

Instrument	Year	Author	Title
	2023	Roldan, Lina; Montoya, Carolina; Solanki, Varun; Cai, Kathy Q.; Yang, Maobin; Correa, Santiago; Orrego, Santiago	A Novel Injectable Piezoelectric Hydrogel for Periodontal Disease Treatment
	2023	LP, Merlin Rajesh Lal; Agrawal, Devendra K	Biomechanical Forces in the Tissue Engineering and Regeneration of Shoulder, Hip, Knee, and Ankle Joints
	2023	Alloisio, Giulia; Rodriguez, David Becerril; Luce, Marco; Ciaccio, Chiara; Marini, Stefano; Cricenti, Antonio; Gioia, Magda	Cyclic Stretch-Induced Mechanical Stress Applied at 1 Hz Frequency Can Alter the Metastatic Potential Properties of SAOS-2 Osteosarcoma Cells
	2023	Papalamprou, Angela; Yu, Victoria; Chen, Angel; Stefanovic, Tina; Kaneda, Giselle; Salehi, Khosrowdad; Castaneda, Chloe M.; Gertych, Arkadiusz; Glaeser, Juliane D.; Sheyn, Dmitriy	Directing iPSC differentiation into iTenocytes using combined scleraxis overexpression and cyclic loading
	2023	Smith, Ben; Notta, Shahn; Mondal, Debasis	Effect of stretch and release on myofascial stem cell function in vitro: A putative model to understand the molecular benefits of the myofascial release (MFR) technique
	2023	Kontogianni, Georgia-Ioanna; Loukelis, Konstantinos; Bonatti, Amedeo Franco; Batoni, Elisa; De Maria, Carmelo; Naseem, Raasti; Dalgarno, Kenneth; Vozzi, Giovanni; MacManus, David B.; Mondal,	Effect of Uniaxial Compression Frequency on Osteogenic Cell Responses in Dynamic 3D Cultures
	2023	Kobayashi, Ken; Han, Liang; Lu, Shan-Ni; Ninomiya, Kazuki; Isobe, Naoki; Nishimura, Takanori	Effects of hydrostatic compression on milk production-related signaling pathways in mouse mammary epithelial cells
	2023	Ross, Jacob A; Arcos-Villacis, Nathaly; Battey, Edmund; Boogerd, Cornelis; Orellana, Constanza Avalos; Marhuenda, Emilie; Swiatlowska, Pamela; Hodzic, Didier; Prin, Fabrice; Mohun, Tim;	Lem2 is essential for cardiac development by maintaining nuclear integrity
	2023	Jebeli, Mahvash; Lopez, Samantha K.; Goldblatt, Zachary E.; McCollum, Dannel; Mana-Capelli, Sebastian; Wen, Qi; Billiar, Kristen	Multicellular aligned bands disrupt global collective cell behavior
	2023	Li, David Xinzheyang; Ma, Zhiyao; Szojka, Alexander RA; Lan, Xiaoyi; Kunze, Melanie; Mulet-Sierra, Aillette; Westover, Lindsey; Adesida, Adetola B	Non-hypertrophic chondrogenesis of mesenchymal stem cells through mechano-hypoxia programing
	2023	Bonithon, Roxane; Lupton, Colin; Roldo, Marta; Dunlop, Joseph Nicholas; Blunn, Gordon William; Witte, Frank; Tozzi, Gianluca	Open-porous magnesium-based scaffolds withstand in vitro corrosion under cyclic loading: A mechanistic study
MCB1	2022	Demir, T., Takada, H., Furuya, K., Sokabe, M., & Ogawa, R.	Role of Skin Stretch on Local Vascular Permeability in Murine and Cell Culture Models.
MCB1	2022	Lai, M. W., Chow, N., Checco, A., Kunar, B., Redmond, D., Rafii, S., & Rabbany, S. Y.	Systems Biology Analysis of Temporal Dynamics That Govern Endothelial Response to Cyclic Stretch.
MCFX	2022	Papalamprou, A., Yu, V., Chen, A., Stefanovic, T., Kaneda, G., Salehi, K., ... & Sheyn, D.	Directing iPSC differentiation into iTenocytes using combined scleraxis overexpression and cyclic loading.

MCFX	2022	Xie, L. Y., Cao, S. N., Li, Z. T., Wang, D. D., & Shi, B.	Effects of Fluid Shear Stress on Human Intervertebral Disc Nucleus Pulposus Cells Based on Label-Free Quantitative Proteomics.
MCFX	2022	Jebeli, M., Lopez, S. K., Goldblatt, Z. E., McCollum, D., Mana-Capelli, S., Wen, Q., & Billiar, K.	Multicellular aligned bands disrupt global collective cell behavior.
MCFX	2022	Jena, B. P., Larsson, L., Gatti, D. L., Ghiran, I., & Cho, W. J.	Understanding Brain-Skeletal Muscle Crosstalk Impacting Metabolism and Movement.
MCTR	2022	Ma, Z., Li, D. X., Kunze, M., Mulet-Sierra, A., Westover, L., & Adesida, A. B.	Engineered human meniscus in modeling sex differences of knee osteoarthritis in vitro.
MCTR	2022	Swiatlowska, P., Sit, B., Feng, Z., Marhuenda, E., Xanthis, I., Zingaro, S., ... & Iskratsch, T.	Pressure and stiffness sensing together regulate vascular smooth muscle cell phenotype switching.
	2022	Kumar, R., Soni, H., Afolabi, J. M., Kanthakumar, P., Mankuzhy, P. D., Iwhiwhu, S. A., & Adebijiyi, A.	Induction of reactive oxygen species by mechanical stretch drives endothelin production in neonatal pig renal epithelial cells.
MC B1	2021	Rashika Joshi, Matthew R. Batie, Qiang Fan, and Brian Michael Varisco*	Mouse Lung Organoid Responses to Reduced, Increased, and Cyclic Stretch.
MC B1	2021	Xun Xu, Yan Nie, Weiwei Wang, Nan Ma & Andreas Lendlein	Periodic thermomechanical modulation of toll-like receptor expression and distribution in mesenchymal stromal cells.
MC FX	2021	Angela Papalamprou, Victoria Yu, Angel Chen, Tina Stefanovic, Giselle Kaneda, Khosrowdad Salehi, Chloe Castaneda, Arkadiusz Gertych, Juliane D Glaeser, View ORCID ProfileDmitriy Sheyn	Directing iPSC Differentiation into iTenocytes using Combined Scleraxis Overexpression and Cyclic Loading.
MC FX	2021	Thompson, C.L.; McFie, M.; Chapple, J.P.; Beales, P.; Knight, M.M.	Polycystin-2 Is Required for Chondrocyte Mechanotransduction and Traffics to the Primary Cilium in Response to Mechanical Stimulation.
MC FX	2021	Tran, R.D.H.; Morris, T.A.; Gonzalez, D.; Hetta, A.H.S.H.A.; Grosberg, A.	Quantitative Evaluation of Cardiac Cell Interactions and Responses to Cyclic Strain.
MC T6	2021	James Britton, Katarzyna Krukiewicz, Malu Chandran, Jorge Fernandez, Anup Poudel, Jose-Ramon Sarasua, Una FitzGerald, Manus J.P. Biggs,	A flexible strain-responsive sensor fabricated from a biocompatible electronic ink via an additive-manufacturing process.
MC T6	2021	Fernandez-Yague, Marc & Trotier, Alexandre & Demir, Secil & Abbah, S.A. & Larrañaga, Aitor & Thirumaran, Arun & Stapleton, Aimee & Tofail, Syed & Palma, Matteo & Kilcoyne, Michelle &	A Self-Powered Piezo-Bioelectric Device Regulates Tendon Repair-Associated Signaling Pathways through Modulation of Mechanosensitive Ion Channels.
MC T6	2021	Xu, Kailei & Liu, Xixia & Li, Xiaokeng & Yin, Jun & Wei, Peng & Qian, Jin & Sun, Jie.	Effect of Electrical and Electromechanical Stimulation on PC12 Cell Proliferation and Axon Outgrowth.
MC T6	2021	Hyeree Park, Showan N. Nazhat, Derek H. Rosenzweig	Mechanical activation drives tenogenic differentiation of human mesenchymal stem cells in aligned dense collagen hydrogels.

MC T6	2021	Alejandro Garcia Garcia, Jean-baptiste Perot, Megane Beldjilali-Labro, Quentin Dermigny, Marie Naudot, Sophie Le Ricousse, Cecile Legallais, Fahmi Bedoui	Monitoring mechanical stimulation for optimal tendon tissue engineering: A mechanical and biological multiscale study.
MC TR	2021	Szójka, A., Li, D. X., Sopcak, M., Ma, Z., Kunze, M., Mulet-Sierra, A., Adeeb, S. M., Westover, L., Jomha, N. M., & Adesida, A. B.	Mechano-Hypoxia Conditioning of Engineered Human Meniscus.
MC TR	2021	Elena Cambria, Sally Heusser, Ariane C. Scheuren, Wai Kit Tam, Agnieszka A. Karol, Wolfgang Hitzl, Victor Y. Leung, Ralph Müller, Stephen J. Ferguson, Karin Wuertz-Kozak	TRPV4 mediates cell damage induced by hyperphysiological compression and regulates COX2/PGE2 in intervertebral discs.
MC B1	2020	Kim, M.K.M., Burns, M.J., Serjeant, M.E. and Séguin, C.A.,	The mechano-response of murine annulus fibrosus cells to cyclic tensile strain is frequency dependent.
MC FX	2020	Rogers, J.D., Holmes, J.W., Saucerman, J.J. and Richardson, W.J.	Mechano-Chemo Signaling Interactions Modulate Matrix Production by Cardiac Fibroblasts.
MC FX	2020	Tran, R.D., Siemens, M., Nguyen, C.H., Ochs, A.R., Zaragoza, M.V. and Grosberg, A.	The Effect of Cyclic Strain on Human Fibroblasts With Lamin A/C Mutations and Its Relation to Heart Disease.
MC T6	2020	Lin, J., Li, X., Yin, J. and Qian, J.	Effect of Cyclic Stretch on Neuron Reorientation and Axon Outgrowth.
MC T6	2020	Fernandez-Yague, M.A., Trotier, A., Abbah, S.A., Larrañaga, A., Thirumaran, A., Stapleton, A., Tofail, S.A., Palma, M., Pandit, A. and Biggs, M.J.	Self-powered piezo-bioelectronic device mediates tendon repair through modulation of mechanosensitive ion channels.
MC TR	2020	C. Ludovica, G. Mattei, A. Ahluwalia	A New Load-controlled Testing Method for Viscoelastic Characterisation Through Stress-rate Measurements.
MC TR	2020	Cambria, E., Brunner, S., Heusser, S., Fisch, P., Hitzl, W., Ferguson, S.J. and Wuertz-Kozak, K.	Cell-laden agarose-collagen composite hydrogels for mechanotransduction studies.
MC TR	2020	Sit, B., Feng, Z., Xanthis, I., Marhuenda, E., Zingaro, S., Shanahan, C., Jones, G., Yu, C.H. and Iskratsch, T.	Matrix stiffness and blood pressure together regulate vascular smooth muscle cell phenotype switching and cofilin dependent podosome formation.
MC B1	2019	O. Friedrich, A-L. Merten, D. Schneidereit, Y. Guo, S. Schurmann, N. Martinac	Stretch In Focus: 2d Inplane Cell Stretch Systems For Studies Of Cardiac Mechano-Signaling.
MC FX	2019	N. Shealy, J. Rex, A. Bradshaw, C. Gross	Dynamic Stretching of Fibrillar Collagen Enhances Cross-linking by Transglutaminas.
MC T6	2019	D. Kumar, S. A. Cain, L. A. Bosworth	Effect Of Topography And Physical Stimulus On Hmsc Phenotype Using A 3d In Vitro Model.
MC T6	2019	Bracamonte, Johane & Saunders, Sarah & Cole, Sam & Annohene, Gilbert & Tepper, Gary & Soares, Joao.	In vitro degradation of electrospun polycaprolactone tissue engineering scaffolds under cyclical dynamic loading.

MC T6	2019	D. Gaspar, Christina N. M. Ryan, Dimitrios I. Zeugolis	Multifactorial Bottom-Up Bioengineering Approaches For The Development Of Living Tissues Substitutes.
MC T6	2019	M. S. Ali, X. Wang, C. M. R. Lacerda	The Effect Of Physiological Stretch And The Valvular Endothelium On Mitral Valve Proteomes.
MC TR	2019	C. Ludovica	Advanced In-vitro Models with Integrated Sensing for Real-time Monitoring of Electrical and Mechanical Properties of Cellular Constructs.
MC TR	2019	A. Sensini, L. Christofolini, A. Zucchelli, M. L. Focarete, C. Gualandi, A. De Mori, A. P. Kao, M. Roldo, G. Blunn, G. Tozzi	Hierarchical Electrospun Tendon-ligament Bioinspired Scaffolds Induce Changes in Fibroblasts Morphology under Static and Dynamic Conditions.
MC B1	2018	K. Chen, A. Vigliotti, M. Bacca, R. M. McMeeking, V.S. Dashpande, J.W. Holmes	Role Of Boundary Conditions In Determining Cell Alignment In Response To Stretch.
MC FX	2018	S. N. Bradley	Stretching Vascular Smooth Muscle Cells on Micropatterned Surfaces.
MC T6	2018	Mir Ali	Mechanotransduction And Control Of Valvular Cell Phenotype As Tools To Inform Valvular Pathophysiology.
MC FX	2017	P.R. Sonavane, C. Wang, B. Dzamba, G.F. Weber, A. Periasamy, D.W. DeSimone	Mechanical And Signaling Roles For Keratin Intermediate Filaments In The Assembly And Morphogenesis Of Mesendoderm Tissue At Gastrulation.
MC FX	2017	D. Gaspar, A. Pandit, D. Zeugolis	Tenogenic Phenotype Maintenance And Differentiation Using Macromolecular Crowding And Mechanical Loading.
MC T6	2017	S. Wu, Y. Wang, P.N. Streubel, B. Duan	Living Nanofiber Yarn-Based Woven Biotextiles For Tendon Tissue Engineering Using Cell Tri-Culture And Mechanical Stimulation.
MC T6	2016	F. Chen, G. Hochleitner, T. Woodfield, J. Groll, P. Dalton, B.G. Amsden	Additive Manufacturing Of A Photo-Cross-Linkable Polymer Via Direct Meld Electrospinning Writing For Producing High Strength Structures.