

Year	Author	Title
2025	Zhao, Long; Shi, Zhen; Qi, Xia; Wang, Jingting; Yu, Mengmeng; Dong, Muchen; Wang, Fuyan; Zhou, Qingjun; Wang, Ting; Shi, Weiyun	Corneal stromal structure replicating humanized hydrogel patch for sutureless repair of deep anterior-corneal defect
2025	Simon, Clément; Rekik, Sonia; Zidi, Mustapha	Effect of Skeletal Muscle Immobilization on Regional Anisotropic Viscohyperelastic Properties Change in a Rat Model
2025	Alloisio, Marta; Siika, Antti; Freiholtz, David; Franco-Cereceda, Anders; Roy, Joy; Björck, Hanna M.; Gasser, T. Christian	Fracture properties of porcine versus human thoracic aortas from tricuspid/bicuspid aortic valve patients via symmetry-constraint Compact Tension testing
2025	Bechtel, Grace N.; Kostelnik, Colton J.; Rausch, Manuel K.	How well do 3D-printed tissue mimics represent the complex mechanics of biological soft tissues? An example study with Stratasys' cardiovascular TissueMatrix materials
2025	Ocran, Emmanuel; Oliver, Michele; Agur, Anne; Elmaraghy, Amr; Gordon, Karen	Mechanical properties of the bicipital aponeurosis
2025	Fadeev, Aleksandr; Crown, Kevin; Kinahan, Sean; Lucero, Gabriel; Salkovskiy, Yury	Nanofibrous filters: A promising solution for the efficient capture of polydisperse viral aerosols
2025	Manta, Alexandra I.; Pop, Nadja E.; Tripon, Robert G.; Vultur, Florina; Suzuki, Shuko; Cordos, Bogdan A.; Radu, Carmen C.; Hogeia, Timur; Carasca, Cosmin; Horvath, Karin U.; Muntean, George A.; Siserman, Vasile C.; Cotoi, Ovidiu S.; Radford, Mark H. B.; Chirila, Traian V.	Photochemical Crosslinking of Tarsal Collagen as a Treatment for Eyelid Laxity: Evaluation in Ex Vivo Human Tissue
2024	Sawadkar, Prasad; Mandakhbayar, Nandin; Patel, Kapil D; Owji, Nazanin; Rajasekar, Poojitha; Sarama, Roudin; Lee, Jung-Hwan; Kim, Hae-Won; Knowles, Jonathan; García-Gareta, Elena	3D Porous Binary Composites of Collagen, Elastin, and Fibrin Proteins Orchestrate Adipose Tissue Regeneration
2024	Wei, Yuan; Fan, Xiangling; Liu, Jingze; Chen, Chong; Dong, Ruiqi; Zhang, Hao; Yang, Li; Luo, Rifang; Zhang, Fanjun; Wang, Yunbing	A photo-triggered coating of prosthetic valve leaflet surface to realize antibacterial and thrombolysis on-demand
2024	Liu, Jingfei; Corporan, Daniella; Vanderlaan, Don; Padala, Muralidhar; Emelianov, Stanislav Y.	A pilot study of cardiac guided wave elastography: an ex vivo testing in a rodent model with mechanical testing validation
2024	Wu, Haoshuang; Chen, Nuoya; Zheng, Tiantian; Li, Li; Hu, Mengyue; Qin, Yumei; Guo, Gaoyang; Yang, Li; Wang, Yunbing	A strategy for mechanically integrating robust hydrogel-tissue hybrid to promote the anti-calcification and endothelialization of bioprosthetic heart valve
2024	Ali, Zehara M; Wang, Xinyu; Shibu, Meklit G; Alhosani, Maha; Alfadhli, Nouf; Alnuaimi, Aysha; Murtaza, Fiza F; Zaid, Aisha; Khaled, Rodaina; Salih, Ahmed E; Vurivi, Hema; Daoud, Sayel; Butt, Haider; Chan, Vincent; Pantic, Igor V; Paunovic, Jovana; Corridon, Peter B	A sustainable approach to derive sheep corneal scaffolds from stored slaughterhouse waste

2024	Mendiola, Emilio A.; Neelakantan, Sunder; Xiang, Qian; Xia, Shuda; Zhang, Jianyi; Serpooshan, Vahid; Vanderslice, Peter; Avazmohammadi, Reza	An image-driven micromechanical approach to characterize multiscale remodeling in infarcted myocardium
2024	Razian, Sayed Ahmadsreza; Jadidi, Majid	An optimized differential evolution algorithm for constitutive model fitting of arteries
2024	Shahin-Shamsabadi, Alireza; Cappuccitti, John	Anchored Cell Sheet Engineering: A Novel Scaffold-Free Platform for in vitro Modeling
2024	Trâmbițaș, Cristian; Cordoș, Bogdan Andrei; Dorobanțu, Dorin Constantin; Vintilă, Cristian; Ion, Alexandru Petru; Pap, Timea; Camelia, David; Puiac, Claudiu; Arbănași, Emil Marian; Ciucanu, Claudiu Constantin; Mureșan, Adrian Vasile; Arbănași, Eliza Mihaela; Russu, Eliza	Application of Adipose Stem Cells in 3D Nerve Guidance Conduit Prevents Muscle Atrophy and Improves Distal Muscle Compliance in a Peripheral Nerve Regeneration Model
2024	Beachley, Vince; Kuo, Jonathan; Kasyanov, Vladimir; Mironov, Vladimir; Wen, Xuejun	Biomimetic crimped/aligned microstructure to optimize the mechanics of fibrous hybrid materials for compliant vascular grafts
2024	Zhang, Jiandong; Sandroni, Peyton B.; Huang, Wei; Gao, Xiaohua; Oswald, Leah; Schroder, Melissa A.; Lee, SungHo; Shih, Yen-Yu I.; Huang, Hsiao-Ying S.; Swigart, Philip M.; Myagmar, Bat E.; Simpson, Paul C.; Rossi, Joseph S.; Schisler, Jonathan C.; Jensen, Brian C	Cardiomyocyte Alpha-1A Adrenergic Receptors Mitigate Postinfarct Remodeling and Mortality by Constraining Necroptosis
2024	Parvin Nejad, Shouka; Mirani, Bahram; Mirzaei, Zahra; Simmons, Craig A.	Characterization of pediatric porcine pulmonary valves as a model for tissue engineered heart valves
2024	Jiang, Hongjing; Sun, Xuheng; Wu, Yindi; Xu, Jianyi; Xiao, Cong; Liu, Qing; Fang, Lijun; Liang, Yuanfeng; Zhou, Jiahui; Wu, Yueheng; Lin, Zhanyi	Contribution of Tregs to the promotion of constructive remodeling after decellularized extracellular matrix material implantation
2024	Viola, Martina; Ainsworth, Madison J.; Mihajlovic, Marko; Cedillo-Servin, Gerardo; van Steenberg, Mies J.; van Rijen, Mattie; de Ruijter, Mylène; Castilho, Miguel; Malda, Jos; Vermonden, Tina	Covalent Grafting of Functionalized MEW Fibers to Silk Fibroin Hydrogels to Obtain Reinforced Tissue Engineered Constructs
2024	Zhang, Tingchao; Dou, Yichen; Li, Yang; Luo, Rifang; Yang, Li; Zhang, Weiwei; Wang, Yunbing; Zhang, Xingdong	Design and performance of double-layered artificial chordae
2024	Jones, Sarah; Gilbert, Isabelle; Lin, Chien-Yu; Lohr, Matthew J.; Baek, Phillip; Midkiff, Caitlyn; Longbottom, Nichole; Oyebanji, Zeenat; Birur, Ruchi; Horn, Staci J.; Clubb, Fred; Rausch, Manuel K.; McBride-Gagy, Sarah; Cosgriff-Hernandez, Elizabeth	Design of an electrospun wrap for improved durability and infection control in Masquelet's induced membrane technique
2024	Neelakantan, Sunder; Mendiola, Emilio A.; Zambrano, Byron; Vang, Alexander; Myers, Kyle J.; Zhang, Peng; Choudhary, Gaurav; Avazmohammadi, Reza	Dissecting contributions of pulmonary arterial remodeling to right ventricular afterload in pulmonary hypertension
2024	Shi, Shubin; Hu, Mengyue; Peng, Xu; Cheng, Can; Feng, Shaoxiong; Pu, Xinyun; Yu, Xixun	Double crosslinking decellularized bovine pericardium of dialdehyde chondroitin sulfate and zwitterionic copolymer for bioprosthetic heart valves with enhanced antithrombogenic, anti-inflammatory and anti-calcification properties

2024	Noble, Christopher; Hooke, Alexander; Rajotia, Arush; Morse, David; Dragomir-Daescu, Dan; Salisbury, Jeffery; Young, Melissa D.; Lerman, Amir	Effect of mechanical fatigue on commercial bioprosthetic TAVR valve mechanical and microstructural properties
2024	Garcia, Mason; Landi, Gabriel; Covan, Bailee; Caro, Daniela; Khak, Mohammad; Razavi, Ahmad Hedayatzadeh; DeAngelis, Joseph P.; Ramappa, Arun J.; Nazarian, Ara	Effect of Tear Size and Location on Supraspinatus Tendon Strain During Activities of Daily Living and Physiotherapy
2024	Di Leonardo, Sofia; Monteleone, Alessandra; Caruso, Patrizia; Meecham-Garcia, Hugo; Pitarresi, Giuseppe; Burriesci, Gaetano	Effect of the apron in the mechanical characterisation of hyperelastic materials by means of biaxial testing: A new method to improve accuracy
2024	Arbănași, Emil-Marian; Russu, Eliza; Arbănași, Eliza-Mihaela; Ciucanu, Constantin Claudiu; Mureșan, Adrian Vasile; Suzuki, Shuko; Chirilă, Traian V.	Effect of Ultraviolet Radiation on the Enzymolytic and Biomechanical Profiles of Abdominal Aortic Adventitia Tissue
2024	Ngwangwa, H. M.; Modungwa, D.; Pandelani, T.; Nemavhola, F. J.	Estimation of the biaxial tensile behavior of ovine esophageal tissue using artificial neural networks
2024	Nelson, T. M.; Quiros, K. A. M.; Dominguez, E. C.; Ulu, A.; Nordgren, T. M.; Nair, M. G.; Eskandari, M.	Healthy and diseased tensile mechanics of mouse lung parenchyma
2024	Neptune, Andra; McMorrان, John G.; Gregory, Diane E.	How Static and Cyclic Loading Affect the Mechanical Properties of the Porcine Annulus Fibrosus
2024	Behrangzade, Ali; Ye, Sang-Ho; Maestas, David R.; Wagner, William R.; Vande Geest, Jonathan P.	Improving the hemocompatibility of a porohyperelastic layered vascular graft using luminal reversal microflows
2024	Sahani, Ridhi; Hixson, Kaitlyn; Blemker, Silvia S	It's more than the amount that counts: implications of collagen organization on passive muscle tissue properties revealed with micromechanical models and experiments
2024	Nelson, Talyah M.; Mariano, Crystal A.; Ramirez, Gustavo O.; Badrou, Arif; Quiros, Kathrine A. M.; Shankel, Matthew; Eskandari, Mona	Lung Mechanics: Material Characterization of Pulmonary Constituents for an Experimentally Informed Computational Pipeline
2024	McMorrان, John G.; Neptune, Andra; Gregory, Diane E.	Mechanical consequences to the annulus fibrosus following rapid internal pressurization and endplate fracture under restrained-expansion conditions
2024	Lubin, Pénélope; Zidi, Mustapha	Mechanical properties change of immobilized skeletal muscle in short position measured by shear wave elastography and pure shearing test
2024	Kazim, Madihah; Razian, Sayed Ahmadreza; Zamani, Elham; Varandani, Dheeraj; Shahbad, Ramin; Zolfaghari Sichani, Ali; Desyatova, Anastasia; Jadidi, Majid	Mechanical, structural, and morphological differences in the iliac arteries

2024	Struczewska, Pauline; Razian, Sayed Ahmadrza; Townsend, Kaylee; Jadidi, Majid; Shahbad, Ramin; Zamani, Elham; Gamache, Jennifer; MacTaggart, Jason; Kamenskiy, Alexey	Mechanical, structural, and physiologic differences between above and below-knee human arteries
2024	Viola, Martina; Cedillo-Servin, Gerardo; Genderen, Anne Metje van; Imhof, Isabelle; Vena, Paula; Mihajlovic, Marko; Piluso, Susanna; Malda, Jos; Vermonden, Tina; Castilho, Miguel	Microstructured silk fiber scaffolds with enhanced stretchability
2024	Zhao, Long; Shi, Zhen; Wang, Jingting; Dou, Shengqian; Sun, Xiuli; Yang, Shang; Wang, Hongwei; Zhou, Qingjun; Wang, Ting; Shi, Weiyun	Natural Extracellular Matrix Scaffold-Based Hydrogel Corneal Patch with Temperature and Light-Responsiveness for Penetrating Keratoplasty and Sutureless Stromal Defect Repair
2024	Besseling, Paul J.; Szymczyk, Wojciech; Teraa, Martin; Toorop, Raechel J.; Wu, Dan Jing; Driessen, Rob C. H.; Lichauco, Arturo M.; Janssen, Henk M.; van de Kaa, Melanie; den Ouden, Krista; de Bree, Petra M.; Fledderus, Joost O.; Bouten, Carlijn V. C.; de Borst, Gert J.; Dankers, Patricia V. W.; Verhaar, Marianne C.	Off-the-Shelf Synthetic Biodegradable Grafts Transform In Situ into a Living Arteriovenous Fistula in a Large Animal Model
2024	Ju, Yi; Wang, Junjie; Lei, Yang; Wang, Yunbing	Powdered Medical Adhesive with Long Lasting Adhesion in Water Environment
2024	Mirani, Bahram; Mathew, Sean O.; Latifi, Neda; Labrosse, Michel R.; Amsden, Brian G.; Simmons, Craig A.	Programmable Melt Electrowriting to Engineer Soft Connective Tissues with Prescribed, Biomimetic, Biaxial Mechanical Properties
2024	Lin, Chien-Yu; Sugerma, Gabriella P.; Kakaletsis, Sotirios; Meador, William D.; Buganza, Adrian T.; Rausch, Manuel K.	Sex- and age-dependent skin mechanics—A detailed look in mice
2024	Alloisio, Marta; Wolffs, Joey J.M.; Gasser, T. Christian	Specimen width affects vascular tissue integrity for in-vitro characterisation
2024	Barrett, Jeff M.; Callaghan, Jack P.	Strain inhibition of bacterial collagenase is consistent with a collagen fibril uncrimping mechanism in rat tail tendons
2024	Romero-Gilbert, Sebastian; Castro-García, Matías; Díaz-Chamorro, Héctor; Marambio, Oscar G.; Sánchez, Julio; Martín-Trasancos, Rudy; Inostroza, Matías; García-Herrera, Claudio; Pizarro, Guadalupe del C.	Synthesis, Characterization and Catechol-Based Bioinspired Adhesive Properties in Wet Medium of Poly(2-Hydroxyethyl Methacrylate-co-Acrylamide) Hydrogels
2024	Mureşan, Adrian Vasile; Arbănaşi, Emil-Marian; Russu, Eliza; Kaller, Reka; Ciucanu, Claudiu Constantin; Ion, Alexandru Petru; Cordoş, Andrei Bogdan; Harpa, Marius; Arbănaşi, Eliza-Mihaela	The Role of the Mechanical Characteristics and Microstructure of the Porcine Aortic Wall: Implications for Abdominal Aortic Aneurysm Rupture Risk
2024	Nunez-Alvarez, Laura; Ledwon, Joanna K.; Applebaum, Sarah; Progrid, Bianka; Han, Tianhong; Laudo, Joel; Tac, Vahidullah; Gosain, Arun K.; Tepole, Adrian Buganza	Tissue expansion mitigates radiation-induced skin fibrosis in a porcine model
2024	Mark Kim, Min Kyu; Lawrence, Matthew; Quinonez, Diana; Brooks, Courtney; Ramachandran, Rithwik; Séguin, Cheryle A.	Transient receptor potential vanilloid 4 regulates extracellular matrix composition and mediates load-induced intervertebral disc degeneration in a mouse model

2024	Kostelnik, Colton J; Meador, William D; Lin, Chien-Yu; Mathur, Mrudang; Malinowski, Marcin; Jazwiec, Tomasz; Malinowska, Zuzanna; Piekarska, Magda L; Gaweda, Boguslaw; Timek, Tomasz A; Rausch, Manuel K.	Tricuspid valve maladaptation in sheep with biventricular heart failure: The posterior and septal leaflets
2024	Kumar, Vipin; Satapathy, Dillip K.	Vapor and Light Responsive Biocompatible Soft Actuator
2024	Kazim, Madihah; Razian, Sayed Ahmadreza; Zamani, Elham; Varandani, Dheeraj; Shahbad, Ramin; Desyatova, Anastasia; Jadidi, Majid	Variability in structure, morphology, and mechanical properties of the descending thoracic and infrarenal aorta around their circumference
2024	Ramirez, Gustavo O.; Mariano, Crystal A.; Carter, David; Eskandari, Mona	Visceral pleura mechanics: Characterization of human, pig, and rat lung material properties
2023	Colmenarez, Jose A.; Zhai, Yingnan; Mendoza, Valentina Ochoa; Dong, Pengfei; Nunes, Kenia; Suh, Donny; Gu, Linxia	Damage-Induced Softening of the Sclera: A Pseudo-Elastic Modeling Approach
2023	Ohguro, Hiroshi; Watanabe, Megumi; Sato, Tatsuya; Hikage, Fumihito; Furuhashi, Masato; Okura, Masae; Hida, Tokimasa; Uhara, Hisashi	3D Spheroid Configurations Are Possible Indicators for Evaluating the Pathophysiology of Melanoma Cell Lines
2023	Sithole, Mduduzi N.; Kumar, Pradeep; Du Toit, Lisa C.; Erlwanger, Kennedy H.; Ubanako, Philemon N.; Choonara, Yahya E.	A 3D-Printed Biomaterial Scaffold Reinforced with Inorganic Fillers for Bone Tissue Engineering: In Vitro Assessment and In Vivo Animal Studies
2023	Aggarwal, Ankush; Hudson, Luke T.; Laurence, Devin W.; Lee, Chung-Hao; Pant, Sanjay	A Bayesian constitutive model selection framework for biaxial mechanical testing of planar soft tissues: Application to porcine aortic valves
2023	Chen, Xiaotong; Yu, Tao; Kong, Qunshou; Xu, Hong; Zhao, Zhiyu; Li, Gaocan; Fan, Haojun; Wang, Yunbing	A chlorogenic acid functional strategy of anti-inflammation, anti-coagulation and promoted endothelial proliferation for bioprosthetic artificial heart valves
2023	Jiang, Li; Dong, Xiaoli; Chen, Luxia; Han, Ruifang; Hao, Pen; Wang, Liming; Gao, Juan; Chen, Xi; Li, Xuan	A composite hydrogel membrane with shape and water retention for corneal tissue engineering
2023	Anssari-Benam, Afshin; Tseng, Yuan-Tsan; Pani, Martino; Bucchi, Andrea	A New Dissipation Function to Model the Rate-Dependent Mechanical Behavior of Semilunar Valve Leaflets
2023	Harman, Melinda; Champaigne, Kevin; Cobb, William; Lu, Xinyue; Chawla, Varun; Wei, Liying; Luzinov, Igor; Mefford, O. Thompson; Nagatomi, Jiro	A Novel Bio-Adhesive Mesh System for Medical Implant Applications: In Vivo Assessment in a Rabbit Model
2023	Zhang, Will; Jadidi, Majid; Razian, Sayed Ahmadreza; Holzapfel, Gerhard A.; Kamenskiy, Alexey; Nordsletten, David A.	A viscoelastic constitutive model for human femoropopliteal arteries

2023	Marimuthu, Thashree; Sidat, Zainul; Kumar, Pradeep; Choonara, Yahya E.	An Imidazolium-Based Ionic Liquid as a Model to Study Plasticization Effects on Cationic Polymethacrylate Films
2023	Laurence, Devin W.; Wang, Shuodao; Xiao, Rui; Qian, Jin; Mir, Arshid; Burkhart, Harold M.; Holzapfel, Gerhard A.; Lee, Chung-Hao	An investigation of how specimen dimensions affect biaxial mechanical characterizations with CellScale BioTester and constitutive modeling of porcine tricuspid valve leaflets
2023	Eliathamby, Daniella; Keshishi, Melanie; Ouzounian, Maral; Forbes, Thomas L.; Tan, Kongteng; Simmons, Craig A.; Chung, Jennifer	Ascending aortic geometry and its relationship to the biomechanical properties of aortic tissue
2023	Linka, Kevin; Buganza Tepole, Adrian; Holzapfel, Gerhard A.; Kuhl, Ellen	Automated model discovery for skin: Discovering the best model, data, and experiment
2023	Cormack, John M.; Simon, Marc A.; Kim, Kang	Backscatter tensor imaging and 3D speckle tracking for simultaneous ex vivo structure and deformation measurement of myocardium
2023	Wang, Congzheng; Shen, Min; Song, Yi; Chang, Le; Yang, Yaqing; Li, Yikuan; Liu, Taiwei; Wang, Yan	Biaxial hyperelastic and anisotropic behaviors of the corneal anterior central stroma along the preferential fibril orientations. Part II: Quantitative computational analysis of mechanical response of stromal components
2023	Sattari, Samaneh; Mariano, Crystal A; Eskandari, Mona	Biaxial mechanical properties of the bronchial tree: Characterization of elasticity, extensibility, and energetics, including the effect of strain rate and preconditioning
2023	Iancu, Irina Mihaela; Schröder, Verginica; Apetroaei, Manuela-Rossmery; Crețu, Ruxandra Mihaela; Mireșan, Horațiu; Honcea, Adina; Iancu, Valeriu; Bucur, Laura Adriana; Mitea, Gabriela; Atodiresei-Pavalache, Georgiana	Biocompatibility of Membranes Based on a Mixture of Chitosan and Lythri herba Aqueous Extract
2023	Chung, Jennifer C. -Y.; Eliathamby, Daniella; Seo, Hijun; Fan, Chun-Po; Islam, Rifat; Deol, Karamvir; Simmons, Craig A.; Ouzounian, Maral	Biomechanical properties of the aortic root are distinct from those of the ascending aorta in both normal and aneurysmal states
2023	Fofiu, Alexandru; Arbănași, Emil M.; Tripon, Robert G.; Suzuki, Shuko; Chirilă, Traian V.; Bătagă, Tiberiu	Biomechanical Uniaxial Analysis of Porcine Tendon in the CellScale BioTester® 5000
2023	Liang, Xuyue; Yang, Li; Lei, Yang; Zhang, Shumang; Chen, Liang; Hu, Cheng; Wang, Yunbing	Biomimetic-modified bioprosthetic heart valves with Cysteine-Alanine-Glycine peptide for anti-thrombotic, endothelialization and anti-calcification
2023	Zhang, Jiandong; Sandroni, Peyton B.; Huang, Wei; Gao, Xiaohua; Oswald, Leah; Schroder, Melissa A.; Lee, SungHo; Shih, Yen-Yu I.; Huang, Hsiao-Ying S.; Swigart, Philip M.; Myagmar, Bat E.; Simpson, Paul C.; Rossi, Joseph S.; Schisler, Jonathan C.; Jensen, Brian C	Cardiomyocyte Alpha-1A Adrenergic Receptors Mitigate Postinfarct Remodeling and Mortality by Constraining Necroptosis
2023	Liu, Fuyao; Feng, Ping; Yuan, Meng; Zhai, Gongxun; Innocent, Mugaanire Tendo; Xiang, Hengxue; Wu, Qilin; Lu, Yan; Zhu, Meifang	Continuous Preparation of a Flexible Carbon Nanotube Film from Lignin as a Sulfur Host Material for Lithium-Sulfur Batteries

2023	Mendiola, Emilio A.; Neelakantan, Sunder; Xiang, Qian; Merchant, Samer; Li, Ke; Hsu, Edward W.; Dixon, Richard A. F.; Vanderslice, Peter; Avazmohammadi, Reza	Contractile Adaptation of the Left Ventricle Post-myocardial Infarction: Predictions by Rodent-Specific Computational Modeling
2023	Chen, Lingfeng; Huang, Yangyi; Zhang, Xiaoyu; Shi, Yike; Gao, Zhipeng; Sun, Bingqing; Shen, Yang; Sun, Ling; Cao, Yifan; Zhang, Qianqian; Guo, Jiqiang; Li, Fen; Chen, Weiyl; Li, Xiaona; Zhou, Xingtao	Corneal Biomechanical Properties Demonstrate Anisotropy and Correlate With Axial Length in Myopic Eyes
2023	Zeng, Ming-Ze; Wei, Dan; Ding, Jie; Tian, Yuan; Wu, Xiao-Yang; Chen, Zhi-Hong; Wu, Cheng-Heng; Sun, Jing; Yin, Hua-Bing; Fan, Hong-Song	Dopamine induced multiple bonding in hyaluronic acid network to construct particle-free conductive hydrogel for reliable electro-biosensing
2023	Janssen, Kristine; van Ruiten, Geertruida W.; Eijkelkamp, Niels; Damaser, Margot S.; van der Vaart, Carl H.	Effects of mesenchymal stem cells and heparan sulfate mimetics on urethral function and vaginal wall biomechanics in a simulated rat childbirth injury model
2023	Wuppaladhodi, Vishnuvardhana; Yang, Songlin; Pouri, Hossein; Zhang, Jin	Enhanced mechanical properties of silicone hydrogels coated with metallic nanoparticles by using the laser-assisted process
2023	Vis, Annemijn; de Kort, Bente J.; Szymczyk, Wojciech; van Rijswijk, Jan Willem; Dekker, Sylvia; Driessen, Rob; Wijkstra, Niels; Gründeman, Paul F.; Niessen, Hans W. M.; Janssen, Henk M.; Söntjens, Serge H. M.; Dankers, Patricia Y. W.; Smits, Anthal I. P. M.; Ruiten, Carlijn V. C.; Kluin, Inolanda	Evaluation of pliable bioresorbable, elastomeric aortic valve prostheses in sheep during 12 months post implantation
2023	Durbak, Emily; Tarraf, Samar; Gillespie, Callan; Germano, Emidio; Cikach, Frank; Blackstone, Eugene; Emerton, Kelly; Colbrunn, Robb; Bellini, Chiara; Roselli, Eric E.	Ex vivo biaxial load testing analysis of aortic biomechanics demonstrates variation in elastic energy distribution across the aortic zone zero
2023	Arbănași, Emil-Marian; Suzuki, Shuko; Ciucanu, Claudiu Constantin; Mureșan, Adrian Vasile; Coșarcă, Cătălin Mircea; Chirilă, Traian Vasile; Ion, Alexandru Petru; Arbănași, Eliza-Mihaela; Harpa, Marius Mihai; Russu, Eliza	Ex-vivo Mechanical Augmentation of Human Saphenous Vein Graft By UV-A Irradiation in Emergency Vascular Reconstruction – Preliminary Results
2023	Bybee, Grace; Moeun, Youra; Wang, Weimin; Kharbanda, Kusum K.; Poluektova, Larisa Y.; Kidambi, Srivatsan; Osna, Natalia A.; Ganesan, Murali	Increased liver stiffness promotes hepatitis B progression by impairing innate immunity in CCl4-induced fibrotic HBV+ transgenic mice
2023	Ghorbannia, Arash; LaDisa, John F.	Intravascular imaging of angioplasty balloon under-expansion during pre-dilation predicts hyperelastic behavior of coronary artery lesions
2023	Kramer, Benjamin; Thompson, Matthew A.; Tarraf, Samar A.; Vianna, Emily; Gillespie, Callan; Germano, Emidio; Gentle, Brett; Cikach, Frank; Lowry, Ashley M.; Pande, Amol; Blackstone, Eugene; Hargrave, Jennifer; Colbrunn, Robb; Bellini, Chiara; Roselli, Eric E.	Longitudinal versus circumferential biomechanical behavior of the aneurysmal ascending aorta
2023	Cunnane, Eoghan M.; Cunnane, Connor V.; Allardyce, Joanna M.; Croghan, Stefanie M.; Walsh, Michael T.; Davis, Niall F.; Flood, Hugh D.; Mulvihill, John J. E.	Mechanical and morphological characterisation of porcine urethras for the assessment of paediatric urinary catheter safety
2023	Yeganegi, Amirreza; Whitehead, Kaitlin; de Castro Brás, Lisandra E.; Richardson, William J.	Mechanical strain modulates extracellular matrix degradation and byproducts in an isoform-specific manner

2023	Neelakantan, Sunder; Kumar, Mohit; Mendiola, Emilio A.; Phelan, Haley; Serpooshan, Vahid; Sadayappan, Sakthivel; Avazmohammadi, Reza	Multiscale characterization of left ventricle active behavior in the mouse
2023	Motta, Sarah E.; Peters, Michael M.; Chantre, Christophe O.; Chang, Huibin; Cera, Luca; Liu, Qihan; Cordoves, Elizabeth M.; Fioretta, Emanuela S.; Zaytseva, Polina; Cesarovic, Nikola; Emmert, Maximilian Y.; Hoerstrup, Simon P.; Parker, Kevin Kit	On-demand heart valve manufacturing using focused rotary jet spinning
2023	Sinha, Dipasha; Nagy-Mehesz, Agnes; Simionescu, Dan; Mayer, John E.; Vyavahare, Naren	Pentagalloyl glucose-stabilized decellularized bovine jugular vein valved conduits as pulmonary conduit replacement
2023	Wu, Haoshuang; Huang, Kaiyang; Hu, Mengyue; Chen, Nuoya; Qin, Yumei; Wang, Jian; Luo, Rifang; Yang, Li; Wang, Yunbing	Postfunctionalization of biological valve leaflets with a polyphenol network and anticoagulant recombinant humanized type III collagen for improved anticoagulation and endothelialization
2023	Peters, Michael M.; Brister, Jackson K.; Tang, Edward M.; Zhang, Felita W.; Lucian, Veronica M.; Trackey, Paul D.; Bone, Zachary; Zimmerman, John F.; Jin, Qianru; Burpo, F. John; Parker, Kevin Kit	Self-organizing behaviors of cardiovascular cells on synthetic nanofiber scaffolds
2023	Parvin Nejad, Shouka; Lecce, Monica; Mirani, Bahram; Machado Siqueira, Nataly; Mirzaei, Zahra; Santerre, J. Paul; Davies, John E.; Simmons, Craig A.	Serum- and xeno-free culture of human umbilical cord perivascular cells for pediatric heart valve tissue engineering
2023	Aggarwal, Ankush; Jensen, Bjørn Sand; Pant, Sanjay; Lee, Chung-Hao	Strain energy density as a Gaussian process and its utilization in stochastic finite element analysis: Application to planar soft tissues
2023	Lin, Chien-Yu; Mathur, Mrudang; Malinowski, Marcin; Timek, Tomasz A.; Rausch, Manuel K.	The impact of thickness heterogeneity on soft tissue biomechanics: a novel measurement technique and a demonstration on heart valve tissue
2023	Cheng, Zhenzhou; Zhang, Nan; Chang, Le; Qi, Pengfei; Zhang, Lin; Lin, Lie; Wang, Yan; Liu, Weiwei	Two-photon collagen crosslinking in ex vivo human corneal lenticules induced by near-infrared femtosecond laser
2023	Abdal-hay, Abdalla; Ramachandra, Srinivas Sulugodu; Q. Alali, Aya; Han, Pingping; Sheikh, Faheem A.; Hashem, Mohamed; Ivanovski, Sašo	Vertically aligned calcium phosphate nanoplates coated onto melt electrowritten 3D poly(ϵ -caprolactone) fibrous scaffolds for inhibiting biofilm formation
2023	Zaytseva, Polina; Visser, Valery L.; Ehterami, Arian; Hoerstrup, Simon P.; Motta, Sarah E.; Emmert, Maximilian Y.	Xenogeneic Serum-Free Human Cell-Derived Tissue Engineered Matrices for the Development of Clinical-Grade Biomimetic Cardiovascular Devices
2022	Huang, X., Zheng, C., Ding, K., Zhang, S., Lei, Y., Wei, Q., ... & Wang, Y.	Dual-crosslinked bioprosthetic heart valves prepared by glutaraldehyde crosslinked pericardium and poly-2-hydroxyethyl methacrylate exhibited improved antithrombogenicity and anticalcification properties.
2022	Giliomee, J., du Toit, L. C., Klumperman, B., & Choonara, Y. E	Investigation of the 3D Printability of Covalently Cross-Linked Polypeptide-Based Hydrogels.

2022	Hermans, L. H. L., Van Kelle, M. A. J., Oomen, P. J. A., Lopata, R., Loerakker, S., & Bouten, C. V. C.	Scaffold geometry-imposed anisotropic mechanical loading guides the evolution of the mechanical state of engineered cardiovascular tissues in vitro.
2022	Liu, L. W., Lee, C. H., Aggarwal, A., Chao, C. M., Ross, C. J., & Liao, Y. K.	Viscoelastic modelling of the tricuspid valve chordae tendineae tissue.
2022	Mudigonda, J., Xu, D., Amedi, A., Lane, B. A., Corporan, D., Wang, V., & Padala, M.	A Biohybrid Material With Extracellular Matrix Core and Polymeric Coating as a Cell Honing Cardiovascular Tissue Substitute.
2022	Ding, K., Zheng, C., Huang, X., Yang, L., Lei, Y., & Wang, Y.	A bioprosthetic heart valve material prepared by copolymerization of 2-Amino-4-pentanoic acid modified pericardium and N, N-Dimethylacrylamide.
2022	Keiser, C., Maleckis, K., Struczewska, P., Jadidi, M., MacTaggart, J., & Kamenskiy, A.	A method of assessing peripheral stent abrasiveness under cyclic deformations experienced during limb movement.
2022	Ding, K., Zheng, C., Huang, X., Zhang, S., Li, M., Lei, Y., & Wang, Y.	A PEGylation method of fabricating bioprosthetic heart valves based on glutaraldehyde and 2-amino-4-pentanoic acid co-crosslinking with improved antithrombogenicity and cytocompatibility.
2022	Benfridja, I., Diahm, S., Laffir, F., Brennan, G., Liu, N., & Kennedy, T.	A Universal Study on the Effect Thermal Imidization Has on the Physico-Chemical, Mechanical, Thermal and Electrical Properties of Polyimide for Integrated Electronics Applications.
2022	Williamson, P., Garcia, M., Momenzadeh, K., Abbasian, M., Kheir, N., Stewart, I., ... & Nazarian, A.	A Validated Three-Dimensional, Heterogenous Finite Element Model of the Rotator Cuff and The Effects of Collagen Orientation.
2022	Molladavoodi, S., DeWitte-Orr, S. J., & Gregory, D. E.	An in vitro 3D annulus fibrosus cell culture model with type I collagen: An examination of cell-matrix interactions.
2022	Lu, X., Harman, M., Todd Heniford, B., Augenstein, V., McIver, B., & Bridges, W.	Analyzing material changes consistent with degradation of explanted polymeric hernia mesh related to clinical characteristics.
2022	Sun, X., Qiao, Y., Zhao, L., Shi, Z., Zhang, X., Cao, R., ... & Shi, W.	Application of Decellularized Porcine Sclera in Repairing Corneal Perforations and Lamellar Injuries.
2022	Liang, X., Zheng, C., Ding, K., Huang, X., Zhang, S., Lei, Y., ... & Wang, Y.	Arginine-grafted porcine pericardium by copolymerization to improve the cytocompatibility, hemocompatibility and anti-calcification properties of bioprosthetic heart valve materials.
2022	McClarty, D., Ouzounian, M., Tang, M., Eliathamby, D., Romero, D., Nguyen, E., ... & Chung, J. C. Y.	Ascending aortic aneurysm haemodynamics are associated with aortic wall biomechanical properties.

2022	Eliathamby, D., Keshishi, M., Ouzounian, M., Forbes, T. L., Tan, K., Simmons, C. A., & Chung, J.	Ascending aortic geometry and its relationship to the biomechanical properties of aortic tissue.
2022	Laurence, D. W., Ross, C. J., Hsu, M. C., Mir, A., Burkhart, H. M., Holzapfel, G. A., & Lee, C. H.	Benchtop characterization of the tricuspid valve leaflet pre-strains.
2022	Ndlovu, Z., Desai, D., Pandelani, T., Ngwangwa, H., & Nemavhola, F.	Biaxial estimation of biomechanical constitutive parameters of passive porcine sclera soft tissue.
2022	Meador, W. D., Sugerman, G. P., Tepole, A. B., & Rausch, M. K.	Biaxial mechanics of thermally denaturing skin-Part 1: Experiments.
2022	Corti, A., Shameen, T., Sharma, S., De Paolis, A., & Cardoso, L.	Biaxial testing system for characterization of mechanical and rupture properties of small samples.
2022	Liang, X., Chen, G., Lin, S., Zhang, J., Wang, L., Zhang, P., ... & Liu, J.	Bioinspired 2D Isotropically Fatigue-Resistant Hydrogels.
2022	Ngwangwa, H., Pandelani, T., Msibi, M., Mabuda, I., Semakane, L., & Nemavhola, F.	Biomechanical analysis of sheep oesophagus subjected to biaxial testing including hyperelastic constitutive model fitting.
2022	Nambiar, M., Liechti, L., Studer, H., Roy, A. S., Seiler, T. G., & Büchler, P.	Biomechanical Characterization of Human Corneal Lenticules.
2022	Ren, M., Ong, C. W., Buist, M. L., & Yap, C. H.	Biventricular biaxial mechanical testing and constitutive modelling of fetal porcine myocardium passive stiffness.
2022	Mendiola, E. A., Neelakantan, S., Xiang, Q., Merchant, S., Li, K., Hsu, E. W., ... & Avazmohammadi, R.	Contractile adaptation of the left ventricle post-myocardial infarction: Predictions by rodent-specific computational modeling.
2022	Tang, Y., Wu, H., Klippel, P., Zhang, B., Huang, H. Y. S., Jing, Y., ... & Yao, J	Deep thrombosis characterization using photoacoustic imaging with intravascular light delivery.
2022	Ngwangwa, H., Nemavhola, F., Pandelani, T., Msibi, M., Mabuda, I., Davies, N., & Franz, T.	Determination of Cross-Directional and Cross-Wall Variations of Passive Biaxial Mechanical Properties of Rat Myocardia.
2022	Chang, L., Zhang, L., Cheng, Z., Zhang, N., Wang, C., Wang, Y., & Liu, W.	Effectiveness of collagen cross-linking induced by two-photon absorption properties of a femtosecond laser in ex vivo human corneal stroma.

2022	Vernon, M. J., Lu, J., Padman, B., Lamb, C., Kent, R., Mela, P., ... & De-Juan-Pardo, E. M.	Engineering Heart Valve Interfaces Using Melt Electrowriting: Biomimetic Design Strategies from Multi-Modal Imaging.
2022	Ngwangwa, H. M., Msibi, M., Mabuda, I., Nemavhola, F., & Pandelani, T.	Evaluating the tensile behaviour of rat myocardium across its three walls from biaxial tensile test data.
2022	Noble, C., Morse, D., Lerman, A., & Young, M.	Evaluation of Pericardial Tissues from Assorted Species as a Tissue-Engineered Heart Valve Material.
2022	Fitzpatrick, D. J., Pham, K., Ross, C. J., Hudson, L. T., Laurence, D. W., Yu, Y., & Lee, C. H.	Ex vivo experimental characterizations for understanding the interrelationship between tissue mechanics and collagen microstructure of porcine mitral valve leaflets.
2022	Abdal-hay, A., Fouad, H., Abd El-salam, N. M., & Khalil, K. A.	Fabrication of tri-polymers composite film with high cyclic stability and rapid degradation for cardiac tissue engineering.
2022	Ginga, N. J., Chiu, J. H. C., Lee, J. H., Thouless, M. D., & Takayama, S.	High-force, precise, and bidirectional uniaxial stretcher for real-time imaging of normally closed h-PDMS crack-valves for femto-liter fluid delivery.
2022	Huang, X., Zheng, C., Ding, K., Li, M., Zhang, S., Wu, B., ... & Wang, Y.	Hyaluronic Acid-Grafted Bioprosthetic Heart Valves Achieved by Copolymerization Exhibited Improved Anticalcification and Antithrombogenicity.
2022	Tong, Q., Sun, A., Wang, Z., Li, T., He, X., Qian, Y., & Qian, Z.	Hybrid heart valves with VEGF-loaded zwitterionic hydrogel coating for improved anti-calcification and re-endothelialization.
2022	Giliomee, J., du Toit, L. C., Klumperman, B., & Choonara, Y. E.	Investigation of the 3D Printability of Covalently Cross-Linked Polypeptide-Based Hydrogels.
2022	Pineda-Castillo, S. A., Aparicio-Ruiz, S., Burns, M. M., Laurence, D. W., Bradshaw, E., Gu, T., ... & Lee, C. H.	Linking the region-specific tissue microstructure to the biaxial mechanical properties of the porcine left anterior descending artery.
2022	Ngwangwa, H. M., Semakane, L., Nemavhola, F., Pandelani, T., & Modungwa, D.	Modelling of biaxial tensile behaviour of the tracheal tissue using three exponential-based hyperelastic constitutive models.
2022	Zheng, C., Ding, K., Huang, X., Li, M., Wu, B., Lei, Y., & Wang, Y.	Nonglutaraldehyde crosslinked bioprosthetic heart valves based on 2-isocyanatoethyl methacrylate crosslinked porcine pericardium with improved properties of stability, cytocompatibility and anti-calcification.
2022	Corporan, D., Saadeh, M., Yoldas, A., Mudigonda, J., Lane, B. A., & Padala, M.	Passive mechanical properties of the left ventricular myocardium and extracellular matrix in hearts with chronic volume overload from mitral regurgitation.

2022	Huang, X., Zheng, C., Ding, K., Zhang, S., Wei, Q., Yang, L., & Wang, Y.	Poly (2-methacryloyloxyethyl phosphorylcholine) Grafted Bioprosthetic Heart Valve Exhibited Improved Antithrombogenicity and Anticalcification Properties.
2022	Liang, X., Lei, Y., Ding, K., Huang, X., Zheng, C., & Wang, Y.	Poly (2-methoxyethyl acrylate) coated bioprosthetic heart valves by copolymerization with enhanced anticoagulant, anti-inflammatory, and anti-calcification properties.
2022	Jeyachandran, D., Li, L., Fairag, R., Haglund, L., & Cerruti, M.	Simple Fabrication and Enhanced Bioactivity of Bioglass-Poly (lactic-co-glycolic acid) Composite Scaffolds with Matrix Microporosity.
2022	Saidy, N. T., Fernández-Colino, A., Heidari, B. S., Kent, R., Vernon, M., Bas, O., ... & Mela, P.	Spatially heterogeneous tubular scaffolds for in situ heart valve tissue engineering using melt electrowriting.
2022	Hu, M., Peng, X., Shi, S., Wan, C., Cheng, C., Lei, N., & Yu, X.	Sulfonated, oxidized pectin-based double crosslinked bioprosthetic valve leaflets for synergistically enhancing hemocompatibility and cytocompatibility and reducing calcification.
2022	Philpott, H. T., Birmingham, T. B., Fiset, B., Walsh, L. A., Coleman, M. C., Séguin, C. A., & Appleton, C. T.	Tensile strain and altered synovial tissue metabolism in human knee osteoarthritis.
2022	Mathur, M., Meador, W. D., Malinowski, M., Jazwiec, T., Timek, T. A., & Rausch, M. K.	Texas TriValve 1.0: a reverse-engineered, open model of the human tricuspid valve.
2022	Sharifi Kia, D., Shen, Y., Bachman, T. N., Goncharova, E. A., Kim, K., & Simon, M. A.	The effects of healthy aging on right ventricular structure and biomechanical properties: A pilot study.
2022	Lin, C. Y., Mathur, M., Malinowski, M., Timek, T. A., & Rausch, M. K.	The impact of thickness heterogeneity on soft tissue biomechanics: a novel measurement technique and a demonstration on heart valve tissue.
2021	Caggiano, Laura & Holmes, Jeffrey.	A Comparison of Fiber Based Material Laws for Myocardial Scar.
2021	Laurence, Devin & Homburg, Hannah & Tang, Qinggong & Fung, Kar-Ming & Bohnstedt, Bradley & Holzapfel, Gerhard & Lee, Chung-Hao.	A pilot study on biaxial mechanical, collagen microstructural, and morphological characterizations of a resected human intracranial aneurysm tissue.
2021	Leonov, D. & Spirina, Yu & Yatsenko, A. & Kushnarev, Vladimir & Ustinov, E. & Barannikov, S.	Advanced 3D Bioprinting Technologies.
2021	Borem, Ryan & Madeline, Allison & Theos, Chris & Vela, Ricardo & Garon, Alex & Gill, Sanjitpal & Mercuri, Jeremy.	Angle-ply scaffold supports annulus fibrosus matrix expression and remodeling by mesenchymal stromal and annulus fibrosus cells.

2021	McClarty, Davis & Ouzounian, Maral & Tang, Mingyi & Eliathamby, Daniella & Romero, David & Nguyen, Elsie & Simmons, Craig & Amon, Cristina & Chung, Jennifer.	Ascending aortic aneurysm haemodynamics are associated with aortic wall biomechanical properties.
2021	Ndlovu, Zwelihle & Desai, Dawood & Pandelani, Thanyani & Ngwangwa, Harry & Nemavhola, Fulufhelo.	Biaxial estimation of biomechanical constitutive parameters of passive porcine sclera soft tissue.
2021	Filippo Valente, Matt S. Hepburn, Jingyu Chen, Ana A. Aldana, Benjamin J. Allardyce, Sajjad Shafei, Barry J. Doyle, Brendan F. Kennedy, Rodney J. Dilley,	Bioprinting silk fibroin using two-photon lithography enables control over the physico-chemical material properties and cellular response.
2021	Lomboni, David & Steeves, Alexander & Schock, Sarah & Bonetti, Lorenzo & De Nardo, Luigi & Variola, Fabio.	Compounded topographical and physicochemical cueing by micro-engineered chitosan substrates on rat dorsal root ganglion neurons and human mesenchymal stem cells.
2021	Xu, Liangpeng & Yang, Fan & Ge, Yao & Guo, Gaoyang & Wang, Yunbing.	Crosslinking porcine aortic valve by radical polymerization for the preparation of BHVs with improved cytocompatibility, mild immune response, and reduced calcification.
2021	Tang, Mingyi & Eliathamby, Daniella & Ouzounian, Maral & Simmons, Craig & Chung, Jennifer	Dependency of energy loss on strain rate, strain magnitude and preload: Towards development of a novel biomarker for aortic aneurysm dissection risk.
2021	Laurence, Devin & Lee, Chung-Hao.	Determination of a Strain Energy Density Function for the Tricuspid Valve Leaflets Using Constant Invariant-Based Mechanical Characterizations.
2021	Ngwangwa, Harry & Nemavhola, Fulufhelo & Pandelani, Thanyani & Msibi, Makhosasana & Mabuda, Israel & Davies, Neil & Franz, Thomas.	Determination of Cross-directional and Cross-Wall Variations of Passive Biaxial Mechanical Properties of Rat Myocardium.
2021	Aldana, Agustina & Valente, Filippo & Dilley, Rodney & Doyle, Barry	Development of 3D bioprinted GelMA-alginate hydrogels with tunable mechanical properties.
2021	Hu, Cheng & Long, Linyu & Cao, Juan & Zhang, Shumang & Wang, Yunbing.	Dual-crosslinked mussel-inspired smart hydrogels with enhanced antibacterial and angiogenic properties for chronic infected diabetic wound treatment via pH-responsive quick cargo release.
2021	Ross, Colton & Laurence, Devin & Echols, Allyson & Babu, Anju & Gu, Tingting & Duginski, Grace & Johns, Cortland & Mullins, Brennan & Casey, Katherine & Laurence, Keely & Zhao, Yan & Amini, Rouzbeh & Fung, Kar-Ming & Mir, Arshid & Burkhart, Harold & Wu, Yi & Holzapfel, Gerhard & Lee, Chung-Hao.	Effects of enzyme-based removal of collagen and elastin constituents on the biaxial mechanical responses of porcine atrioventricular heart valve anterior leaflets.
2021	Ross, Colton & Mullins, Brennan & Hillshafer, Clare & Mir, Arshid & Burkhart, Harold & Lee, Chung-Hao.	Evaluation of affine fiber kinematics in porcine tricuspid valve leaflets using polarized spatial frequency domain imaging and planar biaxial testing.
2021	Pillalamarri, Narasimha & Patnaik, Sourav & Pişkin, Şenol & Gueldner, Pete & Finol, Ender.	Ex Vivo Regional Mechanical Characterization of Porcine Pulmonary Arteries.

2021	Nemavhola, Fulufhelo & Ngwangwa, Harry & Pandelani, Thanyani.	Experimental analysis and biaxial biomechanical behaviour of ex-vivo sheep trachea.
2021	Durbak, Emily & Tarraf, Samar & Gillespie, Callan & Germano, Emidio & Cikach, Frank & Blackstone, Eugene & Emerton, Kelly & Colbrunn, Robb & Bellini, Chiara & Roselli, Eric.	Ex-vivo Biaxial Load Testing Analysis of Aortic Biomechanics Demonstrates Variation in Elastic Energy Distribution Across the Aortic Zone Zero.
2021	Nemavhola, Fulufhelo & Pandelani, Thanyani & Ngwangwa, Harry.	Fitting Of Hyperelastic Constitutive Models In Different Sheep Heart Regions Based On Biaxial Mechanical Properties.
2021	Ramburrin, Poornima & Kumar, Pradeep & Ndobe, Elias & Choonara, Yahya.	Gellan-Xanthan Hydrogel Conduits with Intraluminal Electrospun Nanofibers as Physical, Chemical and Therapeutic Cues for Peripheral Nerve Repair.
2021	Hudson, Luke & Laurence, Devin & Lau, Hunter & Mullins, Brennan & Doan, Deenna & Lee, Chung-Hao.	Linking collagen fiber architecture to tissue-level biaxial mechanical behaviors of porcine semilunar heart valve cusps.
2021	Surman, Tim & O'Rourke, Dermot & Reynolds, Karen & Edwards, J. & Worthington, M.	M06 The Unique Tissue Biomechanics of the Thoracic Aorta. What are the Greatest Areas of Weakness and Where Should we Focus Repair?.
2021	Singh, B. & Singh, G. & Chard, R. & Nicholson, I.	M08 Perioperative and Midterm Outcomes of Aortic Root Enlargements Compared to Conventional and Rapid Deployment Prosthesis.
2021	Walsh, Darragh & Ross, Aisling & Newport, David & Zhou, Zhou & Kearns, Jamie & Fearon, Conor & Lorigan, Jennifer & Mulvihill, John.	Mechanical Characterisation of the Human Dura Mater, Falx Cerebri and Superior Sagittal Sinus.
2021	Cunnane, Eoghan & Davis, NIALL & Cunnane, Connor & Lorentz, Katherine & Ryan, Alan & Hess, Jochen & Weinbaum, Justin & Walsh, Michael & O'Brien, Fergal & Vorp, David.	Mechanical, compositional and morphological characterisation of the human male urethra for the development of a biomimetic tissue engineered urethral scaffold.
2021	Maleckis, Kaspars & Kamenskiy, Alexey & Lichter, Eliezer & Oberley-Deegan, Rebecca & Dzenis, Yuris & Mactaggart, Jason.	Mechanically Tuned Vascular Graft Demonstrates Rapid Endothelialization and Integration Into the Porcine Iliac Artery Wall.
2021	Morningstar, Jordan & Gensemer, Cortney & Moore, Reece & Fulmer, Diana & Beck, Tyler & Wang, Christina & Moore, Kelsey & Guo, Lilong & Sieg, Franz & Nagata, Yasufumi & Bertrand, Philippe & Spampinato, Ricardo & Glover, Janiece & Poelzing, Stephen & Gourdie, Robert & Watts, Kelsey & Richardson, William & Levine, Robert &	Mitral Valve Prolapse Induces Regionalized Myocardial Fibrosis.
2021	Ahmad, Dilshad & Ajaj, Rafic.	Multiaxial Mechanical Characterization of Latex Skin for Morphing Wing Application.
2021	Zheng, Cheng & Ding, Kailei & Huang, Xueyu & Li, Meiling & Wu, Bingang & Lei, Yang & Wang, Yunbing.	Nonglutaraldehyde crosslinked bioprosthetic heart valves based on 2-isocyanatoethyl methacrylate crosslinked porcine pericardium with improved properties of stability, cytocompatibility and anti-calcification.

2021	Nemavhola, Fulufhelo & Ngwangwa, Harry & Davies, Neil & Franz, Thoams.	Passive Biaxial Tensile Dataset of Three Main Rat Heart Myocardia: Left Ventricle, Mid-Wall and Right Ventricle.
2021	Liu, Hailong & Jain, Shubham & Ahlinder, Astrid & Fuoco, Tiziana & Gasser, Thomas & Finne-Wistrand, Anna.	Pliable, Scalable, and Degradable Scaffolds with Varying Spatial Stiffness and Tunable Compressive Modulus Produced by Adopting a Modular Design Strategy at the Macrolevel.
2021	Ross, Colton & Hsu, Ming-Chen & Baumwart, Ryan & Mir, Arshid & Burkhart, Harold & Holzapfel, Gerhard & Wu, Yi & Lee, Chung-Hao.	Quantification of load-dependent changes in the collagen fiber architecture for the strut chordae tendineae-leaflet insertion of porcine atrioventricular heart valves.
2021	Ndlovu, Zwelihle & Desia, Dawood & Nemavhola, Fulufhelo & Ngwangwa, Harry.	Sheep Sclera Soft Tissue Subjected to Mechanical Equi-Biaxial Testing.
2021	Quince, Zachery & Alonso-Caneiro, David & Read, Scott & Collins, Michael.	Static compression optical coherence elastography to measure soft contact lens mechanical properties.
2021	Nemavhola, Fulufhelo.	Study of biaxial mechanical properties of the passive pig heart: material characterisation and categorisation of regional differences.
2021	Hu, Yingbing & Huang, Yu & Chen, Yun & Ye, Cheng & Wei, Wei & Feng, Yun & Mi, Shengli.	Study on patterned photodynamic cross-linking for keratoconus.
2021	Cai, Li & Zhang, Ruihang & Li, Yiqiang & Guangyu, Zhu & Ma, Xingshuang & Wang, Yongheng & Luo, Xiaoyu & Gao, Hao.	The Comparison of Different Constitutive Laws and Fiber Architectures for the Aortic Valve on Fluid–Structure Interaction Simulation.
2021	Meador, William & Zhou, Jennifer & Malinowski, Marcin & Jazwiec, Tomasz & Calve, Sarah & Timek, Tomasz & Rausch, Manuel.	The effects of a simple optical clearing protocol on the mechanics of collagenous soft tissue.
2021	Barrett, Jeff & Fewster, Kayla & Cudlip, Alan & Dickerson, Clark & Callaghan, Jack.	The rate of tendon failure in a collagen fibre recruitment-based model.
2021	Sawadkar, Prasad & Nandin, Mandakhbayar & Patel, Kapil & Buitrago, Jennifer & Kim, Tae & Rajasekar, Poojitha & Lali, Ferdinand & Kyriakidis, Christos & Rahmani, Benyamin & Mohanakrishnan, Jeviya & Dua, Rishbha & Greco, Karin & Lee, Jung-Hwan & Kim, Hae-Won & Knowles, Jonathan & Garcia-Garceta, Elena	Three dimensional porous scaffolds derived from collagen, elastin and fibrin proteins orchestrate adipose tissue regeneration.
2021	Nemavhola, Fulufhelo & Ngwangwa, Harry & Pandelani, Thanyani & Davies, Neil & Franz, Thomas.	Understanding regional mechanics of rat myocardia by fitting hyperelastisic models.
2021	Yang, Fan & Xu, Liangpeng & Guo, Gaoyang & Wang, Yunbing.	Visible light–induced cross-linking of porcine pericardium for the improvement of endothelialization, anti-tearing, and anticalcification properties.

2020	Lan, Xiaorong & Zhao, Qianting & Zhang, Jiayi & Lei, Yang & Wang, Yunbing.	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	A. Cudlip	A combined in vivo and in vitro approach to assess supraspinatus activation and tissue responses to arm elevation demands
2020	Sang, Cyril & Kallmes, D. & Kadirvel, R. & Durka, Micheal & Ding, Y-H & Dai, D. & Watkins, S. & Robertson, Anne	Adaptive Remodeling in the Elastase-Induced Rabbit Aneurysms.
2020	Sharifi Kia, Danial & Benza, Evan & Bachman, Timothy & Tushak, Claire & Kim, Kang & Simon, Marc.	Angiotensin Receptor-Nepriylsin Inhibition Attenuates Right Ventricular Remodeling in Pulmonary Hypertension.
2020	Schaefer, Douglas & Khan, Sehroon & Nadir, Sadia & Dong, Yang & Mortimer, Peter & Gui, Heng & Khan, Afsar & Yu, Mingming & Iqbal, Shahid & Sheng, Jun & Xu, Jianchu.	Biodegradation of polyester polyurethane by Aspergillus flavus G10.
2020	Chung, Jennifer & Wong, Edwin & Tang, Mingyi & Eliathamby, Daniella & Forbes, Thomas & Butany, Jagdish & Simmons, Craig & Ouzounian, Maral.	Biomechanics of Aortic Dissection: A Comparison of Aortas Associated With Bicuspid and Tricuspid Aortic Valves.
2020	Ahn, Seungkuk & Chantre, Christophe & Ardon, Herdeline Ann & Gonzalez, Grant & Campbell, Patrick & Parker, Kevin.	Biomimetic and estrogenic fibers promote tissue repair in mice and human skin via estrogen receptor β .
2020	Virgilio, Kelley & Jones, Brian & Miller, Emily & Ghajar-Rahimi, Elnaz & Martin, Kyle & Peirce, Shayn & Blemker, Silvia.	Computational Models Provide Insight into In Vivo Studies and Reveal the Complex Role of Fibrosis in mdx Muscle Regeneration.
2020	Jadidi, Majid & Sherifova, Selda & Sommer, Gerhard & Kamenskiy, Alexey & Holzapfel, Gerhard.	Constitutive modeling using structural information on collagen fiber direction and dispersion in human superficial femoral artery specimens of different ages.
2020	Wu, Binggang & Zheng, Cheng & Ding, Kailei & Huang, Xueyu & Li, Meiling & Zhang, Shumang & Lei, Yang & Guo, Yingqiang & Wang, Yunbing.	Cross-Linking Porcine Pericardium by 3,4-Dihydroxybenzaldehyde: A Novel Method to Improve the Biocompatibility of Bioprosthetic Valve.
2020	Miar, Solaleh & Dion, Gregory & Montelongo, Sergio & Ong, Joo & Bizios, Rena & Guda, Teja.	Development of a Bioinspired, Self-Adhering, and Drug-Eluting Laryngotracheal Patch.
2020	Desyatova, Anastasia & Mactaggart, Jason & Kamenskiy, Alexey.	Effects of longitudinal pre-stretch on the mechanics of human aorta before and after thoracic endovascular aortic repair (TEVAR) in trauma patients.
2020	Duijvelshoff, Renee & Di Luca, Andrea & Van Haaften, Eline & Dekker, Sylvia & Söntjens, Serge & Janssen, Henk & Smits, Anthal & Dankers, Patricia & Bouten, Carlijn.	Inconsistency in Graft Outcome of Bilayered Bioresorbable Supramolecular Arterial Scaffolds in Rats.

2020	Yang, Fan & He, Haiyang & Xu, Liangpeng & Jin, Linhe & Guo, Gaoyang & Wang, Yunbing.	Inorganic-polymerization crosslinked tissue-siloxane hybrid as potential biomaterial for bioprosthetic heart valves.
2020	Jett, Samuel & Hudson, Luke & Baumwart, Ryan & Bohnstedt, Bradley & Mir, Arshid & Burkhart, Harold & Holzapfel, Gerhard & Wu, Yi & Lee, Chung-Hao.	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	Yang, Li & Wang, Yunbing & Ding, Kailei & Xiao, Chaonan & Lei, Yang & Du, Mingchun & Pan, Dengke & Guo, Xiumei.	Low Immunogenicity Pericardia from Gene Knockout Pigs as Biological Valve Materials.
2020	He, Qizhi & Laurence, Devin & Lee, Chung-Hao & Chen, Jiun-Shyan.	Manifold learning based data-driven modeling for soft biological tissues.
2020	Chen, Shengda & Sari, Candra & Gao, Hao & Lei, Yang & Segers, Patrick & Beule, Matthieu & Wang, Guixue & Ma, Xingshuang.	Mechanical and morphometric study of mitral valve chordae tendineae and related papillary muscle.
2020	Walsh, Darragh & Lynch, James & Connor, David & Newport, David & Mulvihill, John.	Mechanical and structural characterisation of the dural venous sinuses.
2020	Whittall, Mitchel & Molladavoodi, Sara & Zwambag, Derek & Millecamps, Magali & Stone, Laura & Gregory, Diane.	Mechanical Consequence of Induced Intervertebral Disc Degeneration in the SPARC-Null Mouse.
2020	Ross, Colton & Laurence, Devin & Hsu, Ming-Chen & Baumwart, Ryan & Zhao, Daniel & Mir, Arshid & Burkhart, Harold & Holzapfel, Gerhard & Wu, Yi & Lee, Chung-Hao.	Mechanics of Porcine Heart Valves' Strut Chordae Tendineae Investigated as a Leaflet-Chordae-Papillary Muscle Entity.
2020	Yang, Fan & Xu, Liangpeng & Kuang, Dajun & Ge, Yao & Guo, Gaoyang & Wang, Yunbing.	Polyzwitterion-crosslinked hybrid tissue with antithrombogenicity, endothelialization, anticalcification properties.
2020	Yang, Li & Huang, Xueyu & Deng, Lu & Ma, Xiaoxiao & Jiang, Honglin & Ning, Qinggong & Liang, Zhen & Lei, Yang & Wang, Yunbing.	Pre-mounted dry TAVI valve with improved endothelialization potential using REDV-loaded PEGMA hydrogel hybrid pericardium.
2020	Aldosary, Ghada & Tse, Tabitha & Arnaout, Angel & Caudrelier, Jean-Michel & Czornyj, Catriona & Romain, Ron & Mclean, Linda & Footit, Claire & Vandervoort, Eric & Belec, Jason.	Radiological, dosimetric and mechanical properties of a deformable breast phantom for radiation therapy and surgical applications.
2020	Barbour, Kaitlyn & Huang, Hsiao-Ying.	Strain effects on collagen proteolysis in heart valve tissues.
2020	Yang, Li & Xie, Shuang & Ding, Kailei & Lei, Yang & Wang, Yunbing.	The study of dry biological valve crosslinked with a combination of carbodiimide and polyphenol.

2020	Meador, William & Mathur, Mrudang & Sugerman, Gabriella & Malinowski, Marcin & Jazwiec, Tomasz & Wang, Xinmei & Lacerda, Carla & Timek, Tomasz & Rausch, Manuel.	The tricuspid valve also maladapt as shown in sheep with biventricular heart failure.
2020	Meador, William & Mathur, Mrudang & Sugerman, Gabriella & Malinowski, Marcin & Jazwiec, Tomasz & Wang, Xinmei & Lacerda, Carla & Timek, Tomasz & Rausch, Manuel.	The tricuspid valve also maladapt: A multiscale study in sheep with biventricular heart failure.
2020	Jin, Linhe & He, Haiyang & Yang, Fan & Xu, Liangpeng & Guo, Gaoyang & Wang, Yunbing.	Tough pNAGA hydrogel hybridized porcine pericardium for the pre-mounted TAVI valve with improved anti-tearing properties and hemocompatibility.
2020	Smith, Kieran & Mathur, Mrudang & Meador, William & Phillips-Garcia, B. & Sugerman, G. & Menta, A. & Jazwiec, T. & Malinowski, Marcin & Timek, T. & Rausch, Manuel.	Tricuspid Chordae Tendineae Mechanics: Insertion Site, Leaflet, and Size-Specific Analysis and Constitutive Modelling.
2020	Tavakoli, Javad & Raston, Colin & Ma, Yong & Tang, Youhong.	Vortex fluidic mediated one-step fabrication of polyvinyl alcohol hydrogel films with tunable surface morphologies and enhanced self-healing properties.
2019	Meador, William & Mathur, Mrudang & Sugerman, Gabriella & Jazwiec, Tomasz & Malinowski, Marcin & Bersi, Matthew & Timek, Tomasz & Rausch, Manuel.	A Detailed Mechanical and Microstructural Analysis of 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	Kramer, Katherine & Ross, Colton & Laurence, Devin & Babu, Anju & Wu, Yi & Towner, Rheel & Mir, Arshid & Burkhart, Harold & Holzapfel, Gerhard & Lee, Chung-Hao.	An investigation of layer-specific tissue biomechanics of porcine atrioventricular valve anterior 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	Duginski, Grace & Ross, Colton & Laurence, Devin & Johns, Cortland & Lee, Chung-Hao.	An investigation of the effect of freezing storage on the biaxial mechanical properties of excised porcine tricuspid valve anterior leaflets.
2019	Ross, Colton & Laurence, Devin & Richardson, Jacob & Babu, Anju & Evans, Lauren & Beyer, Ean & Childers, Rachel & Wu, Yi & Towner, Rheel & Fung, Kar-Ming & Mir, Arshid & Burkhart, Harold & Holzapfel, Gerhard & Lee, Chung-Hao.	An investigation of the glycosaminoglycan contribution to biaxial mechanical behaviours of porcine atrioventricular heart valve leaflets.
2019	Ross, Colton & Laurence, Devin & Wu, Yi & Lee, Chung-Hao.	Biaxial Mechanical Characterizations of Atrioventricular Heart Valves.
2019	Patnaik, Sourav & Pişkin, Şenol & Pillalamarri, Narasimha & Romero, Gabriela & Escobar, Gladys & Sprague, Eugene & Finol, Ender.	Biomechanical Restoration Potential of Pentagalloyl Glucose after Arterial Extracellular Matrix Degeneration.

2019	Van Haaften, Eline & Wissing, T.B. & Kurniawan, Nicholas Agung & Smits, Anthal & Bouten, Carlijn.	Human in vitro model of material-driven vascular regeneration reveals how cyclic stretch and shear stress differentially modulate inflammation and tissue formation.
2019	Van Haaften, Eline & Turnhout, Mark & Kurniawan, Nicholas Agung.	Image-based analysis of uniaxial ring test for mechanical characterization of soft materials and biological tissues.
2019	Samuel V. Jett, Luke T. Hudson, Ryan Baumwart, Bradley N. Bohnstedt, Arshid Mir, Harold M. Burkhart, Gerhard A. Holzapfel, Yi Wu, Chung-Hao Lee	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	Wissing, T.B. & Bonito, Valentina & Van Haaften, Eline & Doeselaar, Marina & Brugmans, Marieke & Janssen, Henk & Bouten, Carlijn & Smits, Anthal.	Macrophage-Driven Biomaterial Degradation Depends on Scaffold Microarchitecture.
2019	Noble, Christopher & Maxson, Eva & Lerman, Amir & Young, Melissa.	Mechanical and finite element evaluation of a bioprinted scaffold following recellularization in a rat subcutaneous model.
2019	Jadidi, Majid & Habibnezhad, Mahmoud & Anttila, Eric & Maleckis, Kaspars & Desyatova, Anastasia & Mactaggart, Jason & Kamenskiy, Alexey.	Mechanical and Structural Changes in Human Thoracic Aortas with Age.
2019	Anttila, Eric & Balzani, Daniel & Desyatova, Anastasia & Deegan, Paul & Mactaggart, Jason & Kamenskiy, Alexey.	Mechanical damage characterization in human femoropopliteal arteries of different ages.
2019	Hofferberth, Sophie & Baird, Christopher & Hoganson, David & Quinonez, Luis & Emani, Sitaram & del Nido, Pedro & Hammer, Peter.	Mechanical Properties of Autologous Pericardium Change With Fixation Time: Implications for Valve Reconstruction.
2019	Lee, Chung-Hao & Laurence, Devin & Ross, Colton & Kramer, Katherine & Babu, Anju & Johnson, Emily & Hsu, Ming-Chen & Aggarwal, Ankush & Mir, Arshid & Burkhart, Harold & Towner, Rheal & Baumwart, Ryan & Wu, Yi.	Mechanics of the Tricuspid Valve—From Clinical Diagnosis/Treatment, In-Vivo and In-Vitro Investigations, to Patient-Specific Biomechanical Modeling.
2019	Hill, Jason & Liu, Cailing & Deardorff, Phillip & Tavakol, Behrouz & Eddington, William & Thompson, Vance & Gore, Dan & Raizman, Michael & Adler, Desmond.	Optimization of Oxygen Dynamics, UV-A Delivery, and Drug Formulation for Accelerated Epi-On Corneal Crosslinking.
2019	Chantre, Christophe & Gonzalez, Grant & Ahn, Seungkuk & Cera, Luca & Campbell, Patrick & Hoerstrup, Simon & Parker, Kevin.	Porous Biomimetic Hyaluronic Acid and Extracellular Matrix Protein Nanofiber Scaffolds for Accelerated Cutaneous Tissue Repair.
2019	Anssari-Benam, Afshin & Tseng, Yuan-Tsan & Holzapfel, Gerhard & Bucchi, Andrea.	Rate-dependency of the mechanical behaviour of semilunar heart valves under biaxial deformation.
2019	Laurence, Devin & Ross, Colton & Jett, Samuel & Johns, Cortland & Echols, Allyson & Baumwart, Ryan & Towner, Rheal & Liao, Jun & Bajona, Pietro & Wu, Yi & Lee, Chung-Hao.	Regional biaxial mechanical data of the mitral and tricuspid valve anterior leaflets.

2019	van Disseldorp, Emiel & Hoven, Marcel & van de Vosse, Frans & Sambeek, Marc & Lopata, Richard.	Reproducibility assessment of ultrasound-based aortic stiffness quantification and verification using Bi-axial tensile testing.
2019	Cai, Li & Wang, Ying & Gao, Hao & Ma, Xingshuang & Guangyu, Zhu & Zhang, Ruihang & Shen, Xiaoqin & Luo, Xiaoyu.	Some Effects of Different Constitutive Laws on FSI Simulation for the Mitral Valve.
2019	Van Haften, Eline & Duijvelshoff, R. & Ippel, Bastiaan & Söntjens, Serge & Houtem, M.H.C.J. & Janssen, H.M. & Smits, Anthal & Kurniawan, Nicholas Agung & Dankers, Patricia & Bouten, Carlijn.	The degradation and performance of electrospun supramolecular vascular scaffolds examined upon in vitro enzymatic exposure.
2019	Meador, William & Sugerma, Gabriella & Story, Hannah & Seifert, Ashley & Bersi, Matthew & Buganza Tepole, Adrian & Rausch, Manuel.	The regional-dependent biaxial behavior of young and aged mouse skin: A detailed histomechanical characterization, residual strain analysis, and constitutive model.
2019	Benson, Adam & Huang, Hsiao-Ying.	Tissue Level Mechanical Properties and Extracellular Matrix Investigation of the Bovine Jugular Venous Valve Tissue.
2018	Siyawamwaya, Margaret & Toit, Lisa & Kumar, Pradeep & Choonara, Yahya & Kondiah, Pierre P D & Pillay, Viness.	3D Printed, Controlled Release, Tritherapeutic Tablet Matrix for Advanced Anti-HIV-1 Drug Delivery.
2018	Govender, Mershen & Indermun, Sunaina & Kumar, Pradeep & Choonara, Yahya & Pillay, Viness.	3D Printed, PVA–PAA Hydrogel Loaded-Polycaprolactone Scaffold for the Delivery of Hydrophilic In-Situ Formed Sodium Indomethacin.
2018	Sithole, Mduduzi & Kumar, Pradeep & Toit, Lisa & Marimuthu, Thashree & Choonara, Yahya & Pillay, Viness.	A 3D Bioprinted In Situ Conjugated-co-Fabricated Scaffold for Potential Bone Tissue Engineering Applications.
2018	MacQueen, Luke & Sheehy, Sean & Chantre, Christophe & Zimmerman, John & Pasqualini, Francesco & Xujie, Liu & Goss, Josue & Campbell, Patrick & Gonzalez, Grant & Park, Sung Jin & Capulli, Andrew & Ferrier, John & Kosar, T. & Mahadevan, Lakshminarayanan & Pu, William & Parker, Kevin	A tissue-engineered scale model of the heart ventricle.
2018	Anssari-Benam, Afshin & Tseng, Yuan-Tsan & Bucchi, Andrea.	A transverse isotropic constitutive model for the aortic valve tissue incorporating rate-dependency and fibre dispersion: Application to biaxial deformation.
2018	Nelson-Wong, Erika & Glinka, Michal & Noguchi, Mamiko & Langevin, Helene & Badger, Gary & Callaghan, Jack.	Acute Surgical Injury Alters the Tensile Properties of Thoracolumbar Fascia in a Porcine Model.
2018	Laurence, Devin & Ross, Colton & Jett, Samuel & Johns, Cortland & Echols, Allyson & Baumwart, Ryan & Towner, Rheal & Liao, Jun & Bajona, Pietro & Wu, Yi & Lee, Chung-Hao.	An investigation of regional variations in the biaxial mechanical properties and stress relaxation behaviors of porcine atrioventricular heart valve leaflets.
2018	Jett, Samuel & Laurence, Devin & Kunkel, Robert & Babu, Anju & Kramer, Katherine & Baumwart, Ryan & Towner, Rheal & Wu, Yi & Lee, Chung-Hao.	An investigation of the anisotropic mechanical properties and anatomical structure of porcine atrioventricular heart valves.

2018	Lu, J. & Huang, Hsiao-Ying.	Biaxial Mechanical Behavior of Bovine Saphenous Venous Valve Leaflets.
2018	Jett, Samuel & Laurence, Devin & Kunkel, Robert & Babu, Anju & Kramer, Katherine & Baumwart, Ryan & Towner, Rheal & Wu, Yi & Lee, Chung-Hao.	Biaxial mechanical data of porcine atrioventricular valve leaflets.
2018	Fatemi Far, Sanaz & Feldman, Marc & Oglesby, Meagan & Han, Hai-Chao.	Comparison of Biomechanical Properties and Microstructure of Trabeculae Carneae, Papillary muscles, and Myocardium in Human Heart.
2018	Kanellopoulos, Anastasios.	Comparison of corneal biomechanics after myopic small-incision lenticule extraction compared to LASIK: an ex vivo study.
2018	Smoljic, Marija & Verbrugge, Peter & Larsson, Matilda & Widman, Erik & Fehervary, Heleen & D'hooge, Jan & Vander Sloten, Jos & Famaey, Nele.	Comparison of in vivo vs. ex situ obtained material properties of sheep common carotid artery.
2018	Emmert, Maximilian & Schmitt, Boris & Loerakker, Sandra & Sanders, Bart & Spriestersbach, Hendrik & Fioretta, Emanuela & Bruder, Leon & Brakmann, Kerstin & Motta, Sarah & Lintas, Valentina & Dijkman, Petra & Frese, Laura & Berger, Felix & Baaijens, Frank & Hoerstrun, Simon	Computational modeling guides tissue-engineered heart valve design for long-term in vivo performance in a translational sheep model.
2018	Desyatova, Anastasia & Poulson, William & Mactaggart, Jason & Maleckis, Kaspars & Kamenskiy, Alexey.	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	Bonito, Valentina & de Kort, Bente & Bouten, Carlijn & Smits, Anthal.	Cyclic Strain affects Macrophage Cytokine Secretion and ECM turnover in Electrospun Scaffolds.
2018	Van Haaften, Eline & Wissing, T.B. & Rutten, Marcel & Bulsink, Jurgen & Gashi, Kujtim & Kelle, Mathieu & Smits, Anthal & Bouten, Carlijn & Kurniawan, Nicholas Agung.	Decoupling the Effect of Shear Stress and Stretch on Tissue Growth and Remodeling in a Vascular Graft.
2018	Hammer, Peter & Baird, Christopher & del Nido, Pedro & Marx, Gerald.	Dehiscence of patch augmentation of a left-sided atrioventricular valve related to strenuous isometric exercise – Case report and failure analysis.
2018	Fehervary, Heleen & Vander Sloten, Jos & Famaey, Nele.	Development of an improved parameter fitting method for planar biaxial testing using rakes.
2018	Davis, NIALL & Mulvihill, John & Lynch, James & Browne, Eva & Bolton, Damien & Jack, Gregory & Walsh, Michael.	Digital and mechanical characterization of ureteral stent luminal reduction in response to extrinsic compression forces
2018	Thakkar, Shraddha & Di Luca, Andrea & Zaccaria, Sabrina & Baaijens, Frank & Bouten, Carlijn & Dankers, Patricia.	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	Kelle, M. & Oomen, Pim & Broek, W. & Lopata, R. & Loerakker, Sandra & Bouten, Carlijn.	Initial scaffold thickness affects the emergence of a geometrical and mechanical equilibrium in engineered cardiovascular tissues.
2018	Qi, Dianjun & Wu, Shaohua & Kuss, Mitchell & Shi, Wen & Chung, Soonkyu & Deegan, Paul & Kamenskiy, Alexey & He, Yini & Duan, Bin.	Mechanically robust cryogels with injectability and bioprinting supportability for adipose tissue engineering.
2018	Tavakoli, J. & Costi, John.	New findings confirm the viscoelastic behaviour of the inter-lamellar matrix of the disc annulus fibrosus in radial and circumferential directions of loading.
2018	Tavakoli, Javad & Costi, John.	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	Han, Wei & Zhang, Hongping & Tavakoli, Javad & Campbell, Jonathan & Tang, Youhong.	Polydopamine as sizing on carbon fiber surfaces for enhancement of epoxy laminated composites.
2018	Snow, Chelsea & Harvey-Burgess, Maxine & Laird, Brigitte & Brown, Stephen & Gregory, Diane.	Pressure-induced end-plate fracture in the porcine spine: Is the annulus fibrosus susceptible to damage?.
2018	Kamenskiy, Alexey & Poulson, William & Sim, Sylvie & Reilly, Austin & Luo, Jiangtao & Mactaggart, Jason.	Prevalence of Calcification in Human Femoropopliteal Arteries and its Association with Demographics, Risk Factors, and Arterial Stiffness.
2018	Ksiazek, Agnieszka & Frese, Laura & Dijkman, Petra & Sanders, Bart & Motta, Sarah & Weber, Benedikt & Hoerstrup, Simon.	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	Walsh, Darragh & Ross, Aisling & Malijauskaite, Sigita & Flanagan, Brendan & Newport, David & MCGourty, Kieran & Mulvihill, John.	Regional mechanical and biochemical properties of the porcine cortical meninges.
2018	Ahn, Seungkuk & Chantre, Christophe & Gannon, Alanna & Lind, Johan & Campbell, Patrick & Grevesse, Thomas & O'Connor, Blakely & Parker, Kevin.	Soy Protein/Cellulose Nanofiber Scaffolds Mimicking Skin Extracellular Matrix for Enhanced Wound Healing.
2018	Tavakoli, Javad & Amin, Dhara & Freeman, Brian & Costi, John.	The Biomechanics of the Inter-Lamellar Matrix and the Lamellae During Progression to Lumbar Disc Herniation: Which is the Weakest Structure?.

2018	Thirugnanasambandam, Mirunalini & Simionescu, Dan & Escobar, Gladys & Sprague, Eugene & Goins, Beth & Clarke, Geoffrey & Han, Hai-Chao & Amezcua, Krysta & Adeyinka, Oluwaseun & Goergen, Craig & Finol, Ender.	The Effect of Pentagalloyl Glucose on the Wall Mechanics and Inflammatory Activity of Rat Abdominal Aortic Aneurysms.
2018	Zhang, Hongping & Han, Wei & Tavakoli, Javad & Zhang, Ya-ping & Lin, Xiaoyan & Lu, Xiong & Ma, Yong & Tang, Youhong.	Understanding interfacial interactions of polydopamine and glass fiber and their enhancement mechanisms in epoxy-based laminates.
2017	Helal, Alexander & Doumit, Marc & Shaheen, Robert.	Biaxial experimental and analytical characterization of a dielectric elastomer.
2017	Huang, Hsiao-Ying & Lu, Jiaqi.	Biaxial mechanical properties of bovine jugular venous valve leaflet tissues.
2017	De Kegel, Dries & Vastmans, Julie & Fehervary, Heleen & Depreitere, Bart & Vander Sloten, Jos & Famaey, Nele.	Biomechanical characterization of human dura mater.
2017	Vastmans, Julie & Fehervary, Heleen & Verbrugghe, Peter & Verbelen, Tom & Vanderveken, Emma & Vander Sloten, Jos & Treasure, Tom & Rega, Filip & Famaey, Nele.	Biomechanical evaluation of a Personalized External Aortic Root Support applied in the Ross procedure.
2017	Tsai, Kai-Jen & Dixon, Simon & Hale, Luke & Darbyshire, Arnold & Martin, Daniel & de Mel, Achala.	Biomimetic heterogenous elastic tissue development.
2017	Maleckis, Kaspars & Deegan, Paul & Poulson, William & Sievers, Cole & Desyatova, Anastasia & Mactaggart, Jason & Kamenskiy, Alexey.	Comparison of Femoropopliteal Artery Stents Under Axial and Radial Compression, Axial Tension, Bending, and Torsion Deformations.
2017	Kamenskiy, Alexey & Seas, Andreas & Deegan, Paul & Poulson, William & Anttila, Eric & Sim, Sylvie & Desyatova, Anastasia & Mactaggart, Jason.	Constitutive description of human femoropopliteal artery aging.
2017	Desyatova, Anastasia & Mactaggart, Jason & Kamenskiy, Alexey.	Constitutive modeling of human femoropopliteal artery biaxial stiffening due to aging and diabetes.
2017	Kaul, Nayyan & Huang, Hsiao-Ying.	Constitutive Modeling of Jugular Vein-Derived Venous Valve Leaflet Tissues.
2017	Shaheen, Robert & Doumit, Marc & Helal, Alexander.	Design and Characterization of a Hyperelastic Tubular Soft Composite.
2017	Kluin, Jolanda & Talacua, Hanna & Smits, Anthal & Emmert, Maximilian & Brugmans, Marieke & Fioretta, Emanuela & Dijkman, Petra & Söntjens, Serge & Duijvelshoff, Renee & Dekker, Sylvia & Broek, Marloes & Lintas, Valentina & Vink, Aryan & Hoerstrup, Simon & Janssen, Henk & Dankers, Patricia & Baaijens, Frank & Routen	In situ heart valve tissue engineering using a bioresorbable elastomeric implant – From material design to 12 months follow-up in sheep.

2017	Capulli, Andrew & Emmert, Maximillian & Pasqualini, Francesco & Kehl, Debora & Caliskan, Etem & Lind, Johan & Sheehy, Sean & Park, Sung Jin & Ahn, Seungkuk & Weber, Benedikt & Goss, Josue & Hoerstrup, Simon & Parker, Kevin.	JetValve: Rapid manufacturing of biohybrid scaffolds for biomimetic heart valve replacement.
2017	Desyatova, Anastasia & Poulson, William & Deegan, Paul & Lomneth, Carol & Seas, Andreas & Maleckis, Kaspars & MacTaggart, Jason & Kamenskiy, Alexey.	Limb flexion-induced twist and associated intramural stresses in the human femoropopliteal artery.
2017	Mollet, Björne & Spaans, Sergio & Fard, Parinaz & Bax, Noortje & Bouten, Carlijn & Dankers, Patricia.	Mechanically Robust Electrospun Hydrogel Scaffolds Crosslinked via Supramolecular Interactions.
2017	Oomen, Pim & Kelle, M.A.J. & Oomens, Cees & Bouten, Carlijn & Loerakker, Sandra.	Nondestructive mechanical characterization of developing biological tissues using inflation testing.
2017	Barrett, Hilary & Cunnane, Eoghan & Hidayat, Hena & O'Brien, Julie & Moloney, Michael & Kavanagh, Eamon & Walsh, Michael.	On the influence of wall calcification and intraluminal thrombus on prediction of abdominal aortic aneurysm rupture.
2017	Gsell, Kelsey & Zwambag, Derek & Fournier, Dale & Séguin, Cheryle & Brown, Stephen.	Paraspinal Muscle Passive Stiffness Remodels in Direct Response to Spine Stiffness: A Study Using the ENT1 Deficient Mouse.
2017	Pham, Diana & Shapter, Joe & Costi, John.	Tensile behaviour of individual fibre bundles in the human lumbar anulus fibrosus.
2017	Stewart, Danielle & Monaco, Lauren & Gregory, Diane.	The aging disc: using an ovine model to examine age-related differences in the biomechanical properties of the intralamellar matrix of single lamellae.
2017	Desyatova, Anastasia & Mactaggart, Jason & Poulson, William & Deegan, Paul & Lomneth, Carol & Sandip, Anjali & Kamenskiy, Alexey.	The choice of a constitutive formulation for modeling limb flexion-induced deformations and stresses in the human femoropopliteal arteries of different ages.
2017	Davis, NIALL & Mulvihill, John & Mulay, Shreyas & Cunnane, Eoghan & Bolton, Damien & Walsh, M.T..	Urinary Bladder Versus Gastrointestinal Tissue: a Comparative Study of Their Biomechanical Properties for Urinary Tract Reconstruction.
2016	Capulli, Andrew & MacQueen, Luke & O'Connor, Blakely & Dauth, Stephanie & Parker, Kevin.	Acute Pergolide Exposure Stiffens Engineered Valve Interstitial Cell Tissues and Reduces Contractility In Vitro.
2016	van Geemen, Daphne & Soares, Ana & Oomen, Pim & Driessen-Mol, Anita & Broek, Marloes & Bogaerdt, Antoon & Bogers, Ad & Goumans, Marie Jose & Baaijens, Frank & Bouten, Carlijn.	Age-Dependent Changes in Geometry, Tissue Composition and Mechanical Properties of Fetal to Adult Cryopreserved Human Heart Valves.
2016	Frese, Laura & Sasse, Tom & Sanders, Bart & Baaijens, Frank & Beer, Gertrude & Hoerstrup, Simon.	Are adipose-derived stem cells cultivated in human platelet lysate suitable for heart valve tissue engineering?.

2016	Mathers, Bryan & Agur, Anne & Oliver, Michele & Gordon, Karen.	Biaxial quantification of deep layer transverse carpal ligament elastic properties by sex and region.
2016	Smoljkic, Marija & Fehervary, Heleen & Bergh, Philip & Jorge-Peñas, Alvaro & Kluykens, Louis & Dymarkowski, Steven & Verbrugge, Peter & Meuris, Bart & Vander Sloten, Jos & Famaey, Nele.	Biomechanical Characterization of Ascending Aortic Aneurysms.
2016	Javani, Shahnaz & Gordon, Matthew & Azadani, Ali.	Biomechanical Properties and Microstructure of Heart Chambers: A Paired Comparison Study in an Ovine Model.
2016	Abbasi, Mostafa & Barakat, Mohammed & Vahidkhal, Koohyar & Azadani, Ali.	Characterization of three-dimensional anisotropic heart valve tissue mechanical properties using inverse finite element analysis.
2016	Ngu, Janet & Jafar, Reza & Toeg, H.D. & Sohmer, B. & Chan, V. & Labrosse, Michel & Boodhwani, M..	CUSP INTERVENTIONS IN AORTIC VALVE REPAIR: ARE ALL PERICARDIAL PATCHES CREATED EQUALLY?.
2016	Gooyers, Chad & Callaghan, Jack.	Cycle-Varying Changes in the Mechanical Properties of the Annulus Fibrosus under Biaxial Tensile Loading.
2016	Huang, Guo & Tse, Wai Hei & Zhang, Jin.	Deposition of Hydrophilic Nanocomposite-based Coating on Silicone Hydrogel through a Laser Process to Minimize UV Exposure and Bacterial Contamination.
2016	Almen, Geert & Talacua, Hanna & Ippel, Bastiaan & Mollet, Björne & Ramaekers, Mellany & Simonet, Marc & Smits, Anthal & Bouten, Carlijn & Kluin, Jolanda & Dankers, Patricia.	Development of Non-Cell Adhesive Vascular Grafts Using Supramolecular Building Blocks.
2016	Ghazanfari, Samaneh & Mol, A. & Bouten, Carlijn & Baaijens, Frank.	Modulation of collagen fiber orientation by strain-controlled enzymatic degradation.
2016	Kvasnytsia, Maryna & Famaey, Nele & Böhm, Michal & Verhoelst, Eva.	Patient Specific Vascular Benchtop Models for Development and Validation of Medical Devices for Minimally Invasive Procedures.
2016	Park, Sung Jin & Gazzola, Mattia & Park, Kyung & Park, Shirley & Di Santo, Valentina & Blevins, Erin & Lind, Johan & Campbell, Patrick & Dauth, Stephanie & Capulli, Andrew & Pasqualini, Francesco & Ahn, Seungkuk & Cho, Alexander & Yuan, Hongyan & Maoz, Ben & Vijaykumar, Ragu & Choi, Jeong-Woo & Deisseroth, Karl & Lauder, George & Labrosse, Michel & Jafar, Reza & Ngu, Janet & Boodhwani, Munir.	Phototactic guidance of a tissue-engineered soft-robotic ray.
2016	Labrosse, Michel & Jafar, Reza & Ngu, Janet & Boodhwani, Munir.	Planar biaxial testing of heart valve cusp replacement biomaterials: Experiments, theory and material constants.
2016	Fehervary, Heleen & Smoljkic, Marija & Vander Sloten, Jos & Famaey, Nele.	Planar biaxial testing of soft biological tissue using rakes: A critical analysis of protocol and fitting process.

2016	Gonzalez, Grant & MacQueen, Luke & Lind, Johan & Fitzgibbons, Stacey & Chantre, Christophe & Huggler, Isabelle & Golecki, Holly & Goss, Josue & Parker, Kevin.	Production of Synthetic, Para-Aramid and Biopolymer Nanofibers by Immersion Rotary Jet-Spinning.
2016	Park, Dae Woo & Sebastiani, Andrea & Yap, Choon Hwai & Simon, Marc & Kim, Kang.	Quantification of Coupled Stiffness and Fiber Orientation Remodeling in Hypertensive Rat Right-Ventricular Myocardium Using 3D Ultrasound Speckle Tracking with Biaxial Testing.
2016	Gruevski, Kristina & Gooyers, Chad & Karakolis, Thomas & Callaghan, Jack.	The Effect of Local Hydration Environment on the Mechanical Properties and Unloaded Temporal Changes of Isolated Porcine Annular Samples.
2015	Monaco, Lauren & DeWitte-Orr, Stephanie & Gregory, Diane.	A Comparison Between Porcine, Ovine, and Bovine Intervertebral Disc Anatomy and Single Lamella Annulus Fibrosus Tensile Properties.
2015	Frese, Laura & Sanders, Bart & Weber, Benedikt.	Adipose Derived Tissue Engineered Heart Valve.
2015	Huang, Siyao & Huang, Hsiao-Ying.	Biaxial stress relaxation of semilunar heart valve leaflets during simulated collagen catabolism: Effects of collagenase concentration and equibiaxial strain state.
2015	Voorhees, Andrew & DeLeon-Pennell, Kristine & Ma, Yonggang & Halade, Ganesh & Yabluchanskiy, Andriy & Iyer, Rugmani & Flynn, Elizabeth & Cates, Courtney & Lindsey, Merry & Han, Hai-Chao.	Building a Better Infarct: Modulation of Collagen Cross-linking to Increase Infarct Stiffness and Reduce Left Ventricular Dilation post-Myocardial Infarction.
2015	Kanellopoulos, Anastasios & Kontos, Mark & Chen, Shi-Hao & Asimellis, George.	Corneal Collagen Cross-linking Combined With Simulation of Femtosecond Laser-Assisted Refractive Lens Extraction: An Ex Vivo Biomechanical Effect Evaluation.
2015	Kanellopoulos, Anastasios & Asimellis, George & Salvador-Culla, Borja & Chodosh, James & Ciolino, Joseph.	High-irradiance CXL combined with myopic LASIK: Flap and residual stroma biomechanical properties studied ex-vivo.
2015	Sanders, Bart & Loerakker, Sandra & Fioretta, Emanuela & Bax, Dave & Driessen-Mol, Anita & Hoerstrup, Simon & Baaijens, Frank.	Improved Geometry of Decellularized Tissue Engineered Heart Valves to Prevent Leaflet Retraction.
2015	Boekhoven, Renate & Peters, Mathijs & Rutten, Marcel & Sambeek, Marc & van de Vosse, Frans & Lopata, Richard.	Inflation and Bi-Axial Tensile Testing of Healthy Porcine Carotid Arteries.
2015	Abbasi, Mostafa & Azadani, Ali.	Leaflet stress and strain distributions following incomplete transcatheter aortic valve expansion.
2015	Yap, Choon Hwai & Park, Dae Woo & Dutta, Debaditya & Simon, Marc & Kim, Kang.	Methods for Using 3-D Ultrasound Speckle Tracking in Biaxial Mechanical Testing of Biological Tissue Samples.

2015	Yin, Pei & Huang, Guo & Tse, Wai Hei & Bao, Yi & Denstedt, John & Zhang, Jin.	Nanocomposited Silicone Hydrogels with a Laser-assisted Surface Modification for Inhibiting the Growth of Bacterial Biofilm.
2015	Brugmans, Marieke & Soekhradj-Soechit, Sarita & van Geemen, Daphne & Cox, Martijn & Bouten, Carlijn & Baaijens, Frank & Driessen-Mol, Anita.	Superior Tissue Evolution in Slow-Degrading Scaffolds for Valvular Tissue Engineering.
2015	Sun, Michelle T. & Pham, Diana & O'Connor, Andrea & Wood, John & Casson, Robert & Selva, Dinesh & Costi, John.	The Biomechanics of Eyelid Tarsus Tissue.
2015	Davis, Taylor & Herrera, Jose.	The Role of Single Walled Carbon Nanotube Debundling on Their Effective Reinforcement of Chitosan-Polyvinylpyrrolidone Hydrogels.
2014	Argento, G & de Jonge, Nicky & Söntjens, Serge & Oomens, C & Bouten, Carlijn & Baaijens, Frank.	Modeling the impact of scaffold architecture and mechanical loading on collagen turnover in engineered cardiovascular tissues.
2014	Huang, Guobang & Chen, Yi & Zhang, Jin.	Nanocomposite coating produced by laser-assisted process to prevent bacterial contamination and protein fouling.
2014	Kahlon, A. & Hurtig, Mark & Gordon, Karen.	Regional and depth variability of porcine meniscal mechanical properties through biaxial testing.
2014	Parraga, Juan & Emans, P & Wilson, W. & Ito, Keita & van Donkelaar, Corrinus.	Should a native depth-dependent distribution of human meniscus constitutive components be considered in FEA-models of the knee joint?.
2014	Ballotta, Virginia & Driessen-Mol, Anita & Bouten, Carlijn & Baaijens, Frank.	Strain-dependent modulation of macrophage polarization within scaffolds.
2014	Hill, Michael & Simon, Marc & Valdez-Jasso, Daniela & Zhang, Will & Champion, Hunter & Sacks, Michael.	Structural and Mechanical Adaptations of Right Ventricle Free Wall Myocardium to Pressure Overload.
2014	O'Leary, Siobhan & Healy, Donagh & Kavanagh, Eamon & Walsh, Michael & Mcgloughlin, Tim & Doyle, Barry.	The Biaxial Biomechanical Behavior of Abdominal Aortic Aneurysm Tissue.
2014	O'Leary, Siobhan & Kavanagh, Eamon & Grace, Pierce & Mcgloughlin, Tim & Doyle, Barry.	The Biaxial Mechanical Behaviour of Abdominal Aortic Aneurysm Intraluminal Thrombus: Classification of Morphology and the Determination of Layer and Region Specific Properties.
2014	O'Leary, Siobhan & Doyle, Barry & Mcgloughlin, Tim.	The impact of long term freezing on the mechanical properties of porcine aortic tissue.

2014	Lopata, Richard & Peters, Mathijs & Nijs, Jan & Oomens, Cees & Rutten, Marcel & van de Vosse, Frans.	Vascular Elastography: A Validation Study.
2013	Huang, Hsiao-Ying & Huang, Siyao & Gettys, Taylor & Prim, Peter & Harrysson, Ola.	A Biomechanical Study of Directional Mechanical Properties of Porcine Skin Tissues.
2013	Zhang, Jin & Bi, Robert & Hodge, William & Yin, Pei & Tse, Wai Hei.	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	Grimes, Kelly & Voorhees, Andrew & Chiao, Ying & Han, Hai-Chao & Lindsey, Merry & Buffenstein, Rochelle.	Cardiac Function of the Naked Mole-rat: Ecophysiological Responses to Working Underground.
2013	O'Leary, Siobhan & Doyle, Barry & Mcgloughlin, Tim.	Comparison of methods used to measure the thickness of soft tissues and their influence on the evaluation of tensile stress.
2013	Sondergaard, Anders & Ivarsen, Anders & Hjortdal, Jesper.	Corneal Resistance to Shear Force After UVA-Riboflavin Cross-Linking.
2013	Weber, Benedikt & Kehl, Debora & Bleul, Ulrich & Behr, Luc & Sammut, Sebastien & Frese, Laura & Ksiazek, Agnieszka & Achermann, Josef & Stranzinger, G.F. & Robert, Jérôme & Sanders, Bart & Sidler, Michele & Brokopp, Chad & Proulx, Steven & Frauenfelder, Thomas & Schoenauer, Roman & Emmert, Maximilian & Falk, Volkmar & Eberhard, Hans-Joachim	In vitro fabrication of autologous living tissue-engineered vascular grafts based on prenatally harvested ovine amniotic fluid-derived stem cells.
2013	Cabrera, Maria & Oomens, Cees & Bouten, Carlijn & Bogers, Ad & Hoerstrup, S & Baaijens, Frank.	Mechanical analysis of ovine and pediatric pulmonary artery for heart valve stent design.
2013	Soares, A & van Geemen, Daphne & Bogaardt, A.J. & Oomens, Cees & Bouten, Carlijn & Baaijens, Frank.	Mechanics of the pulmonary valve in the aortic position.
2013	Sondergaard, Anders & Ivarsen, Anders & Hjortdal, Jesper.	Reduction of Stromal Swelling Pressure after UVA-Riboflavin Cross-Linking.

2012	Valdez-Jasso, Daniela & Simon, Marc & Champion, Hunter & Sacks, Michael.	A murine experimental model for the mechanical behaviour of viable right-ventricular myocardium.
2012	Huang, Hsiao-Ying & Balhouse, Brittany & Huang, Siyao.	Application of simple biomechanical and biochemical tests to heart valve leaflets: Implications for heart valve characterization and tissue engineering.
2012	Holmes, Michael & Howarth, Samuel & Callaghan, Jack & Keir, Peter.	Biomechanical properties of the transverse carpal ligament under biaxial strain.
2012	Argento, G. & Simonet, Marc & Oomens, Cees & Baaijens, Frank.	Multi-scale mechanical characterization of scaffolds for heart valve tissue engineering.
2011	Gregory, Diane & Callaghan, Jack.	A Comparison of Uniaxial and Biaxial Mechanical Properties of the Annulus Fibrosus: A Porcine Model.
2011	Gregory, Diane & Callaghan, Jack.	An examination of the mechanical properties of the annulus fibrosus: The effect of vibration on the intra-lamellar matrix strength.
2011	Gregory, Diane & Callaghan, Jack.	Does Vibration Influence the Initiation of Intervertebral Disc Herniation? An Examination of Herniation Occurrence Using a Porcine Cervical Disc Model.
2011	Gregory, Diane & Veldhuis, Jim & Horst, Caleb & Brodland, G. & Callaghan, Jack.	Novel lap test determines the mechanics of delamination between annular lamellae of the intervertebral disc.
2011	Davis, Taylor & Zhang, Jin & Herrera, Jose.	Surfactant Assisted Incorporation of Single-Walled Carbon Nanotubes into a Chitosan-Polyvinylpyrrolidone Polymer.
2010	Gregory, Diane & Callaghan, Jack.	An Examination of the Influence of Strain Rate on Subfailure Mechanical Properties of the Annulus Fibrosus.
2010	Eilaghi, Armin & Flanagan, John & Tertinegg, Inka & Simmons, Craig & Brodland, G. & Ethier, C.	Biaxial mechanical testing of human sclera.
2010	Eilaghi, A.	Effects of scleral stiffness on biomechanics of the optic nerve head in glaucoma.
2010	Eilaghi, Armin & Flanagan, John & Simmons, Craig & Ethier, C.	Effects of Scleral Stiffness Properties on Optic Nerve Head Biomechanics.

2009	Beachley, Vince & Wen, Xuejun.	Fabrication of Nanofiber Reinforced Protein Structures For Tissue Engineering. Materials science & engineering.
2009	Eilaghi, Armin & Flanagan, John & Brodland, G & Ethier, C.	Strain Uniformity in Biaxial Specimens is Highly Sensitive to Attachment Details.
2009	Gregory, Diane.	The Influence Of The Tensile Material Properties Of Single Annulus Fibrosus Lamellae And The Interlamellar Matrix Strength On Disc Herniation And Progression.