Jelena Rnjak-Kovacina

List of Publications by Year in Descending Order

62 papers	3,272 citations	28 h-index	57 g-index
64 ext. papers	3,878 ext. citations	9.8 avg, IF	5.54 L-index

#	Paper	IF	Citations
62	Effect of plasma ion immersion implantation on physiochemical and biological properties of silk towards creating a versatile biomaterial platform. *Materials Today Advances*, **2022**, 13, 100212	7.4	6
61	Bone tissue engineering using 3D silk scaffolds and human dental pulp stromal cells epigenetic reprogrammed with the selective histone deacetylase inhibitor MI192.. *Cell and Tissue Research*, **2022**, 1	4.2	2
60	Development and Characterization of Gelatin-Norbornene Bioink to Understand the Interplay between Physical Architecture and Micro-Capillary Formation in Biofabricated Vascularized Constructs. *Advanced Healthcare Materials*, **2021**, e2101873	10.1	4
59	Effect of Recombinant Human Perlecan Domain V Tethering Method on Protein Orientation and Blood Contacting Activity on Polyvinyl Chloride. *Advanced Healthcare Materials*, **2021**, 10, e2100388	10.1	1
58	Impact of Sterilization on a Conjugated Polymer-Based Bioelectronic Patch. *ACS Applied Polymer Materials*, **2021**, 3, 2541-2552	4.3	1
57	Silk Fibroin Scaffold Architecture Regulates Inflammatory Responses and Engraftment of Bone Marrow-Mononuclear Cells. *Advanced Healthcare Materials*, **2021**, 10, e2100615	10.1	4
56	3D bioprinting of dual-crosslinked nanocellulose hydrogels for tissue engineering applications. *Journal of Materials Chemistry B*, **2021**, 9, 6163-6175	7.3	11
55	Ice Templating Soft Matter: Fundamental Principles and Fabrication Approaches to Tailor Pore Structure and Morphology and Their Biomedical Applications. *Advanced Materials*, **2021**, 33, e2100091	24	20
54	Towards engineering heart tissues from bioprinted cardiac spheroids. *Biofabrication*, **2021**, 13,	10.5	9
53	Strategies for inclusion of growth factors into 3D printed bone grafts. *Essays in Biochemistry*, **2021**, 65, 569-585	7.6	2
52	Bioengineering silk into blood vessels. *Biochemical Society Transactions*, **2021**, 49, 2271-2286	5.1	0
51	Biomimetic silk biomaterials: Perlecan-functionalized silk fibroin for use in blood-contacting devices. *Acta Biomaterialia*, **2021**, 132, 162-175	10.8	5
50	A Biomimetic Approach toward Enhancing Angiogenesis: Recombinantly Expressed Domain V of Human Perlecan Is a Bioactive Molecule That Promotes Angiogenesis and Vascularization of Implanted Biomaterials. *Advanced Science*, **2020**, 7, 2000900	13.6	9
49	A One Step Procedure toward Conductive Suspensions of Liposome-Polyaniline Complexes. *Macromolecular Bioscience*, **2020**, 20, e2000103	5.5	1
48	Microchannels Are an Architectural Cue That Promotes Integration and Vascularization of Silk Biomaterials in Vivo. *ACS Biomaterials Science and Engineering*, **2020**, 6, 1476-1486	5.5	17
47	Rapid Photocrosslinking of Silk Hydrogels with High Cell Density and Enhanced Shape Fidelity. *Advanced Healthcare Materials*, **2020**, 9, e1901667	10.1	45
46	Silk fibroin photo-lyogels containing microchannels as a biomaterial platform for tissue engineering. *Biomaterials Science*, **2020**, 8, 7093-7105	7.4	6

45	Visible light mediated PVA-tyramine hydrogels for covalent incorporation and tailorable release of functional growth factors. *Biomaterials Science*, **2020**, 8, 5005-5019	7.4	8
44	3D Bioprinting of Cardiovascular Tissues for In Vivo and In Vitro Applications Using Hybrid Hydrogels Containing Silk Fibroin: State of the Art and Challenges. *Current Tissue Microenvironment Reports*, **2020**, 1, 261-276	1.1	2
43	Dry Surface Treatments of Silk Biomaterials and Their Utility in Biomedical Applications. *ACS Biomaterials Science and Engineering*, **2020**, 6, 5431-5452	5.5	9
42	Microchannels in Development, Survival, and Vascularisation of Tissue Analogues for Regenerative Medicine. *Trends in Biotechnology*, **2019**, 37, 1189-1201	15.1	38
41	Vascular Pedicle and Microchannels: Simple Methods Toward Effective In Vivo Vascularization of 3D Scaffolds. *Advanced Healthcare Materials*, **2019**, 8, e1901106	10.1	10
40	Altered processing enhances the efficacy of small-diameter silk fibroin vascular grafts. *Scientific Reports*, **2019**, 9, 17461	4.9	21
39	The Biomedical Use of Silk: Past, Present, Future. *Advanced Healthcare Materials*, **2019**, 8, e1800465	10.1	299
38	The multifaceted roles of perlecan in fibrosis. *Matrix Biology*, **2018**, 68-69, 150-166	11.4	21
37	Integration of induced pluripotent stem cell-derived endothelial cells with polycaprolactone/gelatin-based electrospun scaffolds for enhanced therapeutic angiogenesis. *Stem Cell Research and Therapy*, **2018**, 9, 70	8.3	36
36	Rapid Endothelialization of Off-the-Shelf Small Diameter Silk Vascular Grafts. *JACC Basic To Translational Science*, **2018**, 3, 38-53	8.7	34
35	Plasma Ion Implantation of Silk Biomaterials Enabling Direct Covalent Immobilization of Bioactive Agents for Enhanced Cellular Responses. *ACS Applied Materials & Interfaces*, **2018**, 10, 17605-17616	9.5	21
34	Glycosaminoglycan and Proteoglycan-Based Biomaterials: Current Trends and Future Perspectives. *Advanced Healthcare Materials*, **2018**, 7, e1701042	10.1	39
33	2.18 Elastin Biopolymers ? **2017**, 412-437		
32	Recombinant Domain V of Human Perlecan Is a Bioactive Vascular Proteoglycan. *Biotechnology Journal*, **2017**, 12, 1700196	5.6	11
31	Silk biomaterials functionalized with recombinant domain V of human perlecan modulate endothelial cell and platelet interactions for vascular applications. *Colloids and Surfaces B: Biointerfaces*, **2016**, 148, 130-138	6	21
30	Degradation of silk films in multipocket corneal stromal rabbit models. *Journal of Applied Biomaterials and Functional Materials*, **2016**, 14, e266-76	1.8	13
29	Bioengineering Proteoglycan-based Matrices For Blood Contacting Applications. *FASEB Journal*, **2016**, 30, 622.2	0.9	
28	In situ formation of poly(vinyl alcohol)-heparin hydrogels for mild encapsulation and prolonged release of basic fibroblast growth factor and vascular endothelial growth factor. *Journal of Tissue Engineering*, **2016**, 7, 2041731416677132	7.5	23

27	Bioengineered human heparin with anticoagulant activity. *Metabolic Engineering*, **2016**, 38, 105-114	9.7	15
26	Lyophilized Silk Sponges: A Versatile Biomaterial Platform for Soft Tissue Engineering. *ACS Biomaterials Science and Engineering*, **2015**, 1, 260-270	5.5	120
25	Vascularization of hollow channel-modified porous silk scaffolds with endothelial cells for tissue regeneration. *Biomaterials*, **2015**, 56, 68-77	15.6	107
24	Robust bioengineered 3D functional human intestinal epithelium. *Scientific Reports*, **2015**, 5, 13708	4.9	103
23	The effect of sterilization on silk fibroin biomaterial properties. *Macromolecular Bioscience*, **2015**, 15, 861-74	5.5	45
22	Current serological possibilities for the diagnosis of arthritis with special focus on proteins and proteoglycans from the extracellular matrix. *Expert Review of Molecular Diagnostics*, **2015**, 15, 77-95	3.8	4
21	Corneal tissue engineering: recent advances and future perspectives. *Tissue Engineering - Part B: Reviews*, **2015**, 21, 278-87	7.9	112
20	Highly tunable elastomeric silk biomaterials. *Advanced Functional Materials*, **2014**, 24, 4615-4624	15.6	265
19	Biocompatibility of silk-tropoelastin protein polymers. *Biomaterials*, **2014**, 35, 5138-47	15.6	50
18	Tropoelastin: a versatile, bioactive assembly module. *Acta Biomaterialia*, **2014**, 10, 1532-41	10.8	96
17	Silk as a biocohesive sacrificial binder in the fabrication of hydroxyapatite load bearing scaffolds. *Biomaterials*, **2014**, 35, 6941-53	15.6	46
16	Arrayed Hollow Channels in Silk-based Scaffolds Provide Functional Outcomes for Engineering Critically-sized Tissue Constructs. *Advanced Functional Materials*, **2014**, 24, 2188-2196	15.6	63
15	Corneal stromal bioequivalents secreted on patterned silk substrates. *Biomaterials*, **2014**, 35, 3744-55	15.6	86
14	Tropoelastin modulates TGF-β-induced expression of VEGF and CTGF in airway smooth muscle cells. *Matrix Biology*, **2013**, 32, 407-13	11.4	12
13	pH-dependent anticancer drug release from silk nanoparticles. *Advanced Healthcare Materials*, **2013**, 2, 1606-11	10.1	156
12	Multifunctional silk-tropoelastin biomaterial systems. *Israel Journal of Chemistry*, **2013**, 53, 777-786	3.4	12
11	Accelerated In Vitro Degradation of Optically Clear Low -Sheet Silk Films by Enzyme-Mediated Pretreatment. *Translational Vision Science and Technology*, **2013**, 2, 2	3.3	34
10	The Role of Elastin in Wound Healing and Dermal Substitute Design **2013**, 57-66		5

9	A silk-based scaffold platform with tunable architecture for engineering critically-sized tissue constructs. *Biomaterials*, **2012**, 33, 9214-24	15.6	101
8	Electrospun synthetic human elastin:collagen composite scaffolds for dermal tissue engineering. *Acta Biomaterialia*, **2012**, 8, 3714-22	10.8	120
7	Severe burn injuries and the role of elastin in the design of dermal substitutes. *Tissue Engineering - Part B: Reviews*, **2011**, 17, 81-91	7.9	70
6	Tailoring the porosity and pore size of electrospun synthetic human elastin scaffolds for dermal tissue engineering. *Biomaterials*, **2011**, 32, 6729-36	15.6	227
5	Increasing the pore size of electrospun scaffolds. *Tissue Engineering - Part B: Reviews*, **2011**, 17, 365-72	7.9	182
4	Elastin-based materials. *Chemical Society Reviews*, **2010**, 39, 3371-9	58.5	177
3	Biomaterials derived from silk-tropoelastin protein systems. *Biomaterials*, **2010**, 31, 8121-31	15.6	130
2	Synthetic human elastin microfibers: stable cross-linked tropoelastin and cell interactive constructs for tissue engineering applications. *Acta Biomaterialia*, **2010**, 6, 354-9	10.8	101
1	Primary human dermal fibroblast interactions with open weave three-dimensional scaffolds prepared from synthetic human elastin. *Biomaterials*, **2009**, 30, 6469-77	15.6	83