Year	Author	Title
2023	Ohguro, Hiroshi; Watanabe, Megumi; Sato, Tatsuya; Hikage, Fumihito; Furuhashi, Masato; Okura, Masae; Hida, Tokimasa; Uhara, Hisashi	3D Spheroid Configurations Are Possible Indictors 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-Rossemary; 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; Arbănaşi, Emil M.; Tripon, Robert G.; Suzuki, Shuko; Chirilă, Traian V.; Bățagă, 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; Oswalt, 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, Weiyi; 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.; Bouten, Carlijn V. C.; Kluin, Jolanda	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	Arbănaşi, Emil-Marian; Suzuki, Shuko; Ciucanu, Claudiu Constantin; Mureşan, Adrian Vasile; Coşarcă, Cătălin Mircea; Chirilă, Traian Vasile; Ion, Alexandru Petru; Arbănaşi, 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-pentenoic acid co-crosslinking with improved antithrombogenicity and cytocompatibility.
2022	Benfridja, I., Diaham, 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, Emídio & 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	Ramburrun, 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 & García-Gareta, 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 hyperelatsic 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-Neprilysin 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 & Ardona, 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	Whittal, 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 & Czyrnyj, Catriona & Romain, Ron & Mclean, Linda & Foottit, 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 maladapts 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 maladapts: 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, Rheal & 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, Rheal & 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 Haaften, 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 & Sugerman, 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	Smoljkic, Marija & Verbrugghe, 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 & Hoerstrup, 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.

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2017	Kamenskiy, Alexey & Seas, Andreas & Deegan, Paul & Poulson, William & Anttila, Eric & Sim, Sylvie & Desyatova, Anastasia & Mactaggart, Jason.	Constitutive description of human femoropopliteal artery aging.
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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.
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