

# Ali Tamayol

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

124  
papers

8,715  
citations

45  
h-index

92  
g-index

134  
ext. papers

10,813  
ext. citations

9.4  
avg, IF

6.3  
L-index

#	Paper	IF	Citations
124	3D printing for soft musculoskeletal tissue engineering <b>2022</b> , 167-200		
123	Multimodal sensing and therapeutic systems for wound healing and management: A review. <i>Sensors and Actuators Reports</i> , <b>2022</b> , 4, 100075	4.7	4
122	printing of growth factor-eluting adhesive scaffolds improves wound healing. <i>Bioactive Materials</i> , <b>2022</b> , 8, 296-308	16.7	13
121	Controlled release of azithromycin from polycaprolactone/chitosan nanofibrous membranes. <i>Journal of Drug Delivery Science and Technology</i> , <b>2022</b> , 103246	4.5	0
120	Nanoengineered myogenic scaffolds for skeletal muscle tissue engineering.. <i>Nanoscale</i> , <b>2021</b> ,	7.7	2
119	Colloidal multiscale porous adhesive (bio)inks facilitate scaffold integration.. <i>Applied Physics Reviews</i> , <b>2021</b> , 8, 041415	17.3	4
118	Bioinks and bioprinting strategies for skeletal muscle tissue engineering. <i>Advanced Materials</i> , <b>2021</b> , e2105883	21.8	5
117	Nanoengineered Antiviral Fibrous Arrays with Rose-Thorn-Inspired Architectures <b>2021</b> , 3, 1566-1571		2
116	3D-Printed Hydrogel-Filled Microneedle Arrays. <i>Advanced Healthcare Materials</i> , <b>2021</b> , 10, e2001922	10.1	6
115	Corrugated Compliant Capacitor towards Smart Bandage Application <b>2021</b> ,		2
114	In situ printing of scaffolds for reconstruction of bone defects. <i>Acta Biomaterialia</i> , <b>2021</b> , 127, 313-326	10.8	12
113	Controlling cellular organization in bioprinting through designed 3D microcompartmentalization. <i>Applied Physics Reviews</i> , <b>2021</b> , 8, 021404	17.3	20
112	Extrusion bioprinting: Recent progress, challenges, and future opportunities. <i>Bioprinting</i> , <b>2021</b> , 21, e00146	17.6	15
111	Hydrogen Production by Immobilized Cells of Clostridium intestinale Strain URNW Using Alginate Beads. <i>Applied Biochemistry and Biotechnology</i> , <b>2021</b> , 193, 1558-1573	3.2	6
110	Fibrous Systems as Potential Solutions for Tendon and Ligament Repair, Healing, and Regeneration. <i>Advanced Healthcare Materials</i> , <b>2021</b> , 10, e2001305	10.1	10
109	In Vivo Printing of Nanoenabled Scaffolds for the Treatment of Skeletal Muscle Injuries. <i>Advanced Healthcare Materials</i> , <b>2021</b> , 10, e2002152	10.1	15
108	Miniaturized Needle Array-Mediated Drug Delivery Accelerates Wound Healing. <i>Advanced Healthcare Materials</i> , <b>2021</b> , 10, e2001800	10.1	10

107	Three-Dimensional Printing Using a Maize Protein: Zein-Based Inks in Biomedical Applications. <i>ACS Biomaterials Science and Engineering</i> , <b>2021</b> , 7, 3964-3979	5.5	3
106	Extrusion-based 3D (Bio)Printed Tissue Engineering Scaffolds: Process-Structure-Quality Relationships. <i>ACS Biomaterials Science and Engineering</i> , <b>2021</b> , 7, 4694-4717	5.5	1
105	Biofabrication of natural hydrogels for cardiac, neural, and bone Tissue engineering Applications. <i>Bioactive Materials</i> , <b>2021</b> , 6, 3904-3923	16.7	29
104	Controlled self-assembly of microgels in microdroplets. <i>Sensors and Actuators B: Chemical</i> , <b>2021</b> , 348, 130693	8.5	2
103	Oxygen-Releasing Antibacterial Nanofibrous Scaffolds for Tissue Engineering Applications. <i>Polymers</i> , <b>2020</b> , 12,	4.5	22
102	Magnetic Nanoparticles in Cancer Therapy and Diagnosis. <i>Advanced Healthcare Materials</i> , <b>2020</b> , 9, e1901058	10.5	96
101	Process-Structure-Quality Relationships of Three-Dimensional Printed Poly(Caprolactone)-Hydroxyapatite Scaffolds. <i>Tissue Engineering - Part A</i> , <b>2020</b> , 26, 279-291	3.9	29
100	Additive manufacturing of magnesium alloys. <i>Bioactive Materials</i> , <b>2020</b> , 5, 44-54	16.7	77
99	Effects of ?Bioactive ?Marine-Derived ?Liposomes on ?Two ?Human ?Breast Cancer ??Cell Lines. <i>Marine Drugs</i> , <b>2020</b> , 18,	6	9
98	Nanocomposite hydrogels for tissue engineering applications <b>2020</b> , 499-528		3
97	Electrospun Nanofibrous Membranes for Preventing Tendon Adhesion. <i>ACS Biomaterials Science and Engineering</i> , <b>2020</b> , 6, 4356-4376	5.5	10
96	Customizable Composite Fibers for Engineering Skeletal Muscle Models. <i>ACS Biomaterials Science and Engineering</i> , <b>2020</b> , 6, 1112-1123	5.5	18
95	A porous collagen-GAG scaffold promotes muscle regeneration following volumetric muscle loss injury. <i>Wound Repair and Regeneration</i> , <b>2020</b> , 28, 61-74	3.6	9
94	Printing of Adhesive Hydrogel Scaffolds for the Treatment of Skeletal Muscle Injuries.. <i>ACS Applied Bio Materials</i> , <b>2020</b> , 3, 1568-1579	4.1	50
93	Tailoring the spatial filament organization within nanofibrous tissue engineering scaffolds. <i>International Journal of Polymeric Materials and Polymeric Biomaterials</i> , <b>2020</b> , 1-10	3	1
92	Microfluidic Systems with Embedded Cell Culture Chambers for High-Throughput Biological Assays.. <i>ACS Applied Bio Materials</i> , <b>2020</b> , 3, 6661-6671	4.1	5
91	Cholesteryl Ester Liquid Crystal Nanofibers for Tissue Engineering Applications <b>2020</b> , 2, 1067-1073		16
90	Microneedle arrays for the treatment of chronic wounds. <i>Expert Opinion on Drug Delivery</i> , <b>2020</b> , 17, 1767-1780	20	

89	Sustainable drug release from polycaprolactone coated chitin-lignin gel fibrous scaffolds. <i>Scientific Reports</i> , <b>2020</b> , 10, 20428	4.9	15
88	Growth-Inhibitory Effect of Chitosan-Coated Liposomes Encapsulating Curcumin on MCF-7 Breast Cancer Cells. <i>Marine Drugs</i> , <b>2020</b> , 18,	6	21
87	A Wirelessly Controlled Smart Bandage with 3D-Printed Miniaturized Needle Arrays. <i>Advanced Functional Materials</i> , <b>2020</b> , 30, 1905544	15.6	52
86	Stimuli-responsive hydrogels for manipulation of cell microenvironment: From chemistry to biofabrication technology. <i>Progress in Polymer Science</i> , <b>2019</b> , 98, 101147	29.6	80
85	3D Bioprinting in Skeletal Muscle Tissue Engineering. <i>Small</i> , <b>2019</b> , 15, e1805530	11	113
84	Mechanical and Biochemical Stimulation of 3D Multilayered Scaffolds for Tendon Tissue Engineering. <i>ACS Biomaterials Science and Engineering</i> , <b>2019</b> , 5, 2953-2964	5.5	41
83	Breathable hydrogel dressings containing natural antioxidants for management of skin disorders. <i>Journal of Biomaterials Applications</i> , <b>2019</b> , 33, 1265-1276	2.9	23
82	Soft-Nanoparticle Functionalization of Natural Hydrogels for Tissue Engineering Applications. <i>Advanced Healthcare Materials</i> , <b>2019</b> , 8, e1900506	10.1	62
81	Nanofibrous Scaffolds with Biomimetic Composition for Skin Regeneration. <i>Applied Biochemistry and Biotechnology</i> , <b>2019</b> , 187, 1193-1203	3.2	28
80	Fracture-Resistant and Bioresorbable Drug-Eluting Poly(glycerol Sebacate) Coils. <i>Advanced Therapeutics</i> , <b>2019</b> , 2, 1800109	4.9	4
79	Patient-Specific Biopinks for 3D Bioprinting of Tissue Engineering Scaffolds. <i>Advanced Healthcare Materials</i> , <b>2018</b> , 7, e1701347	10.1	90
78	Drug delivery systems and materials for wound healing applications. <i>Advanced Drug Delivery Reviews</i> , <b>2018</b> , 127, 138-166	18.5	294
77	Nanobead-on-string composites for tendon tissue engineering. <i>Journal of Materials Chemistry B</i> , <b>2018</b> , 6, 3116-3127	7.3	38
76	Micro and nanotechnologies for bone regeneration: Recent advances and emerging designs. <i>Journal of Controlled Release</i> , <b>2018</b> , 274, 35-55	11.7	44
75	Tissue Regeneration: A Multifunctional Polymeric Periodontal Membrane with Osteogenic and Antibacterial Characteristics (Adv. Funct. Mater. 3/2018). <i>Advanced Functional Materials</i> , <b>2018</b> , 28, 1870021	15.6	4
74	Rapid prototyping of whole-thermoplastic microfluidics with built-in microvalves using laser ablation and thermal fusion bonding. <i>Sensors and Actuators B: Chemical</i> , <b>2018</b> , 255, 100-109	8.5	70
73	Nanofibrous scaffolds with biomimetic structure. <i>Journal of Biomedical Materials Research - Part A</i> , <b>2018</b> , 106, 370-376	5.4	16
72	Visible light crosslinkable human hair keratin hydrogels. <i>Bioengineering and Translational Medicine</i> , <b>2018</b> , 3, 37-48	14.8	38

71	Neuroprotective and Anti-Inflammatory Effects of Extract in a Mouse Model of Ischemic Optic Neuropathy. <i>Biomedicines</i> , <b>2018</b> , 6,	4.8	13
70	The Effect of Poly (Glycerol Sebacate) Incorporation within Hybrid Chitin-Lignin Sol-Gel Nanofibrous Scaffolds. <i>Materials</i> , <b>2018</b> , 11,	3.5	17
69	The Positive Role of Curcumin-Loaded Salmon Nanoliposomes on the Culture of Primary Cortical Neurons. <i>Marine Drugs</i> , <b>2018</b> , 16,	6	21
68	Smart Bandages: Smart Bandage for Monitoring and Treatment of Chronic Wounds (Small 33/2018). <i>Small</i> , <b>2018</b> , 14, 1870150	11	2
67	Characterization, mechanistic analysis and improving the properties of denture adhesives. <i>Dental Materials</i> , <b>2018</b> , 34, 120-131	5.7	8
66	Cell-laden composite suture threads for repairing damaged tendons. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , <b>2018</b> , 12, 1039-1048	4.4	20
65	A Multifunctional Polymeric Periodontal Membrane with Osteogenic and Antibacterial Characteristics. <i>Advanced Functional Materials</i> , <b>2018</b> , 28, 1703437	15.6	111
64	Dissolvable Stents: 3D-Printed Sugar-Based Stents Facilitating Vascular Anastomosis (Adv. Healthcare Mater. 24/2018). <i>Advanced Healthcare Materials</i> , <b>2018</b> , 7, 1870088	10.1	
63	3D-Printed Sugar-Based Stents Facilitating Vascular Anastomosis. <i>Advanced Healthcare Materials</i> , <b>2018</b> , 7, e1800702	10.1	20
62	Smart Bandages: The Future of Wound Care. <i>Trends in Biotechnology</i> , <b>2018</b> , 36, 1259-1274	15.1	94
61	Smart Bandage for Monitoring and Treatment of Chronic Wounds. <i>Small</i> , <b>2018</b> , 14, e1703509	11	142
60	Ischemic optic neuropathy as a model of neurodegenerative disorder: A review of pathogenic mechanism of axonal degeneration and the role of neuroprotection. <i>Journal of the Neurological Sciences</i> , <b>2017</b> , 375, 430-441	3.2	17
59	Gold Nanocomposite Bioink for Printing 3D Cardiac Constructs. <i>Advanced Functional Materials</i> , <b>2017</b> , 27, 1605352	15.6	173
58	Highly Stretchable Potentiometric pH Sensor Fabricated via Laser Carbonization and Machining of Carbon-Polyaniline Composite. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 9015-9023	9.5	101
57	Paper-based microfluidic system for tear electrolyte analysis. <i>Lab on A Chip</i> , <b>2017</b> , 17, 1137-1148	7.2	90
56	Engineering Photocrosslinkable Bicomponent Hydrogel Constructs for Creating 3D Vascularized Bone. <i>Advanced Healthcare Materials</i> , <b>2017</b> , 6, 1601122	10.1	42
55	Glucose-Sensitive Hydrogel Optical Fibers Functionalized with Phenylboronic Acid. <i>Advanced Materials</i> , <b>2017</b> , 29, 1606380	24	142
54	Bioprinted Osteogenic and Vasculogenic Patterns for Engineering 3D Bone Tissue. <i>Advanced Healthcare Materials</i> , <b>2017</b> , 6, 1700015	10.1	222

53	Ultrasound induced strain cytoskeleton rearrangement: An experimental and simulation study. <i>Journal of Biomechanics</i> , <b>2017</b> , 60, 39-47	2.9	24
52	A highly adhesive and naturally derived sealant. <i>Biomaterials</i> , <b>2017</b> , 140, 115-127	15.6	122
51	Tailored electrospun small-diameter graft for vascular prosthesis. <i>International Journal of Polymeric Materials and Polymeric Biomaterials</i> , <b>2017</b> , 66, 635-643	3	8
50	Tissue Engineering: Gold Nanocomposite Bioink for Printing 3D Cardiac Constructs (Adv. Funct. Mater. 12/2017). <i>Advanced Functional Materials</i> , <b>2017</b> , 27,	15.6	2
49	Single Cell Microgel Based Modular Bioinks for Uncoupled Cellular Micro- and Macroenvironments. <i>Advanced Healthcare Materials</i> , <b>2017</b> , 6, 1600913	10.1	51
48	Human Periodontal Ligament- and Gingiva-derived Mesenchymal Stem Cells Promote Nerve Regeneration When Encapsulated in Alginate/Hyaluronic Acid 3D Scaffold. <i>Advanced Healthcare Materials</i> , <b>2017</b> , 6, 1700670	10.1	44
47	A Textile Dressing for Temporal and Dosage Controlled Drug Delivery. <i>Advanced Functional Materials</i> , <b>2017</b> , 27, 1702399	15.6	130
46	Biodegradable elastic nanofibrous platforms with integrated flexible heaters for on-demand drug delivery. <i>Scientific Reports</i> , <b>2017</b> , 7, 9220	4.9	67
45	Spatially and Temporally Controlled Hydrogels for Tissue Engineering. <i>Materials Science and Engineering Reports</i> , <b>2017</b> , 119, 1-35	30.9	115
44	Nanostructured Fibrous Membranes with Rose Spike-Like Architecture. <i>Nano Letters</i> , <b>2017</b> , 17, 6235-6240	11.5	60
43	3D Printed Anchoring Sutures for Permanent Shaping of Tissues. <i>Macromolecular Bioscience</i> , <b>2017</b> , 17, 1700304	5.5	6
42	Assessment of neuroprotective properties of Rhus coriaria L. ethanol extract in an in vitro model of retinal degeneration. <i>Journal of Herbal Medicine</i> , <b>2017</b> , 10, 45-52	2.3	7
41	In vitro and in vivo analysis of visible light crosslinkable gelatin methacryloyl (GelMA) hydrogels. <i>Biomaterials Science</i> , <b>2017</b> , 5, 2093-2105	7.4	152
40	Microfibrous silver-coated polymeric scaffolds with tunable mechanical properties. <i>RSC Advances</i> , <b>2017</b> , 7, 34331-34338	3.7	17
39	Microengineered 3D cell-laden thermoresponsive hydrogels for mimicking cell morphology and orientation in cartilage tissue engineering. <i>Biotechnology and Bioengineering</i> , <b>2017</b> , 114, 217-231	4.9	47
38	Medical Textiles as Substrates for Tissue Engineering <b>2017</b> , 363-421		4
37	Nanofibrous Silver-Coated Polymeric Scaffolds with Tunable Electrical Properties. <i>Nanomaterials</i> , <b>2017</b> , 7,	5.4	17
36	Time dependency of morphological remodeling of endothelial cells in response to substrate stiffness. <i>BiolImpacts</i> , <b>2017</b> , 7, 41-47	3.5	9

35	Flexible pH-Sensing Hydrogel Fibers for Epidermal Applications. <i>Advanced Healthcare Materials</i> , <b>2016</b> , 5, 711-9	10.1	122
34	A liver-on-a-chip platform with bioprinted hepatic spheroids. <i>Biofabrication</i> , <b>2016</b> , 8, 014101	10.5	353
33	A low-cost flexible pH sensor array for wound assessment. <i>Sensors and Actuators B: Chemical</i> , <b>2016</b> , 229, 609-617	8.5	91
32	Textile Technologies and Tissue Engineering: A Path Toward Organ Weaving. <i>Advanced Healthcare Materials</i> , <b>2016</b> , 5, 751-66	10.1	125
31	A Bioactive Carbon Nanotube-Based Ink for Printing 2D and 3D Flexible Electronics. <i>Advanced Materials</i> , <b>2016</b> , 28, 3280-9	24	156
30	Natural lecithin promotes neural network complexity and activity. <i>Scientific Reports</i> , <b>2016</b> , 6, 25777	4.9	17
29	Graphene-based materials for tissue engineering. <i>Advanced Drug Delivery Reviews</i> , <b>2016</b> , 105, 255-274	18.5	404
28	Highly Elastic and Conductive Human-Based Protein Hybrid Hydrogels. <i>Advanced Materials</i> , <b>2016</b> , 28, 40-9	24	187
27	Biomarkers and diagnostic tools for detection of Helicobacter pylori. <i>Applied Microbiology and Biotechnology</i> , <b>2016</b> , 100, 4723-34	5.7	14
26	A paper-based in vitro model for on-chip investigation of the human respiratory system. <i>Lab on A Chip</i> , <b>2016</b> , 16, 4319-4325	7.2	16
25	Textile Processes for Engineering Tissues with Biomimetic Architectures and Properties. <i>Trends in Biotechnology</i> , <b>2016</b> , 34, 683-685	15.1	25
24	Laterally Confined Microfluidic Patterning of Cells for Engineering Spatially Defined Vascularization. <i>Small</i> , <b>2016</b> , 12, 5132-5139	11	18
23	Dermal Patch with Integrated Flexible Heater for on Demand Drug Delivery. <i>Advanced Healthcare Materials</i> , <b>2016</b> , 5, 175-84	10.1	77
22	pH-Sensing Hydrogel Fibers: Flexible pH-Sensing Hydrogel Fibers for Epidermal Applications (Adv. Healthcare Mater. 6/2016). <i>Advanced Healthcare Materials</i> , <b>2016</b> , 5, 624-624	10.1	3
21	Elastic sealants for surgical applications. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , <b>2015</b> , 95, 27-39	5.7	132
20	Adenosine-associated delivery systems. <i>Journal of Drug Targeting</i> , <b>2015</b> , 23, 580-96	5.4	22
19	Synthesis, properties, and biomedical applications of gelatin methacryloyl (GelMA) hydrogels. <i>Biomaterials</i> , <b>2015</b> , 73, 254-71	15.6	1167
18	Serpentine and leading-edge capillary pumps for microfluidic capillary systems. <i>Microfluidics and Nanofluidics</i> , <b>2015</b> , 18, 357-366	2.8	28

17	Bioactive Fibers: Hydrogel Templates for Rapid Manufacturing of Bioactive Fibers and 3D Constructs (Adv. Healthcare Mater. 14/2015). <i>Advanced Healthcare Materials</i> , <b>2015</b> , 4, 2050	10.1	2
16	Hydrogel Templates for Rapid Manufacturing of Bioactive Fibers and 3D Constructs. <i>Advanced Healthcare Materials</i> , <b>2015</b> , 4, 2146-2153	10.1	109
15	Smart flexible wound dressing with wireless drug delivery <b>2015</b> ,		7
14	Microfluidics for Advanced Drug Delivery Systems. <i>Current Opinion in Chemical Engineering</i> , <b>2015</b> , 7, 101-112	3.12	140
13	Numerical analysis of the curvature effects on Ranque-Hilsch vortex tube refrigerators. <i>Applied Thermal Engineering</i> , <b>2014</b> , 65, 176-183	5.8	32
12	Surgical Materials: Current Challenges and Nano-enabled Solutions. <i>Nano Today</i> , <b>2014</b> , 9, 574-589	17.9	128
11	Biodegradable nanofibrous polymeric substrates for generating elastic and flexible electronics. <i>Advanced Materials</i> , <b>2014</b> , 26, 5823-30	24	100
10	Microfluidic direct writer with integrated declogging mechanism for fabricating cell-laden hydrogel constructs. <i>Biomedical Microdevices</i> , <b>2014</b> , 16, 387-95	3.7	57
9	Numerical analysis for curved vortex tube optimization. <i>International Communications in Heat and Mass Transfer</i> , <b>2014</b> , 50, 98-107	5.8	40
8	Morphological and physical analysis of natural phospholipids-based biomembranes. <i>PLoS ONE</i> , <b>2014</b> , 9, e107435	3.7	20
7	25th anniversary article: Rational design and applications of hydrogels in regenerative medicine. <i>Advanced Materials</i> , <b>2014</b> , 26, 85-123	24	895
6	Composite Living Fibers for Creating Tissue Constructs Using Textile Techniques. <i>Advanced Functional Materials</i> , <b>2014</b> , 24, 4060-4067	15.6	118
5	Fiber-based tissue engineering: Progress, challenges, and opportunities. <i>Biotechnology Advances</i> , <b>2013</b> , 31, 669-87	17.8	330
4	Fluid flow and forced convection heat transfer around a solid cylinder wrapped with a porous ring. <i>International Journal of Heat and Mass Transfer</i> , <b>2013</b> , 63, 91-100	4.9	63
3	Measurement of pressure drop and flow resistance in microchannels with integrated micropillars. <i>Microfluidics and Nanofluidics</i> , <b>2013</b> , 14, 711-721	2.8	27
2	(Bio)manufactured Solutions for Treatment of Bone Defects with an Emphasis on US-FDA Regulatory Science Perspective. <i>Advanced NanoBiomed Research</i> , <b>2013</b> , 2, 100073	0	1
1	hiPSC-derived 3D Bioprinted Skeletal Muscle Tissue Implants Regenerate Skeletal Muscle Following Volumetric Muscle Loss		2