

Year	Author	Title
2009	V. Beachley, X. Wen	Fabrication Of Nanofiber Reinforced Protein Structures For Tissue Engineering
2009	A. Eilaghi, J. Flanagan, G.W. Brodland, R. Ethier	Strain Uniformity In Biaxial Specimens Is Highly Sensitive To Attachment Details
2009	D. Gregory	The Influence Of The Tensile Material Properties Of Single Annulus Fibrosus Lamellae And The Interlamellar Matrix Strength On Disc Herniation And Progression
2010	D. Gregory, J. Callaghan	An Examination Of The Influence Of Strain Rate On Subfailure Mechanical Properties Of The Annulus Fibrosus
2010	A. Eilaghi, J. Flanagan, I. Tertinegg, C. Simmons, W. Brodland, R. Ethier	Biaxial Mechanical Testing Of Human Sclera
2010	A. Eilaghi	Effects Of Sclera Stiffness On Biomechanics Of The Optic Nerve Head In Glaucoma
2010	A. Eilaghi, J. Flanagan, C. Simmons, R. Ethier	Effects Of Sclera Stiffness Properties On Optic Nerve Head Biomechanics
2011	Diane Gregory, J. Callaghan	A Comparison Of Uniaxial And Biaxial Mechanical Properties Of The Annulus Fibrosus: A Porcine Model
2011	Diane Gregory, J. Callaghan	Does Vibration Influence The Initiation Of Intervertebral Disc Herniation
2011	D. Gregory, J. Veldhuis, C. Horst, W. Brodland, J. Callaghan	Novel Lap Test Determines The Mechanics Of Delamination Between Annular Lamellae Of The Intervertebral Disc
2011	T. Davis, J. Zhang, J.E. Herrera	Surfactant Assisted Incorporation Of Single-Walled Carbon Nanotubes Into A Chitosan-Polyvinylpyrrolidone Polymer
2012	D. Valdez-Jasso, M.A. Simon, H.C. Champion, M.S. Sacks	A Murine Experimental Model For The Mechanical Behavior Of Viable Right-Ventricular Myocardium
2012	Diane Gregory, J. Callaghan	An Examination Of The Mechanical Properties Of The Annulus Fibrosus: The Effect Of Vibration On The Intra-Lamellar Matrix Strength
2012	H-Y. Huang, B.N. Balhouse, S. Huang	Application Of Simple Biomechanical And Biochemical Tests To Heart Valve Leaflets: Implications For Heart Valve Characterization And Tissue Engineering
2012	Michael Holmes, S. Howarth, J. Callaghan, P. Keir	Biomechanical Properties Of The Transverse Carpal Ligament Under Biaxial Strain
2012	G. Argento, M. Simonet, C.W.J. Oomens, F.P.T. Baaijens	Multi-Scale Mechanical Characterization Of Scaffolds For Heart Valve Tissue Engineering
2013	J. Zhang, R. Bi, W. Hodge, P. Yin, W.H. Tse	A Nanocomposite Contact Lens For The Delivery Of Hydrophilic Protein Drugs
2013	Kamaev, P., Eddington, W., Rood-Ojalvo, S., Friedman, M. and Muller, D.	Accelerated corneal cross-linking with pulsed light.
2013	Muller, D., Kamaev, P., Friedman, M., Sherr, E. and Eddington, W.	Accelerated UVA-RF corneal cross-linking through pulsed UVA illumination and oxygen rich environments.
2013	Eddington, W., Friedman, M., Sherr, E. and Muller, D.	Biaxial biomechanical study of UVA-RF corneal cross-linking.
2013	S.A. O'Leary, B.J. Doyle, T.M. McGloughlin	Comparison Of Methods Used To Measure The Thickness Of Soft Tissues And Their Influence On The Evaluation Of Tensile Stress

2013	A.P. Sondergaard, A. Ivarsen, J. Hjortdal	Corneal Resistance To Shear Force After Uva-Riboflavin Cross-Linking
2013	Achermann, G. Stranzinger, J. Robert, B. Sanders, M. Sidler, C.E. Brokopp, S.T. Proulx, T. Frauenfelder, R. Schoenauer, M.Y. Emmert, V.	In Vitro Fabrication Of Autologous Living Tissue-Engineered Vascular Grafts Based On Prenatally Harvested Ovine Amniotic Fluid-Derived Stem Cells
2013	M.S. Cabrera, C.W.J. Oomens, C.V.C. Bouten, A.J.J.C. Bogers, S.P. Hoerstrup, F.P.T. Baaijens	Mechanical Analysis Of Ovine And Pediatric Pulmonary Artery For Heart Valve Stent Design
2013	A.L.F. Soares, D. van Geeman, A.J. van den Bogaardt, C.W.J. Oomens, C.V.C. Bouten, F.P.T. Baaijens	Mechanics Of The Pulmonary Valve In The Aortic Position
2013	A.P. Sondergaard, A. Ivarsen, J. Hjortdal	Reduction Of Stromal Swelling Pressure After Uva-Riboflavin Cross-Linking
2014	K.M. Grimes, A. Voorhees, Y.A. Chiao, H-C. Han, M.L. Lindsey, R. Buffenstein	Cardiac Function Of The Naked Mole-Rat: Echophysiological Responses To Working Underground
2014	Grimes, K.M., Voorhees, A., Chiao, Y.A., Han, H.C., Lindsey, M.L. and Buffenstein, R.	Cardiac function of the naked mole-rat: ecophysiological responses to working underground.
2014	H-Y. Huang, S. Huang, C.P. Frazier, P.M. Prim, O. Harrysson	Directional Biomechanical Properties Of Porcine Skin Tissue
2014	Soares, A.L.F., van Geemen, D., van den Bogaardt, A.J., Oomens, C.W.J., Bouten, C.V.C. and Baaijens, F.P.T.	Mechanics of the pulmonary valve in the aortic position.
2014	G. Argento, N. de Jonge, S.H.M. Sontjens, C.W.J. Oomens, C.V.C. Bouten, F.P.T. Baaijens	Modeling The Impact Of Scaffold Architecture And Mechanical Loading On Collagen Turnover In Engineered Cardiovascular Tissues
2014	J.M. Parraga Quiroga, P. Emmans, W. Wilson, K. Ito, C.C. van Donkelaar	Should A Native Depth-Dependent Distribution Of Human Meniscus Constitutive Components Be Considered In Fea-Models Of The Knee Joint?
2014	V. Ballotta, A. Dressen-Mol, C.V.C. Bouten, F.P.T. Baaijens	Strain-Dependent Modulation Of Macrophage Polarization Within Scaffolds
2014	M.R. Hill, M.A. Simon, D. Valdez-Jasso, H.C. Champion, M.S. Sacks	Structural And Mechanical Adaptations Of Right Ventricular Free Wall Myocardium To Pressure Overload
2014	S.A. O'Leary, D.A. Healey, E.G. Kavanagh, M.T. Walsh, T.M. McGloughlin, B.J. Doyle	The Biaxial Biomechanical Behavior Of Abdominal Aortic Aneurysm Tissue
2014	S.A. O'Leary, E.G. Kavanagh, P.A. Grace, T.M. McGloughlin, B.J. Doyle	The Biaxial Mechanical Behaviour Of Abdominal Aortic Aneurysm Intraluminal Thrombus: Classification Of Morphology And The Determination Of Layer And Region Specific Properties
2014	S. O'Leary, B. Doyle, T. McGloughlin	The Impact Of Long Term Freezing On The Mechanical Properties Of Porcine Aortic Tissue
2014	R.G.P. Lopata, M.F.J. Peters, J. Nijs, C.W. Oomens, M.C.M. Rutten, F.N. van de Vosse	Vascular Elastography: A Validation Study
2015	L. Frese, B. Sanders, G.M. Beer, B. Weber, A. Driessen-Mol, F.P.T. Baaijens, S.P. Hoerstrup	Adipose Derived Tissue Engineered Heart Valve
2015	S. Huang, H.-Y. S. Huang	Biaxial Stress Relaxation Of Semilunar Heart Valve Leaflets During Simulated Collagen Catabolism: Effects Of Collagenase Concentration And Equibiaxial Strain State
2015	Yabluchanskiy, R. Padmanabhan, E. Flynn, C.A. Cates, M.L. Lindsey, H. C. Han	Building A Better Infarct: Modulation Of Collagen Cross-Linking To Increase Infarct Stiffness And Reduce Left Ventricular Dilation Post-Myocardial Infarction
2015	A.J. Kanellopoulos, M.A. Kontos, S. Chen, G. Asimellis	Corneal Collagen Cross-Linking Combined With Simulation Of Femtosecond Laser-Assisted Refractive Lens Extraction: An Ex Vivo Biomechanical Effect Evaluation
2015	G. C. van Almen, H. Talacua, B.D. Ippel, B.B. Mollet, M. Ramaekers, M. Simonet, A.I.P.M. Smits, C.V.C. Bouten, J. Kluijn, P.Y.W. Dankers	Development Of Non-Cell Adhesive Vascular Grafts Using Supramolecular Building Blocks

2015	A.J. Kanellopoulos, G. Asimellis, B.Salvador-Culla, J. Chodosh, J.B. Ciolino	High-Irradiance Cxl Combined With Myopic Lasik: Flap And Residual Stroma Biomechanical Properties Studied Ex-Vivo
2015	M. Abbasi, A.N. Azadani	Leaflet Stress And Strain Distributions Following Incomplete Transcatheter Aortic Valve Expansion
2015	C.H. Yap, D.W. Park, D. Dutta, M. Simon, K. Kim	Methods For Using 3-D Ultrasound Speckle Tracking In Biaxial Mechanical Testing Of Biological Tissue Samples
2015	Argento, G., De Jonge, N., Söntjens, S.H.M., Oomens, C.W.J., Bouten, C.V.C. and Baaijens, F.P.T.	Modeling the impact of scaffold architecture and mechanical loading on collagen turnover in engineered cardiovascular tissues.
2015	P. Yin, G.B. Huang, W.H. Tse, Y.G. Bao, J. Denstedt, J. Zhang	Nanocomposite Silicone Hydrogels With A Laser-Assisted Surface Modification For Inhibiting The Growth Of Baterial Biofilm
2015	A. Kahlon, M.B. Hurtig, K.D. Gordon	Regional And Depth Variability Of Porcine Meniscal Mechanical Properties Through Biaxial Testing
2015	M. Brugmans, S. Soekhradj-Soechit, D. van Geemen, M.A.J. Cox, C. Bouten, F.P.T. Baaijens, A. Driessen-Mol	Superior Tissue Evolution In Slow Degrading Scaffolds For Valvular Tissue Engineering
2015	M.T. Sun, D. Pham, A.J. O'Conner, J. Wood, R. Casson, D. Selva, J.J. Costi	The Biomechanics Of Eyelid Tarsus Tissue
2015	Davis, T.J. and Herrera, J.E.	The Role of Single Walled Carbon Nanotube Debundling on Their Effective Reinforcement of Chitosan-Polyvinylpyrrolidone Hydrogels.
2016	L.A. Monaco, S.J. DeWitte-Orr, D.E. Gregory	A Comparison Between Porcine, Ovine, And Bovine Intervertebral Disc Anatomy And Single Lamella Annulus Fibrosis Tensile Properties
2016	A.K. Capulli, L.A. MacQueen, B.B. O'Conner, S. Dauth, K.K. Parker	Acute Pergolide Exposure Stiffens Engineered Valve Interstitial Cell Tissues And Reduces Contractility In Vitro
2016	M.W.J.T. Janssen-van den Broek, A.J. van den Bogaardt, J.J.C. Bogers, M-J. T.H. Goumans, F.P.T. Baaijens, C.V.C. Bouten	Age-Dependent Changes In Geometry, Tissue Composition And Mechanical Properties Of Fetal To Adult Cryopreserved Human Heart Valves
2016	L. Frese, T. Sasse, B. Sanders, F.P.T. Baaijens, G.M. Beer, S.P. Hoerstrup	Are Adipose-Derived Stem Cells Cultivated In Human Platelet Lysate Suitable For Heart Valve Tissue Engineering
2016	B. Mathers, A. Agur, M. Oliver, K. Gordon	Biaxial Quantification Of Deep Layer Transverse Carpal Ligament Elastic Properties By Sex And Region
2016	Kluyskens, S. Dymarkowski, P. Verbrugghe, B. Meuris, J. Vander Sloten, N. Famaey	Biomechanical Characterization Of Ascending Aortic Aneurysms
2016	S. Javani, M. Gordon, A.N. Azadani	Biomechanical Properties And Microstructure Of Heart Chambers: A Paired Comparison Study In An Ovine Model
2016	M. Abbasi, M.S. Barakat, K. Vanhidkiah, A.N. Azadani	Characterization Of Three-Dimensional Anisotropic Heart Valve Tissue Mechanical Properties Using Inverse Finite Element Analysis
2016	A. Kamenskiy, A. Seas, P. Deegan, W. Poulson, E. Anttila, S. Sim, A. Desyatova, J. MacTaggart	Constitutive Description Of Human Femoropopliteal Artery Aging
2016	Ngu, J.M., Jafar, R., Toeg, H.D., Sohmer, B., Chan, V., Labrosse, M. and Boodhwani, M.	CUSP INTERVENTIONS IN AORTIC VALVE REPAIR: ARE ALL PERICARDIAL PATCHES CREATED EQUALLY?
2016	G. Huang, W. H. Tse, J. Zhang	Deposition Of A Hydrophilic Nanocomposite-Based Coating On A Silicone Hydrogel Through A Laser Process To Minimize Uv Exposure And Bacterial Contamination
2016	van Almen, G.C., Talacua, H., Ippel, B.D., Mollet, B.B., Ramaekers, M., Simonet, M., Smits, A.I., Bouten, C.V., Kluin, J. and Dankers, P.Y.	Development of Non-Cell Adhesive Vascular Grafts Using Supramolecular Building Blocks.
2016	B. Sanders, S. Loerakker, E.S. Fioretti, D.J.P. Bax, A. Driessen-Mol, S.P. Hoerstrup, F.P.T. Baaijens	Improved Geometry Of Decellularized Tissue Engineered Heart Valves To Prevent Leaflet Retraction

2016	Weber, B., Kehl, D., Bleul, U., Behr, L., Sammut, S., Frese, L., Ksiazek, A., Achermann, J., Stranzinger, G., Robert, J. and Sanders, B.	In vitro fabrication of autologous living tissue-engineered vascular grafts based on prenatally harvested ovine amniotic fluid-derived stem cells.
2016	R.W. Boekhoven, M.F.J. Peters, M.C.M. Rutten, M.R. van Sambeek, F.N. van de Vosse, R.G.P Lopata	Inflation And Bi-Axial Tensile Testing Of Healthy Porcine Carotid Arteries
2016	S. Ghazanfari, A. Dressen-Mol, C.V.C. Bouten, F.P.T. Baaijens	Modulation Of Collaen Fiber Orientation By Strain-Controlled Enzymatic Degradation
2016	G. Huang, Y. Chen, J. Zhang	Nanocomposited Coatings Produced By Laser-Assisted Process To Prevent Silicone Hydrogels From Protein Fouling And Bacterial Contamination
2016	M. Kvasnytsia, N. Famaey, M. Bohm, E. Verhoelst	Patient Specific Vascular Benchtop Models For Development And Validation Of Medical Devices For Minimally Invasive Procedures
2016	C.E. Gooyers, J.P. Callaghan	Peak Stress In The Annulus Fibrosis Under Cyclic Biaxial Tensile Loading
2016	S-J. Park, M. Gazzola, K.S. Park, S. Park, V. Di Santo, E.L Blevins, J.U. Lind, P.H. Campbell, S. Dauth, K.K. Parker	Phototactic Guidance Of A Tissue-Engineered Soft-Robotic Ray
2016	M.R. Labrosse, R. Jafar, J.Ngu, M. Boodhwani	Planar Biaxial Testing Of Heart Valve Cusp Replacement Biomaterials: Experiments, Theory And Material Constants
2016	H. Fehervary, M. Smoljkic, J.Vander Sloten, N. Famaey	Planar Biaxial Testing Of Soft Biological Tissue Using Rakes: A Critical Analysis Of Protocol And Fitting Process
2016	G.M. Gonzalez, L.A. MacQueen, J.U. Lind, S.A. Fitzgibbons, C. O. Chantre, I. Huggler, H.M. Golecki, J.A. Goss, K.K. Parker	Production Of Synthetic, Para-Aramid And Biopolymer Nanofibers By Immersion Rotary Jet-Spinning
2016	D.W. Park, A. Sebastiani, C.H. Yap, M.A. Simon, K. Kim	Quantification Of Coupled Stiffness And Fiber Orientation Remodeling In Hypertensive Rat Right-Ventricular Myocardium Using 3d Ultrasound Speckle Tracking With Biaxial Testing
2016	Brugmans, M.M., Soekhradj-Soechit, R.S., van Geemen, D., Cox, M., Bouten, C.V., Baaijens, F.P. and Driessen-Mol, A.	Superior tissue evolution in slow-degrading scaffolds for valvular tissue engineering.
2016	D.M. Stewart, L.A. Monaco, D.E. Gregory	The Aging Disc: Using An Ovine Model To Examine Age-Related Differences In The Biomechanical Properties Of The Intralamellar Matrix Of Single Lamellae
2016	A. Desyatova, J. MacTaggart, W. Poulson, P. Deegan, C. Lomneth, A. Sandip, A. Kamenskiy	The Choice Of A Constitutive Formulation For Modeling Limb Flexion-Induced Deformations And Stresses In The Human Femoropopliteal Arteries Of Different Ages
2016	K.M. Gruevski, C.E. Gooyers, T. Karakolis, J.P. Callaghan	The Effect Of Local Hydration Environment On The Mechanical Properties And Unloaded Temporal Changes Of Isolated Porcine Annular Samples
2017	A. Helal, M. Doumit, R. Shaheen	Biaxial Experimental And Analytical Characterization Of A Dielectric Elastomer
2017	H-Y. S. Huang, J. Lu	Biaxial Mechanical Properties Of Bovine Jugular Venous Valve Leaflet Tissues
2017	Tsai, K.J., Dixon, S., Hale, L.R., Darbyshire, A., Martin, D. and de Mel, A.	Biomimetic heterogenous elastic tissue development.
2017	K. Maleckis, P. Deegan, W. Poulson, C. Sievers, A. Desyatova, J. MacTaggart, A. Kamenskiy	Comparison Of Femoropopliteal Artery Stents Under Axial And Radial Compression, Axial Tension, Bending, And Torsion Deformations
2017	A. Desyatova, J. MacTaggart, A. Kamenskiy	Constitutive Modeling Of Human Femoropopliteal Artery Biaxial Stiffening Due To Aging And Diabetes
2017	N. Kaul, H-Y. S. Huang	Constitutive Modeling Of Jugular Vein-Derived Venous Valve Leaflet Tissues
2017	R. Shaheen, M. Doumit, A. Helal	Design And Characterization Of A Hyperelastic Tubular Soft Composite

2017	E.S. Fioretta, P.E. Dijkman, S.H.M. Sontjens, R.Duijvelshoff, S. Dekker, M.W.J.T. Janssen-van den Broek, V. Lintas, A. Vink, S.P. Hoerstrup, Lind, S. P. Sheehy, S.J. Park, S. Ahn, B. Weber, J.A. Goss, S.P Hoerstrup, K.K. Parker	In Situ Heart Valve Tissue Engineering Using A Bioresorbable Elastomeric Implant – From Material Design To 12 Months Follow-Up In Sheep Jetvalve: Rapid Manufacturing Of Biohybrid Scaffolds For Biomimetic Heart Valve Replacement
2017	A. Desyatova, W. Poulson, P. Deegan, C. Lomneth, A. Seas, K. Maleckis, J. MacTaggart, A. Kamenskiy	Limb Flexion-Induced Twist And Associated Intramural Stresses In The Human Femoropopliteal Artery
2017	B.B. Mollet, S. Spaans, P.G. Fard, N.A.M. Bax, C.V.C. Bouten, P.Y.W. Dankers	Mechanically Robust Electrospun Hydrogel Scaffolds Crosslinked Via Supramolecular Interactions
2017	P.J.A. Oomen, M.A.J. van Kelle, C.W.J. Oomens, C.V.C. Bouten, S. Loerakker	Nondestructive Mechanical Characterization Of Developing Biological Tissues Using Inflation Testing
2017	H.E. Barrett, E.M. Cunnane, H. Hidayat, J.M. O'Brien, M.A. Moloney, E.G. Kavanagh, M.T. Walsh	On The Influence Of Wall Calcification And Intraluminal Thrombus On Prediction Of Abdominal Aortic Aneurysm Rupture
2017	K. Gsell, D. Zwambag, D.E. Fournier, C.A. Seguin, S.H.M. Brown	Paraspinal Muscle Passive Stiffness Remodels In Direct Response To Spine Stiffness: A Study Using The Ent1-Deficient Mouse
2017	D.T. Pham, J.G. Shapter, J.J. Costi	Tensile Behaviour Of Individual Fibre Bundles In The Human Lumbar Anulus Fibrosus
2017	N.F. Davis, J.J.E. Mulvihill, S. Mulay, E.M. Cunnane, D.M. Bolton, M.T. Walsh	Urinary Bladder Versus Gastrointestinal Tissue: A Comparative Study Of Their Biomechanical Properties For Urinary Tract Reconstruction
2018	M. Siyawanwaya, L.C. du Toit, P. Kumar, Y.E. Choonara, P.P.P.D Kondiah, V. Pillay	3d Printed, Controlled Release, Tritherapeutic Tablet Matrix For Advanced Anti-Hiv-1 Drug Delivery
2018	M. Govender, S. Indermum, P. Kumar, Y.E. Choonara, V. Pillay	3d Printed, Pva–Paa Hydrogel Loaded-Polycaprolactone Scaffold For The Delivery Of Hydrophilic In-Situ Formed Sodium Indomethacin
2018	Sithole, M.N., Kumar, P., du Toit, L.C., Marimuthu, T., Choonara, Y.E. and Pillay, V.	A 3D bioprinted in situ conjugated-co-fabricated scaffold for potential bone tissue engineering applications.
2018	Pasqualini, F.S., Liu, X., Goss, J.A., Campbell, P.H., Gonzalez, G.M., Park, S.J. and Capulli, A.K.	A tissue-engineered scale model of the heart ventricle.
2018	A. Anssari-Benam, Y-T. Tseng, A. Bucchi	A Transverse Isotropic Constitutive Model For The Aortic Valve Tissue Incorporating Rate-Dependency And Fibre Dispersion: Application To Biaxial Deformation
2018	Nelson-Wong, E., Glinka, M., Noguchi, M., Langevin, H., Badger, G.J. and Callaghan, J.P.	Acute Surgical Injury Alters the Tensile Properties of Thoracolumbar Fascia in a Porcine Model.
2018	S. Jett, D. Laurence, R. Kunkel, A. R. Babu, K. Kramer, R. Baumwart, R. Towner, Y. Wu, C-H. Lee	An Investigation Of The Anisotropic Mechanical Properties And Anatomical Structure Of Porcine Atrioventricular Heart Valves
2018	J. Lu, H-Y S. Huang	Biaxial Mechanical Behavior Of Bovine Saphenous Venous Valve Leaflets
2018	C. Ross, D. Laurence, Y. Wu, C. H. Lee	Biaxial Mechanical Characterization of Atrioventricular Heart Valves
2018	S. Jett, D. Laurence, R. Kunkel, A. Babu, K. Kramer, R. Baumwart, R. Towner, Y. Wu, C. H. Lee	Biaxial Mechanical Data of Porcine Atrioventricular Valve Leaflets
2018	D. DeKegel, J. Vastmans, H. Fehervary, B. Depreitere, J. Vander Sloten, N. Famaey	Biomechanical Characterization Of Human Dura Mater
2018	J. Vastmans, H. Fehervary, P. Verbrugghe, T. Verbelen, E. Vanderveken, J. Vander Sloten, T. Treasure, F. Rega, N. Famaey	Biomechanical Evaluation Of A Personalized External Aortic Root Support Applied In The Ross Procedure
2018	A.J. Kanellopoulos	Comparison Of Corneal Biomechanics After Myopic Small-Incision Lenticule Extraction Compared To Lasik: An Ex Vivo Study

2018	M. Smoljkic, P. Verbrugghe, M. Larsson, E. Widman, H. Fehervary, J. D'hooge, J. Vander Sloten, N. Famaey	Comparison Of In Vivo Vs. Ex Situ Obtained Material Properties Of Sheep Common Carotid Artery
2018	Spriestersbach,, E.S. Fioretta, L. Bruder, K. Brakmann, S.E. Motta, V. Lintas, P.E. Dijkman, L. Frese, F. Berger, F.P.T. Baaijens, S.P.	Computational Modeling Guides Tissue-Engineered Heart Valve Design For Long-Term In Vivo Performance In A Translational Sheep Model
2018	Desyatova, A., Poulson, W., MacTaggart, J., Maleckis, K. and Kamenskiy, A.	Cross-sectional pinching in human femoropopliteal arteries due to limb flexion, and stent design optimization for maximum cross-sectional opening and minimum intramural stresses.
2018	E.E. van Haaften, et. al.	Decoupling The Effect Of Shear Stress And Stretch On Tissue Growth And Remodeling In A Vascular Graft
2018	P.E. Hammer, C.W. Baird, P.J. del Nido, G.R. Marx	Dehiscence Of Patch Augmentation Of A Left-Sided Atrioventricular Valve Related To Strenuous Isometric Exercise: Case Report And Failure Analysis
2018	H. Fehervary, J. Vander Sloten, N. Famaey	Development Of An Improved Parameter Fitting Method For Planar Biaxial Testing Using Rakes
2018	Davis, N.F., Mulvihill, J.J., Lynch, J.J., Browne, E., Bolton, D.M., Jack, G.S. and Walsh, M.T.	Digital and mechanical characterization of ureteral stent luminal reduction in response to extrinsic compression forces
2018	S.H. Thakker, A. Di Luca, S. Zaccaria, F.P.T. Baaijens, C.V.C. Bouten, P.Y.W. Dankers	Dual Electrospun Supramolecular Polymer Systems For Selective Cell Migration
2018	Thakkar, S.H., Di Luca, A., Zaccaria, S., Baaijens, F.P., Bouten, C.V. and Dankers, P.Y.	Dual electrospun supramolecular polymer systems for selective cell migration.
2018	Fehervary, H., Vastmans, J., Vander Sloten, J. and Famaey, N.	How important is sample alignment in planar biaxial testing of anisotropic soft biological tissues? A finite element study.
2018	M.A.J. van Kelle, P.J.A. Oomen, W.J.T. Janssen-van den Broek, R.G.P. Lopata, S. Loerakker, C.V.C. Bouten	Initial Scaffold Thickness Affects The Emergence Of A Geometrical And Mechanical Equilibrium In Engineered Cardiovascular Tissues
2018	D. Qi, S. Wu, M.A.Kuss, W.Shi, S. Chung, P.T. Deegan, A. Kamenskiy, Y. He, B. Duan	Mechanically Robust Cryogels With Injectability And Bioprinting Supportability For Adipose Tissue Engineering
2018	J. Tavakoli, J.J. Costi	New Findings Confirm The Viscoelastic Behaviour Of The Inter-Lamellar Matrix Of The Disc Annulus Fibrosus In Radial And Circumferential Directions Of Loading
2018	J. Tavakoli, J.J. Costi	New Insights Into The Viscoelastic And Failure Mechanical Properties Of The Elastic Fiber Network Of The Inter-Lamellar Matrix In The Annulus Fibrosus Of The Disc
2018	Barrett, H.E., Cunnane, E.M., Hidayat, H., O'Brien, J.M., Moloney, M.A., Kavanagh, E.G. and Walsh, M.T.	On the influence of wall calcification and intraluminal thrombus on prediction of abdominal aortic aneurysm rupture.
2018	W. Han, H-P. Zhang, J. Tavakoli, J. Campbell, Y. Tang	Polydopamine As Sizing On Carbon Fiber Surfaces For Enhancement Of Epoxy Laminated Composites
2018	C.R. Snow, M.Harvey-Burgess, B. Laird, S.H.M Brown, D.E. Gregory	Pressure-Induced End-Plate Fracture In The Porcine Spine: Is The Annulus Fibrosus Susceptible To Damage?
2018	A. Kamenskiy, W. Poulson, S. Sim, A. Reilly, J. Luo, J. MacTaggart	Prevalence Of Calcification In Human Femoropopliteal Arteries And Its Association With Demographics, Risk Factors, And Arterial Stiffness
2018	A.A. Ksiazek, L. Frese, P.E. Dijkman, B. Sanders, S. E. Motta, B. Weber, S.P. Hoerstrup	Puncturing Of Lyophilized Tissue Engineered Vascular Matrices Enhances The Efficiency Of Their Recellularization
2018	Song, H., Mozafari, H., Deegan, P., Gu, L. and Suh, D.W.	Quantifying Ocular Manifestations in Abusive Head Trauma.
2018	D.R. Walsh, A.M. Ross, S. Malijauskaite, B.D. Flanagan, D.T. Newport, K.D. McGourty, J.J.E. Mulvihill	Regional Mechanical And Biochemical Properties Of The Porcine Cortical Meninges
2018	S. Ahn, C.O. Chantre, A.R. Gannon, J.U. Lind, P.H. Campbell, T. Grevesse, B.B. O'Conner, K.K. Parker	Soy Protein/Cellulose Nanofiber Scaffolds Mimicking Skin Extracellular Matrix For Enhanced Wound Healing

2018	J. Tavakoli, D.B. Amin, B.J.C. Freeman, J.J. Costi	The Biomechanics Of The Inter-Lamellar Matrix And The Lamellae During Progression To Lumbar Disc Herniation: Which Is The Weakest Structure?
2018	Sprague, E., Goins, B., Clarke, G.D., Han, H.C., Amezcua, K.L., Adeyinka, O.R., Goergen, C.J. and Finol, E.,	The effect of pentagalloyl glucose on the wall mechanics and inflammatory activity of rat abdominal aortic aneurysms.
2019	W. Meador, M. Mathur, T. Jazwiec, M. Malinowski, M. Bersi, T. Timek, M. Rausch	A Detailed Mechanical and Microstructural Analysis of the Ovine Tricuspid Valve Leaflets
2019	S. Jett, Z. Schuermann, A. Mir, H. Burkhart, C-H. Lee	An Integrated Opto-Mechanical System for Quantification of Dynamic Microstructure and Mechanics of Heart Valve Tissues
2019	K. Kramer, C. Ross, A. Babu, Y. Wu, R. Towner, A. Mir, H. M. Burkhart, G. A. Holzapfel, C. H. Lee	An Investigation Of Layer-Specific Tissue Biomechanics Of Porcine Atrioventricular Valve Anterior Leaflets
2019	D. Laurence, C. Ross, S. Jett, C. Johns, A. Echols, R. Baumwart, R. Towner, J. Liao, P. Bajona, Y. Wu, C. H. Lee	An Investigation Of Regional Variations In The Biaxial Mechanical Properties And Stress Relaxation Behaviors Of Porcine Atrioventricular Heart Valve Leaflets
2019	Sari, C.R., Chen, S., Lei, Y., Gao, H., Wang, G. and Ma, X.	An Investigation of Regional Variations in the Biaxial Mechanical Properties of Porcine Mitral Valve.
2019	G. Duginski, C. Ross, D. Laurence, C. Johns, C-H. Lee	An investigation of the effect of freezing storage on the biaxial mechanical properties of excised porcine tricuspid valve anterior leaflets
2019	R. Childers, Y. Wu, R. Towner, K. M. Fung, A. Mir, H. Burkhart, G. A. Holzapfel, C. H. Lee	An Investigation of the Glycosaminoglycan Contribution to Biaxial Mechanical Behaviours of Porcine Atrioventricular Heart Valve Leaflets
2019	Ross, C., Laurence, D., Wu, Y. and Lee, C.H.	Biaxial mechanical characterizations of atrioventricular heart valves.
2019	S. Patnaik, S. Piskin, N. Pillalamarri, G. Romero, G. Escobar, E. Sprague, E. Finol	Biomechanical Restoration Potential of Pentagalloyl Glucose after Arterial Extracellular Matrix Degeneration
2019	F. Fatemifar, M. D. Feldman, M. Oglesby, H. C. Han	Comparison Of Biomechanical Properties And Microstructure Of Trabeculae Carneae, Papillary Muscles, And Myocardium In The Human Heart
2019	V. Bonito, B. J. deKort, C. V. C. Bouten, A. I. P. M. Smits	Cyclic Strain Affects Macrophage Cytokine Secretion And Extracellular Matrix Turnover In Electrospun Scaffolds
2019	Fehervary, H., Vander Sloten, J. and Famaey, N	Development of an improved parameter fitting method for planar biaxial testing using rakes.
2019	A. Desyatova, J. MacTaggart, A. Kamenskiy	Effects of longitudinal pre-stretch on the mechanics of human aorta before and after thoracic endovascular aortic repair (TEVAR) in trauma patients
2019	E. Haaften, T. Wissing, N. Kurniawan, A. Smits, C. Bouten	Human in vitro model of material-driven vascular regeneration reveals how cyclic stretch and shear stress differentially modulate inflammation and tissue formation
2019	E. E. van Haaften, M. C. van Turnhout, N. A. Kurniawan	Image-Based Analysis Of Uniaxial Ring Test For Mechanical Characterization Of Soft Materials And Biological Tissues
2019	S. Jett, L. Hudson, R. Baumwart, B. Bohnstedt, A. Mir, H. Burkhart, G. Holzapfel, C-H. Lee, Y. Wu	Integration of Polarized Spatial Frequency Domain Imaging (pSFDI) with a Biaxial Mechanical Testing System for Dynamic Quantification of Collagen Architecture in Soft Collagenous Tissues
2019	S. Jett, L. Hudson, R. Baumwart, B. Bohnstedt, A. Mir, H. Burkhart, G. Holzapfel, C-H. Lee, Y. Wu	Integration of polarized spatial frequency domain imaging (pSFDI) with a biaxial mechanical testing system for quantification of load-dependent collagen architecture in soft collagenous tissues
2019	T. Wissing, V. Bonito, E. Haaften, M. Doeselaar, M. Brugmans, H. Janssen, C. Bouten, A. Smits	Macrophage-Driven Biomaterial Degradation Depends on Scaffold Microarchitecture
2019	M. Jadidi, M. Habibnezhad, E. Anttila, K. Maleckis, A. Desyatova, J. MacTaggart, A. Kamenskiy	Mechanical and Structural Changes in Human Thoracic Aortas with Age
2019	E. Anttila, D. Balzani, A. Desyatova, P. Deegan, J. MacTaggart, A. Kamenskiy	Mechanical Damage Characterization In Human Femoropopliteal Arteries Of Different Ages

2019	S. C. Hofferberth, C. W. Baird, D. M. Hoganson, L. G. Quinonez, S. M. Emani, P. J. Del Nido, P. E. Hammer	Mechanical Properties of Autologous Pericardium Change with Fixation Time: Implications for Valve Reconstruction
2019	C. H. Lee, D. Laurence, C. Ross, K. Kramer, A. Babu, E. Johnson, M. C. Hsu, A. Aggarwal, A. Mir, H. Burkhart, R. Towner, B. Baumwart, Y. Wu	Mechanics of the Tricuspid Valve-From Clinical Diagnosis/Treatment, In-Vivo and In-Vitro Investigations, to Patient-Specific Biomechanical Modeling.
2019	J. Hill, C. Liu, P. Deardorff, B. Tavakol, W. Eddington, V. Thompson, D. Gore, M. Raizman, D. Adler	Optimization of Oxygen Dynamics, UV-A Delivery, and Drug Formulation for Accelerated Epi-On Corneal Crosslinking
2019	Chantre, C.O., Gonzalez, G.M., Ahn, S., Cera, L., Campbell, P.H., Hoerstrup, S.P. and Parker, K.K.	Porous biomimetic hyaluronic acid and extracellular matrix protein Nanofiber scaffolds for accelerated cutaneous tissue repair.
2019	A. Anssari-Benam, Y-T. Tseng, A. Bucchi	Rate-Dependency Of The Mechanical Behavior Of Semilunar Heart Valves Under Biaxial Deformation
2019	D. Laurence, C. Ross, S. Jett, C. Johns, A. Echols, R. Baumwart, R. Towner, J. Liao, P. Bajona, Y. Wu, C. H. Lee	Regional Biaxial Mechanical Data of the Mitral and Tricuspid Valve Anterior Leaflets
2019	L. Cai, Y. Wang, H. Gao, X. Ma, G. Zhu, R. Zhang, X. Shen, X. Luo	Some Effects of Different Constitutive Laws on FSI Simulation for the Mitral Valve
2019	H. C. J. van Houtem, H. M. Janssen, A. I. P. M. Smits, N. A. Kurniawan, P. Y. W. Dankers, C. V. C. Bouten	The Degradation And Performance Of Electrospun Supramolecular Vascular Scaffolds Examined Upon In Vitro Enzymatic Exposure
2019	W. Meador, G. Sugerman, H. Story, A. Seifert, M. Bersi, A. Tepole, M. Rausch	The regional-dependent biaxial behavior of young and aged mouse skin: A detailed histomechanical characterization, residual strain analysis, and constitutive model
2019	A. A. Benson, H-Y. S. Huang	Tissue Level Mechanical Properties and Extracellular Matrix Investigation of the Bovine Jugular Venous Valve Tissue
2019	Zhang, H.P., Han, W., Tavakoli, J., Zhang, Y.P., Lin, X., Lu, X., Ma, Y. and Tang, Y.	Understanding interfacial interactions of polydopamine and glass fiber and their enhancement mechanisms in epoxy-based laminates.
2020	Lan, X., Zhao, Q., Zhang, J., Lei, Y. and Wang, Y.	A combination of hydrogen bonding and chemical covalent crosslinking to fabricate a novel swim-bladder-derived dry heart valve material yields advantageous mechanical and biological properties.
2020	Yang, L., Wang, Y., Ding, K., Xiao, C., Lei, Y., Du, M., Pan, D. and Guo, X.	Low Immunogenicity Pericardia from Gene Knockout Pigs as Biological Valve Materials.
2020	A. Cudlip	A combined in vivo and in vitro approach to assess supraspinatus activation and tissue responses to arm elevation demands
2020	Meador, W.D., Mathur, M., Sugerman, G.P., Jazwiec, T., Malinowski, M., Bersi, M.R., Timek, T.A. and Rausch, M.K.	A detailed mechanical and microstructural analysis of ovine tricuspid valve leaflets.
2020	Laurence, D.W., Homburg, H., Yan, F., Tang, Q., Fung, K.M., Bohnstedt, B.N., Holzapfel, G.A. and Lee, C.H.	A Pilot Study on Biaxial Mechanical, Collagen Microstructural, and Morphological Characterizations of a Resected Human Intracranial Aneurysm Tissue. Collagen Microstructural, and Morphological Characterizations of a Resected Human Intracranial Aneurysm Tissue.
2020	Sang, C., Kallmes, D.F., Kadirvel, R., Durka, M.J., Ding, Y.H., Dai, D., Watkins, S.C. and Robertson, A.M.	Adaptive Remodeling in the Elastase-Induced Rabbit Aneurysms.
2020	K. de la Harpe, P. Kondiah, T. Marimuthu, L. du Toit, P. Kumar, Y. Choonara, V. Pillay	An advanced 3D monofilament biosuture
2020	Sharifi Kia, D., Benza, E., Bachman, T.N., Tushak, C., Kim, K. and Simon, M.A.	Angiotensin Receptor-Nepriylsin Inhibition Attenuates Right Ventricular Remodeling in Pulmonary Hypertension.
2020	Schaefer, D.A., Khan, S., Nadir, S., Dong, Y., Mortimer, P.E., Gui, H., Khan, A., Yu, M., Iqbal, S., Sheng, J. and Xu, J.	Biodegradation of polyester polyurethane by Aspergillus flavus G10.
2020	Chung, J.C.Y., Wong, E., Tang, M., Eliathamby, D., Forbes, T.L., Butany, J., Simmons, C.A. and Ouzounian, M.	Biomechanics of Aortic Dissection: A Comparison of Aortas Associated With Bicuspid and Tricuspid Aortic Valves

2020	Ahn, S., Chantre, C.O., Ardoña, H.A.M., Gonzalez, G.M., Campbell, P.H. and Parker, K.K	Biomimetic and estrogenic fibers promote tissue repair in mice and human skin via estrogen receptor β . <i>Biomaterials</i> ,
2020	Virgilio, K.M., Jones, B.K., Miller, E.Y., Ghajar-Rahimi, E., Martin, K.S., Peirce, S.M. and Blemker, S.S.	Computational models provide insight into in vivo studies and reveal the complex role of fibrosis in mdx muscle regeneration.
2020	Jadidi, M., Sherifova, S., Sommer, G., Kamenskiy, A. and Holzapfel, G.A.	Constitutive modeling using structural information on collagen fiber direction and dispersion in human superficial femoral artery specimens of different ages.
2020	Wu, B., Zheng, C., Ding, K., Huang, X., Li, M., Zhang, S., Lei, Y., Guo, Y. and Wang, Y.	Cross-Linking Porcine Pericardium by 3, 4-Dihydroxybenzaldehyde: A Novel Method to Improve the Biocompatibility of Bioprosthetic Valve.
2020	Aldana, A.A., Valente, F., Dilley, R. and Doyle, B.	Development of 3D bioprinted GelMA-alginate hydrogels with tunable mechanical properties.
2020	Miar, S., Dion, G.R., Montelongo, S., Ong, J.L., Bizios, R. and Guda, T.	Development of a Bioinspired, Self-Adhering, and Drug-Eluting Laryngotracheal Patch.
2020	Desyatova, A., MacTaggart, J. and Kamenskiy, A.	Effects of longitudinal pre-stretch on the mechanics of human aorta before and after thoracic endovascular aortic repair (TEVAR) in trauma patients.
2020	Duijvelshoff, R., di Luca, A., van Haften, E.E., Dekker, S., Söntjens, S.H., Janssen, H.M., Smits, A.I., Dankers, P.Y. and Bouten, C.V.	Inconsistency in graft outcome of bilayered bioresorbable supramolecular arterial scaffolds in rats.
2020	Yang, F., He, H., Xu, L., Jin, L., Guo, G. and Wang, Y.	Inorganic-polymerization crosslinked tissue-siloxane hybrid as potential biomaterial for bioprosthetic heart valves.
2020	S. Jett, L. Hudson, R. Baumwart, B. Bohnstedt, A. Mir, H. Burkhart, G. Holzapfel, C-H. Lee, Y. Wu	Load-dependent Collagen Fiber Architecture Data of Representative Bovine Tendon and Mitral Valve Anterior Leaflet Tissues as Quantified by an Integrated Opto-mechanical System
2020	Noble, C., Maxson, E.L., Lerman, A. and Young, M.D.	Mechanical and finite element evaluation of a bioprinted scaffold following recellularization in a rat subcutaneous model.
2020	Chen, S., Sari, C.R., Gao, H., Lei, Y., Segers, P., De Beule, M., Wang, G. and Ma, X.	Mechanical and morphometric study of mitral valve chordae tendineae and related papillary muscle.
2020	Walsh, D. R., Lynch, J. J., O'Connor, D. T., Newport, D. T., & Mulvihill, J. J.	Mechanical and structural characterisation of the dural venous sinuses
2020	Whittal, M.C., Molladavoodi, S., Zwambag, D.P., Millegamps, M., Stone, L.S. and Gregory, D.E.	Mechanical Consequence of Induced Intervertebral Disc Degeneration in the SPARC-Null Mouse.
2020	C. Ross, D. Laurence, M-C. Hsu, R. Baumwart, Y. Zhao, A. Mir, H. Burkhart, G. Holzapfel, Y. Wu, C-H. Lee	Mechanics of Porcine Heart Valves' Strut Chordae Tendineae Investigated as a Leaflet-Chordae-Papillary Muscle Entity
2020	Yang, F., Xu, L., Kuang, D., Ge, Y., Guo, G. and Wang, Y.	Polyzwitterion-crosslinked hybrid tissue with antithrombogenicity, endothelialization, anticalcification properties.
2020	L. Yang, X. Huang, L. Deng, X. Ma, H. Jiang, Q. Ning, Z. Liang, Y. Lei, Y. Wang	Pre-mounted dry TAVI valve with improved endothelialization potential using REDV-loaded PEGMA hydrogel hybrid pericardium
2020	Ross, C.J., Hsu, M.C., Baumwart, R., Mir, A., Burkhart, H.M., Holzapfel, G.A., Wu, Y. and Lee, C.H.	Quantification of load-dependent changes in the collagen fiber architecture for the strut chordae tendineae-leaflet insertion of porcine atrioventricular heart valves.
2020	G. Aldosary, T. Tse, A. Arnaout, J-M.Caudrelier, C. Czynryj, R. Romain, L. McLean, C. Footitt, E. Vandervoort, J. Belec	Radiological, dosimetric and mechanical properties of a deformable breast phantom for radiation therapy and surgical applications
2020	van Disseldorp, E.M., van den Hoven, M.H., van de Vosse, F.N., van Sambeek, M.R. and Lopata, R.G.	Reproducibility assessment of ultrasound-based aortic stiffness quantification and verification using Bi-axial tensile testing.
2020	Barbour, K. and Huang, H.Y.S.	Strain effects on collagen proteolysis in heart valve tissues.
2020	Nemavhola, F.	Study of Biaxial Mechanical Properties of the Passive Pig Heart: Material Characterisation and Categorisation of Regional Differences.

2020	Barrett, J.M., Fewster, K.M., Cudlip, A.C., Dickerson, C.R. and Callaghan, J.P.	The rate of tendon failure in a collagen fibre recruitment-based model.
2020	Meador, W.D., Mathur, M., Sugerman, G.P., Malinowski, M., Jazwiec, T., Wang, X., Lacerda, C.M., Timek, T.A. and Rausch, M.K.	The tricuspid valve also maladaptts as shown in sheep with biventricular heart failure.
2020	Meador, W.D., Mathur, M., Sugerman, G.P., Malinowski, M., Jazwiec, T., Wang, X., Lacerda, C.M., Timek, T.A. and Rausch, M.K.	The tricuspid valve also maladaptts: A multiscale study in sheep with biventricular heart failure.
2020	Jin, L., He, H., Yang, F., Xu, L., Guo, G. and Wang, Y	Tough pNAGA hydrogel hybridized porcine pericardium for the pre-mounted TAVI valve with improved anti-tearing properties and hemocompatibility.
2020	J. Tavakoli, C. Raston, Y. Ma, Y. Tang	Vortex fluidic mediated one-step fabrication of polyvinyl alcohol hydrogel films with tunable surface morphologies and enhanced self-healing properties