Di Zeugolis

List of Publications by Citations

135 papers	5,321 citations	38 h-index	69 g-index
163 ext. papers	6,500 ext. citations	7.5 avg, IF	6.1 L-index

#	Paper	IF	Citations
135	Electro-spinning of pure collagen nano-fibres - just an expensive way to make gelatin?. *Biomaterials*, **2008**, 29, 2293-305	15.6	472
134	A biomaterials approach to peripheral nerve regeneration: bridging the peripheral nerve gap and enhancing functional recovery. *Journal of the Royal Society Interface*, **2012**, 9, 202-21	4.1	384
133	The Collagen Suprafamily: From Biosynthesis to Advanced Biomaterial Development. *Advanced Materials*, **2019**, 31, e1801651	24	287
132	Biomimetic approaches in bone tissue engineering: Integrating biological and physicomechanical strategies. *Advanced Drug Delivery Reviews*, **2015**, 84, 1-29	18.5	286
131	Cross-linking of extruded collagen fibers--a biomimetic three-dimensional scaffold for tissue engineering applications. *Journal of Biomedical Materials Research - Part A*, **2009**, 89, 895-908	5.4	165
130	To cross-link or not to cross-link? Cross-linking associated foreign body response of collagen-based devices. *Tissue Engineering - Part B: Reviews*, **2015**, 21, 298-313	7.9	162
129	An injectable vehicle for nucleus pulposus cell-based therapy. *Biomaterials*, **2011**, 32, 2862-70	15.6	161
128	Regeneration and repair of tendon and ligament tissue using collagen fibre biomaterials. *Acta Biomaterialia*, **2011**, 7, 3237-47	10.8	142
127	The past, present and future in scaffold-based tendon treatments. *Advanced Drug Delivery Reviews*, **2015**, 84, 257-77	18.5	120
126	Macromolecular crowding meets tissue engineering by self-assembly: a paradigm shift in regenerative medicine. *Advanced Materials*, **2014**, 26, 3024-34	24	114
125	Progress in cell-based therapies for tendon repair. *Advanced Drug Delivery Reviews*, **2015**, 84, 240-56	18.5	114
124	Hydrolyzed Collagen-Sources and Applications. *Molecules*, **2019**, 24,	4.8	107
123	Collagen: finding a solution for the source. *Tissue Engineering - Part A*, **2013**, 19, 1491-4	3.9	84
122	British Society for Matrix Biology Autumn Meeting Joint with the UK Tissue & Cell Engineering Society, University of Bristol, UK. *International Journal of Experimental Pathology*, **2005**, 86, A1-A56	2.8	78
121	Macromolecularly crowded in vitro microenvironments accelerate the production of extracellular matrix-rich supramolecular assemblies. *Scientific Reports*, **2015**, 5, 8729	4.9	72
120	Alternative uses for co-products: Harnessing the potential of valuable compounds from meat processing chains. *Meat Science*, **2017**, 132, 90-98	6.4	66
119	A shape-controlled tuneable microgel platform to modulate angiogenic paracrine responses in stem cells. *Biomaterials*, **2014**, 35, 8757-8766	15.6	63

118	The biophysical, biochemical, and biological toolbox for tenogenic phenotype maintenance in vitro. *Trends in Biotechnology*, **2014**, 32, 474-82	15.1	62
117	Nano-textured self-assembled aligned collagen hydrogels promote directional neurite guidance and overcome inhibition by myelin associated glycoprotein. *Soft Matter*, **2011**, 7, 2770	3.6	60
116	Engineering in vitro microenvironments for cell based therapies and drug discovery. *Drug Discovery Today*, **2013**, 18, 1099-108	8.8	58
115	The effect of intraluminal contact mediated guidance signals on axonal mismatch during peripheral nerve repair. *Biomaterials*, **2012**, 33, 6660-71	15.6	56
114	Current and upcoming therapies to modulate skin scarring and fibrosis. *Advanced Drug Delivery Reviews*, **2019**, 146, 37-59	18.5	55
113	Amine functionalization of collagen matrices with multifunctional polyethylene glycol systems. *Biomacromolecules*, **2010**, 11, 3093-101	6.9	53
112	Substrate topography: A valuable in vitro tool, but a clinical red herring for in vivo tenogenesis. *Acta Biomaterialia*, **2015**, 27, 3-12	10.8	52
111	Post-self-assembly experimentation on extruded collagen fibres for tissue engineering applications. *Acta Biomaterialia*, **2008**, 4, 1646-56	10.8	52
110	Engineering extruded collagen fibers for biomedical applications. *Journal of Applied Polymer Science*, **2008**, 108, 2886-2894	2.9	52
109	Preferential tendon stem cell response to growth factor supplementation. *Journal of Tissue Engineering and Regenerative Medicine*, **2016**, 10, 783-98	4.4	51
108	Collagen Cross-Linking: Biophysical, Biochemical, and Biological Response Analysis. *Tissue Engineering - Part A*, **2017**, 23, 1064-1077	3.9	47
107	Macromolecular crowding meets oxygen tension in human mesenchymal stem cell culture - A step closer to physiologically relevant in vitro organogenesis. *Scientific Reports*, **2016**, 6, 30746	4.9	47
106	Harnessing Hierarchical Nano- and Micro-Fabrication Technologies for Musculoskeletal Tissue Engineering. *Advanced Healthcare Materials*, **2015**, 4, 2488-99	10.1	46
105	Assessment of stem cell carriers for tendon tissue engineering in pre-clinical models. *Stem Cell Research and Therapy*, **2014**, 5, 38	8.3	44
104	Accelerated Development of Supramolecular Corneal Stromal-Like Assemblies from Corneal Fibroblasts in the Presence of Macromolecular Crowders. *Tissue Engineering - Part C: Methods*, **2015**, 21, 660-70	2.9	44
103	Essential modification of the Sircol Collagen Assay for the accurate quantification of collagen content in complex protein solutions. *Acta Biomaterialia*, **2010**, 6, 3146-51	10.8	41
102	An experimental toolbox for characterization of mammalian collagen type I in biological specimens. *Nature Protocols*, **2018**, 13, 507-529	18.8	40
101	Influence of sterilisation methods on collagen-based devices stability and properties. *Expert Review of Medical Devices*, **2014**, 11, 305-14	3.5	40

100	Collagen solubility testing, a quality assurance step for reproducible electro-spun nano-fibre fabrication. A technical note. *Journal of Biomaterials Science, Polymer Edition*, **2008**, 19, 1307-17	3.5	40
99	The influence of a natural cross-linking agent (Myrica rubra) on the properties of extruded collagen fibres for tissue engineering applications. *Materials Science and Engineering C*, **2010**, 30, 190-195	8.3	38
98	The influence of anisotropic nano- to micro-topography on in vitro and in vivo osteogenesis. *Nanomedicine*, **2015**, 10, 693-711	5.6	37
97	Progress in Corneal Stromal Repair: From Tissue Grafts and Biomaterials to Modular Supramolecular Tissue-Like Assemblies. *Advanced Materials*, **2016**, 28, 5381-99	24	37
96	Preferential cell response to anisotropic electro-spun fibrous scaffolds under tension-free conditions. *Journal of Materials Science: Materials in Medicine*, **2012**, 23, 137-48	4.5	35
95	Electromechanical properties of dried tendon and isoelectrically focused collagen hydrogels. *Acta Biomaterialia*, **2012**, 8, 3073-9	10.8	35
94	The physiological relevance of wet versus dry differential scanning calorimetry for biomaterial evaluation: a technical note. *Polymer International*, **2010**, 59, 1403-1407	3.3	33
93	In Vitro Enzymatic Degradation of Tissue Grafts and Collagen Biomaterials by Matrix Metalloproteinases: Improving the Collagenase Assay. *ACS Biomaterials Science and Engineering*, **2017**, 3, 1922-1932	5.5	32
92	Glycosaminoglycans in Tendon Physiology, Pathophysiology, and Therapy. *Bioconjugate Chemistry*, **2015**, 26, 1237-51	6.3	32
91	Effects of Polydopamine Functionalization on Boron Nitride Nanotube Dispersion and Cytocompatibility. *Bioconjugate Chemistry*, **2015**, 26, 2025-37	6.3	32
90	Low, but not too low, oxygen tension and macromolecular crowding accelerate extracellular matrix deposition in human dermal fibroblast culture. *Acta Biomaterialia*, **2016**, 44, 221-31	10.8	32
89	Cell derived extracellular matrix-rich biomimetic substrate supports podocyte proliferation, differentiation and maintenance of native phenotype. *Advanced Functional Materials*, **2020**, 30, 1908752	15.6	31
88	Low oxygen tension and macromolecular crowding accelerate extracellular matrix deposition in human corneal fibroblast culture. *Journal of Tissue Engineering and Regenerative Medicine*, **2018**, 12, 6-18	4.4	31
87	Identification of topographical architectures supporting the phenotype of rat tenocytes. *Acta Biomaterialia*, **2019**, 83, 277-290	10.8	31
86	Scaffold and scaffold-free self-assembled systems in regenerative medicine. *Biotechnology and Bioengineering*, **2016**, 113, 1155-63	4.9	29
85	Influence of porosity and pore shape on structural, mechanical and biological properties of poly ?-caprolactone electro-spun fibrous scaffolds. *Nanomedicine*, **2016**, 11, 1031-40	5.6	29
84	Acetic acid and pepsin result in high yield, high purity and low macrophage response collagen for biomedical applications. *Biomedical Materials (Bristol)*, **2017**, 12, 065009	3.5	28
83	Extruded collagen fibres for tissue-engineering applications: influence of collagen concentration and NaCl amount. *Journal of Biomaterials Science, Polymer Edition*, **2009**, 20, 219-34	3.5	27

82	Polydispersity and negative charge are key modulators of extracellular matrix deposition under macromolecular crowding conditions. *Acta Biomaterialia*, **2019**, 88, 197-210	10.8	26
81	Advancements and Challenges in Multidomain Multicargo Delivery Vehicles. *Advanced Materials*, **2018**, 30, e1704324	24	26
80	Relevance of bioreactors and whole tissue cultures for the translation of new therapies to humans. *Journal of Orthopaedic Research*, **2018**, 36, 10-21	3.8	26
79	An academic, clinical and industrial update on electrospun, additive manufactured and imprinted medical devices. *Expert Review of Medical Devices*, **2015**, 12, 601-12	3.5	24
78	The Multifaceted Potential of Electro-spinning in Regenerative Medicine. *Pharmaceutical Nanotechnology*, **2014**, 2, 23-34	4	24
77	In vitro evaluation of Ficoll-enriched and genipin-stabilised collagen scaffolds. *Journal of Tissue Engineering and Regenerative Medicine*, **2014**, 8, 233-41	4.4	24
76	Co-transfection of decorin and interleukin-10 modulates pro-fibrotic extracellular matrix gene expression in human tenocyte culture. *Scientific Reports*, **2016**, 6, 20922	4.9	24
75	The influence of poly(ethylene glycol) ether tetrasuccinimidyl glutarate on the structural, physical, and biological properties of collagen fibers. *Journal of Biomedical Materials Research - Part B Applied Biomaterials*, **2016**, 104, 914-22	3.5	23
74	Spinal cord injury in vitro: modelling axon growth inhibition. *Drug Discovery Today*, **2010**, 15, 436-43	8.8	22
73	Chasing Chimeras - The elusive stable chondrogenic phenotype. *Biomaterials*, **2019**, 192, 199-225	15.6	22
72	Electric field stimulation for tissue engineering applications. *BMC Biomedical Engineering*, **2021**, 3, 1	4.3	22
71	Recreating complex pathophysiologies in vitro with extracellular matrix surrogates for anticancer therapeutics screening. *Drug Discovery Today*, **2016**, 21, 1521-1531	8.8	20
70	A Qualitative Assessment of EU Energy Policy Interactions. *Energy Sources, Part B: Economics, Planning and Policy*, **2012**, 7, 177-187	3.1	20
69	Carrageenan enhances chondrogenesis and osteogenesis in human bone marrow stem cell culture. *European Cells and Materials*, **2019**, 37, 310-332	4.3	19
68	Battling adhesions: from understanding to prevention. *BMC Biomedical Engineering*, **2019**, 1, 5	4.3	18
67	Automation, Monitoring, and Standardization of Cell Product Manufacturing. *Frontiers in Bioengineering and Biotechnology*, **2020**, 8, 811	5.8	18
66	Collagen: Materials Analysis and Implant Uses **2011**, 261-278		17
65	Multifactorial bottom-up bioengineering approaches for the development of living tissue substitutes. *FASEB Journal*, **2019**, 33, 5741-5754	0.9	16

64	Electrospun Polymers in Cartilage Engineering-State of Play. *Frontiers in Bioengineering and Biotechnology*, **2020**, 8, 77	5.8	15
63	Surface hierarchical porosity in poly (e-caprolactone) membranes with potential applications in tissue engineering prepared by foaming in supercritical carbon dioxide. *Journal of Supercritical Fluids*, **2014**, 95, 273-284	4.2	15
62	Collagen Quantification in Tissue Specimens. *Methods in Molecular Biology*, **2017**, 1627, 341-350	1.4	15
61	A barbed suture repair for flexor tendons: a novel technique with no exposed barbs. *Plastic and Reconstructive Surgery - Global Open*, **2014**, 2, e237	1.2	15
60	Influence of the Thermodynamic and Kinetic Control of Self-Assembly on the Microstructure Evolution of Silk-Elastin-Like Recombinamer Hydrogels. *Small*, **2020**, 16, e2001244	11	14
59	The synergistic effect of low oxygen tension and macromolecular crowding in the development of extracellular matrix-rich tendon equivalents. *Biofabrication*, **2020**, 12, 025018	10.5	14
58	The Few Who Made It: Commercially and Clinically Successful Innovative Bone Grafts. *Frontiers in Bioengineering and Biotechnology*, **2020**, 8, 952	5.8	14
57	Twenty-five years of nano-bio-materials: have we revolutionized healthcare?. *Nanomedicine*, **2016**, 11, 985-7	5.6	14
56	State of art and limitations in genetic engineering to induce stable chondrogenic phenotype. *Biotechnology Advances*, **2018**, 36, 1855-1869	17.8	13
55	Seaweed polysaccharides as macromolecular crowding agents. *International Journal of Biological Macromolecules*, **2020**, 164, 434-446	7.9	13
54	The influence of animal species, gender and tissue on the structural, biophysical, biochemical and biological properties of collagen sponges. *Journal of Materials Science: Materials in Medicine*, **2021**, 32, 12	4.5	13
53	Scaffold-free cell-based tissue engineering therapies: advances, shortfalls and forecast. *Npj Regenerative Medicine*, **2021**, 6, 18	15.8	13
52	Battling bacterial infection with hexamethylene diisocyanate cross-linked and Cefaclor-loaded collagen scaffolds. *Biomedical Materials (Bristol)*, **2017**, 12, 035013	3.5	11
51	Extracellular matrix-based biomaterials as adipose-derived stem cell delivery vehicles in wound healing: a comparative study between a collagen scaffold and two xenografts. *Stem Cell Research and Therapy*, **2020**, 11, 510	8.3	11
50	2D imprinted substrates and 3D electrospun scaffolds revolutionize biomedicine. *Nanomedicine*, **2016**, 11, 989-92	5.6	11
49	Local pharmacological induction of angiogenesis: Drugs for cells and cells as drugs. *Advanced Drug Delivery Reviews*, **2019**, 146, 126-154	18.5	9
48	Macromolecular crowding as a means to assess the effectiveness of chondrogenic media. *Journal of Tissue Engineering and Regenerative Medicine*, **2019**, 13, 217-231	4.4	9
47	Influence of Nonsulfated Polysaccharides on the Properties of Electrospun Poly(lactic--glycolic acid) Fibers. *ACS Biomaterials Science and Engineering*, **2017**, 3, 1304-1312	5.5	8

46	Skin Tissue Engineering **2011**, 467-499		8
45	Influence of Cross-Linking Method and Disinfection/Sterilization Treatment on the Structural, Biophysical, Biochemical, and Biological Properties of Collagen-Based Devices. *ACS Biomaterials Science and Engineering*, **2018**, 4, 2739-2747	5.5	8
44	Porcine mesothelium matrix as a biomaterial for wound healing applications. *Materials Today Bio*, **2020**, 7, 100057	9.9	7
43	Environmental fate and effect of biodegradable electro-spun scaffolds (biomaterial)-a case study. *Journal of Materials Science: Materials in Medicine*, **2018**, 29, 51	4.5	6
42	Joint academic and industrial efforts towards innovative and efficient solutions for clinical needs. *Journal of Materials Science: Materials in Medicine*, **2018**, 29, 129	4.5	6
41	It is time to crowd your cell culture media - Physicochemical considerations with biological consequences. *Biomaterials*, **2021**, 275, 120943	15.6	6
40	Transforming eukaryotic cell culture with macromolecular crowding. *Trends in Biochemical Sciences*, **2021**, 46, 805-811	10.3	5
39	Preparation and Characterization of Tissue Surrogates Rich in Extracellular Matrix Using the Principles of Macromolecular Crowding. *Methods in Molecular Biology*, **2019**, 1952, 245-259	1.4	4
38	Production and Characterization of Chemically Cross-Linked Collagen Scaffolds. *Methods in Molecular Biology*, **2019**, 1944, 23-38	1.4	4
37	The effect of aligned electrospun fibers and macromolecular crowding in tenocyte culture. *Methods in Cell Biology*, **2020**, 157, 225-247	1.8	4
36	Growth factor and macromolecular crowding supplementation in human tenocyte culture. *Biomaterials and Biosystems*, **2021**, 1, 100009		4
35	Biophysics Rules the Cell Culture but Has Yet to Reach the Clinic: Why Is That?. *Journal of the American Academy of Orthopaedic Surgeons, The*, **2017**, 25, e144-e147	4.5	3
34	Theranostic drug test incorporating the bone-marrow microenvironment can predict the clinical response of acute myeloid leukaemia to chemotherapy. *British Journal of Haematology*, **2020**, 189, e254-e258	4.5	3
33	Decellularised porcine peritoneum as a tendon protector sheet. *Biomedical Materials (Bristol)*, **2019**, 14, 044102	3.5	3
32	Engineering Anisotropic 2D and 3D Structures for Tendon Repair and Regeneration **2015**, 225-242		3
31	Xenogenic Tissues and Biomaterials for the Skeletal System **2011**, 387-404		3
30	Hyaluronic Acid as Macromolecular Crowder in Equine Adipose-Derived Stem Cell Cultures. *Cells*, **2021**, 10,	7.9	3
29	Bioinspired in vitro microenvironments to control cell fate: focus on macromolecular crowding. *American Journal of Physiology - Cell Physiology*, **2021**, 320, C842-C849	5.4	3

28	Hypoxia Preconditioning of Bone Marrow Mesenchymal Stem Cells Before Implantation in Orthopaedics. *Journal of the American Academy of Orthopaedic Surgeons, The*, **2019**, 27, e1040-e1042	4.5	3
27	Engineering the Tenogenic Niche In Vitro with Microenvironmental Tools. *Advanced Therapeutics*, **2020**, 3, 1900072	4.9	2
26	In vitro and preclinical characterisation of compressed, macro-porous and collagen coated poly- caprolactone electro-spun scaffolds. *Biomedical Materials (Bristol)*, **2019**, 14, 055007	3.5	2
25	Non-destructive determination of collagen fibril width in extruded collagen fibres by piezoresponse force microscopy. *Biomedical Physics and Engineering Express*, **2017**, 3, 055004	1.5	2
24	Data on in vitro and in vivo cell orientation on substrates with different topographies. *Data in Brief*, **2015**, 5, 379-82	1.2	2
23	Macromolecular Crowding: The Next Frontier in Tissue Engineering. *Advances in Science and Technology*, **2014**, 96, 1-8	0.1	2
22	In the quest of the optimal tissue source (porcine male and female articular, tracheal and auricular cartilage) for the development of collagen sponges for articular cartilage. *Biomedical Engineering Advances*, **2021**, 1, 100002		2
21	Development macro-porous electro-spun meshes with clinically relevant mechanical properties-a technical note. *Biomedical Materials (Bristol)*, **2019**, 14, 024103	3.5	2
20	Development and characterisation of cytocompatible polyester substrates with tunable mechanical properties and degradation rate. *Acta Biomaterialia*, **2021**, 121, 303-315	10.8	2
19	The Influence of Bloom Index, Endotoxin Levels and Polyethylene Glycol Succinimidyl Glutarate Crosslinking on the Physicochemical and Biological Properties of Gelatin Biomaterials. *Biomolecules* , **2021**, 11,	5.9	2
18	Scaffolds for tendon tissue engineering **2019**, 259-298		1
17	2.15 Collagen: Materials Analysis and Implant Uses ? **2017**, 332-350		1
16	6.20 Skin Tissue Engineering ? **2017**, 334-382		1
15	Molecular Crowding (in Cell Culture) **2020**, 483-509		1
14	Decellularized xenografts in regenerative medicine: From processing to clinical application. *Xenotransplantation*, **2021**, 28, e12683	2.8	1
13	Translational Research Symposium-collaborative efforts as driving forces of healthcare innovation. *Journal of Materials Science: Materials in Medicine*, **2019**, 30, 133	4.5	1
12	Molecular Crowding (in Cell Culture) **2018**, 1-27		1
11	A combined physicochemical approach towards human tenocyte phenotype maintenance. *Materials Today Bio*, **2021**, 12, 100130	9.9	1

10	In the quest of the optimal chondrichthyan for the development of collagen sponges for articular cartilage. *Journal of Science: Advanced Materials and Devices*, **2021**, 6, 390-398	4.2	1
9	Modulation of stem cell response using biodegradable polyester films with different stiffness. *Biomedical Engineering Advances*, **2021**, 2, 100007		1
8	Formation of Corneal Stromal-Like Assemblies Using Human Corneal Fibroblasts and Macromolecular Crowding. *Methods in Molecular Biology*, **2020**, 2145, 119-141	1.4	1
7	Collagen type II: From biosynthesis to advanced biomaterials for cartilage engineering. *Biomaterials and Biosystems*, **2021**, 4, 100030		1
6	Flexor Tenorraphy. *Plastic and Reconstructive Surgery*, **2015**, 136, 23-24	2.7	0
5	Adapting the Scar-in-a-Jar to Skin Fibrosis and Screening Traditional and Contemporary Anti-Fibrotic Therapies. *Frontiers in Bioengineering and Biotechnology*, **2021**, 9, 756399	5.8	0
4	Designing Microenvironments for Optimal Outcomes in Tissue Engineering and Regenerative Medicine: From Biopolymers to Culturing Conditions **2019**, 119-119		
3	2.21 Xenogenic Tissues and Biomaterials for the Skeletal System **2017**, 471-504		
2	REFORMED COLLAGEN FIBRES **2006**, 29-36		
1	Materials Science in Ireland - Current Developments and Future Aspirations. *Advanced Materials*, **2016**, 28, 5346-8	24	