

| Year | Author | Title |
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| 2023 | Xiang, Yi; Zhong, Zheng; Yao, Emmie J.; Kiratitanaporn, Wisarut; Suy, Malleeka T.; Chen, Shaochen | 3D bioprinting of gene delivery scaffolds with controlled release |
| 2023 | Brill-Karniely, Yifat; Tischenko, Katerina; Benny, Ofra | Analyzing force measurements of multi-cellular clusters comprising indeterminate geometries |
| 2023 | Falcone, Giovanni; Kuth, Sonja; Boccaccini, Aldo R.; Aquino, Rita P.; Esposito, Tiziana; Russo, Paola | Application of Calcium Alginate Hydrogels in Semisolid Extrusion 3D Printed for the Production of Easy-to-Swallow Tablets |
| 2023 | Turhan, Emine Ayşe; Akbaba, Sema; Tezcaner, Ayşen; Evis, Zafer | Boron nitride nanofiber/Zn-doped hydroxyapatite/polycaprolactone scaffolds for bone tissue engineering applications |
| 2023 | Bikmulina, Polina; Kosheleva, Nastasia; Efremov, Yuri; Bakulina, Alesia; Kuryanova, Anastasia; Aksenova, Nadezhda; Shavkuta, Boris; Kotova, Svetlana; Shpichka, Anastasia; Timashev, Peter | Building a tissue: gingiva- and adipose-derived mesenchymal cell spheroids' survivability and functionality after 3D extrusion bioprinting |
| 2023 | Kosheleva, Nastasia V.; Efremov, Yuri M.; Koteneva, Polina I.; Iliina, Inna V.; Zurina, Irina M.; Bikmulina, Polina Y.; Shpichka, Anastasia I.; Timashev, Peter S. | Building a tissue: Mesenchymal and epithelial cell spheroids mechanical properties at micro- and nanoscale |
| 2023 | Kilian, David; Poddar, Aayush; Desrochers, Vanessa; Heinemann, Christiane; Halfter, Norbert; Liu, Suihong; Rother, Sandra; Gelinsky, Michael; Hintze, Vera; Lode, Anja | Cellular adhesion and chondrogenic differentiation inside an alginate-based bioink in response to tailorable artificial matrices and tannic acid treatment |
| 2023 | Lagneau, Nathan; Tournier, Pierre; Halgand, Boris; Loll, François; Maugars, Yves; Guicheux, Jérôme; Le Visage, Catherine; Delplace, Vianney | Click and bioorthogonal hyaluronic acid hydrogels as an ultra-tunable platform for the investigation of cell-material interactions |
| 2023 | Tournier, Pierre; Saint-Pé, Garance; Lagneau, Nathan; Loll, François; Halgand, Boris; Tessier, Arnaud; Guicheux, Jérôme; Visage, Catherine Le; Delplace, Vianney | Clickable Dynamic Bioinks Enable Post-Printing Modifications of Construct Composition and Mechanical Properties Controlled over Time and Space |
| 2023 | Kim, Jong Hyun; Hamonangan, Wahyu Martumpal; Kim, Shin-Hyun | Color-Tunable Elastic Photonic Shells With High Color Saturation and Deformability |
| 2023 | Schulik, Jana; Salehi, Sahar; Boccaccini, Aldo R.; Schrüfer, Stefan; Schubert, Dirk W.; Arkudas, Andreas; Kengelbach-Weigand, Annika; Horch, Raymund E.; Schmid, Rafael | Comparison of the Behavior of 3D-Printed Endothelial Cells in Different Bioinks |
| 2023 | Affonso de Oliveira, Jessica Fernanda; Zhao, Zhongchao; Xiang, Yi; Shin, Matthew D.; Villaseñor, Kathleen Elizabeth; Deng, Xinyi; Shukla, Sourabh; Chen, Shaochen; Steinmetz, Nicole F. | COVID-19 vaccines based on viral nanoparticles displaying a conserved B-cell epitope show potent immunogenicity and a long-lasting antibody response |

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| 2023 | Yen, Feng-Chun; Glusac, Jovana; Levi, Shira; Zernov, Anton; Baruch, Limor; Davidovich-Pinhas, Maya; Fishman, Ayelet; Machluf, Marcelle | Cultured meat platform developed through the structuring of edible microcarrier-derived microtissues with oleogel-based fat substitute |
| 2023 | Sevastianov, Victor I.; Basok, Yulia B.; Grigoriev, Alexey M.; Nemets, Evgeny A.; Kirillova, Alexandra D.; Kirsanova, Liudmila A.; Lazhko, Aleksey E.; Subbot, Anastasia; Kravchik, Marina V.; Khesuani, Yusef D.; Koudan, Elizaveta V.; Gautier, Sergey V. | Decellularization of cartilage microparticles: Effects of temperature, supercritical carbon dioxide and ultrasound on biochemical, mechanical, and biological properties |
| 2023 | Chung, Andrew; Tavsanlı, Burak; Gillies, Elizabeth R. | Degradation of oligo[poly(ethylene glycol) fumarate] hydrogels through stimulus-mediated pendent group cyclization |
| 2023 | Terek, Julia C.; Hebb, Matthew O.; Flynn, Lauren E. | Development of Brain-Derived Bioscaffolds for Neural Progenitor Cell Culture |
| 2023 | Rezabeigi, Ehsan; Griffanti, Gabriele; Nazhat, Showan N. | Effect of Fibrillization pH on Gelation Viscoelasticity and Properties of Biofabricated Dense Collagen Matrices via Gel Aspiration-Ejection |
| 2023 | Heinemann, Christiane; Buchner, Frauke; Lee, Poh Soo; Bernhardt, Anne; Kruppke, Benjamin; Wiesmann, Hans-Peter; Hintze, Vera | Effects of Gamma Irradiation and Supercritical Carbon Dioxide Sterilization on Methacrylated Gelatin/Hyaluronan Hydrogels |
| 2023 | Landry, Corey R.; Yip, Mighten C.; Zhou, Ying; Niu, Weibo; Wang, Yunmiao; Yang, Bo; Wen, Zhexing; Forest, Craig R. | Electrophysiological and morphological characterization of single neurons in intact human brain organoids |
| 2023 | Wang, Bryan Z.; Nash, Trevor R.; Zhang, Xiaokan; Rao, Jenny; Abriola, Laura; Kim, Youngbin; Zakharov, Sergey; Kim, Michael; Luo, Lori J.; Morsink, Margaretha; Liu, Bohao; Lock, Roberta I.; Fleischer, Sharon; Tamargo, Manuel A.; Bohnen, Michael; Welch, Carrie L.; Chung, Wendy K.; Marx, Steven O.; Surovtseva, Yulia V.; Muniak- | Engineered cardiac tissue model of restrictive cardiomyopathy for drug discovery |
| 2023 | Rickabaugh, Emilee; Weatherston, Dillon; Harris, Thomas I.; Jones, Justin A.; Vargis, Elizabeth | Engineering a Biomimetic In Vitro Model of Bruch's Membrane Using Hagfish Slime Intermediate Filament Proteins |
| 2023 | Brown, Dillon M.; Yu, Jianshi; Kumar, Praveen; Paulus, Quinn M.; Kowalski, Michael A.; Patel, Jay M.; Kane, Maureen A.; Ethier, C. Ross; Pardue, Machele T. | Exogenous All-Trans Retinoic Acid Induces Myopia and Alters Scleral Biomechanics in Mice |
| 2023 | Raha, Arjun; Wu, Yuning; Zhong, Lily; Raveenthiran, Jatheeshan; Hong, Minji; Taiyab, Aftab; Wang, Li; Wang, Bill; Geng, Fei | Exploring Piezo1, Piezo2, and TMEM150C in human brain tissues and their correlation with brain biomechanical characteristics |
| 2023 | Liu, Xinyue; Rao, Siyuan; Chen, Weixuan; Felix, Kayla; Ni, Jiahua; Sahasrabudhe, Atharva; Lin, Shaoting; Wang, Qianbin; Liu, Yuanyuan; He, Zhigang; Xu, Jingyi; Huang, Sizhe; Hong, Eunji; Yau, Todd; Anikeeva, Polina; Zhao, Xuanhe | Fatigue-resistant hydrogel optical fibers enable peripheral nerve optogenetics during locomotion |
| 2023 | Wu, Qinghua; Zhang, Peikai; O'Leary, Gerard; Zhao, Yimu; Xu, Yinghao; Rafatian, Naimeh; Okhovatian, Sargol; Landau, Shira; Valiante, Taufik A.; Travas-Sejdic, Jadranka; Radisic, Milica | Flexible 3D printed microwires and 3D microelectrodes for heart-on-a-chip engineering |

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| 2023 | Paul, Sattwikesh; Schrobback, Karsten; Tran, Phong Anh; Meinert, Christoph; Davern, Jordan William; Weekes, Angus; Nedunchezhiyan, Udhaya; Klein, Travis Jacob | GelMA-glycol chitosan hydrogels for cartilage regeneration: The role of uniaxial mechanical stimulation in enhancing mechanical, adhesive, and biochemical properties |
| 2023 | Ichioka, Hanae; Hirohashi, Yoshihiko; Sato, Tatsuya; Furuhashi, Masato; Watanabe, Megumi; Ida, Yosuke; Hikage, Fumihito; Torigoe, Toshihiko; Ohguro, Hiroshi | G-Protein-Coupled Receptors Mediate Modulations of Cell Viability and Drug Sensitivity by Aberrantly Expressed Recoverin 3 within A549 Cells |
| 2023 | You, Shangting; Xiang, Yi; Hwang, Henry H.; Berry, David B.; Kiratitanaporn, Wisarut; Guan, Jiaao; Yao, Emmie; Tang, Min; Zhong, Zheng; Ma, Xinyue; Wangpraseurt, Daniel; Sun, Yazhi; Lu, Ting-yu; Chen, Shaochen | High cell density and high-resolution 3D bioprinting for fabricating vascularized tissues |
| 2023 | Jiang, Wensen; Glaeser, Juliane D.; Kaneda, Giselle; Sheyn, Julia; Wechsler, Jacob T.; Stephan, Stephen; Salehi, Khosrowdad; Chan, Julie L.; Tawackoli, Wafa; Avalos, Pablo; Johnson, Christopher; Castaneda, Chloe; Kanim, Linda E.A.; Tanasansomboon, Teerachat; Burda, Joshua F.; Shelest, Oksana; Yameen, Haneen; Perry, Tiffany G. | Intervertebral disc human nucleus pulposus cells associated with back pain trigger neurite outgrowth in vitro and pain behaviors in rats |
| 2023 | Halfter, Norbert; Espinosa-Cano, Eva; Pontes-Quero, Gloria María; Ramírez-Jiménez, Rosa Ana; Heinemann, Christiane; Möller, Stephanie; Schnabelrauch, Matthias; Wiesmann, Hans-Peter; Hintze, Vera; Aguilar, Maria Rosa | Ketoprofen-Based Polymer-Drug Nanoparticles Provide Anti-Inflammatory Properties to HA/Collagen Hydrogels |
| 2023 | Shin, Dongjin S.; Touani, Francesco K.; Aboud, Damon G. K.; Kietzig, Anne-Marie; Lerouge, Sophie; Hoesli, Corinne A. | Mammalian cell encapsulation in monodisperse chitosan beads using microchannel emulsification |
| 2023 | Cai, Grace; Li, Xinzhi; Lin, Shan-Shan; Chen, Samuel; Koning, Katherine; Bi, Dapeng; Liu, Allen P. | Matrix stiffness modulates 3D spheroid sorting and burst-like collective migration |
| 2023 | Mostert, Dylan; Jorba, Ignasi; Groenen, Bart G. W.; Passier, Robert; Goumans, Marie-José T. H.; van Boxtel, Huibert A.; Kurniawan, Nicholas A.; Bouten, Carlijn V. C.; Klouda, Leda | Methacrylated human recombinant collagen peptide as a hydrogel for manipulating and monitoring stiffness-related cardiac cell behavior |
| 2023 | Nativel, Fabien; Smith, Audrey; Boulestreau, Jeremy; Lépine, Charles; Baron, Julie; Marquis, Melanie; Vignes, Caroline; Le Guennec, Yoan; Veziers, Joelle; Lesoeur, Julie; Loll, François; Halgand, Boris; Renard, Denis; Abadie, Jerome; Legoff, Benoit; Blanchard, Frederic; Gauthier, Olivier; Vinatier, Claire; Rieux, Anne des; Guicheux | Micromolding-based encapsulation of mesenchymal stromal cells in alginate for intraarticular injection in osteoarthritis |
| 2023 | Jin, Zeqing; Hu, Grace; Zhang, Zhizhou; Yu, Shao-Yi; Gu, Grace X. | Modeling and analysis of post-processing conditions on 4D-bioprinting of deformable hydrogel-based biomaterial inks |
| 2023 | Kameda, Satoshi; Higo, Shuichiro; Shiba, Mikio; Kondo, Takumi; Li, Junjun; Liu, Li; Tabata, Tomoka; Inoue, Hiroyuki; Okuno, Shota; Ogawa, Shou; Kuramoto, Yuki; Yasutake, Hideki; Lee, Jong-Kook; Takashima, Seiji; Ikeda, Yoshihiko; Hikoso, Shungo; Miyagawa, Shigeru; Sakata, Yasushi | Modeling Reduced Contractility and Stiffness Using iPSC-Derived Cardiomyocytes Generated From Female Becker Muscular Dystrophy Carrier |
| 2023 | Lowen, Jeremy M.; Bond, Gabriella C.; Griffin, Katherine H.; Shimamoto, Nathan K.; Thai, Victoria L.; Leach, J. Kent | Multisized Photoannealable Microgels Regulate Cell Spreading, Aggregation, and Macrophage Phenotype through Microporous Void Space |
| 2023 | Kleuskens, Meike W. A.; Crispim, João F.; van Doeselaar, Marina; van Donkelaar, Corrinus C.; Janssen, Rob P. A.; Ito, Keita | Neo-cartilage formation using human nondegenerate versus osteoarthritic chondrocyte-derived cartilage organoids in a viscoelastic hydrogel |

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| 2023 | Chepelova, Natalia; Antoshin, Artem; Voloshin, Sergei; Usanova, Anna; Efremov, Yuri; Makeeva, Maria; Evlashin, Stanislav; Stepanov, Mikhail; Turkina, Anna; Timashev, Peter | Oral Galvanism Side Effects: Comparing Alloy Ions and Galvanic Current Effects on the Mucosa-like Model |
| 2023 | Paul, Sattwikesh; Schrobback, Karsten; Tran, Phong Anh; Meinert, Christoph; Davern, Jordan William; Weekes, Angus; Klein, Travis Jacob | Photo-Cross-Linkable, Injectable, and Highly Adhesive GelMA-Glycol Chitosan Hydrogels for Cartilage Repair |
| 2023 | Nishikiori, Nami; Takada, Kohichi; Sato, Tatsuya; Miyamoto, Sho; Watanabe, Megumi; Hirakawa, Yui; Sekiguchi, Shohei; Furuhashi, Masato; Yorozu, Akira; Takano, Kenichi; Miyazaki, Akihiro; Suzuki, Hiromu; Ohguro, Hiroshi | Physical Properties and Cellular Metabolic Characteristics of 3D Spheroids Are Possible Definitive Indices for the Biological Nature of Cancer-Associated Fibroblasts |
| 2023 | Hazur, Jonas; Röder, Jonas; Czwalińska, Jonas; Schubert, Dirk W.; Boccaccini, Aldo R. | Pre-Crosslinking with Hydrogel Microparticles Enhances the Printability of Alginate-Based Inks |
| 2023 | Kornmuller, Anna; Cooper, Tyler T.; Jani, Ammi; Lajoie, Gilles A.; Flynn, Lauren E. | Probing the effects of matrix-derived microcarrier composition on human adipose-derived stromal cells cultured dynamically within spinner flask bioreactors |
| 2023 | Tsugeno, Yuri; Sato, Tatsuya; Watanabe, Megumi; Furuhashi, Masato; Ohguro, Hiroshi | Prostanoid FP and EP2 Receptor Agonists Induce Epithelial and Subepithelial Fibrogenetic Changes in Human Conjunctival Fibroblasts in Different Manners |
| 2023 | Cao, Chunyan; Huang, Tao; Li, Yunming | Resilient and Tough Conductive Polymer Hydrogel for a Low-Hysteresis Strain Sensor |
| 2023 | Jalali, Sara; Kruppke, Iris; Enghardt, Stefan; Wiesmann, Hans-Peter; Kruppke, Benjamin | Silica Nanofibers with Enhanced Wettability and Mechanical Strength for Bone Tissue Engineering: Electrospinning without Polymer Carrier and Subsequent Heat Treatment |
| 2023 | Hikage, Fumihito; Watanabe, Megumi; Sato, Tatsuya; Umetsu, Araya; Tsugeno, Yuri; Furuhashi, Masato; Ohguro, Hiroshi | Simultaneous Effects of a Selective EP2 Agonist, Omidenedepag, and a Rho-Associated Coiled-Coil Containing Protein Kinase Inhibitor, Ripasudil, on Human Orbital Fibroblasts |
| 2023 | Tischenko, Katerina; Brill-Karniely, Yifat; Steinberg, Eliana; Segev-Yekutieli, Hadas; Benny, Ofra | Surface physical cues mediate the uptake of foreign particles by cancer cells |
| 2023 | Watanabe, Megumi; Tsugeno, Yuri; Sato, Tatsuya; Umetsu, Araya; Nishikiori, Nami; Furuhashi, Masato; Ohguro, Hiroshi | TGF- β Isoforms Affect the Planar and Subepithelial Fibrogenesis of Human Conjunctival Fibroblasts in Different Manners |
| 2023 | Umetsu, Araya; Ida, Yosuke; Sato, Tatsuya; Furuhashi, Masato; Ohguro, Hiroshi; Watanabe, Megumi | TGF- β 2 Induces Epithelial-Mesenchymal Transitions in 2D Planar and 3D Spheroids of the Human Corneal Stroma Fibroblasts in Different Manners |
| 2023 | Mattiassi, Sabrina; Conner, Abigail A.; Feng, Fan; Goh, Eyleen L. K.; Yim, Evelyn K. F. | The Combined Effects of Topography and Stiffness on Neuronal Differentiation and Maturation Using a Hydrogel Platform |

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| 2023 | Gorla, Shilpa; Choh, Vivian | The effect of zinc on the biomechanics of chicken lenses |
| 2023 | Shahriar, Md; Uddin, Md Mezbah; Mora, Eduardo Peña; Xu, Heqi; Zhang, Zhengyi; Xu, Changxue | Tuning physio-mechanical properties of graded micropillar polydimethylsiloxane substrates for cellular attachment and guided migration |
| 2022 | DeBrunner, M., Elliott, S., Evans, J., Bury, E., Avera, A. D., Kim, Y., & Koh, A. S. | Annealing for controlled galinstan oxide thin-film morphological and electromechanical properties. |
| 2022 | Li, M., Aveyard, J., Doherty, K. G., Deller, R. C., Williams, R. L., Kolegraff, K. N., ... & D'Sa, R. A. | Antimicrobial Nitric Oxide-Releasing Electrospun Dressings for Wound Healing Applications. |
| 2022 | Umetsu, A., Ida, Y., Sato, T., Watanabe, M., Tsugeno, Y., Furuhashi, M., ... & Ohguro, H. | Brimonidine Modulates the ROCK1 Signaling Effects on Adipogenic Differentiation in 2D and 3D 3T3-L1 Cells. |
| 2022 | Sun, L., Chen, Z., Xu, D., & Zhao, Y. | Electroconductive and Anisotropic Structural Color Hydrogels for Visual Heart-on-a-Chip Construction. |
| 2022 | Watanabe, M., Sato, T., Tsugeno, Y., Umetsu, A., Suzuki, S., Furuhashi, M., ... & Ohguro, H. | Human trabecular meshwork (HTM) cells treated with TGF- β 2 or dexamethasone respond to compression stress in different manners. |
| 2022 | Rivera-Tarazona, L. K., Shukla, T., Singh, K. A., Gaharwar, A. K., Campbell, Z. T., & Ware, T. H. | 4D printing of engineered living materials. |
| 2022 | Monavari, M., Medhekar, R., Nawaz, Q., Monavari, M., Fuentes-Chandía, M., Homaeigohar, S., & Boccaccini, A. R. | A 3D Printed Bone Tissue Engineering Scaffold Composed of Alginate Dialdehyde-Gelatine Reinforced by Lysozyme Loaded Cerium Doped Mesoporous Silica-Calcia Nanoparticles. |
| 2022 | Ida, Y., Sato, T., Umetsu, A., Watanabe, M., Furuhashi, M., Hikage, F., & Ohguro, H. | Addition of ROCK Inhibitors Alleviates Prostaglandin-Induced Inhibition of Adipogenesis in 3T3L-1 Spheroids. |
| 2022 | Nebel, S., Lux, M., Kuth, S., Bider, F., Dietrich, W., Egger, D., ... & Kasper, C. | Alginate Core-Shell Capsules for 3D Cultivation of Adipose-Derived Mesenchymal Stem Cells. |
| 2022 | Tsugeno, Y., Sato, T., Watanabe, M., Higashide, M., Furuhashi, M., Umetsu, A., ... & Ohguro, H. | All Trans-Retinoic Acids Facilitate the Remodeling of 2D and 3D Cultured Human Conjunctival Fibroblasts. |
| 2022 | Watanabe, M., Sato, T., Tsugeno, Y., Higashide, M., Furuhashi, M., Umetsu, A., ... & Ohguro, H. | All-trans Retinoic Acids Synergistically and Beneficially Affect In Vitro Glaucomatous Trabecular Meshwork (TM) Models Using 2D and 3D Cell Cultures of Human TM Cells. |

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| 2022 | Brown, D. M., Kowalski, M. A., Paulus, Q. M., Yu, J., Kumar, P., Kane, M. A., ... & Pardue, M. T. | Altered Structure and Function of Murine Sclera in Form-Deprivation Myopia. |
| 2022 | Tsugeno, Y., Sato, T., Watanabe, M., Furuhashi, M., Umetsu, A., Ida, Y., ... & Ohguro, H. | Benzalkonium Chloride, Even at Low Concentrations, Deteriorates Intracellular Metabolic Capacity in Human Conjunctival Fibroblasts. |
| 2022 | Wangraseurt, D., Sun, Y., You, S., Chua, S. T., Noel, S. K., Willard, H. F., ... & Chen, S. | Bioprinted Living Coral Microenvironments Mimicking Coral-Algal Symbiosis. |
| 2022 | Heid, S., Becker, K., Byun, J., Biermann, I., Neščáková, Z., Zhu, H., ... & Boccacini, A. R. | Bioprinting with bioactive alginate dialdehyde-gelatin (ADA-GEL) composite bioinks: Time-dependent in-situ crosslinking via addition of calcium-silicate particles tunes in vitro stability of 3D bioprinted constructs. |
| 2022 | Kosheleva, N. V., Efremov, Y. M., Koteneva, P. I., Ilina, I. V., Zurina, I. M., Bikmulina, P. Y., ... & Timashev, P. S. | Building a tissue: Mesenchymal and epithelial cell spheroids mechanical properties at micro-and nanoscale. |
| 2022 | Shook, D. R., Wen, J. W., Rolo, A., O'Hanlon, M., Francica, B., Dobbins, D., ... & Keller, R. E. | Characterization of convergent thickening, a major convergence force producing morphogenic movement in amphibians. |
| 2022 | Zernov, A., Baruch, L., & Machluf, M | Chitosan-collagen hydrogel microparticles as edible cell microcarriers for cultured meat. |
| 2022 | Shajib, M. S., Futrega, K., Jacob Klein, T., Crawford, R. W., & Doran, M. R. | Collagenase treatment appears to improve cartilage tissue integration but damage to collagen networks is likely permanent. |
| 2022 | Suzuki, S., Furuhashi, M., Tsugeno, Y., Umetsu, A., Ida, Y., Hikage, F., ... & Watanabe, M. | Comparison of the Drug-Induced Efficacies between Omidenepag Isopropyl, an EP2 Agonist and PGF2 α toward TGF- β 2-Modulated Human Trabecular Meshwork (HTM) Cells. |
| 2022 | Koudan, E. V., Zorina, A. I., Levin, A. A., Pereira, F. D., Petrov, S. V., Karshieva, S. S., ... & Zorin, V. L. | Correlation of the regenerative potential of dermal fibroblasts in 2D culture with the biological properties of fibroblast-derived tissue spheroids. |
| 2022 | Sevastianov, V. I., Basok, Y. B., Grigoriev, A. M., Nemets, E. A., Kirillova, A. D., Kirsanova, L. A., ... & Gautier, S. V. | Decellularization of cartilage microparticles: Effects of temperature, supercritical carbon dioxide and ultrasound on biochemical, mechanical, and biological properties. |
| 2022 | Tavakoli, J., Shrestha, J., Bazaz, S. R., Rad, M. A., Warkiani, M. E., Raston, C. L., ... & Tang, Y. | Developing Novel Fabrication and Optimisation Strategies on Aggregation-Induced Emission Nanoprobe/Polyvinyl Alcohol Hydrogels for Bio-Applications. |
| 2022 | Kornmuller, A., & Flynn, L. E. | Development and characterization of matrix-derived microcarriers from decellularized tissues using electrospraying techniques. |

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| 2022 | Long, L. Y., Liu, W., Li, L., Hu, C., He, S., Lu, L., ... & Wang, Y. B. | Dissolving microneedle-encapsulated drug-loaded nanoparticles and recombinant humanized collagen type III for the treatment of chronic wound via anti-inflammation and enhanced cell proliferation and angiogenesis. |
| 2022 | Seeto, W. J., Tian, Y., Pradhan, S., Minond, D., & Lipke, E. A. | Droplet Microfluidics-Based Fabrication of Monodisperse Poly (Ethylene Glycol)-Fibrinogen Breast Cancer Microspheres for Automated Drug Screening Applications. |
| 2022 | Iyer, K. S., Maruri, D. P., Peak, K. E., Schmidtke, D. W., Petroll, W. M., & Varner, V. D. | ECM stiffness modulates the proliferation but not the motility of primary corneal keratocytes in response to PDGF-BB. |
| 2022 | Gonzalez-Fernandez, T., Tenorio, A. J., Saiz Jr, A. M., & Leach, J. K. | Engineered Cell-Secreted Extracellular Matrix Modulates Cell Spheroid Mechanosensing and Amplifies Their Response to Inductive Cues for the Formation of Mineralized Tissues. |
| 2022 | Hassani, I., Anbiah, B., Kuhlers, P., Habbit, N. L., Ahmed, B., Heslin, M. J., ... & Lipke, E. A. | Engineered colorectal cancer tissue recapitulates key attributes of a patient-derived xenograft tumor line. |
| 2022 | Ramesh, P., Moskwa, N., Hanchon, Z., Koplas, A., Nelson, D. A., Mills, K. L., ... & Xie, Y. | Engineering cryoelectrospun elastin-alginate scaffolds to serve as stromal extracellular matrices. |
| 2022 | Fang, Y., Liang, S., Gao, J., Wang, Z., Li, C., Wang, R., & Yu, W. | Extracellular matrix stiffness mediates radiosensitivity in a 3D nasopharyngeal carcinoma model. |
| 2022 | Tsugeno, Y., Furuhashi, M., Sato, T., Watanabe, M., Umetsu, A., Suzuki, S., ... & Ohguro, H. | FGF-2 enhances fibrogenetic changes in TGF- β 2 treated human conjunctival fibroblasts. |
| 2022 | Mueller, E., Xu, F., & Hoare, T. | FRESH Bioprinting of Dynamic Hydrazone-Cross-Linked Synthetic Hydrogels. |
| 2022 | Liu, C., Campbell, S. B., Li, J., Bannerman, D., Pascual-Gil, S., Kieda, J., ... & Radisic, M. | High Throughput Omnidirectional Printing of Tubular Microstructures from Elastomeric Polymers. |
| 2022 | Suzuki, S., Sato, T., Watanabe, M., Higashide, M., Tsugeno, Y., Umetsu, A., ... & Ohguro, H. | Hypoxia Differently Affects TGF- β 2-Induced Epithelial Mesenchymal Transitions in the 2D and 3D Culture of the Human Retinal Pigment Epithelium Cells. |
| 2022 | Karshieva, Saida; Koudan, Elizaveta; Levin, Aleksandr; Petrov, Stanislav; Koshuba, Olesya; Kopylov, Alexey; Safonov, Andrey; Glinskaya, Elizaveta; Kasyanov, Vladimir; Osidak, Egor; Kovalev, Alexey; Mironov, Vladimir | In vivo preclinical evaluation of bioprinted human cartilage construct |
| 2022 | Shin, D. S., Touani, F. K., Aboud, D. G., Kietzig, A., Lerouge, S., & Hoesli, C. A. | Mesenchymal stromal cell encapsulation in uniform chitosan beads using microchannel emulsification. |

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| 2022 | Long, L. Y., Hu, C., Liu, W., Wu, C., Lu, L., Yang, L., & Wang, Y. B. | Microfibrillated cellulose-enhanced carboxymethyl chitosan/oxidized starch sponge for chronic diabetic wound repair. |
| 2022 | Bekele, S., Singh, K., Helton, E., Farajollahi, S., Naik, R. R., Dennis, P., ... & Berry, R. | Molecular Dynamics Investigation into pH Dependent Metal Binding of the Intrinsically Disordered Worm Jaw Protein, Nvjp-1. |
| 2022 | Assen, F. P., Abe, J., Hons, M., Hauschild, R., Shamipour, S., Kaufmann, W. A., ... & Sixt, M. | Multitier mechanics control stromal adaptations in the swelling lymph node. |
| 2022 | Baltazar, T., Kajave, N. S., Rodriguez, M., Chakraborty, S., Jiang, B., Skardal, A., ... & Albanna, M. Z. | Native human collagen type I provides a viable physiologically relevant alternative to xenogeneic sources for tissue engineering applications: A comparative in vitro and in vivo study. |
| 2022 | Sousa, T., Kajave, N., Dong, P., Gu, L., Florczyk, S., & Kishore, V. | Optimization of Freeze-FRESH Methodology for 3D Printing of Microporous Collagen Constructs. |
| 2022 | Hamonangan, W. M., Lee, S., Choi, Y. H., Li, W., Tai, M., & Kim, S. H. | Osmosis-Mediated Microfluidic Production of Submillimeter-Sized Capsules with an Ultrathin Shell for Cosmetic Applications. |
| 2022 | Kim, J. H., Kim, J. B., Choi, Y. H., Park, S., & Kim, S. H. | Photonic Microbeads Templated by Oil-in-Oil Emulsion Droplets for High Saturation of Structural Colors. |
| 2022 | Zhong, Z., Wang, J., Tian, J., Deng, X., Balayan, A., Sun, Y., ... & Chen, S. | Rapid 3D bioprinting of a multicellular model recapitulating pterygium microenvironment. |
| 2022 | Chignola, R., Mainente, F., & Zoccatelli, G. | Rheology of individual chitosan and polyphenol/chitosan microparticles for food engineering. |
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