

Year	Author	Title
2023	Zhou, Tao; Yuk, Hyunwoo; Hu, Faqi; Wu, Jingjing; Tian, Fajuan; Roh, Heejung; Shen, Zequn; Gu, Guoying; Xu, Jingkun; Lu, Baoyang; Zhao, Xuanhe	3D printable high-performance conducting polymer hydrogel for all-hydrogel bioelectronic interfaces
2023	Klarmann, George J.; Piroli, Maria E.; Loverde, Joseph R.; Nelson, Andrew F.; Li, Zhaozhang; Gilchrist, Kristin H.; Gaston, Joel D.; Ho, Vincent B.	3D printing a universal knee meniscus using a custom collagen ink
2023	Isik, Melis; Karakaya, Ece; Arslan, Tugba Sezgin; Atila, Deniz; Erdogan, Yasar Kemal; Arslan, Yavuz Emre; Eskizengin, Hakan; Eylem, Cemil Can; Nemutlu, Emirhan; Ercan, Batur; D'Este, Matteo;	3D Printing of Extracellular Matrix-Based Multicomponent, All-Natural, Highly Elastic, and Functional Materials toward Vascular Tissue Engineering
2023	Lojek, Neal M.; Williams, Victoria A.; Rogers, Andrew M.; Sajo, Erno; Black, Bryan J.; Ghezzi, Chiara E.	A 3D In Vitro Cortical Tissue Model Based on Dense Collagen to Study the Effects of Gamma Radiation on Neuronal Function
2023	Monavari, Mahshid; Homaeigohar, Shahin; Medhekar, Rucha; Nawaz, Qaisar; Monavari, Mehran; Zheng, Kai; Boccaccini, Aldo R.	A 3D-Printed Wound-Healing Material Composed of Alginate Dialdehyde–Gelatin Incorporating Astaxanthin and Borate Bioactive Glass Microparticles
2023	Fadle Aziz, Monir Riasad; Wlodarek, Lukasz; Alibhai, Faisal; Wu, Jun; Li, Shuhong; Sun, Yu; Santerre, J. Paul; Li, Ren-Ke	A Polypyrrole-Polycarbonate Polyurethane Elastomer Alleviates Cardiac Arrhythmias via Improving Bio-Conductivity
2023	Williamson, Patrick; Garcia, Mason; Momenzadeh, Kaveh; Abbasian, Mohammadreza; Kheir, Nadim; Stewart, Isabella; DeAngelis, Joseph P.; Ramappa, Arun J.; Nazarian, Ara	A Validated Three-Dimensional, Heterogenous Finite Element Model of the Rotator Cuff and The Effects of Collagen Orientation
2023	Sousa-Ortega, Ana; Vázquez-Marín, Javier; Sanabria-Reinoso, Estefanía; Corbacho, Jorge; Polvillo, Rocío; Campoy-López, Alejandro; Buono, Lorena; Loosli, Felix; Almuedo-Castillo, María;	A Yap-dependent mechanoregulatory program sustains cell migration for embryo axis assembly
2023	Wonski, Bryan T.; Patel, Bijal; Tepper, Donna G.; Siddiqui, Aamir; Kabbani, Loay S.; Lam, Mai T.	Adipose-derived stem cells significantly increases collagen level and fiber maturity in patient-specific biological engineered blood vessels
2023	Liu, Jia-hua; Mao, Zhengyi; Chen, Yuhan; Long, Yunchen; Wu, Haikun; Shen, Junda; Zhang, Rong; Yeung, Oscar W. H.; Zhou, Binbin; Zhi, Chunyi; Lu, Jian; Yang Li, Yang	Amorphous biomineral-reinforced hydrogels with dramatically enhanced toughness for strain sensing
2023	Hartquist, Chase M.; Lin, Shaoting; Zhang, James H.; Wang, Shu; Rubinstein, Michael; Zhao, Xuanhe	An elastomer with ultrahigh strain-induced crystallization
2023	Fischinger, Isaak; Reifeltshammer, Sophia A.; Seiler, Theo G.; Nambiar, Malavika H.; Komninou, Maria A.; Büchler, Philippe; Wendelstein, Jascha; Langenbacher, Achim; Bolz, Matthias	Analysis of Biomechanical Response After Corneal Crosslinking with Different Fluence Levels in Porcine Corneas
2023	Shahin-Shamsabadi, Alireza; Cappuccitti, John	Anchored Cell Sheet Engineering: A Novel Scaffold-Free Platform for in vitro Modeling
2023	Deller, Robert C.; Li, Man; Doherty, Kyle G.; Aveyard, Jenny; Williams, Rachel L.; Kolegraff, Keli N.; Kaye, Stephen B.; D'Sa, Raechelle A.	Antimicrobial Effect of Nitric Oxide Releasing Hydrogels on Staphylococcus Aureus Derived Proteases

2023	Papaioannou, Anna; Vasilaki, Evangelia; Loukelis, Konstantinos; Papadogianni, Dana; Chatzinikolaidou, Maria; Vamvakaki, Maria	Bioactive and biomimetic 3D scaffolds for bone tissue engineering using graphitic carbon nitride as a sustainable visible light photoinitiator
2023	Reed, Cassandra; Huynh, Tai; Schluns, Jacob; Phelps, Payton; Hestekin, Jamie; Wolchok, Jeffrey C.	Cell-Derived Extracellular Matrix Fiber Scaffolds Improve Recovery from Volumetric Muscle Loss
2023	Baran, Erkan T; Tahmasebifar, Aydin; Yilmaz, Bengi	Co-axial electrospinning of PLLA shell, collagen core nanofibers for skin tissue engineering
2023	Briar, K. Josh; Gregory, Diane E.	Combined flexion and compression negatively impact the mechanical integrity of the annulus fibrosus
2023	Chen, Hang; Yang, Guangze; Sun, Yingzhi; Xu, Yichao; Liu, Mingjie	Continuous preparation of strong and tough PVA nanocomposite fibers by mechanical stretching-assisted salting-out treatment
2023	Zhang, Xiaoyu; Sun, Ling; Chen, Lingfeng; Zhang, Chaoqin; Xian, Yiyong; Aruma, Aruma; Wei, Ruoyan; Shen, Yang; Chen, Weiyi; Zhou, Xingtao	Corneal biomechanical stiffness and histopathological changes after in vivo repeated accelerated corneal cross-linking in cat eyes
2023	Crouch, Devon J.; Sheridan, Carl M.; Behnsen, Julia G.; D'Sa, Raechelle A.; Bosworth, Lucy A.	Cryo-Electrospinning Generates Highly Porous Fiber Scaffolds Which Improves Trabecular Meshwork Cell Infiltration
2023	Sree, Vivek D.; Toaquiza-Tubon, John D.; Payne, Jordanna; Solorio, Luis; Tepole, Adrian Buganza	Damage and Fracture Mechanics of Porcine Subcutaneous Tissue Under Tensile Loading
2023	Nambiar, Malavika H.; Seiler, Theo G.; Senti, Sebastian; Liechti, Layko; Müller, Fabian; Studer, Harald; Roy, Abhijit S.; Büchler, Philippe	Depth-dependent mechanical properties of the human cornea by uniaxial extension
2023	Nambiar, Malavika; Seiler, Theo G; Büchler, Philippe	Depth-dependent, experimental characterization of the human corneal stroma
2023	Hossain, Md Lokman; Lim, Lee Yong; Hammer, Katherine; Hettiarachchi, Dhanushka; Locher, Cornelia	Design, Preparation, and Physicochemical Characterisation of Alginate-Based Honey-Loaded Topical Formulations
2023	Yildiz, Gulsah; Arslan, Yavuz Emre; Derkus, Burak; Sezgin, Billur; Menciloglu, Yusuf Ziya; Bayar, Gurkan Rasit	Development and characterization of skin substitutes from electrospun polycaprolactone/silk fibroin
2023	Yilmaz, Hilal Deniz; Cengiz, Ugur; Derkus, Burak; Arslan, Yavuz Emre	Development of plant-based biopolymer coatings for 3D cell culture: boron-silica-enriched quince seed mucilage nanocomposites
2023	Zhang, Xiaoyu; Wang, Hongwei; Sun, Xiuli; Zhao, Long; Li, Tan; Qi, Xia; Wang, Ting; Zhou, Qingjun; Shi, Weiyun	Development of Thermoplastic Polyurethane Films for the Replacement of Corneal Endothelial Function of Transparency Maintenance
2023	Deniz Dalgic, Ali; Atila, Deniz; Tezcaner, Aysen; Gürses, Senih; Keskin, Dilek	Diatom silica frustules-doped fibers for controlled release of melatonin for bone regeneration

2023	Zheng, Cheng; Huang, Xueyu; Ding, Kailei; Kuang, Dajun; Yang, Li; Wang, Yunbing; Zhang, Xingdong	Double bond crosslinked and phosphocholinated biological heart valve with robust antithrombogenicity, durability and anticalcification property
2023	Kundapur, Karthik; Unnikrishnan, Vinu U.	Effect of liquid inclusions on the elasto-mechanical properties of solid-liquid composites
2023	Danos, Nicole; Patrick, Marjorie; Barretto, Jacob; Bilotta, Francesca; Lee, Megan	Effects of pregnancy and lactation on muscle-tendon morphology
2023	Philpott, Holly T.; Blackler, Garth; Daniel Klapak, Joseph; Pitchers, Kyle K.; Tomlinson, Madison; Smith, Niall; Viehweger, Jaclyn; Umoh, Joseph U.; Holdsworth, David W.; Maerz, Tristan; Thomas Appleton,	Effects of risk factors on evoked pain patterns in rat models of experimental knee osteoarthritis
2023	Kalkunte, Nikhith G.; Delambre, Talia E.; Sohn, Sogu; Pickett, Madison; Parekh, Sapun; Zoldan, Janet	Engineering Alignment Has Mixed Effects on Human Induced Pluripotent Stem Cell Differentiated Cardiomyocyte Maturation
2023	Hossan, Mohammad Robiul; Barot, Vishal; Harriet, Seth; Peters, Lauren; Matsayko, Alex Christopher; Bauer, Andrew; Hossain, Khalid	Engineering Analysis of Non-Braided Polycaprolactone Bioresorbable Flow Diverters for Aneurysms
2023	Han, Seokgyu; Lee, Myung Chul; Rodríguez-delaRosa, Alejandra; Kim, Jiseong; Barroso-Zuppa, Margot; Pineda-Rosales, Montserrat; Kim, Seong Soo; Hatanaka, Takaaki; Yazdi, Iman K.; Bassous, Nicole;	Engineering Stem Cell Fate Controlling Biomaterials to Develop Muscle Connective Tissue Layered Myofibers
2023	Samancioglu, Aybuke; Aydin, Beyza; Ozudogru, Eren; Arslan, Yavuz Emre	Evaluating the angiogenic and mechanical properties of hydrogels and physical constructs derived from spinal cord meninges extracellular matrix
2023	Youssef, Lucia; Renner-Rao, Max; Eren, Egemen Deniz; Jehle, Franziska; Harrington, Matthew J.	Fabrication of Tunable Mechanical Gradients by Mussels via Bottom-Up Self-Assembly of Collagenous Precursors
2023	Sengupta, Debarun; Lu, Liqiang; Gomes, Diego Ribas; Jayawardhana, Bayu; Pei, Yutao; Kottapalli, Ajay Giri Prakash	Fabric-like Electrospun PVAc–Graphene Nanofiber Webs as Wearable and Degradable Piezocapacitive Sensors
2023	Wu, Dong; Wu, Shuwang; Narongdej, Poom; Duan, Sidi; Chen, Chi; Yan, Yichen; Liu, Zixiao; Hong, Wen; Frenkel, Imri; He, Ximin	Fast and Facile Liquid Metal Printing via Projection Lithography for Highly Stretchable Electronic Circuits
2023	Miller, Chelsea; Sask, Kyla N.	Fetuin-A adsorption to tunable polydimethylsiloxane and subsequent macrophage response
2023	E. Machnicki, Catherine; M. DuBois, Eric; Fay, Meg; Shrestha, Snehi; L. Saleeba, Zachary S. S.; M. Hruska, Alex; Ahmed, Zahra; Srivastava, Vikas; Chen, Po-Yen; Y. Wong, Ian	Graphene oxide nanosheets augment silk fibroin aerogels for enhanced water stability and oil adsorption
2023	Mao, Zhengyi; Chen, Yingxian; Li, Gan; Duan, Xiaoguang; Shen, Junda; Han, Yicheng; Li, Lanxi; Chen, Zhou; Liu, Hui; Lu, Jian	Highly interconnected sponge with optimized water absorption and thermal conductivity for efficient solar desalination
2023	Saunders, Niamh; Gunawardhana, Karnasooriya Ragalage Sanjaya Dinuwan; Magre Colorado, Luz Alejandra; Baberwal, Sonal Santosh; Coyle, Shirley	Hit the Ground Running—Wearable Sensors to Measure Foot Plantar Pressure

2023	Wonski, Bryan T.; Fisher, Bruce; Lam, Mai T.	Hydrogel Coating Optimization to Augment Engineered Soft Tissue Mechanics in Tissue-Engineered Blood Vessels
2023	Barbosa, Frederico; Garrudo, Fábio F. F.; Alberte, Paola S.; Resina, Leonor; Carvalho, Marta S.; Jain, Akhil; Marques, Ana C.; Estrany, Francesc; Rawson, Frankie J.; Aléman, Carlos; Ferreira, Frederico	Hydroxyapatite-filled osteoinductive and piezoelectric nanofibers for bone tissue engineering
2023	Clark, Andrew; Kulwatno, Jonathan; Kanovka, Sergey S.; McKinley, Todd O.; Potter, Benjamin K.; Goldman, Stephen M.; Dearth, Christopher L.	In situ forming biomaterials as muscle void fillers for the provisional treatment of volumetric muscle loss injuries
2023	Brissenden, Amanda J; Amsden, Brian G	In situ forming macroporous biohybrid hydrogel for nucleus pulposus cell delivery
2023	Sun, Xiaohao; Wang, Xiao; Di, Tongxin; Liu, Debao	Interfacial properties and strengthening mechanisms of few-layered MXene reinforced Mg-based composites
2023	Kim, Kyung Su; Maeng, Woo-Youl; Kim, Seongchan; Lee, Gyubok; Hong, Minki; Kim, Ga-been; Kim, Jaewon; Kim, Sungeun; Han, Seunghun; Yoo, Jaeyoung; Lee, Hyojin; Lee, Kangwon; Koo, Jahyun	Isotropic conductive paste for bioresorbable electronics
2023	Loukelis, Konstantinos; Machla, Foteini; Bakopoulou, Athina; Chatzinikolaïdou, Maria	Kappa-Carrageenan/Chitosan/Gelatin Scaffolds Provide a Biomimetic Microenvironment for Dentin-Pulp Regeneration
2023	Zhang, Kewen; Qiu, Wuxia; Li, Hui; Li, Jun; Wang, Pai; Chen, Zhihao; Lin, Xiao; Qian, Airong	MACF1 overexpression in BMSCs alleviates senile osteoporosis in mice through TCF4/miR-335–5p signaling pathway
2023	Toaquiza Tubon, John; Sree, Vivek D.; Payne, Jordanna; Solorio, Luis; Tepole, Adrian Buganza	Mechanical damage in porcine dermis: Micro-mechanical model and experimental characterization
2023	Griffanti, Gabriele; McKee, Marc D.; Nazhat, Showan N.	Mineralization of Bone Extracellular Matrix-like Scaffolds Fabricated as Silk Sericin-Functionalized Dense Collagen–Fibrin Hybrid Hydrogels
2023	Chitrakar, Chandani; Torres, Marc Anthony; Rocha-Flores, Pedro Emanuel; Hu, Qichan; Ecker, Melanie	Multifaceted Shape Memory Polymer Technology for Biomedical Application: Combining Self-Softening and Stretchability Properties
2023	Shiroud Heidari, Behzad; Muiños Lopez, Emma; Harrington, Emma; Ruan, Rui; Chen, Peilin; Davachi, Seyed Mohammad; Allardyce, Benjamin; Rajkhowa, Rangam; Dilley, Rodney; Granero-Moltó,	Novel hybrid biocomposites for tendon grafts: The addition of silk to polydioxanone and poly(lactide-co-caprolactone) enhances material properties, in vitro and in vivo biocompatibility
2023	Zhu, Qiong; Fu, Yesheng; Cui, Chun-Ping; Ding, Yi; Deng, Zhikang; Ning, Chao; Hu, Fan; Qiu, Chen; Yu, Biyue; Zhou, Xuemei; Yang, Guan; Peng, Jiang; Zou, Weiguo; Liu, Cui Hua; Zhang, Lingqiang	OTUB1 promotes osteoblastic bone formation through stabilizing FGFR2
2023	Nambiar, Malavika H.; Liechti, Layko; Studer, Harald; Roy, Abhijit S.; Seiler, Theo G.; Büchler, Philippe	Patient-specific finite element analysis of human corneal lenticles: An experimental and numerical study
2023	Patil, Suryaji; Gao, Yong-Guang; Qian, Airong	Peptide-modified PAMAM-based bone-targeting RNA delivery system

2023	Couvrette, Lauren J.; Walker, Krystal L. A.; Bui, Tuan V.; Pelling, Andrew E.	Plant Cellulose as a Substrate for 3D Neural Stem Cell Culture
2023	Kim, Chanwoo; Hwang, Eunseung; Kwon, Jinhyeong; Jang, Tae Hwan; Lee, Won Chul; Kim, Shi Hyeong; Park, Jongmin; Lee, Ming-Tsang; Kim, Hyun; Hong, Sukjoon; Lee, Habeom	Plastic Shavings by Laser: Peeling Porous Graphene Springs for Multifunctional All-Carbon Applications
2023	Sigwadi, Rudzani; Nemavhola, Fulufhelo	Polyvinyl Alcohol/Nafion®–Zirconia Phosphate Nanocomposite Membranes for Polymer Electrolyte Membrane Fuel Cell Applications: Synthesis and Characterisation
2023	Di Trani, Nicola; Masini, Attilio; Bo, Tommaso; Paci, Marco Maria; Batra, Jaskirat Singh; Reggiani, Maurizio; Grattoni, Alessandro	Probing Physicochemical Performances of 3D Printed Carbon Fiber Composites During 8-Month Exposure to Space Environment
2023	Nasseri, Rasool; Bouzari, Negin; Huang, Junting; Golzar, Hossein; Jankhani, Sarah; Tang, Xiaowu (Shirley); Mekonnen, Tizazu H.; Aghakhani, Amirreza; Shahsavan, Hamed	Programmable nanocomposites of cellulose nanocrystals and zwitterionic hydrogels for soft robotics
2023	Dawson, Chloe; Xu, Fei; Hoare, Todd	Reactive Cell Electrospinning of Anisotropically Aligned and Bilayer Hydrogel Nanofiber Networks
2023	He, Shaochun; Li, Junting; Cao, Xundan; Xie, Fei; Yang, Hui; Wang, Cheng; Bittencourt, Carla; Li, Wenjiang	Regenerated cellulose/chitosan composite aerogel with highly efficient adsorption for anionic dyes
2023	Khan, Muhammad Rafique; Liao, Shiqin; Farooq, Amjad; Naeem, Muhammad Awais; Wasim, Muhammad; Wei, Qufu	Regeneration and modification of cellulose acetate from cigarette waste: Biomedical potential by encapsulation of tetracycline hydrochloride
2023	Gong, Jue; Borecki, Aneta; Gillies, Elizabeth R.	Self-Immolative Hydrogels with Stimulus-Mediated On–Off Degradation
2023	Li, Yi; Villada, Andres; Lu, Shao-Hao; Sun, He; Xiao, Jianliang; Wang, Xueju	Soft, flexible pressure sensors for pressure monitoring under large hydrostatic pressure and harsh ocean environments
2023	Bai, Xue; Wang, Dan; Wang, Bin; Zhang, Xiao; Bai, Yan; Zhang, Xinying; Tian, Ruoyuan; Li, Caihua; Yi, Qiying; Cheng, Yao; He, Sirong	Staphylococcal protein A-modified hydrogel facilitates in situ immunomodulation by capturing anti-HMGB1 for islet grafts
2023	Duman, Osman; Diker, Ceren Özcan; Güreşir, Süleyman Mert; Cengiz, Uğur; Tunç, Sibel	Superhydrophobic melamine sponge-sorbent fabricated using WS ₂ , halloysite nanotube, octyltriethoxysilane, tetraethoxysilane, and polydimethylsiloxane for the selective uptake of oil from water
2023	Abdollahi, Sorosh; Stephens, Emma D.; Uy, Milcah A.; Fatehi Hassanabad, Ali; Fedak, Paul W. M.; Badv, Maryam	Super-Repellent and Flexible Lubricant-Infused Bacterial Nanocellulose Membranes with Superior Antithrombotic, Antibacterial, and Fatigue Resistance Properties
2023	Chow, Noah; Gregory, Diane E.	The effect of intervertebral disc damage on the mechanical strength of the annulus fibrosus in the adjacent segment
2023	Adelfio, Miryam; Martin-Moldes, Zaira; Erndt-Marino, Joshua; Tozzi, Lorenzo; Duncan, Margaret J.; Hasturk, Hatice; Kaplan, David L.; Ghezzi, Chiara E.	Three-Dimensional Humanized Model of the Periodontal Gingival Pocket to Study Oral Microbiome

2023	Yan, Yichen; Duan, Sidi; Liu, Bo; Wu, Shuwang; Alsaïd, Yousif; Yao, Bowen; Nandi, Sunny; Du, Yingjie; Wang, Ta-Wei; Li, Yuzhang; He, Ximin	Tough Hydrogel Electrolytes for Anti-Freezing Zinc-Ion Batteries
2023	Shahriar, S. M. Shatil; Polavoram, Navatha Shree; Andrabi, Syed Muntazir; Su, Yajuan; Lee, Donghee; Tran, Huy Quang; Schindler, Samantha J.; Xie, Jingwei	Transforming layered 2D mats into multiphasic 3D nanofiber scaffolds with tailored gradient features for tissue regeneration
2023	Thai, Victoria L.; Candelas, Diego O.; Leach, J. Kent	Tuning the Microenvironment to Create Functionally Distinct Mesenchymal Stromal Cell Spheroids
2023	Ittycheri, Abraham; Lipsky, Zachary W.; Hookway, Tracy A.; German, Guy K.	Ultraviolet light induces mechanical and structural changes in full thickness human skin
2023	Liu, Xinyue; Zhang, Lenan; El Fil, Bachir; Díaz-Marín, Carlos D.; Zhong, Yang; Li, Xiangyu; Lin, Shaoting; Wang, Evelyn N.	Unusual Temperature Dependence of Water Sorption in Semicrystalline Hydrogels
2022	De Maio, F., Rosa, E., Perini, G., Augello, A., Niccolini, B., Ciaiola, F., ... & Papi, M.	3D-Printed graphene polylactic acid devices resistant to SARS-CoV-2: sunlight-mediated sterilization of additive manufactured objects.
2022	Seyrek, A., Günal, G., & Aydin, H. M.	Development of Antithrombogenic ECM-Based Nanocomposite Heart Valve Leaflets.
2022	Donner, R., Laggner, M., Aschauer, J., Lammer, J., & Schmidinger, G.	Identification of Treatment Protocols for Effective Cross-Linking of the Peripheral Cornea: An Experimental Study.
2022	Yang, F., Guo, G., & Wang, Y.	Inflammation-triggered dual release of nitroxide radical and growth factor from heparin mimicking hydrogel-tissue composite as cardiovascular implants for anti-coagulation, endothelialization, anti-inflammation, and anti-calcification.
2022	Chen, Z., Huai, Y., Chen, G., Liu, S., Zhang, Y., Li, D., ... & Qian, A.	MiR-138-5p Targets MACF1 to Aggravate Aging-related Bone Loss.
2022	Freeman, S., Kibler, K., Lipsky, Z., Jin, S., German, G. K., & Ye, K.	Systematic evaluating and modeling of SARS-CoV-2 UVC disinfection.
2022	Wu, S., Wang, T. W., Du, Y., Yao, B., Duan, S., Yan, Y., ... & He, X.	Tough, anti-freezing and conductive ionic hydrogels.
2022	Xue, W., Yu, S. Y., Kuss, M., Kong, Y., Shi, W., Chung, S., ... & Duan, B.	3D bioprinted white adipose model for in vitro study of cancer-associated cachexia induced adipose tissue remodeling.
2022	Jiang, X., Kong, Y., Kuss, M., Weisenburger, J., Haider, H., Harms, R., ... & Duan, B	3D bioprinting of multilayered scaffolds with spatially differentiated ADMSCs for rotator cuff tendon-to-bone interface regeneration.
2022	Marques, D. M., Silva, J. C., Serro, A. P., Cabral, J. M., Sanjuan-Alberte, P., & Ferreira, F. C.	3D bioprinting of novel κ-carrageenan bioinks: An algae-derived polysaccharide.

2022	Zheng, C., Ding, K., Huang, X., Yang, L., Lei, Y., & Wang, Y.	A bioprosthetic heart valve prepared by copolymerization of 2-isocyanatoethyl methacrylate modified pericardium and functional monomer.
2022	Xue, W., Shi, W., Kuss, M., Kong, Y., Alimi, O. A., Wang, H. J., ... & Duan, B	A Dual-Network Nerve Adhesive with Enhanced Adhesion Strength Promotes Transected Peripheral Nerve Repair.
2022	Zheng, C., Kuang, D., Ding, K., Huang, X., Fan, H., Yang, L., ... & Zhang, X.	A functionalized biological heart valve by double bond crosslinking with enhanced biocompatibility and antithrombogenicity.
2022	Ge, Y., Guo, G., Liu, K., Yang, F., Yang, L., Wang, Y., & Zhang, X.	A strategy of functional crosslinking acellular matrix in blood-contacting implantable devices with recombinant humanized collagen type III (rhCOLIII).
2022	Acosta, F. M., Howland, K. K., Stojkova, K., Hernandez, E., Brey, E. M., & Rathbone, C. R.	Adipogenic differentiation alters properties of vascularized tissue-engineered skeletal muscle.
2022	Wang, X., Tian, Y., Liang, X., Yin, C., Huai, Y., Zhao, Y., ... & Qian, A.	Bergamottin promotes osteoblast differentiation and bone formation via activating the Wnt/ β -catenin signaling pathway.
2022	Maiorana, C. H., Jotawar, R. A., & German, G. K.	Biomechanical fracture mechanics of composite layered skin-like materials.
2022	Sanchez-Mata, O., Wang, X., Muñiz-Lerma, J. A., Atabay, S. E., Shandiz, M. A., & Brochu, M.	Characterization of the microstructure and mechanical properties of highly textured and single crystal Hastelloy X thin struts fabricated by laser powder bed fusion.
2022	Park, H., Cooke, M. E., Lacombe, J. G., Weber, M. H., Martineau, P. A., Nazhat, S. N., & Rosenzweig, D. H.	Continuous Two-Zone In Vitro Co-culture Model of the Enthesis.
2022	Richbourg, N. R., Rausch, M. K., & Peppas, N. A.	Cross-evaluation of stiffness measurement methods for hydrogels.
2022	Deng, N., Li, J., Lyu, H., Huang, R., Liu, H., & Guo, C.	Degradable silk-based soft actuators with magnetic responsiveness.
2022	Briar, K. J., McMorrin, J. G., & Gregory, D. E.	Delamination of the Annulus Fibrosus of the Intervertebral Disc: Using a Bovine Tail Model to Examine Effect of Separation Rate.
2022	Zhang, B., Nguyen, A. K., Narayan, R. J., & Huang, J.	Direct ink writing of vancomycin-loaded polycaprolactone/polyethylene oxide/hydroxyapatite 3D scaffolds.
2022	Yu, X., Cheng, Y., Zhang, H., Zhang, J., Gao, M., Xu, C., ... & Zhu, M.	Dorsoventral gradient hydrogel fiber actuators visualized by AIEgen-conjugated nanoparticles.
2022	Song, J., Li, Q., Chen, P., Keshavarz, B., Chapman, B. S., Tracy, J. B., ... & Holten-Andersen, N.	Dynamics of dual-junction-functionality associative polymer networks with ion and nanoparticle metal-coordinate cross-link junctions.

2022	Kalkunte, N., Delambre, T., Sohn, S., Pickett, M., Parekh, S. H., & Zoldan, J.	Engineering Alignment has Mixed Effects on hiPSC-CM Maturation.
2022	Miller, C., & Sask, K. N.	Fetuin-A adsorption to tunable polydimethylsiloxane and subsequent macrophage response.
2022	Yao, B., Wu, S., Wang, R., Yan, Y., Cardenas, A., Wu, D., ... & He, X	Hydrogel Ionotronics with Ultra-Low Impedance and High Signal Fidelity across Broad Frequency and Temperature Ranges.
2022	Kotturi, H., Lopez-Davis, C., Nikfarjam, S., Kedy, C., Byrne, M., Barot, V., & Khandaker, M.	Incorporation of Mycobacteriophage Fulbright into Polycaprolactone Electrospun Nanofiber Wound Dressing.
2022	Ngwangwa, H. M., Lebea, L., Nemavhola, F., Pandelani, T., & Modungwa, D.	Investigation of the performance of different constitutive models on omasum uniaxial tensile behaviour.
2022	Loukelis, K., Papadogianni, D., & Chatzinikolaidou, M.	Kappa-carrageenan/chitosan/gelatin scaffolds enriched with potassium chloride for bone tissue engineering.
2022	Park, H., Nazhat, S. N., & Rosenzweig, D. H.	Mechanical activation drives tenogenic differentiation of human mesenchymal stem cells in aligned dense collagen hydrogels.
2022	Chien, P. Y., Martins, J. N., Walsh, L. J., & Peters, O. A.	Mechanical and Metallurgical Characterization of Nickel-Titanium Wire Types for Rotary Endodontic Instrument Manufacture.
2022	Morejon, A., Mantero, A. M. A., Best, T. M., Jackson, A. R., & Travascio, F.	Mechanisms of energy dissipation and relationship with tissue composition in human meniscus.
2022	Yu, X., Hu, Y., Shi, H., Sun, Z., Li, J., Liu, H., ... & Guo, C	Molecular Design and Preparation of Protein-Based Soft Ionic Conductors with Tunable Properties.
2022	Janvier, A. J., Pendleton, E. G., Mortensen, L. J., Green, D. C., Henstock, J. R., & Canty-Laird, E. G.	Multimodal analysis of the differential effects of cyclic strain on collagen isoform composition, fibril architecture and biomechanics of tissue engineered tendon.
2022	Navarro-López, D. E., Sánchez-Huerta, T. M., Flores-Jimenez, M. S., Tiwari, N., Sanchez-Martinez, A., Ceballos-Sanchez, O., ... & López-Mena, E. R.	Nanocomposites based on doped ZnO nanoparticles for antibacterial applications.
2022	John, J. V., McCarthy, A., Su, Y., Ackerman, D. N., Shahriar, S. S., Carlson, M. A., ... & Xie, J.	Nanofiber capsules for minimally invasive sampling of biological specimens from gastrointestinal tract.
2022	Dalgic, A. D., Koman, E., Karatas, A., Tezcaner, A., & Keskin, D.	Natural origin bilayer pullulan-PHBV scaffold for wound healing applications.
2022	Nambiar, M. H., Liechti, L., Müller, F., Bernau, W., Studer, H., Roy, A. S., ... & Büchler, P.	Orientation and depth dependent mechanical properties of the porcine cornea: Experiments and parameter identification.

2022	Lyu, H., Sun, Z., Liu, Y., Yu, X., & Guo, C.	Processing-structure-properties relationships of glycerol-plasticized silk films.
2022	Atila, D., Karataş, A., Keskin, D., & Tezcaner, A.	Pullulan hydrogel-immobilized bacterial cellulose membranes with dual-release of vitamin C and E for wound dressing applications.
2022	Sim, K. H., Mir, S. M., Jelke, S., Tarafder, S., Kim, J., & Lee, C. H.	Quantum dots-labeled polymeric scaffolds for in vivo tracking of degradation and tissue formation.
2022	Wang, L., Lyu, H., Zhang, X., Xiao, Y., Li, A., Ma, Z., ... & Pei, Y.	Revealing the aggregation behaviors of mesostructured collagen by the evaluation of reconstituted collagen performance.
2022	Wu, D., Yao, B., Wu, S., Hingorani, H., Cui, Q., Hua, M., ... & He, X.	Room-Temperature Annealing-Free Gold Printing via Anion-Assisted Photochemical Deposition.
2022	Lyu, H., Li, J., Yuan, Z., Liu, H., Sun, Z., Jiang, R., ... & Guo, C.	Supertough and highly stretchable silk protein-based films with controlled biodegradability.
2022	Whittal, M. C., Poynter, S. J., Samms, K., Briar, K. J., Sinopoli, S. I., Millecamps, M., ... & Gregory, D. E.	TAK-242 treatment and its effect on mechanical properties and gene expression associated with IVD degeneration in SPARC-null mice.
2022	Wissing, T. B., Van der Heiden, K., Serra, S. M., Smits, A. I. P. M., Bouten, C. V. C., & Gijzen, F. J. H.	Tissue-engineered collagenous fibrous cap models to systematically elucidate atherosclerotic plaque rupture.
2022	Wu, S., Li, Y., Zhang, C., Tao, L., Kuss, M., Lim, J. Y., ... & Duan, B.	Tri-layered and gel-like nanofibrous scaffolds with anisotropic features for engineering heart valve leaflets.
2022	Duan, S., Liu, Z., Wu, S., Hua, M., & He, X.	Tuning structural and mechanical anisotropy of PVA hydrogels.
2021	Senem Buyuksungur, Vasif Hasirci, Nesrin Hasirci	3D printed hybrid bone constructs of PCL and dental pulp stem cells loaded GelMA.
2021	Lindsay Barnum, Jacob Quint, Hossein Derakhshandeh, Mohamadmahdi Samandari, Fariba Aghabaglou, Ali Farzin, Laleh Abbasi, Sidi Bencherif, Adnan Memic, Pooria	3D-Printed Hydrogel-Filled Microneedle Arrays.
2021	Laura K. Rivera-Tarazona, Tarjani Shukla, Kanwar Abhay Singh, Akhilesh K. Gaharwar, Zachary T. Campbell, Taylor H. Ware	4D Printing of Engineered Living Materials.
2021	Patricia Comeau, Thomas Willett	A Carbodiimide Coupling Approach for PEGylating GelMA and Further Tuning GelMA Composite Properties.
2021	Francisca M. Acosta, Kennedy K. Howland, Katerina Stojkova, Elizabeth Hernandez, Eric M. Brey, and Christopher R. Rathbone	Adipogenic Differentiation Alters Properties of Vascularized Tissue-Engineered Skeletal Muscle.

2021	Fulufhelo Nemavhola * ORCID logo , Harry M Ngwangwa , Thanyani Pandelani	An Investigation of Uniaxial Mechanical Properties of Excised Sheep Heart Muscle Fibre – Fitting of Different Hyperelastic Constitutive Models.
2021	Ding, Y., Cui, Y., Yang, X. et al.	Anti-RANKL monoclonal antibody and bortezomib prevent mechanical unloading-induced bone loss.
2021	Gabriele Griffanti, Rayan Fairag, Derek H. Rosenzweig, Lisbet Haglund & Showan N. Nazhat	Automated biofabrication of anisotropic dense fibrin gels accelerate osteoblastic differentiation of seeded mesenchymal stem cells.
2021	Zachary W. Lipsky, Marisa Patsy, Cláudia N. H. Marques, Guy K. German	Bacterial invasion across the human skin barrier – mechanisms and ensuing tissue degradation.
2021	Lebea, Lebohng & Ngwangwa, Harry & Pandelani, Thanyani & Nemavhola, Fulufhelo.	Biomechanical behaviour and hyperelastic model parameters identification of sheep omasum.
2021	Lupe Villegas; James Germann; Susana Marcos	Biomechanical effects of Scleral crosslinking using Rose Bengal/Green-light and Rivoflavin/UVA.
2021	Isaak Fischinger, MD, Theo G. Seiler, MD, Jascha Wendelstein, MD, Kristin Tetz, MD, Barbara Fuchs, MD, and Matthias Bolz, MD	Biomechanical Response After Corneal Cross-linking With Riboflavin Dissolved in Dextran Solution Versus Hydroxypropyl Methylcellulose.
2021	Morejon Andy, Norberg Christopher D., De Rosa Massimiliano, Best Thomas M., Jackson Alicia R., Travascio Francesco	Compressive Properties and Hydraulic Permeability of Human Meniscus: Relationships With Tissue Structure and Composition.
2021	Bijal Patel, Bryan T. Wonski, Dan M. Saliganan, Ali Rteil, Loay S. Kabbani & Mai T. Lam	Decellularized dermis extracellular matrix alloderm mechanically strengthens biological engineered tunica adventitia-based blood vessels.
2021	Tidwell, K.; Harriet, S.; Barot, V.; Bauer, A.; Vaughan, M.B.; Hossan, M.R.	Design and Analysis of a Biodegradable Polycaprolactone Flow Diverting Stent for Brain Aneurysms.
2021	Solaleh Miar MS, Gregory R. Dion MD, Sergio Montelongo PhD, Joo L. Ong PhD, Rena Bizios PhD, Teja Guda PhD	Development of a Bioinspired, Self-Adhering, and Drug-Eluting Laryngotracheal Patch.
2021	Kantida Koysombat, Atikah Haneef	Development of Permanent Artificial Bowel Replacement Substrates.
2021	Valentina Bonito, Suzanne E. Koch, Merle M. Krebber, Daniel A. Carvajal-Berrio, Julia Marzi, Renee Duijvelshoff, Emily B. Lurier, Serena Buscone, Sylvia Dekker, Simone M. J. de Jong, Tristan Mes, Koen R. D.	Distinct Effects of Heparin and Interleukin-4 Functionalization on Macrophage Polarization and In Situ Arterial Tissue Regeneration Using Resorbable Supramolecular Vascular Grafts in Rats.
2021	Wen Shi ^{1,2} , Fang Fang ^{1,3} , Yunfan Kong ^{1,2} , Sydney E Greer ^{1,4} , Mitchell Kuss ^{1,2} , Bo Liu ^{1,2} , Wen Xue ^{1,2} , Xiping Jiang ^{1,4} , Paul Lovell ⁵ , Aaron M Mohs ^{5,6,7} , Andrew T Dudley ^{1,4} , Tieshi Li ^{11,8} and	Dynamic hyaluronic acid hydrogel with covalent linked gelatin as an anti-oxidative bioink for cartilage tissue engineering.
2021	Solaleh Miar, Joo L. Ong, Rena Bizios, and Teja Guda*	Electrically Stimulated Tunable Drug Delivery From Polypyrrole-Coated Polyvinylidene Fluoride.

2021	Alec McCarthy, Kossi Loic M. Avegnon, Phil A. Holubeck, Demi Brown, Anik Karan, Navatha Shree Sharma, Johnson V. John, Shelbie Weihs, Jazmin Ley, Jingwei Xie,	Electrostatic flocking of salt-treated microfibers and nanofiber yarns for regenerative engineering.
2021	Chung-Hao Lee, Yingtao Liu, Marc Moore, Xun Ge & Zahed Siddique	Enhancement of Stay-at-Home Learning for the Biomechanics Laboratory Course During COVID-19 Pandemic.
2021	Xiaohao Sun, Minfang Chen, Debao Liu,	Fabrication and characterization of few-layer graphene oxide reinforced magnesium matrix composites.
2021	Tao Chen, ^a Peiling Wei, ^{*a} Guoyin Chen, ^a Hongmei Liu, ^a Innocent T. Mugaanire, ^a Kai Hou ORCID logo ^{*a} and Meifang Zhu ^{*a}	Heterogeneous structured tough conductive gel fibres for stable and high-performance wearable strain sensors.
2021	Justin D. Hochberg, David M. Wirth, Giovanni Spiaggia, Pooja Shah, Barbara Rothen-Rutishauser, Alke Petri-Fink, and Jonathan K. Pokorski*	High-Throughput Manufacturing of Antibacterial Nanofibers by Melt Coextrusion and Post-Processing Surface-Initiated Atom Transfer Radical Polymerization.
2021	Burak Derkus	Human cardiomyocyte-derived exosomes induce cardiac gene expressions in mesenchymal stromal cells within 3D hyaluronic acid hydrogels and in dose-dependent manner.
2021	Bowen Yao, Shuwang Wu, Ruoxing Wang, Yichen Yan, Anne Cardenas, Dong Wu, Yousif Alsaïd, Wenzhuo Wu, Xinyuan Zhu, Ximin He	Hydrogel Ionotronics with Ultra-Low Impedance and High Signal Fidelity across Broad Frequency and Temperature Ranges.
2021	Kim, S., Regitsky, A.U., Song, J. et al.	In situ mechanical reinforcement of polymer hydrogels via metal-coordinated crosslink mineralization.
2021	Valentina Palmieri, Benedetta Niccolini, Giordano Perini, Alberto Augello, Flavio De Maio, Jacopo Gervasoni, Aniello Primiano, Giovanni Delogu, Marco De Spirito, Massimiliano Papi,	In situ N-acetylcysteine release from polyvinyl alcohol film for moisture-activated food packaging.
2021	Bosworth, L.A.; Doherty, K.G.; Hsuan, J.D.; Cray, S.P.; D'Sa, R.A.; Pineda Molina, C.; Badylak, S.F.; Williams, R.L.	Material Characterisation and Stratification of Conjunctival Epithelial Cells on Electrospun Poly(ϵ -Caprolactone) Fibres Loaded with Decellularised Tissue Matrices.
2021	Gülçin Günal, Meltem Okan, Dincer Gokcen, Tuncer Caykara, and Halil Murat Aydin	Microwave-Assisted Synthesis of Stretchable and Transparent Poly(Ethylene glycol-Sebacate) Elastomers with Autonomous Self-Healing and Capacitive Properties.
2021	Changmin Shao, Junjie Chi, Zhuoyue Chen, Lingyu Sun, Luoran Shang, Yuanjin Zhao, Fangfu Ye,	Nano-imprinted anisotropic structural color graphene films for cardiomyocytes dynamic displaying.
2021	Thais Sousa, Nilabh Kajave, Pengfei Dong, Linxia Gu, Stephanie Florczyk, and Vipuil Kishore	Optimization of Freeze-FRESH Methodology for 3D Printing of Microporous Collagen Constructs.
2021	Menekse Ermis	Photo-crosslinked gelatin methacrylate hydrogels with mesenchymal stem cell and endothelial cell spheroids as soft tissue substitutes.
2021	Shuwang Wu, Mutian Hua, Yousif Alsaïd, Yingjie Du, Yanfei Ma, Yusen Zhao, Chiao-Yueh Lo, Canran Wang, Dong Wu, Bowen Yao, Joseph Strzalka, Hua Zhou, Xinyuan Zhu, Ximin He	Poly(vinyl alcohol) Hydrogels with Broad-Range Tunable Mechanical Properties via the Hofmeister Effect.

2021	Shuwang Wu, Yousif Alsaied, Bowen Yao, Yichen Yan, Yusen Zhao, Mutian Hua, Dong Wu, Xinyuan Zhu, Ximin He	Rapid and scalable fabrication of ultra-stretchable, anti-freezing conductive gels by cononsolvency effect.
2021	Christoff-Tempesta, T., Cho, Y., Kim, DY. et al.	Self-assembly of aramid amphiphiles into ultra-stable nanoribbons and aligned nanoribbon threads.
2021	Meng Gao, Hanxiang Wu, Roshan Plamthottam, Zhixin Xie, Ying Liu, Junhui Hu, Shuwang Wu, Lily Wu, Ximin He, Qibing Pei,	Skin temperature-triggered, debonding-on-demand sticker for a self-powered mechanosensitive communication system.
2021	Zhao, Yusen & Lo, Chiao-Yueh & Ruan, Lecheng & Pi, Chen-Huan & Kim, Cheolgyu & Alsaied, Yousif & Frenkel, Imri & Rico, Rossana & Tsao, Tsu-Chin & He, Ximin.	Somatosensory actuator based on stretchable conductive photothermally responsive hydrogel.
2021	Electrostatic flocking of salt-treated microfibers and nanofiber yarns for regenerative engineering,	Strong tough hydrogels via the synergy of freeze-casting and salting out.
2021	Joseph M. Palomba, David M. Wirth, Jin Yeong Kim, Mark Kalaj, Evan M. Clarke, Gregory W. Peterson, Jonathan K. Pokorski, and Seth M. Cohen	Strong, Ductile MOF–Poly(urethane urea) Composites.
2021	Sidi Duan, Shuwang Wu, Mutian Hua, Dong Wu, Yichen Yan, Xinyuan Zhu, Ximin He,	Tendon-inspired anti-freezing tough gels.
2021	John G. McMorrana Diane E. Gregoryab	The effect of compressive loading rate on annulus fibrosus strength following endplate fracture.
2021	Rudzani Sigwadi * , Touhami Mokrani , Phumlani Msomi ORCID logo , Fulufhelo Nemavhola ORCID logo	The Effect of Sulfated Zirconia and Zirconium Phosphate Nanocomposite Membranes on Fuel Cell Efficiency.
2021	Han, P.; Vaquette, C.; Abdal-hay, A.; Ivanovski, S.	The Mechanosensing and Global DNA Methylation of Human Osteoblasts on MEW Fibers.
2021	T.B. Wissing, K. Van der Heiden, S.M. Serra, A.I.P.M. Smits, C.V.C. Bouten, F.J.H. Gijzen	Tissue-engineered collagenous fibrous cap models to systematically elucidate atherosclerotic plaque rupture.
2021	Khandaker, M.; Progri, H.; Arasu, D.T.; Nikfarjam, S.; Shamim, N.	Use of Polycaprolactone Electrospun Nanofiber Mesh in a Face Mask.
2020	Comeau, P. and Willett, T.	A Carbodiimide Coupling Approach for PEGylating GelMA and Further Tuning GelMA Composite Properties.
2020	Snider, E.J., Cornell, L.E., Acevedo, J.M., Gross, B., Edsall, P.R., Lund, B.J. and Zamora, D.O.	Development and characterization of a Benchtop corneal puncture injury Model.
2020	Jiang, X., Wu, S., Kuss, M., Kong, Y., Shi, W., Streubel, P.N., Li, T. and Duan, B.	3D printing of multilayered scaffolds for rotator cuff tendon regeneration.

2020	Hua, M., Wu, D., Wu, S., Ma, Y., Alsaid, Y. and He, X.	4D Printable Tough and Thermo-responsive Hydrogels.
2020	Currie, H.A., Martin, N.F., Garcia, G.E., Davis, F.M. and Kemp, P.S.	A mechanical approach to understanding the impact of the nematode <i>Anguillicoloides crassus</i> on the European eel swimbladder.
2020	H. Derakhshandeh, D. Aghabaglou, A. McCarthy, A. Mostafavi, C. Wiseman, Z. Bonick, I. Ghanavati, S. Harris, C. Kreikemeier-Bower, S. Basri, J. Rosenbohm, R. Yang, P. Mostafalu, D. Orgill, A. Tamayol	A Wirelessly Controlled Smart Bandage with 3D-Printed Miniaturized Needle Arrays.
2020	Mondal, D., Srinivasan, A., Comeau, P., Toh, Y.C. and Willett, T.L.	Acrylated epoxidized soybean oil/hydroxyapatite-based nanocomposite scaffolds prepared by additive manufacturing for bone tissue engineering.
2020	Wu, S., Kumar, V., Xiao, P., Kuss, M., Lim, J.Y., Guda, C., Butcher, J. and Duan, B.	Age related extracellular matrix and interstitial cell phenotype in pulmonary valves.
2020	Parfenov, V.A., Koudan, E.V., Krokhmal, A.A., Annenkova, E.A., Petrov, S.V., Pereira, F.D., Karalkin, P.A., Nezhurina, E.K., Gryadunova, A.A., Bulanova, E.A. and Sapozhnikov, O.A.	Biofabrication of a Functional Tubular Construct from Tissue Spheroids Using Magnetoacoustic Levitational Directed Assembly.
2020	Ma, Y., Hua, M., Wu, S., Du, Y., Pei, X., Zhu, X., Zhou, F. and He, X.	Bioinspired high-power-density strong contractile hydrogel by programmable elastic recoil.
2020	Bektas, C.K. and Hasirci, V.	Cell loaded 3D bioprinted GelMA hydrogels for corneal stroma engineering.
2020	Rad, R.M., Alshemary, A.Z., Evis, Z., Keskin, D. and Tezcaner, A.	Cellulose acetate-gelatin coated boron-bioactive glass biocomposite scaffolds for bone tissue engineering.
2020	Palomino-Durand, C., Lopez, M., Marchandise, P., Martel, B., Blanchemain, N. and Chai, F.	Chitosan/Polycyclodextrin (CHT/PCD)-Based Sponges Delivering VEGF to Enhance Angiogenesis for Bone Regeneration.
2020	Patel, B., Saliganan, D., Rteil, A., Kabbani, L. and Lam, M.	Decellularized Dermis Extracellular Matrix Alloderm as a Scaffold for Biological Engineered Blood Vessels.
2020	Amiel, A.G., Palomino-Durand, C., Maton, M., Lopez, M., Cazaux, F., Chai, F., Neut, C., Foligné, B., Martel, B. and Blanchemain, N.	Designed sponges based on chitosan and cyclodextrin polymer for a local release of ciprofloxacin in diabetic foot infections.
2020	E. Snider, L. Corneli, J. Acevedo, B. Gross, P. Edsall, B. Lund, D. Zamora	Development and Characterization of a Benchtop Corneal Puncture Injury Model.
2020	Acosta, F.M., Jia, U.T.A., Stojkova, K., Howland, K.K., Guda, T., Pacelli, S., Brey, E.M. and Rathbone, C.R.	Diabetic Conditions Confer Metabolic and Structural Modifications to Tissue-Engineered Skeletal Muscle.
2020	Fathi-Achachelouei, M., Keskin, D., Bat, E., Vrana, N.E. and Tezcaner, A.	Dual growth factor delivery using PLGA nanoparticles in silk fibroin/PEGDMA hydrogels for articular cartilage tissue engineering.

2020	Guner, M.B., Dalgic, A.D., Tezcaner, A., Yilanci, S. and Keskin, D.	Dual phase scaffold produced by rotary jet spinning and electrospinning for tendon tissue engineering. Biomedical Materials.
2020	Brown, M.S., Mendoza, M., Chavoshnejad, P., Razavi, M.J., Mahler, G.J. and Koh, A.	Electronic-ECM: A Permeable Microporous Elastomer for an Advanced Bio-Integrated Continuous Sensing Platform.
2020	Jan, L., Maria, L., Niklas, P., Isaak, F., Christina, H. and Gerald, S.	Endothelial Safety and Efficacy of ex-vivo Collagen Cross Linking (CXL) of Human Corneal Transplants.
2020	Zhang, J., Wu, C., Xu, Y., Chen, J., Ning, N., Yang, Z., Guo, Y., Hu, X. and Wang, Y.	Highly Stretchable and Conductive Self-Healing Hydrogels for Temperature and Strain Sensing and Chronic Wound Treatment.
2020	van Haften, E.E., Wissing, T.B., Kurniawan, N.A., Smits, A.I. and Bouten, C.V.	Human In Vitro Model Mimicking Material-Driven Vascular Regeneration Reveals How Cyclic Stretch and Shear Stress Differentially Modulate Inflammation and Matrix Deposition.
2020	He, Q., Laurence, D.W., Lee, C.H. and Chen, J.S.	Manifold learning based data-driven modeling for soft biological tissues.
2020	Dhandapani, N., Samuelsson, K., Sköld, M., Zohrevand, K. and German, G.K	Mechanical, compositional, and microstructural changes caused by human skin maceration.
2020	G. Isik, N. Hasirci, A. Tezcaner, A. Kiziltay	Multifunctional periodontal membrane for treatment and regeneration purposes.
2020	Curatolo, A., Birkenfeld, J.S., Martinez-Enriquez, E., Germann, J.A., Muralidharan, G., Palaci, J., Pascual, D., Eliasy, A., Abass, A., Solarski, J. and Karnowski, K.	Multi-meridian corneal imaging of air-puff induced deformation for improved detection of biomechanical abnormalities.
2020	Liang, N., Flynn, L.E. and Gillies, E.R.	Neutral, water-soluble poly (ester amide) hydrogels for cell encapsulation.
2020	McCormick, R., Pearce, I., Kaye, S. and Haneef, A.	Optimisation of a Novel Bio-Substrate as a Treatment for Atrophic Age-Related Macular Degeneration.
2020	Modulevsky, D.J., Cuerrier, C.M., Leblanc-Latour, M., Hickey, R.J., Obhi, R.J.K., Shore, I., Galuta, A., Walker, K.L., Tsai, E.C. and Pelling, A.E.	Plant Scaffolds Support Motor Recovery and Regeneration in Rat Spinal Cord Injury.
2020	O'Connor, N.A., Syed, A., Wong, M., Hicks, J., Nunez, G., Jitianu, A., Siler, Z. and Peterson, M.	Polydopamine Antioxidant Hydrogels for Wound Healing Applications.
2020	Gopi, S., Ramsay, B.A., Ramsay, J.A. and Kontopoulou, M.	Preparation, Characterization and Processing of PCL/PHO Blends by 3D Bioplotting.
2020	Gerdes, S., Mostafavi, A., Ramesh, S., Memic, A., Rivero, I.V., Rao, P. and Tamayol, A.	Process–Structure–Quality Relationships of Three-Dimensional Printed Poly (Caprolactone)-Hydroxyapatite Scaffolds.

2020	Aldosary, G., Tse, T., Arnaout, A., Caudrelier, J.M., Czynnyj, C., Romain, R., McLean, L., Foottit, C., Belec, J. and Vandervoort, E.	Radiological, dosimetric and mechanical properties of a deformable breast phantom for radiation therapy and surgical applications.
2020	Griffanti, G., Rezabeigi, E., Li, J., Murshed, M. and Nazhat, S.N.	Rapid biofabrication of printable dense collagen bioinks of tunable properties.
2020	Ghelani, R.N., Zwambag, D.P. and Gregory, D.E.	Rapid increase in intradiscal pressure in porcine cervical spine units negatively impacts annulus fibrosus strength.
2020	Gholizadeh, S., Allahyari, Z., Carter, R., Delgadillo, L., Blaquiere, M., Nougquier-Morin, F., Marchi, N. and Gaborski, T.R.	Robust and Gradient Thickness Porous Membranes for In Vitro Modeling of Physiological Barriers.
2020	Lopez, L.I.V., Bronte, D., Germann, J. and Marcos, S.,	Scleral cross-linking using Rose Bengal-Green Light.
2020	Wang, X., Muñiz-Lerma, J.A., Sanchez-Mata, O., Atabay, S.E., Shandiz, M.A. and Brochu, M.	Single-crystalline-like stainless steel 316L with different geometries fabricated by laser powder bed fusion.
2020	Ho, Q.B. and Kontopoulou, M.	Stabilization of the cellular structure of polypropylene foams and secondary nucleation mechanism in the presence of graphene nanoplatelets.
2020	Inoue, A., Yuk, H., Lu, B. and Zhao, X.	Strong adhesion of wet conducting polymers on diverse substrates.
2020	Luo, Y., Humayun, A. and Mills, D.K	Surface Modification of 3D Printed PLA/Halloysite Composite Scaffolds with Antibacterial and Osteogenic Capabilities.
2020	Ramesh, S., Kovelakuntla, V., Meyer, A.S. and Rivero, I.V.	Three-dimensional printing of stimuli-responsive hydrogel with antibacterial activity.
2020	Duijvelshoff, R., Cabrera, M.S., Sanders, B., Dekker, S., Smits, A.I., Baaijens, F.P. and Bouten, C.V.	Transcatheter-Delivered Expandable Bioresorbable Polymeric Graft With Stenting Capacity Induces Vascular Regeneration.
2020	Smith, K.J., Mathur, M., Meador, W.D., Phillips-Garcia, B., Sugerman, G.P., Menta, A.K., Jazwiec, T., Malinowski, M., Timek, T.A. and Rausch, M.K.	Tricuspid Chordae Tendineae Mechanics: Insertion Site, Leaflet, and Size-Specific Analysis and Constitutive Modelling.
2020	Comeau, P.A. and Willett, T.L.	Triethyleneglycol dimethacrylate addition improves the 3D-printability and construct properties of a GelMA-nHA composite system towards tissue engineering applications.
2020	Luo, Y., Humayun, A. and Mills, D.	Zinc Doped Halloysite Cooperating with Polylactic Acid for Bone Regeneration.
2020	Portillo-Esquivel, L.E., Nanduri, V., Zhang, F., Liang, W. and Zhang, B.	z-Wire: A Microscaffold That Supports Guided Tissue Assembly and Intramyocardium Delivery for Cardiac Repair.

2019	G. Bahcecioglu, N. Hasirci, B. Bilgen, V. Hasirci	A 3d Printed Pcl/Hydrogel Construct With Zone-Specific Biochemical Composition Mimicking That Of The Meniscus.
2019	S. Freeman, R. Ramos, P. Chando, L. Zhou, K. Reeser, S. Jin, P. Soman, K. Ye	A Bioink Blend for Rotary 3D Bioprinting Tissue Engineered Small-Diameter Vascular Constructs.
2019	H. A. Alam, A. D. Dalgic, A. Tezcaner, C. Ozen, D. Keskin	A Comparative Study Of Monoaxial And Coaxial Pcl/Gelatin/Poloxamer 188 Scaffolds For Bone Tissue Engineering.
2019	H. Derakhshandeh	A Smart Bandage Equipped with Miniaturized Needle Arrays and Wirelessly-Controlled Drug Delivery System for the Treatment of Chronic Wounds.
2019	P. Comeau, T. Willett	An Alternative Approach to the Surface Methacrylation of Non-stoichiometric Hydroxyapatite Nanoparticles for Use in Bone-Inspired Composites.
2019	G. Bahcecioglu, N. Hasirci, B. Bilgen, V. Hasirci	Anatomical Meniscus Construct with Zone Specific Biochemical Composition and Structural Organization.
2019	S. Lin, X. Liu, J. Liu, H. Yuk, H. C. Loh, G. A. Parada, C. Settens, J. Song, A. Masic, G. H. McKinley, X. Zhao	Anti-Fatigue-Fracture Hydrogels.
2019	X. Wang, J.A. Muniz-Lerma, O. Sanchez-Mata, M.A. Shandiz, N. Brodusch, R. Gauvin, M. Brochu	Characterization Of Single Crystalline Austenitic Stainless Steel Thin Struts Processed By Laser Powder Bed Fusion.
2019	D. Wirth, J. Pokorski	Design and fabrication of a low-cost pilot-scale melt-processing system.
2019	N. Sharma	Design of cell-instructiv Design of cell-instructive biomaterial scaffolds for inter e biomaterial scaffolds for intervertebral disc regeneration.
2019	R. M. Rad, D. Atila, Z. Evis, D. Keskin, A. Tezcaner	Development of a Novel Functionally Graded Membrane Containing Boron Modified Bioactive Glass Nanoparticles for Guided Bone Regeneration.
2019	A. Prince	Development of in-situ Forming Hydrogels for Intra-articular Drug Delivery.
2019	D. A. Prince, I. J. Villamagna, C. C. Hopkins, J. R. de Bruyn, E. R. Gillies	Effect Of Drug Loading On The Properties Of Temperature-Responsive Polyester-Poly(Ethylene Glycol)-Polyester Hydrogels.
2019	R. Sigwadi, F. Nemavhola, M. Dhlamini, T. Mokrani	Enhancing the Mechanical Properties of Zirconia/Nafion® Nanocomposite Membrane through Carbon Nanotubes for Fuel Cell Application.
2019	R. M. Rad, D. Atila, E. E. Akgun, Z. Evis, D. Keskin, A. Tezcaner	Evaluation Of Human Dental Pulp Stem Cells Behavior On A Novel Nanobiocomposite Scaffold Prepared For Regenerative Endodontics.

2019	A. Cullen, A. Price	Fabrication of 3D Conjugated Polymer Structures via Vat Polymerization Additive Manufacturing.
2019	Li, Y., Guo, F., Hao, Y., Gupta, S.K., Hu, J., Wang, Y., Wang, N., Zhao, Y. and Guo, M.	Helical nanofiber yarn enabling highly stretchable engineered microtissue.
2019	M. Uyaniklar, G. Günal, A. Tevlek, P. Hosseinian, H. Aydin	Hybrid Cornea: Cell Laden Hydrogel Incorporated Decellularized Matrix.
2019	J. Ortiz Ortiz, G. Carbajal de la Torre, M. Villagomez Galindo, M. Antonio Espinosa Medina, H. Aguilar Rodriguez	Hyperelastic characterization of synthetic mesh for abdominal wall hernia repair.
2019	Liu, X., Steiger, C., Lin, S., Parada, G.A., Liu, J., Chan, H.F., Yuk, H., Phan, N.V., Collins, J., Tamang, S. and Traverso, G.	Ingestible hydrogel device.
2019	Shridhar, A., Amsden, B.G., Gillies, E.R. and Flynn, L.E.	Investigating the effects of tissue-specific extracellular matrix on the adipogenic and osteogenic differentiation of human adipose-derived stromal cells within composite hydrogel scaffolds.
2019	S. Qiu	Materials and Processing for Wearable Healthcare Electronics Systems: Flexible Circuit Boards and Stretchable e-Textile Patches for Surface Electromyography.
2019	S. Lin, J. Liu, X. Liu, X. Zhao	Muscle-like Fatigue-Resistant Hydrogels by Mechanical Training.
2019	N. Marins, B. Lee, R. Silva, A. Raghavan, N. Carreno, K. Grandfield	Niobium Pentoxide and Hydroxyapatite Particle Loaded Electrospun Polycaprolactone/Gelatin Membranes for Bone Tissue Engineering.
2019	I. J. Villamagna, T. N. Gordon, M. B. Hurtig, F. Beier, E. R. Gillies	Poly(Ester Amide) Particles For Controlled Delivery Of Celecoxib.
2019	S. Miar, C. Perez, J. Ong, T. Guda	Polyvinyl Alcohol-Poly Acrylic Acid Bilayer Oral Drug Delivery Systems: A Comparison Between Thin Films and Inverse Double Network Bilayers.
2019	F. Nemavhola, R. Sigwadi	Prediction of Hyperelastic Material Properties of Nafion117 and Nafion/ZrO2 Nano-Composite Membrane.
2019	E. Malikmammadov, T. E. Tanir, A. Kiziltay, N. Hasirci	Preparation And Characterization Of Poly (E-Caprolactone) Scaffolds Modified With Cell-Loaded Fibrin Gel.
2019	P. Comeau, T. Willett	Printability of Methacrylated Gelatin upon Inclusion of a Chloride Salt and Hydroxyapatite Nano-Particles.
2019	B. Lu, H. Yuk, S. Lin, N. Jian, K. Qu, J. Xu, X. Zhao	Pure PEDOT: PSS Hydrogels.

2019	A. Walker, J. Kim, J. Wyatt, A. Terlouw, K. Balachandran, J. Wolchok	Repeated In Vitro Impact Conditioning Of Astrocytes Decreases The Expression And Accumulation Of Extracellular Matrix.
2019	K. Guzman-Diaz, A. Alvarado-Gonzalez, D. Herrera, A. Hernandez-Reynoso, S. Rodriguez-Reynoso, A. Garcia-Gonzalez	Surface Representation of the Urinary Bladder and Bio-mechanical Analysis by Linear Dynamic Model.
2019	Y. Liang	Synthesis of Crosslinkable Poly(ester amide)s for Cell Encapsulation and Delivery.
2019	M. Harvey-Burgess, D. Gregory	The Effect of Axial Torsion on the Mechanical Properties of the Annulus Fibrosus.
2019	Y. Luo, D. Mills	The Effect of Halloysite Addition on the Material Properties of Chitosan–Halloysite Hydrogel Composites.
2019	R. Sigwadi, M. Dhlamini, T. Mokrani, F. Nemovhola, P. Nonjola, P. Msomi	The proton conductivity and mechanical properties of Nafion®/ ZrP nanocomposite membrane.
2019	Charaya, H., La, T.G., Rieger, J. and Chung, H.J.	Thermochromic and Piezocapacitive Flexible Sensor Array by Combining Composite Elastomer Dielectrics and Transparent Ionic Hydrogel Electrodes.
2019	S. Lin	Tissue-like Hydrogels by Design.
2019	Z. Lipsky, G. German	Ultraviolet Light Degrades the Mechanical and Structural Properties of Human Stratum Corneum.
2018	T.D. Usal, D. Yucel, V. Hasirci	A Novel Gelma-Phema Hydrogel Nerve Guide For The Treatment Of Peripheral Nerve Damages.
2018	Nemavhola, F., Dhlamini, S., Sigwadi, R. and Mokrani, T.	Effect of relative humidity on mechanical strength of zirconia/Nafion® Nano-composite membrane.
2018	S. Tukkan, D. Atila, A. Akdaq, A. Tezcaner	Fabrication Of Functionalized Citrus Pectin/Silk Fibroin Scaffolds For Skin Tissue Engineering.
2018	G. Griffanti, M. James-Bhasin, I. Donelli, G. Freddi, S.N. Nazhat	Functionalization Of Silk Fibroin Through Anionic Fibroin Derived Polypeptides.
2018	N. Alejandro-Alba, R. Cutierrez-Contreras, Carlos Dorronsoro, S. Marcos	Intraocular Photobonding To Enable Accommodating Intraocular Lens Function.
2018	R. Sigwadi, F. Nemavhola, M. Dhlamini, T. Mokrani	Mechanical Strength Of Nafion®/ZrO2 Nano-Composite Membrane.

2018	X. Wang, J.A. Muniz-Lerma, O. Sanchez-Mata, M.A. Shandiz, M. Brochu	Microstructure And Mechanical Properties Of Stainless Steel 316l Vertical Struts Manufactured By Laser Powder Bed Fusion Process.
2018	K. Jahan, M. Mekhail, M. Tabrizian	One-Step Fabrication Of Apatite-Chitosan Scaffold As A Potential Injectable Construct For Bone Tissue Engineering.
2018	W. Zhu, K.R. Tringale, S.A. Woller, S. You, S. Johnson, H. Shen, J. Schimelman, M. Whitney, J. Steinauer, W. Xu, T.L. Yaksh, Q.T. Nguyen, S.Chen	Rapid Continuous 3d Printing Of Customizable Peripheral Nerve Guidance Conduits.
2018	B. Patel, Z. Xu, C. Pinnock, L. S. Kabbani, M. T. Lam	Self-Assembled Collagen-Fibrin Hydrogel Reinforces Tissue Engineered Adventitia Vessels Seeded With Human Fibroblasts.
2018	C.P. Kenaley, A. Sanin, J. Ackerman, J. Yoo, A. Alberts	Skin Stiffness In Ray-Finned Fishes: Contrasting Material Properties Between Species And Body Regions.
2018	Tavakoli, J., Amin, D.B., Freeman, B.J. and Costi, J.J.	The biomechanics of the inter-lamellar matrix and the lamellae during progression to lumbar disc herniation: which is the weakest structure?
2018	Sigwadi, R., Dhlamini, M.S., Mokrani, T., Nonjola, P. and Nemavhola, F	The impact of zirconia nano-rods on the methanol permeability and conductivity of Nafion®-ZrO2 nano-composite membrane.
2018	W. Zhu, S-H. Pyo, S. You, C. Yu, J. Alido, J. Liu, Y. Leong, S. Chen	Three-Dimensional Printing Of Bisphenol A-Free Polycarbonates.
2017	A. Kumar, H. Saghlatoon, T-G. La, M. M. Honari, H. Charaya, H.A. Damis, R. Mirzavand, P. Mousavi, H-J. Chung	A Highly Deformable Conducting Traces For Printed Antennas And Interconnects: Silver/Fluoropolymer Composite Amalgamated By Triethanolamine.
2017	Fischinger, I., Seiler, T.G., Frueh, B.E. and Miller, M.	Biomechanical properties after corneal crosslinking using riboflavin in dextran solution or in hydroxy propyl methyl cellulose.
2017	Lee, P.S., Eckert, H., Hess, R., Gelinsky, M., Rancourt, D., Krawetz, R., Cuniberti, G. and Scharnweber, D.	Developing a customized perfusion bioreactor prototype with controlled positional variability in oxygen partial pressure for bone and cartilage tissue engineering.
2017	X. Li, M.M. Honari, Y. Fu, A. Kumar, H. Saghlatoon	Self-Reinforcing Graphene Coatings On 3d Printed Elastomers For Flexible Radio Frequency Antennas And Strain Sensors.
2016	B. M. Kasukonis, J.T. Kim, T.A. Washington, J.C. Wolchok	Development Of An Infusion Bioreactor For The Accelerated Preparation Of Decellularized Skeletal Muscle Scaffolds.
2016	N. Bekesi, C. Dorronsoro, A. de la Hoz, S. Marcos	Material Properties From Air Puff Corneal Deformation By Numerical Simulations On Model Corneas.
2016	X. Liu, J. Cleary, G.K. German	The Global Mechanical Properties And Multi-Scale Failure Mechanics Of Heterogeneous Human Stratum Corneum.

2015	S.A. Hurd, N.M. Bhatti, A.M. Walker, B.M. Kasukonis, J.C. Wolchok	Development Of A Biological Scaffold Engineered Using The Extracellular Matrix Secreted By Skeletal Muscle Cells.
2014	T.G. Seiler, I. Fischinger, T. Senfft, G. Schmidinger, T. Seiler	Intrastromal Application Of Riboflavin For Corneal Crosslinking.