier, Robert A. Levine, Albert A. Hagège: "Consequences of mitral valve prolapse on chordal tension: Ex vivo and in vivo studies in large animal models" *The Journal of Thoracic and Cardiovascular Surgery*, 2011 Dec;142(6):1585-7.
- 40) JB Askov, JL Hønge, H Nygaard, JM Hasenkam, SL Nielsen, MO Jensen: "Papillary Muscle Force Transducer for Measurement In Vivo", *Cardiovascular Engineering and Technology*, September 2011, Volume 2; Issue 3; p196-202.
- 41) A Stigo, P Johansen, M Jensen, K Sivesgaard, H Nygaard, E Sloth: An automated in-vitro model for the evaluation of Ultrasound modalities measuring myocardial deformation. *Cardiovasc Ultrasound* 2010 Sep 7;8:40.
- 42) Henrik Jensen, Morten Ølgaard Jensen, Morten H. Smerup, Steffen Ringgaard, Niels Trolle Andersen, Per Wierup, J. Michael Hasenkam, Sten Lyager Nielsen: Does down-sized ring annuloplasty induce papillary muscle relocation in ischemic mitral regurgitation? *J Heart Valve Dis.* 2010 Nov;19(6):692-700.
- 43) Henrik Jensen, Morten Ølgaard Jensen, Morten H. Smerup, Steffen Ringgaard, Thomas S. Sørensen, Per Wierup, J. Michael Hasenkam, Sten Lyager Nielsen: Three-dimensional Assessment of Papillary Muscle Displacement in Ischemic Mitral Regurgitation in Pigs. *The Journal of Thoracic and Cardiovascular Surgery* 2010 Dec;140(6):1312-8.
- 44) Henrik Jensen, Morten Ølgaard Jensen, Sten Lyager Nielsen; Morten Smerup; Stefan Vind-Kezunovic; Rikke Vestergaard; Niels Trolle Andersen; Michael Hasenkam; Steffen Ringgaard; Per Nils Johan Fredrik Wierup; "Impact of Papillary Muscle Relocation as Adjunct Procedure to Mitral Ring Annuloplasty in Functional Ischemic Mitral Regurgitation" *Circulation* 2009;120:S92-S98.
- 45) Jeppe H. Christensen, Mads B. T. Soerensen, Zhong Linghui, Sun Chen, Morten O. Jensen: Pre-diagnostic digital imaging prediction model to discriminate between malignant melanoma and benign pigmented skin lesion, *Skin Research and Technology* 2009, Volume 16, Issue 1, Pages 98 – 108



- 46) Morten O. Jensen, Henrik Jensen, Morten Smerup, Robert A. Levine, Ajit P. Yoganathan, Hans Nygaard, J. Michael Hasenkam, Sten L. Nielsen: Saddle-shaped Mitral Valve Annuloplasty Rings Provide Superior Annular Force Distribution Compared with Flat Rings. *Circulation* 2008;118(suppl 1):250-255.
- 47) Jensen, M. O., Jensen, H., Nielsen, S.L., Smerup, M., Johansen, P., Yoganathan, A. P., Nygaard, H., Hasenkam, J. M.: What Forces Act on a Flat Rigid Mitral Annuloplasty Ring. *J Heart Valve Dis* 2008;17:267-275.
- 48) Nielsen PF, Funder JA, Jensen MO, Nygaard H: Influence of Venous Reservoir Level on Microbubbles in Cardiopulmonary Bypass, *Perfusion* 2008, Vol. 23, No. 6, 347-353.
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### **Refereed Conference Publications**

- 54) Bean MJ, Jiang D, Stephens SE, Laughlin ME, Jensen HK, Uretsky B, Timmins LH, Jensen MO: "Experimental Modeling of Coronary Intervention: Towards Computational Simulation", *Proceedings of the SB3C2019 Summer Biomechanics, Bioengineering and Biotransport Conference, June 25-28, 2019, Seven Springs, PA, USA*
- 55) Henson JC, Batta-Mpouma J, Chivers C, Sinha A, Jensen H, Kim J, Jensen M, Kim JW: "Nanopatterned Polycaprolactone/Cellulose Nanocrystal Composite Scaffold for Cardiovascular Tissue Engineering"; IEEE NANOMED 2018, December 2-5, Waikiki Beach, Hawaii
- 56) Easson G, Laughlin M, Jensen H; Haney, K; Girardot M; Jensen MO: "Development of an in Vitro System for Physiological Testing of Native and Prosthetic Venous Valves", *Journal of Phlebology, Volume 32, Issue 2, Dec 2017 p. 33-36*
- 57) Stephens SE, Liachenko S, Wenk JF, Jensen MO: "In vitro left heart system with 7T MRI provides high resolution mitral valve 3D imaging datasets for computational modeling", *Proceedings of the SB3C2017 Summer Biomechanics, Bioengineering and Biotransport Conference, June 21-24, 2017, Tucson, Arizona, USA*

- 58) Wenk JF, Jensen MO: "Finite Element Modeling of Mitral Valve Patch Augmentation and Effects on Chordal Force Distribution", *Proceedings of the SB<sup>3</sup>C2017 Summer Biomechanics, Bioengineering and Biotransport Conference, June 21-24, 2017, Tucson, Arizona, USA*
- 59) Qusay Alfaori, Ashok Saxena, Hanna Jensen and Morten Jensen: "Rupture in Abdominal Aortic Aneurysm", *Proceedings of First Structural Integrity Conference and Exhibition (SICE-2016), Bangalore, India, July 4-6, 2016*
- 60) Eric L. Pierce, Charles H. Bloodworth IV, Ajay Naran, Thomas F. Easley, Morten O. Jensen, Ajit P. Yoganathan: "Novel Medical Imaging Technique for Soft Tissue Deformation Tracking – Application to The Mitral Valve" *Proceedings of the SB<sup>3</sup>C2015 Summer Biomechanics, Bioengineering and Biotransport Conference, June 17-20, 2015, Snowbird Resort, Utah, USA.*
- 61) Milan Toma, Morten O. Jensen, Daniel R. Einstein, Ajit P. Yoganathan, Richard P. Cochran, Karyn S. Kunzelman: "Fluid-Structure Interaction Analysis of Mitral Valve Forces Using a Comprehensive Model With 3D Chordal Structure: Synergy of Modeling and Experiments" *Proceedings of the SB<sup>3</sup>C2015 Summer Biomechanics, Bioengineering and Biotransport Conference (Podium Presentation), June 17-20, 2015, Snowbird Resort, Utah, USA.*
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- 63) Khalighi A.H., Drach A., ter Huurne F.M., Lee C.H., Bloodworth C., Pierce E.L., Jensen M.O., Yoganathan A.P., Sacks M.S.: "A Complete Framework for the Characterization of Complete Mitral Valve Geometry for the Development of A Population-averaged Model", *8th International Conference on Functional Imaging and Modeling of the Heart, June 25-27, 2015, Maastricht, Netherlands. ISBN: 978-3-319-20308-9 (Print) 978-3-319-20309-6 (Online): page 164-171, 2015.*
- 64) Andrew Drach, Amir H. Khalighi, Fleur M. ter Huurne, Chung-Hao Lee, Charles Bloodworth, Morten O. Jensen, Ajit P. Yoganathan, Michael S. Sacks: "Population-Averaged Geometric Model of Mitral Valve from Patient-Specific Imaging Data" *Proceedings of the Design of Medical Devices Conference April 13-16, 2015, Minneapolis, MN, Technical Brief in the June 2015 issue of ASME Journal of Medical Devices.*
- 65) Sasa Grbic, Thomas F. Easley, Tommaso Mansi, Charles H. Bloodworth, Eric L. Pierce, Ingmar Voigt, Dominik Neumann, Julian Krebs, David D. Yuh, Morten O. Jensen, Dorin Comaniciu, and Ajit P. Yoganathan: "Multi-modal Validation Framework of Mitral Valve Geometry and Functional Computational Models" *Proceedings of the Medical Image Computing and Computer Assisted Intervention Society 2014 Annual Meeting.*
- 66) JB Askov, MO Jensen, JL Honge, H Nygaard, JM Hasenkam, SL Nielsen: "Miniature Transducer for Chordal Force Measurements In Vivo" *Proceedings of the ASME Summer Bioengineering Conference June 16, 2010, Proc. ASME. 44038, ASME ID SBC2010-19181, p 617-618.*
- 67) Morten O. Jensen, Peter Johansen, Hans Nygaard: Development of an Implantable Heart Valve Force Transducer. *Proceedings of the ASME Summer Bioengineering Conference June 25, 2008, Proc. ASME. 43215, ASME ID SBC2008-192309, p 247-248.*

## Magazine Articles

- 68) Megan Laughlin, Jamie Hestekin, Morten Jensen: "Inno-*vein*-tion: How U of A researchers are creating new technology that simulates human blood vessels" *Arkansas Engineer*, October 2018
- 69) Jensen, Morten; Chitney, Anton: "Measuring forces in a beating heart" *VPG Micro-Measurements Case Study*, December 2017
- 70) Kim Dremstrup, Morten Jensen: "Forty, Fresh and Ready". *Editorial for the 40-year anniversary of the Danish Biomedical Engineering Society, Medical Technology and Informatics*, No. 5, November 2013, p. 4.
- 71) Morten Jensen: "Students in Focus". *Editorial, Medical Technology and Informatics*, No. 1, March 2012, p. 4.
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- 73) Besenbacher Bente, Johansen Peter, Jensen Morten: "Health Technology in Aarhus". *Medical Technology and Informatics*, No. 2, April 2011, p. 4-6.
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- 75) Jesper Askov and Morten Jensen: "Materials Science in Analyzing Forces in the Heart." *Medical Technology and Informatics*, No. 3, June 2009, p. 10-12.
- 76) Morten Jensen: Force balance in the mitral valve annulus: How to interpret the function of annuloplasty devices. *Medical Technology and Informatics supplement for the 25th Danish annual congress in biomedical engineering*, 2009.
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- 78) Morten Jensen: Kraftbalancen i mitralklappen og venstre ventrikel. *Ugeskrift for Læger* 2008;170(47):3877.
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- 83) Morten Jensen, Ash Prabala, Doug Benson, William Bridson, Joseph Corsi: Automating Fluorescent Imaging Techniques. *National Instruments Online Developer Zone*, July 2004.

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### **Books and Book Chapters**

- 87) Jensen M, Siefert A, Okafor I, Yoganathan AP: "Measurement technologies for heart valve function", Chapter in "Advances in Heart Valve Biomechanics: Valvular Physiology, Mechanobiology, and Bioengineering", 1st Edition released on February 14, 2019. P 1-Xs ISBN-10: 3030019918
- 88) Henson J, Jensen H, Balachandran K, Rao R, Kim J-W, Jensen M: "Cues from the Nano-environment: The role of Nanomaterials in Stem Cell Differentiation and Stem Cell Tissue Engineering" *Soft Materials in Nano/Bio Medicine, In Press 2018*
- 89) Raghav V, Jensen M, Arjunon S, Teoh SH, Yoganathan AP: "Heart Valve Prostheses and Repair Devices", *Materials Science and Materials Engineering - Comprehensive Structural Integrity, 2018(2017), by Editors-in-Chief: I. Milne, R. O. Ritchie, and B. Karihaloo. ISBN: 978-0-08-043749*
- 90) Alfaori Q, Saxena A, Jensen HA, Jensen MO: "Collagen Degradation Effect on Rupture in Abdominal Aortic Aneurysm", *Advances in Structural Integrity 2017, ISBN 978-981-10-7197-3*
- 91) Jensen H, Martin E, Jensen M, Rome F, Di Carlo A, Kim JW, Mehta JL. "Nanotechnology-Based Stem Cell Applications and Imaging". In: "Imaging in Stem Cell Transplant and Cell-based Therapy (In: Stem Cell Biology and Regenerative Medicine)". *Springer Book Series. June 2017, ISBN 978-3-319-51831-2, DOI 10.1007/978-3-319-51833-6*
- 92) Sasa Grbic, Thomas F. Easley, Tommaso Mansi, Charles H. Bloodworth, Eric L. Pierce, Ingmar Voigt, Dominik Neumann, Julian Krebs, David D. Yuh, Morten O. Jensen, Dorin Comaniciu, Ajit P. Yoganathan: "Multi-modal Validation Framework of Mitral Valve Geometry and Functional Computational Models" *Statistical Atlases and Computational Models of the Heart - Imaging and Modeling Challenges 2015, pp 239-248*.
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- 95) Jensen Morten: "Stentless Mitral Valve Fixation: Impact on Hemodynamic Performance", *Master's Thesis 2000*.
- 96) Jensen Morten: "Mitral Valve Force Balance: The Left Ventricular Tug of War", *PhD Thesis 2008*.
- 97) Jensen Morten: "Biomechanical Aspects of Mitral Valve Function and Repair", *DMSc Thesis 2015*.

### Conference Keynote Addresses

- 1) Jensen, M (f. Yoganathan, A): "Cardiovascular Devices: From the Bench and Computer to Bedside/Bassinets" 2014, *BMES Annual Meeting October 22-25, 2014, San Antonio, Texas*.
- 2) Morten Jensen, PhD; Jesper Hønge, MD: "Cardiac Dynamics", *15<sup>th</sup> Nordic – Baltic Conference on Biomedical Engineering and Medical Physics, June 14<sup>th</sup> - 17<sup>th</sup>, 2011, Aalborg, Denmark*.
- 3) Morten Jensen: "Inspiration and Recognition of Science and Technology", *(FIRST) LEGO League, Herning, Denmark, October 1<sup>st</sup> 2010*.
- 4) Morten Jensen: "Computer based Measurements in Experimental Heart Surgery", *National Instruments Annual Conference, Hørsholm, Denmark, May 6<sup>th</sup> 2010*.
- 5) Morten O. Jensen: What Forces Act on Rigid Mitral Annuloplasty Rings? Implications for Annuloplasty Ring Designs. *Keynote Address at the Robert Levine Symposium on New Frontiers in Mitral Valve Repair*.
- 6) *Targeting the Natural History of Mitral Valve Regurgitation, Tuesday January 20<sup>th</sup>, 2009, Aarhus, Denmark*.

### Conference Abstracts: Oral Presentations

- 7) Jensen M, Wenk J: "Optimizing Imaging and Force Validation for Computational Modeling of Cardiac Valve Function and Intervention" *15<sup>th</sup> U.S. Congress on Computational Mechanics, Minisymposium: Computational Modeling of Cardiac Valve Function and Intervention, Austin, Texas, USA, July 28-August 1, 2019*
- 8) Bonasso, PC; Sexton, KW; Hayat MA; Al-Alawi A; Jingxian W; Jensen, HK; **Jensen, MO**; Smith SD; Burford, JM; Dassinger, MS: "Venous physiology predicts anesthetic induced hypotension in infants" *American College of Surgeons Clinical Congress, Boston MA, October 2018*
- 9) Stephens SE, Liachenko S, Wenk JF, Jensen MO: "In vitro left heart system with 7T MRI provides high resolution mitral valve 3D imaging datasets for computational modeling", *SB<sup>3</sup>C2017 Summer Biomechanics, Bioengineering and Biotransport Conference, June 21, 2017, Tucson, Arizona, USA*
- 10) Qusay Alfaori, Ashok Saxena, Hanna Jensen, Morten Jensen: "Rupture Prediction in Abdominal Aortic Aneurysms". *43<sup>rd</sup> Annual Symposium on Vascular and Endovascular Issues, November 15 - 19, 2015, New York, NY, USA*.
- 11) Skov SN, Ropcke DM, Tjornild MJ, Ilkjaer C, Rasmussen J, Nygaard H, Jensen MO, Nielsen SL: "Semi-rigid Mitral Annuloplasty Rings Improves Myocardial Stress Adaptation Compared to a Rigid Ring" *30<sup>th</sup> Annual Meeting of The European Association for Cardio-Thoracic Surgery, October 1-5, 2016, Barcelona, Spain*
- 12) Qusay Alfaori, Ashok Saxena, Hanna Jensen and Morten Jensen: "Rupture in Abdominal Aortic Aneurysm", *Proceedings of First Structural Integrity Conference and Exhibition (SICE-2016), Bangalore, India, July 4-6, 2016*
- 13) Pantoja JL, Morgan AE, Ge L, Grossi EA, Weinsaft JW, Jensen MO, Levine RA, Ratcliffe MB: "Undersized Ring Annuloplasty Increases Strain in the Left Ventricle: Finite Element Analysis", *2<sup>nd</sup> Annual Meeting of the Heart Valve Society, March 17-19, 2016, New York City, NY*.

- 14) Skov SN, Ropcke DM, Ilkjaer C, Rasmussen J, Tjoernild MJ, Nygaard H, Jensen MO, Nielsen SL: "What are the Remodelling Forces of a Rigid Mitral Annuloplasty Ring – A Potential Risk Factor for Ring Dehiscence in Mitral Valve Repair?", *2<sup>nd</sup> Annual Meeting of the Heart Valve Society, March 17-19, 2016, New York City, NY.*
- 15) DM Røpcke, C Ilkjær, T Hejslet, AV Sørensen, H Jensen, MO Jensen, VE Hjortdal, SL Nielsen: "Functional and biomechanical performance of stentless extracellular matrix tricuspid tubegraft in pigs" *26<sup>th</sup> annual meeting of the Scandinavian Society for Research in Cardiothoracic Surgery, Geilo, Norway, February 11<sup>th</sup> –13<sup>th</sup>, 2016.*
- 16) SN Skov, DM Røpcke, C Ilkjær, J Rasmussen, MJ Tjørnild, H Nygaard, MO Jensen, SL Nielsen: "What are the remodelling forces of a rigid mitral annuloplasty ring – a potential risk factor in mitral valve repair?" *26<sup>th</sup> annual meeting of the Scandinavian Society for Research in Cardiothoracic Surgery, Geilo, Norway, February 11<sup>th</sup> –13<sup>th</sup>, 2016.*
- 17) C Ilkjær, DM Røpcke, SN Skov, MJ Tjørnild, AV Sørensen, MO Jensen, SL Nielsen: "Functional and biomechanical effects of conventional ring annuloplasty on a novel tissue engineered tricuspid tube graft prosthesis–preliminary results" *26<sup>th</sup> annual meeting of the Scandinavian Society for Research in Cardiothoracic Surgery, Geilo, Norway, February 11<sup>th</sup> –13<sup>th</sup>, 2016.*
- 18) Qusay Alfaori, Ashok Saxena, Hanna Jensen, Morten Jensen: "Rupture in Abdominal Aortic Aneurysms". *42nd Annual Symposium on Vascular and Endovascular Issues, November 17 - 21, 2015, New York, NY, USA.*
- 19) C.H. Lee, C.H. Bloodworth, M.O. Jensen, A.P. Yoganathan, M.S. Sacks: "Effects of leaflet microstructure and constitutive model on the closing behavior of the mitral valve" *Summer Biomechanics, Biongingeering and Biotransport Conference (SB3C2015), Snowbird, UT, Jun 17-20, 2015.*
- 20) Skov, Søren Nielsen; Røpcke, Diana Mathilde; Ilkjær, Christine; Rasmussen, Jonas; Tjørnild, Marcell Juan; Nygaard, Hans; Jensen, Morten Ølgaard Jegstrup; Nielsen, Sten Lyager: "Biomechanical Features of a Rigid Remodeling Versus a Fully Flexible Mitral Annuloplasty Ring" *33<sup>rd</sup> National Meeting at the Danish Society for Biomedical Engineering, September 17th, 2015, Braedstrup, Denmark.*
- 21) Amir H. Khalighi, Andrew Drach, Chung-Hao Lee, Charles Bloodwoth, Eric L. Pierce, Morten O. Jensen, Robert C. Gorman, Joseph H. Gorman, Ajit P. Yoganathan, and Michael S. Sacks: "Development of a Population-Averaged Model of the Complete Mitral Valve Geometry", *Biomedical Engineering Society 2015 Annual Meeting, October 7-9, Tampa, Florida, USA.*
- 22) Skov, Søren Nielsen; Røpcke, Diana Mathilde; Ilkjær, Christine; Rasmussen, Jonas; Tjørnild, Marcell Juan; Nygaard, Hans; Jensen, Morten Ølgaard Jegstrup; Nielsen, Sten Lyager: "Rigid Remodelling Versus Fully Flexible Mitral Annuloplasty Rings - A Novel Assessment Tool for Biomechanical Characterization" *29th Annual Meeting of the European Association For Cardio-Thoracic Surgery (EACTS), Amsterdam, The Netherlands, 3 - 7 October 2015.*
- 23) Milan Toma, Morten O. Jensen, Daniel R. Einstein, Ajit P. Yoganathan, Richard P. Cochran, Karyn S. Kunzelman: "Fluid-Structure Interaction Analysis of Mitral Valve Forces Using a Comprehensive Model With 3D Chordal Structure: Synergy of Modeling and Experiments", *SB3C2015 Summer Biomechanics, Bioengineering and Biotransport Conference June 17-20, 2015, Snowbird Resort, Utah, USA.*

- 24) Charles H. Bloodworth, Eric L. Pierce, Thomas F. Easley, Milan Toma, Morten O. Jensen, Ajit P. Yoganathan: "Capturing Detailed 3D Mitral Valve Geometry for Computational Valve Modeling" *SB3C2015 Summer Biomechanics, Bioengineering and Biotransport Conference June 17-20, 2015, Snowbird Resort, Utah, USA.*
- 25) Toma M; Jensen MO; Einstein DR; Yoganathan AP; Cochran RP; Kunzelman KS: "Validating Fluid Structure Interaction in Medical Device Design with Force Measurements", *2015 BMES Frontiers in Medical Devices Conference: Innovations in Modeling and Simulation, May 18-20, 2015, Washington DC.*
- 26) Chung-Hao Lee, Charles H. Bloodworth, Morten O. Jensen, Ajit P. Yoganathan, Michael S. Sacks: "Predictive Computational Simulations of the Functioning Mitral Valve" *2015 BMES Frontiers in Medical Devices Conference: Innovations in Modeling and Simulation, May 18-20, 2015, Washington DC.*
- 27) Skov, Søren Nielsen; Røpcke, Diana Mathilde; Ilkjær, Christine; Tjørnild, Marcell Juan; Nygaard, Hans; Jensen, Morten Ølgaard Jegstrup; Nielsen, Sten Lyager: "How to measure the Forces in Mitral Annuloplasty Rings" *3rd Iranian Cardiovascular Joint Congress, 3rd-6th of March 2015, Teheran, Iran.*
- 28) Skov, Søren Nielsen; Røpcke, Diana Mathilde; Siefert, Andrew W; Ilkjær, Christine; Tjørnild, Marcell Juan; Nygaard, Hans; Nielsen, Sten Lyager; Jensen, Morten Ølgaard Jegstrup: "New concept for quantifying two-dimensional forces acting on an implanted mitral annuloplasty ring" *3rd Iranian Cardiovascular Joint Congress, 3rd-6th of March 2015, Teheran, Iran.*
- 29) SN Skov, DM Røpcke, AW Siefert, C Ilkjær, MJ Tjørnild, A Yoganathan, H Nygaard, SL Nielsen, M Jensen: "New concept for quantifying two-dimensional forces acting on an implanted mitral annuloplasty ring" *25th annual meeting of the Scandinavian Society for Research in Cardiothoracic Surgery, Geilo, Norway, February 12th –14th, 2015.*
- 30) DM Røpcke, C Ilkjær, T Hejslet, AV Sørensen, H Jensen, MOJ Jensen, VE Hjortdal, SL Nielsen: "Functional and biomechanical performance of stentless extracellular matrix tricuspid tubegraft in pigs", *25th annual meeting of the Scandinavian Society for Research in Cardiothoracic Surgery, Geilo, Norway, February 12th –14th, 2015.*
- 31) J Grønlund, N Telinius, SN Skov, MO Jensen, VE Hjortdal: "A validation study of near infrared fluorescence imaging of lymphatic vessels in humans", *25th annual meeting of the Scandinavian Society for Research in Cardiothoracic Surgery, Geilo, Norway, February 12th –14th, 2015.*
- 32) Sasa Grbic, Thomas Easley, Tommaso Mansi, Dominik Neumann, Eric Pierce, Morten Jensen, Charlie Bloodworth, Andrew W. Siefert, Julian Krebs, David D. Yuho, Ajit P. Yoganathan, Dorin Comaniciu: "Multi-Modal Validation Framework of Mitral Valve Geometry and Biomechanical Models", *2014 BMES Annual Meeting October 22-25, 2014, San Antonio, Texas.*
- 33) C. H. Bloodworth IV, E. L. Pierce, T. F. Easley, M. Toma, A. Khalighi, C-H. Lee, M. Sacks, A. W. Siefert, M. Ø. Jensen, A. P. Yoganathan: "Design of an In Vitro Simulation Pipeline for the Development of Computational Mitral Valve Modeling", *2014 BMES Annual Meeting October 22-25, 2014, San Antonio, Texas.*
- 34) DM Ropcke, T Hejslet, AV Sørensen, C Ilkjær, H Jensen, MOJ Jensen, SL Nielsen: "Characterization of Extracellular Matrix Tricuspid Tubegrafts with Comparison to Native Tricuspid Valves in a Porcine Model", *28th EACTS Annual Meeting, Milan, Italy 2014 11-15 October 2014.*

- 35) Søren N. Skov, Diana M. Røpcke, Andrew W. Siefert, Christine Ilkjær, Marcell J. Tjørnild, Ajit Yoganathan, Hans Nygaard, Sten L. Nielsen, Morten Jensen: "New Concept For Measuring The Forces In Mitral Valve Annuloplasty Rings" *32<sup>nd</sup> National Meeting at the Danish Society for Biomedical Engineering, September 17th, 2014, Braedstrup, Denmark.*
- 36) Madonna Lee, Andrew Siefert, Eric Pierce, Chikashi Aoki, Satoshi Takebayashi, Morten Jensen, Robert Gorman, Ajit Yoganathan, Joseph Gorman: "Mitral Annuloplasty Cyclic Suture Forces: True-sized Versus Undersized Rings", *AATS Cardiovascular Valve Symposium, Istanbul, Turkey, September 4-6 2014.*
- 37) Jensen MO; Siefert AW; Toma M; Gorman RC; Gorman III JH; Yoganathan AP: "Utilizing Computational and Experimental Tools in Tandem for Development and Evaluation of Mitral Valve Devices" *FDA Medical Device and Innovation Consortium Annual Meeting, Washington, DC, June 2014.*
- 38) SN Skov, K Telling, D Røpcke, C Ilkjær, MJ Tjørnild, H Nygaard, SL Nielsen, MØ Jensen: "Simultaneous in- and out-of-plane Mitral Valve Annular Force Measurements" *24<sup>th</sup> annual meeting of the Scandinavian Society for Research in Cardiothoracic Surgery, Geilo, Norway, February 13<sup>th</sup> –15<sup>th</sup>, 2014.*
- 39) C Ilkjær, MO Jensen, JL Hønge, ES Kraghæs, SL Nielsen: "Effect of annuloplasty ring implantation on the tricuspid valvular complex dynamics and geometry" *24<sup>th</sup> annual meeting of the Scandinavian Society for Research in Cardiothoracic Surgery, Geilo, Norway, February 13<sup>th</sup> –15<sup>th</sup>, 2014.*
- 40) H Jensen, MO Jensen, F Waziri, JL Hønge, E Sloth, M Fenger-Gron, SL Nielsen: "Transapical neochord implantation: Is tension of artificial chordae tendineae dependent on insertion site?", *62<sup>nd</sup> Annual Meeting of Scandinavian Association for Thoracic Surgery, Aarhus, Denmark August 22<sup>nd</sup> - 24<sup>th</sup>, 2013.*
- 41) Diana M. Ropcke, Sten L. Nielsen, Henrik Jensen, Morten Ø. J. Jensen, Jesper L. Hønge, Vibeke E. Hjortdal.: "Total Tricuspid Valve Reconstruction Using Porcine Extracellular Matrix: Functional and Biomechanical Aspects" *7<sup>th</sup> Biennial Congress of the Society for Heart Valve Disease and the Heart Valve Society of America, June 25<sup>th</sup>, 2013, Venice, Italy.*
- 42) CH Ilkjær, JL Hønge, MO Jensen, SL Nielsen: "Effect of ring annuloplasty on tricuspid valvular complex dynamics and geometry" *23<sup>rd</sup> annual meeting of the Scandinavian Society for Research in Cardiothoracic Surg., Saturday, Feb 9<sup>th</sup>, 2013, Geilo, Norway.*
- 43) H Jensen, MO Jensen, F Waziri, JL Hønge, E Sloth, M Fenger-Gron, SL Nielsen: "Transapical neochord implantation: Is tension of artificial chordae tendineae dependent on insertion site?" *23<sup>rd</sup> annual meeting of the Scandinavian Society for Research in Cardiothoracic Surg., Friday, Feb 8<sup>th</sup>, 2013, Geilo, Norway.*
- 44) DM Røpcke, VE Hjortdal, GE Toft, MO Jensen, SD Kristensen: "Remote ischemic preconditioning reduces thrombus formation in the rat" *23<sup>rd</sup> annual meeting of the Scandinavian Society for Research in Cardiothoracic Surg., Friday, Feb 8<sup>th</sup>, 2013, Geilo, Norway.*
- 45) Røpcke DM, Hjortdal VE, Toft GE, Jensen MO, Kristensen SD "Remote Ischemic Preconditioning Reduces Thrombus Formation In The Rat", *49<sup>th</sup> annual Meeting of The Society of Thoracic Surgeons, January 26-30 2013, Los Angeles, California, USA.*



- 46) TH Jorgensen, IJ Nielsen, JL Honge, H Nygaard, SL Nielsen, MO Jensen: "Mitral Valve Leaflet Patch Augmentation Reduces Regurgitant Orifice Area" *30<sup>th</sup> National Meeting at the Danish Society for Biomechanics, October 26<sup>th</sup>, 2012, Aarhus, Denmark.*
- 47) TH Jorgensen, IJ Nielsen, JL Honge, H Nygaard, SL Nielsen, MO Jensen: "Mitral Valve Leaflet Patch Augmentation Reduces Regurgitant Orifice Area" *30<sup>th</sup> National Meeting at the Danish Society for Biomedical Engineering, September 19<sup>th</sup>, 2012, Braedstrup, Denmark.*
- 48) MO Jensen, JA Benediktsson, JL Honge, H Nygaard, SL Nielsen: "Downsizing the Mitral Valve Annulus: Impact on Tissue Biomechanics" *30<sup>th</sup> National Meeting at the Danish Society for Biomedical Engineering, September 19<sup>th</sup>, 2012, Braedstrup, Denmark.*
- 49) Røpcke DM, Hjortdal VE, Toft GE, Jensen MO, Kristensen SD "Remote arterial preconditioning reduces thrombus formation in the rat", *4<sup>th</sup> Joint Scandinavian Conference in Cardiothoracic Surgery, Vilnius, Lithuania, August 16<sup>th</sup>-18<sup>th</sup> 2012.*
- 50) Henrik Jensen, Morten O. Jensen, Stefan Vind-Kezunovic, Rikke Vestergaard, Steffen Ringgaard, Morten H. Smerup, Jesper L. Hønge, J. Michael Hasenkam, Sten L. Nielsen: "Papillary Muscles Relocation Stitches – What are the Cyclic Tension Alterations Imposed on the Myocardium?" *Fourth Annual Joint Scientific Meeting of the Heart Valve Society of America and Society for Heart Valve Disease, April 12<sup>th</sup>, 2012, New York, NY, USA.*
- 51) Honge JL, Askov JB, Jensen MOJ, Hasenkam JM, Nielsen SL: "Effect of Mitral Ring Flexibility on Chordal Force balance and Mitral Annular Geometry", *Fourth Annual Joint Scientific Session of the Heart Valve Society of America and Society for Heart Valve Disease, Valves in the Heart of the Big Apple VII, April 12-14, 2012, New York, NY, USA.*
- 52) A Rahmani, AQ Rasmussen, B Ostli, J Vester-Petersen, JB Askov, JL Honge, RA Levine , A Hagège, SL Nielsen, H Nygaard, MO Jensen: "Mitral valve mechanics following posterior leaflet patch augmentation", *21<sup>st</sup> meeting of the Scandinavian Society for Research in Cardiothoracic Surg., Thursday, Feb 3<sup>rd</sup>, 2011, Geilo, Norway.*
- 53) H Jensen, MO Jensen, MH Smerup, S Ringgaard, NT Andersen, P Wierup, JM Hasenkam, SL Nielsen: "Does down-sized ring annuloplasty induce papillary muscle relocation in ischemic mitral regurgitation?" *21<sup>st</sup> meeting of the Scandinavian Society for Research in Cardiothoracic Surg., Thursday, Feb 3<sup>rd</sup>, 2011, Geilo, Norway.*
- 54) JB Askov, JL Honge, MO Jensen, H Nygaard, JM Hasenkam, SL Nielsen: "Novel Papillary Muscle Force Transducer: Tests and Results" *28<sup>th</sup> National Meeting at the Danish Society for Biomedical Engineering, September 23<sup>rd</sup>, 2010, Braedstrup, Denmark.*
- 55) JB Askov, JL Honge, MO Jensen, H Nygaard, JM Hasenkam, SL Nielsen: Novel Papillary Muscle Force Transducer: Initial Tests and Results. *6<sup>th</sup> World Congress on Biomechanics, Aug. 1-6, 2010, Singapore.*
- 56) JB Askov, JL Honge, MO Jensen, H Nygaard, JM Hasenkam, SL Nielsen: Novel Papillary Muscle Force Transducer: Initial Tests and Results. *Biomedical Engineering Society 2010 Annual Meeting, October 6-9, Austin, Texas, USA.*
- 57) Jensen, MO; Nielsen, JVD; Amstrup, M; Jensen, SH; Rasmussen, M: Optimization of Flow Conditions for Aortic Cannulas. *30<sup>th</sup> Scandinavian Conference in ExtraCorporal Technology, Oslo, Norway, 27<sup>th</sup> Aug, 2010.*

- 58) JB Askov, MO Jensen, J Hønge, H Nygaard, JM Hasenkam, SL Nielsen: "New Miniature Chordal Force Transducer for Measurements In Vivo", *4<sup>th</sup> Biennial Heart Valve Biology and Tissue Engineering Meeting, Monday, March 8<sup>th</sup>, 2010, Hilton Head Island, SC, USA.*
- 59) Albert Hagege and Morten Jensen: "Surgical Models of Mitral Valve Prolapse", Leducq MITRAL Transatlantic Network of Excellence, Nantes, France, May 2010.
- 60) MOJ Jensen, H Jensen, RA Levine, AP Yoganathan, H Nygaard, SL Nielsen, JM Hasenkam: "What Forces are Transmitted from the Mitral Valve Apparatus to the Papillary Muscles In Vivo". *19<sup>th</sup> World Congress of the World Society of Cardio-Thoracic Surgeons, Buenos Aires, Argentina, November 4<sup>th</sup>, 2009.*
- 61) JB Askov, MO Jensen, H Nygaard, JM Hasenkam, SL Nielsen: "New Miniature Chordal Force Transducer for In Vivo Measurements" *27<sup>th</sup> National Meeting at the Danish Society for Biomedical Engineering, September 23<sup>rd</sup>, 2009, Brædstrup, Denmark.*
- 62) Nielsen, PF; Funder, JA; Jensen, MO; Nygaard, H: Influence of Venous Reservoir Level on Microbubbles in Cardiopulmonary Bypass, *13<sup>th</sup> European Congress on Extracorporeal Circulation Technology, June 17<sup>th</sup>-20<sup>th</sup>, 2009, Aarhus, Denmark.*
- 63) Morten Ø. Jensen, Henrik Jensen, Jesper B. Askov, Robert A. Levine, Ajit P. Yoganathan, Hans Nygaard, Sten L. Nielsen, J. Michael Hasenkam: Flexible Mitral Valve Annuloplasty Rings Provide Superior Annular Dynamics and Force Distribution. *19<sup>th</sup> Annual Meeting of The Scandinavian Society for Research in Cardio Thoracic Surgery, February 5<sup>th</sup> – 7<sup>th</sup>, 2009, Geilo, Norway.*
- 64) Jesper B. Askov, Morten Ø. Jensen, Lyager, Hasenkam, Nygaard: Impact of Mitral Annuloplasty Ring Flexibility on 3D Geometry and Stress distribution of the Mitral Valve Annulus and Leaflets. *The Robert Levine Symposium on New Frontiers in Mitral Valve Repair Targeting the Natural History of Mitral Valve Regurgitation, Tuesday January 20<sup>th</sup>, 2009, Aarhus, Denmark.*
- 65) Morten Ø. Jensen, Henrik Jensen, Morten Smerup, Robert A. Levine, Ajit P. Yoganathan, Hans Nygaard, J. Michael Hasenkam, Sten L. Nielsen: Saddle-shaped Mitral Valve Annuloplasty Rings Provide Superior Annular Force Distribution. *18<sup>th</sup> annual meeting of The Scandinavian Society for Research in Cardio Thoracic Surgery, February 2<sup>nd</sup>, 2008, Geilo, Norway.*
- 66) Morten Ø. Jensen, Henrik Jensen, Robert A. Levine, Ajit P. Yoganathan, Hans Nygaard, Sten L. Nielsen, J. M. Hasenkam: Left Ventricular Force Balance. *26<sup>th</sup> Danish Annual Congress in Biomedical Engineering, September 17, 2008, Brædstrup, Denmark.*
- 67) Jensen, Henrik; Jensen, Morten Ølgaard Jegstrup; Ringgaard, Steffen; Smerup, Morten Holdgaard; Sørensen, Thomas Sangild; Wierup, Per; Hasenkam, John Michael; Nielsen, Sten Lyager: "Geometric Culprits of Papillary Muscle Displacement in Functional Ischemic Mitral Regurgitation assessed by 3D Magnetic Resonance Imaging" *18<sup>th</sup> World Conference of the World Society of Cardio-Thoracic Surgeons (WSCTS 2008), May 3<sup>rd</sup>, 2008, Kos Island, Greece, Abstract published in Heart Surgery Forum, Vol. 11, Nr. Suppl. 1, 2008, s. 358.*
- 68) Jensen, Morten; Jensen, Henrik; Levine, Robert; Yoganathan, Ajit; Nygaard, Hans; Nielsen, Sten Lyager; Hasenkam, J. Michael: In Vivo Force Measurement on Mitral Valve Traction Suture: Insights to Left Ventricular Force Balance. *18<sup>th</sup> World Conference of the World Society of Cardio-Thoracic Surgeons (WSCTS 2008), May 3<sup>rd</sup>, 2008, Kos Island, Greece.*

- 69) Jensen, Henrik; Jensen, Morten Ølgaard Jegstrup; Ringgaard, Steffen; Smerup, Morten Holdgaard; Sørensen, Thomas Sangild; Wierup, Per; Hasenkam, John Michael; Nielsen, Sten Lyager: "Geometric culprits of papillary muscle displacement in functional ischemic mitral regurgitation assessed by 3D magnetic resonance imaging" *57th Annual Meeting of the Scandinavian Society of Thoracic Surgery and the 28th Annual Meeting of Scandinavian Society of Extra Corporeal Technology, Aug 21-23, 2008, Copenhagen, Denmark.*
- 70) Henrik Jensen, Morten Ø. Jensen, Steffen Ringgaard, Morten H. Smerup, Thomas S. Sørensen, Per Wierup, J. Michael Hasenkam, Sten Lyager Nielsen: Geometric Culprits of Papillary Muscle Displacement in Functional Ischemic Mitral Regurgitation Assessed by 3D Magnetic Resonance Imaging. *18<sup>th</sup> annual meeting of The Scandinavian Society for Research in Cardio Thoracic Surgery, Feb. 2008, Geilo, Norway.*
- 71) Morten O. Jensen, Henrik Jensen, Morten Smerup, Robert A. Levine, Ajit P. Yoganathan, Hans Nygaard, J. Michael Hasenkam, Sten L. Nielsen: Saddle-shaped Mitral Valve Annuloplasty Rings Provide Superior Annular Force Distribution. *American Heart Association Scientific Sessions, Nov. 5, 2007, Orlando, FL, USA.*
- 72) Morten O. Jensen, Henrik Jensen, Morten Smerup, Robert A. Levine, Ajit P. Yoganathan, Hans Nygaard, J. Michael Hasenkam, Sten L. Nielsen: Saddle-shaped Mitral Valve Annuloplasty Rings Improve Leaflet Coaptation Geometry. *American Heart Association Scientific Sessions, Nov. 7, 2007, Orlando, FL, USA.*
- 73) Morten Jensen: Force balance in the mitral valve annulus: How to interpret the function of annuloplasty devices. *25<sup>th</sup> Danish Annual Congress in Biomedical Engineering, Sept. 19<sup>th</sup>-20<sup>th</sup>, 2007, Brædstrup, Denmark.*
- 74) Morten Ø. Jensen, Henrik Jensen, Sten L. Nielsen, Morten Smerup, Peter Johansen, Ajit P. Yoganathan, Hans Nygaard, J. M. Hasenkam: Force Balance In The Mitral Valve Annulus: How To Interpret The Function Of Annuloplasty Devices. *Fourth Biennial Meeting of the Society for Heart Valve Disease, June 17<sup>th</sup> 2007, New York, NY, USA.*
- 75) Henrik Jensen, Morten Ø. Jensen, Morten Smerup, Won Yong Kim, Steffen Ringgaard, J. Michael Hasenkam, Sten Lyager Nielsen: 3d Cardiac MRI Assessment Of Posterior Papillary Muscle Displacement In Chronic Functional Ischemic Mitral Regurgitation. *Fourth Biennial Meeting of the Society for Heart Valve Disease, June 18<sup>th</sup> 2007, New York, NY, USA.*
- 76) M. Ø. Jensen, S. L. Nielsen, M. Smerup, P. Johansen, H. Jensen, A. P. Yoganathan, J. M. Hasenkam, H. Nygaard: New Insight into the Mitral Valve Force Balance. *Biomedical Engineering Society Annual Meeting, October 2006, Chicago, Illinois, USA.*
- 77) Morten Jensen, Jeff Buterbaugh, PhD: Recent Advancements in Fluorescence Imaging. *PittCon, March 2nd, 2005, Orlando, Florida, USA.*
- 78) Jensen, Morten: Using NI Vision and Motion for Automated Inspection of Medical Devices and Pharmaceutical Processes. *PittCon, March 7<sup>th</sup> 2004, Chicago, IL, USA.*
- 79) Morten Oelgaard Jensen: Advances in Analytical Techniques for High Throughput Screening Applications. *AOAC INTERNATIONAL Annual Meeting & Exposition, Sept. 19<sup>th</sup>-23<sup>rd</sup>, 2004, St. Louis, Missouri, USA.*
- 80) Yoganathan, A.P. and Jensen, M., Harvested Porcine Mitral Xenograft Fixation: Impact on Fluid Dynamic Performance. *4<sup>th</sup> International Symposium on Stentless Bioprostheses, May 2001, San Diego, CA, USA.*

- 81) M. Jensen, J. Lemmon, S. He, M. Weston, V. Gessaghi, R. Levine, A. Yoganathan: Bioprosthetic Valve Fixation: Adverse Hemodynamic Impact. *World Congress on Medical Physics and Biomedical Engineering, July 2000, Chicago, Illinois, USA.*
- 82) Morten O. Jensen, Ajit P. Yoganathan: Bioprosthetic Heart Valve Fixation: Adverse Hemodynamic Impact. *VIII International Symposium Cardiac Bioprostheses, Friday, November 3<sup>rd</sup>, 2000, Cancun, Mexico.*
- 83) He S., Lemmon J.D., Weston M.W., Jensen M.O., Levine R.A., and Yoganathan A.P. Functional Characteristics of the Natural Mitral Valve: An In Vitro Assessment. *Third International Symposium on Stentless Bioprostheses, May 1999, Grand Cayman Island.*
- 84) He S., Lemmon J.D., Weston M.W., Jensen M.O., Fontaine A.A., Levine R.A., and Yoganathan A.P. Mechanism of Persistent Functional Mitral Regurgitation Despite Annuloplasty: In Vitro Studies. *American Society of Echocardiography 10th Annual Scientific Sessions, June, 1999, Washington, DC, USA.*
- 85) He S., Lemmon J.D., Weston M.W., Jensen M.O., Yoganathan A.P., Levine R.A.: Mechanism of Mitral Regurgitation In Patients With Annuloplasty: In Vitro Study. *American Society of Echocardiography 10th Annual Scientific Sessions, June, 1999, Washington, DC, USA.*
- 86) He S., Lemmon J.D., Weston M.W., Jensen M.O., Fontaine A.A., Levine R.A. and Yoganathan A.P. In Vitro Engineering Study of Mitral Regurgitation. *International Forum on Ischemic Mitral Valve Regurgitation, March 1999, Nice, France.*

#### **Conference Abstracts: Poster Presentations**

- 87) Ali AlAlawi, Kaylee Henry, Md Abul Hayat, Hanna K. Jensen, Melvin S. Dassinger, Jeffrey M. Burford, Patrick C. Bonasso, Kevin W. Sexton, Jingxian Wu, Morten O. Jensen: "Propofol affects peripheral venous tone in anesthetized patients" *16th Annual Midsouth Computational Biology & Bioinformatics Society (MCBIOS) Conference 2019 at Mississippi State University, Starkville, MS.*
- 88) Collins II RT, Laughlin M, Jensen H, Lang S, Bolin E, Daily J, Jensen M: "Vector Flow Imaging for Cardiovascular Applications in Pediatric Patients and Models", *Biomedical Engineering Society 50<sup>th</sup> Annual Meeting, Thursday, October 18<sup>th</sup>, 2018, Atlanta, Georgia*
- 89) Preut A, Laughlin M, Jensen H, Hestekin J, Jensen M: "Novel Method for Emboli Analog Formation Towards Improved Stroke Retrieval Devices". *Biomedical Engineering Society 50<sup>th</sup> Annual Meeting, Thursday, October 18<sup>th</sup>, 2018, Atlanta, Georgia*
- 90) Al-Alawi A, Hayat A, Bonasso P, Burford JM, Dassinger MS, Jensen HK, Wu J, Sexton KW, and Jensen MO: "Hydration Level Assessment with Peripheral Venous Pressure Waveform Analysis", *Biomedical Engineering Society 50<sup>th</sup> Annual Meeting, Thursday, October 18<sup>th</sup>, 2018, Atlanta, Georgia*
- 91) Brazhkina O, Laughlin M, Jensen H, Haney K, Girardot M, Jensen M: "Development of a Model for Accelerated Fatigue Testing of Venous Valves". *Biomedical Engineering Society 50<sup>th</sup> Annual Meeting, Saturday, October 20<sup>th</sup>, 2018, Atlanta, Georgia*
- 92) Henson J, Kim J-W, Jensen H, Jensen M: "Size, Concentration, And Time Dependent Effects of PEGylated Gold Nanoparticles on Cardiovascular Cell Viability", *Biomedical Engineering Society 50<sup>th</sup> Annual Meeting, Thursday, October 18<sup>th</sup>, Atlanta, 2018, Georgia*

- 93) Bonasso PC, Sexton KW, Hayat MDA, Al-Alawi A, Wu J, Jensen HK, Jensen MO, Smith SD, Burford JM, Dassinger MS: "Venous physiology predicts anesthetic induced hypotension in infants" *American College of Surgeons, Boston, Massachusetts, October 21-25, 2018*. doi: 10.1007/s10877-018-0124-5
- 94) Hayat MD, Wu J, Jensen HK, Jensen MO, Dassinger MS, Burford JM, Bonasso PC, Sexton KW: "Predicting Dehydration in Pediatric Patients with Peripheral Venous Waveforms" *15th Annual Midsouth Computational Biology & Bioinformatics Society (MCBIOS) Conference 2018 at Mississippi State University, Starkville, MS*.
- 95) Wenk JF, Jensen MO: "Finite Element Modeling of Mitral Valve Patch Augmentation and Effects on Chordal Force Distribution", *SB<sup>3</sup>C2017 Summer Biomechanics, Bioengineering and Biotransport Conference, June 22, 2017, Tucson, Arizona, USA*
- 96) Easson G, White M; Jensen H, Girardot M, Jensen M: "Development of an In Vitro Model for Physiological Testing Native and Prosthetic Venous Valves" *International Vein Congress, April 20-22, 2017. Miami Beach, FL*
- 97) Easson G; Laughlin M; Jensen H; Haney K; Girardot M; Jensen M: "New System for Evaluation of Biomechanical Properties and Performance of Glutaraldehyde Fixed Versus Fresh Venous Valves: Towards a Biomechanically Optimal Replacement Device" *2017 Annual Congress of the American College of Phlebology, Austin, TX, Nov. 2<sup>nd</sup>-5<sup>th</sup>, 2017*
- 98) Morten O Jensen, Henrik Jensen, Soren S Nielsen, Robert A Levine, Hans Nygaard, J M Hasenkam, Sten L Nielsen: "New Mitral Valve Annuloplasty Concept: Optimizing Annular Dynamics and Force Distribution" *American Heart Association Scientific Sessions 2016, New Orleans, LA, USA, 12 - 16 NOV., 2016* [http://circ.ahajournals.org/content/134/Suppl\\_1/A15744](http://circ.ahajournals.org/content/134/Suppl_1/A15744)
- 99) Skov SN, Ropcke DM, Tjornild MJ, Ilkjaer C, Rasmussen J, Nygaard H, Hasenkam JM, Jensen MO, Nielsen SL: "Novel Intelligent Mitral Annuloplasty Ring that Preserves the Dynamic Saddle Shaped Annulus while Fixating the Septal-lateral Dimension" *American Heart Association Scientific Sessions 2016, New Orleans, LA, USA, 12 - 16 NOV., 2016* [http://circ.ahajournals.org/content/134/Suppl\\_1/A19419](http://circ.ahajournals.org/content/134/Suppl_1/A19419)
- 100) Skov, Søren Nielsen; Røpcke, Diana Mathilde; Ilkjær, Christine; Rasmussen, Jonas; Tjørnild, Marcell Juan; Nygaard, Hans; Jensen, Morten Ølgaard Jegstrup; Nielsen, Sten Lyager: "Remodelling Forces of a Rigid Mitral Annuloplasty Ring - A Potential Risk Factor for Ring Dehiscence in Mitral Valve Repair? 2nd Annual Meeting, Heart Valve Society, March 17-19, New York, NY, United States.
- 101) Eric L. Pierce, Charles H. Bloodworth IV, Ajay Naran, Thomas F. Easley, Morten O. Jensen, Ajit P. Yoganathan: "Novel Micro-Computed Tomography Technique for Soft Tissue Deformation Tracking – Application to the Mitral Valve" *SB<sup>3</sup>C2015 Summer Biomechanics, Bioengineering and Biotransport Conference June 17-20, 2015, Snowbird Resort, Utah, USA*.
- 102) E. L. Pierce, D. D. Spragan, C. H. Bloodworth, T. Kawamura, T. Takayama, M. O. Jensen, A. W. Siefert, R. C. Gorman, J. H. Gorman, A. P. Yoganathan: "Can Optimized Annuloplasty Ring Size and Shape Mitigate Risk of Dehiscence?" *American Association of Thoracic Surgery Mitral Conclave, NY, NY, USA April 23-24 2015*.

- 103) Amir H. Khalighi, Andrew Drach, Fleur M. ter Huurne, Chung-Hao Lee, Charles Bloodworth, Eric L. Pierce, Morten O. Jensen, Ajit P. Yoganathan, Michael S. Sacks: "On the Characterization of Mitral Valve Geometry and Development of a Population-Averaged Model", *SB3C2015 Summer Biomechanics, Bioengineering and Biotransport Conference June 17-20, 2015, Snowbird Resort, Utah, USA*.
- 104) Amir H. Khalighi, Andrew Drach, Fleur M. ter Huurne, Chung-Hao Lee, Charles Bloodworth, Eric Pierce, Morten O. Jensen, Ajit P. Yoganathan, and Michael S. Sacks: "Multi-Scale Geometric Framework for Population-Averaging of the Mitral Valve Apparatus", 2015 BMES Frontiers in Medical Devices Conference: Innovations in Modeling and Simulation, May 18-20, 2015, Washington DC.
- 105) Eric L. Pierce, Deborah M. Paul, Sarah K. Wells, Charles H. Bloodworth, Morten O. Jensen, Andrew W. Siefert, Robert C. Gorman, Joseph H. Gorman, Ajit P. Yoganathan: "Why is Annuloplasty Ring Dehiscence More Common on the Posterior Mitral Valve Annulus?" Inaugural Meeting of New International Heart Valve Society, 6-9 May, 2015, Grimaldi Forum, Monte Carlo, Monaco.
- 106) A. Drach, A.H. Khalighi, C.H. Lee, M.O. Jensen, C.H. Bloodworth, A.P. Yoganathan, M.S. Sacks. "Population-averaged geometric model of mitral valve from patient-specific imaging data" *14th Annual Design of Medical Devices Conference, Minneapolis, MN, Apr 13-16, 2015*.
- 107) Røpcke, Diana Mathilde; Jørgensen, Tine Hejslet; Jensen, Morten Ølgaard Jegstrup; Nielsen, Sten Lyager: "Total tricuspid valve reconstruction using porcine extracellular matrix. An in vitro characterization" *2014 Annual meeting of the Danish Society of Thoracic Surgery, Nyborg, Danmark*.
- 108) S. Nielsen Skov, D. Mathilde Røpcke, A. W. Siefert, C. Ilkjær, M. Juan Tjørnild, A. Yoganathan, H. Nygaard, S. Lyager Nielsen, and M. Jensen: "New Concept for Measuring the Forces in Mitral Valve Annuloplasty Rings" *2014 BMES Annual Meeting October 22-25, 2014, San Antonio, Texas*.
- 109) Jean-Pierre M. Rabbah, Eric Pierce, Qifeng Wei, Karl Thiele, Morten Jensen, Ajit P. Yoganathan: "Validated, Accurate Quantification of Mitral Regurgitation Through 3D Echocardiography Using an Automated Field Optimization Method", *American Society of Echocardiography 25th Annual Scientific Sessions, June 20-24, 2014, Portland, Oregon, USA*.
- 110) Claudio Capelli, Claus Rath, Francesco Ruffini, Dario Biscarini, Francesco Migliavacca, Spyros Tzamtzis, Morten Jensen, Gaetano Burriesci, Martin Andreas, Silvia Schievano, Alfred Kocher: "Evaluation of a Novel Aortic Valve Prosthesis: Integration of Clinical Data With Experimental And Computational Tools" *7th World Congress of Biomechanics, July 6-11, 2014, Boston, Massachusetts, USA*.
- 111) TH Jorgensen, IJ Nielsen, JL Honge, H Nygaard, SL Nielsen, MO Jensen: "Mitral Valve Posterior Leaflet Patch Augmentation Reduces Regurgitant Orifice Area", *62nd Annual Meeting of Scandinavian Association for Thoracic Surgery, Aarhus, Denmark August 22<sup>nd</sup> - 24<sup>th</sup>, 2013*.
- 112) Skov, Søren Nielsen; Jensen, Morten Ølgaard Jegstrup; Jensen, Henrik; Askov, Jesper Brink; Nygaard, Hans; Levine, Robert; Yoganathan, Ajit; Hasenkam, J. Michael" New Mitral Valve Annuloplasty Concept Minimize Out-of-plane Force Distribution" *31<sup>st</sup> National Meeting at the Danish Society for Biomedical Engineering, September 17<sup>th</sup> - 19<sup>th</sup>, 2013, Braedstrup, Denmark*.

- 113) C Ilkjaer, JL Honge, MO Jensen, SL Nielsen: "Effect of Annuloplasty Ring Implantation on Tricuspid Valvular Complex Dynamics and Geometry – a Clinical Experiment in Pigs", *62nd Annual Meeting of Scandinavian Association for Thoracic Surgery, Aarhus, Denmark August 22<sup>nd</sup> - 24<sup>th</sup>, 2013.*
- 114) ES Kragtsnaes, JL Honge, JB Askov, SL Nielsen, H Nygaard, MO Jensen: "In-plane Tricuspid Valve Force Measurements: Development of Strain Gauge Instrumented Annuloplasty Ring" *Biomedical Engineering Society 2012 Annual Meeting, October 27<sup>th</sup> 2012, Georgia World Congress Center, Atlanta, Georgia, USA.*
- 115) T Bechsgaard, JL Honge, H Nygaard, MO Jensen: "In Vivo Wireless Transmission of ECG and Force Data" *30<sup>th</sup> National Meeting at the Danish Society for Biomedical Engineering, September 19<sup>th</sup>, 2012, Braedstrup, Denmark.*
- 116) A Rahmani, AQ Rasmussen, B Ostli, J Vester-Petersen, JB Askov, JL Honge, RA Levine, A Hagège, SL Nielsen, H Nygaard, MO Jensen: "Mitral valve mechanics following posterior leaflet patch augmentation", *5<sup>th</sup> Biennial Meeting on Heart Valve Biology and Tissue Engineering, May 18<sup>th</sup> – 20<sup>th</sup>, 2012, Myconos Island, Greece.*
- 117) Jesper B. Askov, Jesper L. Honge, Morten O. Jensen, Hans Nygaard, J. Michael Hasenkam, Sten L. Nielsen: "Mitral Valve Replacement with Total Chordal Preservation Increases Force Transmission to the Papillary Muscle-Left Ventricular Wall Complex", *Society For Heart Valve Disease & Heart Valve Society of America, 6<sup>th</sup> Biennial Meeting, 25-28 June, 2011, Barcelona, Spain.*
- 118) JB Askov, JL Honge, H Nygaard, JM Hasenkam, SL Nielsen, MO Jensen, "Novel Papillary Muscle Force Transducer: Tests and Results", *21<sup>st</sup> Scientific Meeting of the Scandinavian Society for Research in Cardiothoracic Surgery Geilo, Norway, February 3–5, 2011.*
- 119) Henrik Jensen, Morten O. Jensen, Farhad Waziri, Jesper L. Honge, Erik Sloth, Niels T. Andersen, Per Wierup, J. Michael Hasenkam, Sten L. Nielsen, "Is Tension Alterations of Transapical Artificial Chordae Tendineae Potentially Detrimental for Mitral Repair Durability?" *American College of Cardiology Scientific Sessions, April 3-5, 2011, New Orleans, Louisiana, USA.*
- 120) Morten Jensen, Jesper Langhoff Honge, Sten Lyager Nielsen, J. Michael Hasenkam, Robert R. Levine, Mathieu Granier, Albert Hagege: "In Vitro Simulation of Mitral Valve Prolapse and Chordal force balance", *Leducq MITRAL Transatlantic Network Meeting, Nantes, France, May 2010*
- 121) J.B. Askov, J.L. Honge, M.O. Jensen, H. Nygaard, J.M. Hasenkam, S.L. Nielsen, "Novel Papillary Muscle Force Transducer: Initial Tests And Results", *University of Aarhus Graduate School of Medicine Annual PhD Day, January 16<sup>th</sup> 2009, Aarhus, Denmark.*
- 122) JB Askov, MO Jensen, JL Honge, SL Nielsen, H Nygaard, JM Hasenkam: "Effect of Mitral Valve Ring Annuloplasty on in vivo Chordal Tension" *19th World Congress of the World Society of Cardio-Thoracic Surgeons November 4th, 2009, Buenos Aires, Argentina.*
- 123) A Stigo, K Sivesgaard, P Johansen, M Jensen, H Nygaard, E Sloth: "Reliability of Speckle Tracking Ultrasound for assessment of myocardial strain", *Third International Conference on Mechanics of Biomaterials and Tissues, 13 – 17 December 2009, Clearwater Beach, Florida, USA.*

- 124) Morten Ølgaard Jensen, Henrik Jensen, Jesper Brink Askov, Robert A. Levine, Ajit P. Yoganathan, Hans Nygaard, Sten Lyager Nielsen, J. Michael Hasenkam: "Flexible Mitral Valve Annuloplasty Rings Provide Superior Annular Dynamics And Force Distribution" *Society for Heart Valve Disease, Fifth Biennial Meeting of The Society for Heart Valve Disease, June 27-30, 2009, Berlin, Germany.*
- 125) S. Vind-Kezunovic, H. Jensen, A. Rutz, R. Vestergaard, S. Ringgaard, M.Ø. Jensen, M. Smerup, S.L. Nielsen, J.M. Hasenkam: Does papillary muscle relocation surgery affect regional wall motion? *19<sup>th</sup> annual meeting of The Scandinavian Society for Research in Cardio Thoracic Surgery, February 2009, Geilo, Norway.*
- 126) Askov, J.B., Jensen, M.O., Nielsen, S.L., Nygaard, H., Hasenkam, J.M.: New Miniature Transducers for in vivo Chordae Tendineae Force Measurements. *University of Aarhus Graduate School of Medicine Annual PhD Day, January 16<sup>th</sup> 2009, Aarhus, Denmark.*
- 127) A. Stigo, K. Sivesgaard, M. Ø. Jensen, H. Nygaard, E. Sloth: Reliability of Speckle Tracking and Doppler Tissue Velocity Imaging for Assessment of Myocardial Strain. *19<sup>th</sup> annual meeting of The Scandinavian Society for Research in Cardio Thoracic Surgery, February 2009, Geilo, Norway.*
- 128) J.B. Askov, M.O. Jensen, S.L. Nielsen, H. Nygaard, J.M. Hasenkam: New Miniature Transducers for In Vivo Chordae Tendineae Force Measurements. *19<sup>th</sup> annual meeting of The Scandinavian Society for Research in Cardio Thoracic Surgery, February 2009, Geilo, Norway.*
- 129) E Hansen, JB Askov, H Jensen, MØ Jensen, JA Funder, JM Hasenkam, SL Nielsen: The impact of complete and partial mitral ring annuloplasty on mitral and aortic annular dynamics and interactions. *19th annual meeting of The Scandinavian Society for Research in Cardio Thoracic Surgery, Feb. 2009, Geilo, Norway.*
- 130) Henrik Jensen, Morten Ø Jensen, Morten H Smerup, Stefan Vind-Kezunovic, Steffen Ringgaard, Rikke Vestergaard, Per Wierup, J Michael Hasenkam, Sten L Nielsen: Impact of Papillary Muscle Relocation as Adjunct Procedure to Mitral Ring Annuloplasty in Functional Ischemic Mitral Regurgitation. *American Heart Association Scientific Sessions, November 10, 2008, New Orleans, Louisiana, USA.*
- 131) Morten O. Jensen, Peter Johansen, Hans Nygaard: Development of an Implantable Heart Valve Force Transducer. *ASME 2008 Summer Bioengineering Conference (SBC2008), June 25-29, Marriott Resort, Marco Island, Florida, USA.*
- 132) M. Ø. Jensen, H. Jensen, S. Lyager Nielsen, M. Smerup, P. Johansen, A. P. Yoganathan, H. Nygaard, J. M. Hasenkam: Force Balance in the Mitral Valve Annulus: New Results from Novel Modalities and Measurement Techniques. *17<sup>th</sup> annual meeting of The Scandinavian Society for Research in Cardio Thoracic Surgery, February 2007, Geilo, Norway.*
- 133) H. Jensen, M. Smerup, M. Jensen, M. Bjerre, J. D. Andersen, E. Sloth, W.Yong Kim, S. Ringgaard, J. M. Hasenkam, S. Lyager Nielsen: Papillary muscle relocation in addition to downsized ring annuloplasty improves mitral valve coaptation geometry in chronic functional ischemic mitral valve regurgitation. *17<sup>th</sup> annual meeting of The Scandinavian Society for Research in Cardio Thoracic Surgery, February 2007, Geilo, Norway.*
- 134) Morten O. Jensen, Henrik Jensen, Morten Smerup, Robert A. Levine, Ajit P. Yoganathan, Hans Nygaard, J. Michael Hasenkam, Sten L. Nielsen: Saddle-shaped Mitral Valve Annuloplasty Rings Improve Leaflet Coaptation Geometry. *American Heart Association Scientific Sessions, Nov. 7<sup>th</sup>, 2007, Orlando, Florida, USA.*



- 135) MO Jensen, H Jensen, SL Nielsen, M Smerup, P Johansen, AP Yoganathan, H Nygaard, JM Hasenkam: Force Balance in the Mitral Valve Annulus: New Results from Novel Modalities and Measurement Techniques. *17<sup>th</sup> annual meeting of The Scandinavian Society for Research in Cardio Thoracic Surgery, February 2007, Geilo, Norway.*
- 136) M. Ø. Jensen, S. L. Nielsen, M. Smerup, P. Johansen, H. Jensen, A. P. Yoganathan, J. M. Hasenkam, H. Nygaard: Stress Distribution and 3D Geometry in Mitral Valve Annuloplasty Rings: Ring Selection Implications. *Advances in Innovative Technologies and Tissue Engineering For the Treatment of Heart Valve Disease, 10th Annual Meeting February, 2006, Hilton Head, South Carolina, USA.*
- 137) M. Ø. Jensen, S. L. Nielsen, M. Smerup, P. Johansen, H. Jensen, A. P. Yoganathan, J. M. Hasenkam, H. Nygaard: New Insight into the Mitral Valve Force Balance. *55th Annual Meeting of the Scandinavian Association for Thoracic Surgery and the 26th Annual Meeting of the Scandinavian Society for Extracorporeal Technology, August 2006, Reykjavík, Iceland.*
- 138) M. Ø. Jensen, S. L. Nielsen, M. Smerup, P. Johansen, H. Jensen, A. P. Yoganathan, J. M. Hasenkam, H. Nygaard: 3D Geometry and Stress Distribution in Mitral Valve Annuloplasty Rings. *16<sup>th</sup> annual meeting of The Scandinavian Society for Research in Cardio Thoracic Surgery, February 2006, Geilo, Norway.*
- 139) MØ Jensen, SL Nielsen, M Smerup, P Johansen, AP Yoganathan, JM Hasenkam, H Nygaard: The Effect of Mitral Annuloplasty Rings on Mitral Valve 3D Geometry and Stress Distribution. *University of Aarhus Graduate School of Medicine Annual PhD Day, January 16<sup>th</sup> 2006, Aarhus, Denmark.*

#### **Seminars / Invited Guest Lecturer & Speaker**

- 140) *Invited Speaker / Discussant in the Mitral Valve session titled Functional Mitral Regurgitation: The Ongoing Controversy. Title of talk "Biomechanical Aspects of Functional Mitral Regurgitation", the Heart Valve Society Annual Scientific Meeting, Sitges, Spain, April 12<sup>th</sup>, 2019*
- 141) Collins RT, Laughlin M, Lang S, Bolin E, Daily J, Jensen H, Jensen M: "Vector Flow Imaging for Surgical Decision-Making in Pediatric Cardiology" *Arkansas Exercise and Nutrition Research Symposium: The Science of Diet and Exercise 2nd Annual Center for Human Nutrition Research Symposium. Feb 22, 2019.*
- 142) Invited speaker at the Fayetteville, Arkansas Rotary Club: "Cardiovascular Disease and Research in Arkansas", Fayetteville, Arkansas, February 18<sup>th</sup>, 2016.
- 143) Invited keynote speaker at the Sixth Nanotechnology for Health Care Conference "Nanoscale Materials and Sensors in Cardiovascular Medicine", Winthrop Rockefeller Institute, Morrilton, Arkansas, December 2<sup>nd</sup>, 2015.
- 144) Invited guest lecturer at the National Center for Toxicological Research "A Team of Hearts, Jensen Cardiovascular Research; the Past, the Present and the Future", November 19<sup>th</sup>, 2015.
- 145) Invited guest lecturer at the Georgia Institute of Technology Biomedical Engineering BMED 6784 Cardiovascular Biomechanics, April 2<sup>nd</sup>, 2015.
- 146) Invited seminar speaker at the University of Texas, Austin ICES Center for Cardiovascular Simulation: "Utilizing Computational and Experimental Tools in Tandem for Development and Evaluation of Cardiovascular Devices" October 27<sup>th</sup>, 2014.

- 147) Invited Panelist at the NIH “Broadening Experiences in Scientific Training” (BEST) Program. Emory University and the Georgia Institute of Technology. July 23<sup>rd</sup>, 2014.
- 148) Invited Speaker at the Department of Engineering, Cambridge University: “The Left Heart Tug of War: Engineering and Medicine Joining Forces, January 21<sup>st</sup>, 2013, Cambridge, UK.
- 149) Invited Speaker at the Department of Bioengineering, Imperial College London: “The Left Heart Tug of War: Engineering and Medicine Joining Forces, December 10<sup>th</sup>, 2012, London, UK.
- 150) Invited Speaker at Imaging Sciences & Biomedical Engineering, Kings College London / St. Thomas Hospital: “The Left Heart Tug of War: Engineering and Medicine Joining Forces, July 31<sup>st</sup>, 2012, London, UK.
- 151) Invited Speaker at the Institute of Biomedical Engineering, University of Oxford: “The Left Heart Tug of War: Engineering and Medicine Joining Forces, February 29<sup>th</sup>, 2012, Oxford, UK.
- 152) Invited Speaker at the Danish Biomechanical Society: “Biomechanical Approaches in Mapping the Left Heart Force Balance”, DBS Annual Meeting, October 14<sup>th</sup>, 2011, Odense, Denmark.
- 153) BioPeople Innovation Tour 2011: “Requirements for Design, Function, Materials, and Communication”, Invited Speaker for Cluster of Health and Life Sciences companies (Novo Nordisk, Delta, Coloplast etc.) Nov. 29<sup>th</sup>, 2011.
- 154) Invited Speaker at the Danish Engineering Foundation: “Coupling between Research and Industry: Why, How?” Health Technology Potential Workshop, Viborg, Denmark, September 27<sup>th</sup>, 2011.
- 155) 2011 Biomedical Engineering Invited Guest Presentation: “The Left Heart Tug of War: Engineering and Medicine Joining Forces”, Auspices at the Center for Innovative Cardiovascular Technologies, Atlanta, Georgia, July 28<sup>th</sup>, 2011.
- 156) Morten Jensen: “Experimental Heart Surgery in Denmark”, Division of Adult Cardiothoracic Surgery and Cardiac Biomechanics, University of California, San Francisco, CA, USA, August 2<sup>nd</sup>, 2011.
- 157) Morten Jensen: “Experimental Heart Surgery in Denmark”, Department of Biomedical Engineering, University of Oulu, Oulu, Finland, August 10<sup>th</sup>, 2011.
- 158) Morten Ø. Jensen: “Engineering in Experimental Heart Surgery”, Danish Institute for Study Abroad (DIS, Copenhagen), September 2009.
- 159) Morten Ø. Jensen: “Repairing the Heart”, The Danish Society of Engineers, (Aarhus, Denmark), October 20<sup>th</sup>, 2009.
- 160) Morten Ø. Jensen: “Repairing the Heart”, 19<sup>th</sup> Danish Biomedical Engineering Society Annual Conference, Denmark September 22<sup>nd</sup> – 24<sup>th</sup>, 2009.
- 161) Morten Ø. Jensen: “Repairing the Heart”, iNANO: The interdisciplinary nanoscience center at Aarhus University, March 10<sup>th</sup>, 2009.
- 162) Guest Lecturer: “Engineering in Experimental Heart Surgery”, Technical University of Denmark (DTU, Copenhagen), September 2008.

- 163) Guest Lecturer: "Engineering in Experimental Heart Surgery", The Danish Society of Engineers (Copenhagen), September 2008.
- 164) Jensen, M. O: "Mitral Valve Biomechanics and Fluid Dynamics", Department of Cardiology, April 2008, Aarhus University Hospital, Skejby, Aarhus, Denmark.
- 165) Jensen, M. O. J., Bering, J., "Vision Analysis: Techniques and Applications", Virtual Instrumentation Seminar, Engineering College of Aarhus, Denmark, Dec. 6<sup>th</sup>, 2006.
- 166) Jensen, M. O. J.: "Image Acquisition and Analysis", Virtual Instrumentation Seminar, Engineering College of Aarhus, Denmark, April 1<sup>st</sup>, 2006.
- 167) Virtual Bioinstrumentation and Industry Discussion Panelist Partnership for Educational Bioengineering Laboratories (PEBEL), Lansdowne, VA, June 4-6, 2004.
- 168) "LabVIEW Control Design and Simulation", NI Symposium, Cape Town, South Africa, Nov. 24<sup>th</sup> 2004.
- 169) Jensen, Morten: "Microscope Control with LabVIEW and IMAQ Vision" National Instruments Scientific Imaging Symposium, Boston, MA, November 13, 2003.

#### **Public Media Appearances (78 total)**

- "Researchers Test New Imaging Method for First Time on Human Patients" - Article news story on [radiologybusiness.com](http://radiologybusiness.com), [www.HealthDataManagement.com](http://www.HealthDataManagement.com), [news.uark.edu](http://news.uark.edu), etc.
- "American Heart Association Heart Hero" – AHA websites, University of Arkansas Websites, November 1<sup>st</sup>, 2018
- "U of A Student Named as 2018 Barry M. Goldwater Scholar", [news.uark.edu](http://news.uark.edu) April 17<sup>th</sup>, 2018
- "UA professors aid medical field", *Democrat Gazette front page of Business Section and [www.arkansasonline.com](http://www.arkansasonline.com)*
- "New Biomedical Company Helps Train Clinicians and Test Medical Equipment", [news.uark.edu](http://news.uark.edu) April 16<sup>th</sup>, 2018.
- "UA researchers form new medical testing venture, receive help from Fort Smith company" [talkbusiness.net](http://talkbusiness.net), April 16<sup>th</sup>, 2018. As of April 19<sup>th</sup>, 2018: 325 views and 56 shares.
- "Two Biomedical Engineering Faculty Receive Grants from the American Heart Association" [news.uark.edu](http://news.uark.edu) April 5<sup>th</sup>, 2018
- "Increasing Numbers of Engineering Students Take Advantage of Semester Study Abroad Opportunities" [news.uark.edu](http://news.uark.edu) June 7<sup>th</sup>, 2017
- "Brazilian Students and Biomedical Engineering Professors Collaborate on Summer Research". [news.uark.edu](http://news.uark.edu) August 3<sup>rd</sup>, 2016
- "Happy, Healthy Heart Advice", *KNWA-TV and Fox 24 News, February 10<sup>th</sup>, 2016*
- "American Heart Awareness Month Heart Health Advice", [www.nwahomepage.com](http://www.nwahomepage.com), February 10<sup>th</sup>, 2016
- "Healthy Heart Tips for Valentine's Day", [www.publicnow.com](http://www.publicnow.com), February 10<sup>th</sup>, 2016
- "Healthy Heart Tips for Valentine's Day", [news.uark.edu](http://news.uark.edu), February 9<sup>th</sup>, 2016
- "Alliance recruits 2 more scholars" Front page article of the Business Section of Northwest Arkansas Democrat Gazette and [www.arkansasonline.com](http://www.arkansasonline.com), Arkansas, August 14<sup>th</sup>, 2015
- "Research Alliance Brings Two Bright Minds To Arkansas" [UALR Public Radio](http://UALR Public Radio), News & Culture for Arkansas, August 13<sup>th</sup>, 2015
- "ARA Scholars Program Introduces Newest Researchers" *Arkansas Business Online*, August 13<sup>th</sup>, 2015
- "Research Alliance Brings Two Bright Minds To State" *Talk Business & Politics*, August 13<sup>th</sup>, 2015
- "Arkansas Research Alliance Scholars Join University of Arkansas Faculty" [news.uark.edu](http://news.uark.edu), August 13<sup>th</sup>, 2015

- "ARA Scholars announced" *Article, thecabin.net, August 13<sup>th</sup>, 2015*
- "ARA Scholars Program Strengthened by New Research Leaders: Scholars drive innovation through research and discovery" *Article, aralliance.org, August 13<sup>th</sup>, 2015*
- "2 professors joining UA through alliance grant" *Article, thv11.com, August 13<sup>th</sup>, 2015*
- "Computer heart can save pigs" *Machine Magazine (online), Denmark, April 10<sup>th</sup>, 2013*
- "Computer model can speed up heart research" *Natural and Technical Science (online), Aarhus University, April 10<sup>th</sup>, 2013*
- "Danske ingeniørstuderende og forskere bag succesfuld teknik til hjerteoperationer", *Interview, ing.dk, July 5<sup>th</sup>, 2012*
- "Danske ingeniører bag banebrydende hjerteteknologi" *Interview, teknikogviden.dk, June 8<sup>th</sup>, 2012*
- "Danske ingeniører bag banebrydende hjerteteknologi" *Altinget / Forskning og Innovation, June 6<sup>th</sup>, 2012*
- "Danske ingeniører bag banebrydende hjerteteknologi" *Interview, iha.dk, June 6<sup>th</sup>, 2012*
- "New Danish Invention Limits Turbulence in the Aorta" *Article, ing.dk, December 16<sup>th</sup>, 2011*
- "Engineering College files for patent on heart canula" *Interview, iha.dk, December 15<sup>th</sup>, 2011*
- "Aarhus-delegation til international konference om sundhedsteknologi" *Interview, iha.dk, June 14<sup>th</sup>, 2011*
- "Helping Heart Patients" *GENIUS Issue #3, November 2010*
- "International Collaboration and Student Exchange Agreement Established" *iha.dk, 10<sup>th</sup> September 2010*
- "Researchers use Pigs" *TV2 Østjylland News, 22<sup>nd</sup> February 2010*
- "Århus-ingeniører hjælper hjertepatienter" ("Aarhus-Engineers help heart patients") *holme-net.dk, nyheder.tdconline.dk, nyhederne.org, news.dk, jp.dk, iha.dk 31<sup>st</sup> August 2009*
- "Engineers Strengthen Weak Hearts" *Århus Stiftstidende, 6<sup>th</sup> July 2009*
- "Århus-studerende vinder pris for hjerteteknologi" *Jyllandsposten, 6<sup>th</sup> July 2009*
- "Big price to Århus-students for landmark heart technology" *presswire.dk, 6<sup>th</sup> July 2009*
- "Ingeniørstuderende fra Århus hjælper hjerter" *Lokalavisen/Århus, 6<sup>th</sup> July 2009*
- "Stor pris til Århus-studerende for skelsættende hjerteteknologi" *iha.dk, 6<sup>th</sup> July 2009*
- "Heart Valve Research" *NEXT no. 6 Conference, Innovation Lab, Aarhus, Denmark, April 2-3 2009*
- "Ny hjertekanyle reducerer blodpropper" *Ingeniøren, Feb 27<sup>th</sup>, 2009*
- "Ny hjertekanyle giver færre blodpropper" [www.hjerteforeningen.dk](http://www.hjerteforeningen.dk), Feb 2<sup>nd</sup>, 2009
- "To unge får pris for kanyle" *Århus Stiftstidende, Feb. 1<sup>st</sup>, 2009, Pg. 16*
- "Danish discovery could help cardiac patients" *Biotech Scandinavia, [www.idg.se](http://www.idg.se), Dec. 1<sup>st</sup>, 2009*
- "Studerende får pris for hjertekanyle" [www.tv2oj.dk](http://www.tv2oj.dk), January 27<sup>th</sup>, 2009
- "Maskiningeniørstuderende udvikler hjertekanyle" [www.jernindustri.dk](http://www.jernindustri.dk), January 27<sup>th</sup>, 2009
- "Studerende får pris for kanyle" [www.stiften.dk](http://www.stiften.dk), January 27<sup>th</sup>, 2009
- "Studerende bag banebrydende hjerteteknologi" [www.jp.dk](http://www.jp.dk), January 27<sup>th</sup>, 2009
- "Ny dansk hjertekanyle skal nedsætte risiko for blodpropper" [www.dagensmedicin.dk](http://www.dagensmedicin.dk), January 27<sup>th</sup> 2009
- "Studerende vandt pris for banebrydende hjertekanyle" [www.iha.dk](http://www.iha.dk), January 27<sup>th</sup> 2009
- "Studerende opfinder banebrydende hjertekanyle" [www.iha.dk](http://www.iha.dk), January 22<sup>nd</sup> 2009
- "Verdenskendt hjertemediciner besøger Ingeniørhøjskolen" [www.iha.dk](http://www.iha.dk), January 16<sup>th</sup> 2009
- "Ingeniører og læger udvikler hjertering" *Annual Report, Engineering College of Aarhus, 2008, p 16*
- "Studerende bag banebrydende hjerteteknologi" *Jyllandsposten s. 7, Urban s. 8, January 28<sup>th</sup>, 2008*
- "The Danish Society of Engineers annual Honorary Award of Excellence, May 2008" *Featured in Århus Stiftstidende (May 7<sup>th</sup> 2008 p. 22), TV2 Østjylland, Aarhus Universitet ([www.au.dk](http://www.au.dk)), Dagens Medicin, [www.ida.dk](http://www.ida.dk), Aarhus University Hospital ([www.sundhed.dk](http://www.sundhed.dk)), Engineering College of Aarhus ([www.iha.dk](http://www.iha.dk)), Nordjyske Stiftstidende (May 7<sup>th</sup> 2008 p. 12), Fyns Amts Avis, Fredericia Dagblad, Vejle Amts Folkeblad, Horsens Folkeblad, Stiften.dk, The Danish Heart Foundation ([www.hjerteforeningen.dk](http://www.hjerteforeningen.dk))*

- "Help to Heart Patients" *Frederiksborg Amts Newspaper*, October 17<sup>th</sup> 2008, 1<sup>st</sup> section, pg. 5
- "New Research Helps Heart Patients" *Ritzaus Bureau* October 16<sup>th</sup>, 2008
- "Breakthrough in Heart Valve Defect Surgery Research" October 16<sup>th</sup>, 2008, TV2 News
- "Heart valve patients can look forward to better treatment" October 2008, *Denmarks Radio News*
- "New research can improve the treatment for patients with leaking mitral heart valves" October 2008, [www.sundhed.dk](http://www.sundhed.dk)
- "New Research Helps Heart Patients" October 18<sup>th</sup> 2008, *Aarhus Stiftstidende*, section 1, page 5
- "Ny forskning til hjælp for hjertepatienter" October 20<sup>th</sup> 2008, *Nordjyske Stiftstidende*, page 26
- "Intelligent hjertering med lang levetid" *Hjertenyt*, (*Danish Heart Association Magazine*), Nov. '08 pg. 12-13
- "Ny Intelligent Hjertering" *P4 Danmarks Radio, Radioavisen*, 3:00PM, December 15<sup>th</sup>, 2008
- "Aarhus Engineer and Skejby Professor Invents New Heart Ring" [www.jp.dk](http://www.jp.dk), December 15<sup>th</sup>, 2008
- "Engineers & Medical Doctors Invents Intelligent Heart Ring" [www.iha.dk](http://www.iha.dk), December 15<sup>th</sup>, 2008
- "Engineers & Medical Doctors Invents Intelligent Heart Ring" [www.dr.dk](http://www.dr.dk), December 15<sup>th</sup>, 2008
- "Ingeniører og læger udvikler intelligent hjertering" Radio Interview (in Danish): <http://jp.dk/radio/>, Length: 5min 45sec., December 15<sup>th</sup>, 2008
- "Flexible Rings Improves Lives for Heart Patients" *Aarhus Stiftstidende*, Friday November 28<sup>th</sup>, 2008, p. 21
- "Mitral Valve Force Balance: The Left Ventricular Tug of War" Publication of PhD defense, *Jyllandsposten*, Friday November 28<sup>th</sup>, 2008, p. 20
- "Den intelligente hjertering på størrelse med en køkkenelastik" *24 Timer*, December 16<sup>th</sup>, 2008, pg. 22
- "Perspectives in Collaboration between Doctors and Engineers, July 2006" Featured in TV2 News, *Jyllandsposten*, *Politiken*, *Hjertenyt*, (*Danish Heart Association*), *Urban Newspaper*, *IHA News*, etc.
- "Eyes for Machines" Interview in *J&M/Industry-Technique*, Week 32, 2003, page 30

### **Grants / Scholarships / Research Funding and Support**

#### **2018**

- Vivas Research Award
- American Heart Association Research Award
- University of Arkansas for Medical Sciences Pilot Project Award

#### **2017**

- National Instruments Travel Reward
- Arkansas Biosciences Institute

#### **2016**

- Honor's College Faculty Equipment and Technology Grant (by the Walton Family Foundation)
- Arkansas Biosciences Institute
- South Eastern Conference (SEC) Faculty Travel Grant

#### **2015**

- Arkansas Research Alliance

#### **2013**

- Fabrikant P.A. Fiskers Fond
- Aarhus University Hospital Internationalization Scholarship
- Bønnelycke Fonden
- Health Research Fund of Central Denmark Region

#### **2012**

- Helga and Peter Kornings Fond

#### **2011**

- The A.P. Møller Foundation for the Advancement of Medical Science
- 2011 - Snedkermester Sophus Jacobsen og hustru Astrid Jacobsens Fond

- 2011 - Beckett Fonden
- 2011 - Henry og Astrid Møllers Fond
- 2010**
- Fondation Leducq Transatlantic Network of Excellence
- 2009**
- Nordea Fonden
- Aase og Ejnar Danielsens Fond
- Købmand Sven Hansen og hustru Ina Hansens Fond
- Arvid Nilssons Fond
- 2007**
- Hørslev Fonden
- Snedkermester Sophus Jacobsen og hustru Astrid Jacobsens Fond
- Murermester Lauritz Peter Christensen og hustru Kirsten Sigrid Christensens Fond
- Marie og M. B. Richters Fond
- Oticon Fonden
- Raimond og Dagmar Ringgård-Bohn's Fond
- 2006**
- Kirsten Anthonius Mindelegat
- Helga and Peter Kornings Fond
- The Danish Heart Association Grant
- The Danish Medical Association Research Fund
- Snedkermester Sophus Jacobsen og hustru Astrid Jacobsens Fond
- Aase og Ejnar Danielsens Fond
- Frimodt-Heineke Fonden
- Simon Fougner Hartmanns Famile Fond
- Overlæge Poul M. Christiansens & hustrus Fond
- Jens Anker Andersen Fonden
- Hørslev Fonden
- Dellabs Fond (Engineering College of Aarhus)
- Købmand Sven Hansen og hustru Ina Hansens Fond
- Eva & Henry Frænkels Mindefond
- Kong Christian den Tiendes Fond
- Lykfeldts Fond
- 2005**
- The Danish Heart Association Scholarship
- The A.P. Møller Foundation for the Advancement of Medical Science
- 1999**
- Henry and Mary Skovs Fonden
- Aage Littingers Fonden
- The Jeffery Scott Linden Scholarship
- The Gurley Fellowship, Georgia Institute of Technology
- 1998**
- I.D.A. Fonden
- C.A.C. Fonden
- Otto Moensteds Fonden
- Uni Bank Fonden
- 1997**
- National Institutes of Health (NIH) Grant # R01 HL52009
- National Heart, Lung, and Blood Institute (NHLBI) Grant # K24 HL67434
- Engineering College of Aarhus Grant
- Skejby Sygehus Grant
- The Danish Heart Association Scholarship
- Larsen & Nielsen Fond
- P.A. Fiskers Fond

### **Academic Courses Taught and Developed**

- Cardiovascular Biomechanics (graduate level)
- Blood Pressure and Flow Measurement (PhD Level, including course development)
- Hemodynamics (BS, MS, and PhD Level, including course development)
- Biofluids (BS, MS, and PhD Level, including course development)
- Cardiovascular Modelling (MS, and PhD Level, including course development)
- Biomechanics (BS and MS Level, including course development)
- Physics (BS Level)
- Medical Instrumentation (BS Level)
- Medical Research and Presentation Techniques (BS and MS Level, including course development)

### **Industry Customer Education Courses Taught and Developed**

- Advanced Graphical Programming in LabVIEW
- Virtual Instrumentation, Data Acquisition (DAQ)
- Signal Conditioning
- Machine Vision & Image Processing (including course development)
- Motion Control
- System Identification and Simulation (including course development)
- Control Design (including course development)
- LabVIEW TestStand

### **Professional Society Memberships**

- Biomedical Engineering Society (BMES)
- The Danish Heart Foundation
- The Danish Society of Engineers (IDA)
- American Heart Association (AHA)
- Institute of Electrical and Electronics Engineers (IEEE)
- Engineering in Medicine and Biology Society (EMBS)
- Danish Society for Biomedical Engineering (DMTS)
- Cardiothoracic Surgery Network (CTSNet)
- Danish Cardiovascular Research Academy (DaCRA)
- The Society for Heart Valve Disease (SHVD)
- The Scandinavian Society for Research in Cardiothoracic Surgery (SSRCTS)
- International Federation for Medical and Biological Engineering (IFMBE) - *affiliated*
- European Alliance for Medical and Biological Engineering & Science (EAMBES) - *affiliated*