Steven G Wise

List of Publications by Year
in descending order

86 papers	3,874 citations	109321 35 h-index	128289 60 g-index
89 all docs	89 docs citations	89 times ranked	4521 citing authors

#	Article	IF	Citations
1	Truncated vascular endothelial cadherin enhances rapid endothelialization of small diameter synthetic vascular grafts. Materials Today Advances, 2022, 14, 100222.	5.2	3
2	Bioengineering artificial blood vessels from natural materials. Trends in Biotechnology, 2022, 40, 693-707.	9.3	36
3	A roadmap of strategies to support cardiovascular researchers: from policy to practice. Nature Reviews Cardiology, 2022, 19, 765-777.	13.7	6
4	Comprehensive Evaluation of the Toxicity and Biosafety of Plasma Polymerized Nanoparticles. Nanomaterials, 2021, 11, 1176.	4.1	6
5	Silk Fibroin Scaffold Architecture Regulates Inflammatory Responses and Engraftment of Bone Marrowâ€Mononuclear Cells. Advanced Healthcare Materials, 2021, 10, e2100615.	7.6	10
6	Macrophage Polarization as a Novel Therapeutic Target for Endovascular Intervention in Peripheral Artery Disease. JACC Basic To Translational Science, 2021, 6, 693-704.	4.1	19
7	Bioengineering silk into blood vessels. Biochemical Society Transactions, 2021, 49, 2271-2286.	3.4	7
8	Patient Endothelial Colony-Forming Cells to Model Coronary Artery Disease Susceptibility and Unravel the Role of Dysregulated Mitochondrial Redox Signalling. Antioxidants, 2021, 10, 1547.	5.1	7
9	Mechanically robust nitrogen-rich plasma polymers: Biofunctional interfaces for surface engineering of biomedical implants. Materials Today Advances, 2021, 12, 100188.	5.2	13
10	Highly Porous, Biocompatible Tough Hydrogels, Processable via Gel Fiber Spinning and 3D Gel Printing. Advanced Materials Interfaces, 2020, 7, 1901770.	3.7	15
11	Plasma polymerized nanoparticles effectively deliver dual siRNA and drug therapy in vivo. Scientific Reports, 2020, 10, 12836.	3.3	18
12	Bioactivation of Encapsulation Membranes Reduces Fibrosis and Enhances Cell Survival. ACS Applied Materials & Interfaces, 2020, 12, 56908-56923.	8.0	9
13	Lack of Strategic Funding and Long-Term Job Security Threaten to Have Profound Effects on Cardiovascular Researcher Retention in Australia. Heart Lung and Circulation, 2020, 29, 1588-1595.	0.4	10
14	Androgens Stimulate EPC-Mediated Neovascularization and Are Associated with Increased Coronary Collateralization. Endocrinology, 2020, 161, .	2.8	6
15	Immobilized Macrophage Colony-Stimulating Factor (M-CSF) Regulates the Foreign Body Response to Implanted Materials. ACS Biomaterials Science and Engineering, 2020, 6, 995-1007.	5.2	11
16	Rapid Photocrosslinking of Silk Hydrogels with High Cell Density and Enhanced Shape Fidelity. Advanced Healthcare Materials, 2020, 9, e1901667.	7.6	96
17	A multifaceted biomimetic interface to improve the longevity of orthopedic implants. Acta Biomaterialia, 2020, 110, 266-279.	8.3	34
18	Radical-functionalized plasma polymers: Stable biomimetic interfaces for bone implant applications. Applied Materials Today, 2019, 16, 456-473.	4.3	37

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19	A review of biomimetic surface functionalization for bone-integrating orthopedic implants: Mechanisms, current approaches, and future directions. Progress in Materials Science, 2019, 106, 100588.	32.8	147
20	Substrate geometry modulates self-assembly and collection of plasma polymerized nanoparticles. Communications Physics, 2019, 2, .	5.3	14
21	Bioactive Materials Facilitating Targeted Local Modulation of Inflammation. JACC Basic To Translational Science, 2019, 4, 56-71.	4.1	33
22	Altered processing enhances the efficacy of small-diameter silk fibroin vascular grafts. Scientific Reports, 2019, 9, 17461.	3.3	38
23	Simulating Inflammation in a Wound Microenvironment Using a Dermal Woundâ€•onâ€•aâ€•Chip Model. Advanced Healthcare Materials, 2019, 8, e1801307.	7.6	46
24	Exposure of tropoelastin to peroxynitrous acid gives high yields of nitrated tyrosine residues, di-tyrosine cross-links and altered protein structure and function. Free Radical Biology and Medicine, 2018, 115, 219-231.	2.9	29
25	Plasma Synthesis of Carbon-Based Nanocarriers for Linker-Free Immobilization of Bioactive Cargo. ACS Applied Nano Materials, 2018, 1, 580-594.	5.0	20
26	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.	5.5	47
27	Î² ³-Tripeptides Coassemble into Fluorescent Hydrogels for Serial Monitoring in Vivo. ACS Biomaterials Science and Engineering, 2018, 4, 3843-3847.	5.2	18
28	Multifunctional Protein-Immobilized Plasma Polymer Films for Orthopedic Applications. ACS Biomaterials Science and Engineering, 2018, 4, 4084-4094.	5.2	27
29	Apolipoprotein A-I Reduces In-Stent Restenosis and Platelet Activation and Alters Neointimal Cellular Phenotype. JACC Basic To Translational Science, 2018, 3, 200-209.	4.1	14
30	Cellular responses to radical propagation from ion-implanted plasma polymer surfaces. Applied Surface Science, 2018, 456, 701-710.	6.1	21
31	Induced pluripotent stem cell-derived endothelial cells promote angiogenesis and accelerate wound closure in a murine excisional wound healing model. Bioscience Reports, 2018, 38, .	2.4	57
32	Rapid Endothelialization of Off-the-Shelf Small Diameter Silk Vascular Grafts. JACC Basic To Translational Science, 2018, 3, 38-53.	4.1	51
33	Plasma activated coatings with dual action against fungi and bacteria. Applied Materials Today, 2018, 12, 72-84.	4.3	52
34	Non-invasive tracking of injected bone marrow mononuclear cells to injury and implanted biomaterials. Acta Biomaterialia, 2017, 53, 378-388.	8.3	17
35	Plasma mediated protein immobilisation enhances the vascular compatibility of polyurethane with tissue matched mechanical properties. Biomedical Materials (Bristol), 2017, 12, 045002.	3.3	17
36	Plasma activated coating immobilizes apolipoprotein A-I to stainless steel surfaces in its bioactive form and enhances biocompatibility. Nanomedicine: Nanotechnology, Biology, and Medicine, 2017, 13, 2141-2150.	3.3	7

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37	Targeted Modulation of Tropoelastin Structure and Assembly. ACS Biomaterials Science and Engineering, 2017, 3, 2832-2844.	5.2	16
38	Evaluation of synthetic vascular grafts in a mouse carotid grafting model. PLoS ONE, 2017, 12, e0174773.	2.5	17
39	Mechanically Robust Plasma-Activated Interfaces Optimized for Vascular Stent Applications. ACS Applied Materials & Interfaces, 2016, 8, 9635-9650.	8.0	31
40	Substrate-Regulated Growth of Plasma-Polymerized Films on Carbide-Forming Metals. Langmuir, 2016, 32, 10835-10843.	3.5	27
41	Plasma Ion Activated Expanded Polytetrafluoroethylene Vascular Grafts with a Covalently Immobilized Recombinant Human Tropoelastin Coating Reducing Neointimal Hyperplasia. ACS Biomaterials Science and Engineering, 2016, 2, 1286-1297.	5.2	19
42	Subtle balance of tropoelastin molecular shape and flexibility regulates dynamics and hierarchical assembly. Science Advances, 2016, 2, e1501145.	10.3	43
43	Tropoelastin enhances nitric oxide production by endothelial cells. Nanomedicine, 2016, 11, 1591-1597.	3.3	9
44	Blended Polyurethane and Tropoelastin as a Novel Class of Biologically Interactive Elastomer. Tissue Engineering - Part A, 2016, 22, 524-533.	3.1	16
45	Non-thrombogenic, bioactive stent platform. Heart Lung and Circulation, 2015, 24, S286.	0.4	0
46	Back Cover: Plasma Process. Polym. 2âˆ•2015. Plasma Processes and Polymers, 2015, 12, 194-194.	3.0	0
47	Characterization of Endothelial Progenitor Cell Interactions with Human Tropoelastin. PLoS ONE, 2015, 10, e0131101.	2.5	12
48	Immobilization of bioactive plasmin reduces the thrombogenicity of metal surfaces. Colloids and Surfaces B: Biointerfaces, 2015, 136, 944-954.	5.0	12
49	Bioengineering stents with proactive biocompatibility. Interventional Cardiology, 2015, 7, 571-584.	0.0	2
50	Bio-Activation of Polyether Ether Ketone Using Plasma Immersion Ion Implantation: A Kinetic Model. Plasma Processes and Polymers, 2015, 12, 180-193.	3.0	24
51	Mechanical Properties of Plasma Immersion Ion Implanted PEEK for Bioactivation of Medical Devices. ACS Applied Materials & Interfaces, 2015, 7, 23029-23040.	8.0	44
52	A Negatively Charged Residue Stabilizes the Tropoelastin N-terminal Region for Elastic Fiber Assembly. Journal of Biological Chemistry, 2014, 289, 34815-34826.	3.4	22
53	Biocompatibility of Coronary Stents. Materials, 2014, 7, 769-786.	2.9	40
54	TCT-433 Plasmin Immobilization for Reduced Thrombogenicity of Metallic Implants. Journal of the American College of Cardiology, 2014, 64, B127.	2.8	2

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55	Biocompatibility of silk-tropoelastin protein polymers. Biomaterials, 2014, 35, 5138-5147.	11.4	60
56	Immobilisation of a fibrillin-1 fragment enhances the biocompatibility of PTFE. Colloids and Surfaces B: Biointerfaces, 2014, 116, 544-552.	5.0	17
57	Tropoelastin: A versatile, bioactive assembly module. Acta Biomaterialia, 2014, 10, 1532-1541.	8.3	110
58	Tropoelastin â€" A multifaceted naturally smart material. Advanced Drug Delivery Reviews, 2013, 65, 421-428.	13.7	66
59	The use of plasma-activated covalent attachment of early domains of tropoelastin to enhance vascular compatibility of surfaces. Biomaterials, 2013, 34, 7584-7591.	11.4	37
60	Plasma Based Biofunctionalisation of Cardiovascular Stents. Heart Lung and Circulation, 2013, 22, S46.	0.4	1
61	Elastin sequences trigger transient proinflammatory responses by human dermal fibroblasts. FASEB Journal, 2013, 27, 3455-3465.	0.5	38
62	Elastin biology and tissue engineering with adult cells. Biomolecular Concepts, 2013, 4, 173-185.	2.2	14
63	Tropoelastin bridge region positions the cell-interactive C terminus and contributes to elastic fiber assembly. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 2878-2883.	7.1	51
64	Resolving Nitrogen-15 and Proton Chemical Shifts for Mobile Segments of Elastin with Two-dimensional NMR Spectroscopy. Journal of Biological Chemistry, 2012, 287, 18201-18209.	3.4	18
65	Elastin signaling in wound repair. Birth Defects Research Part C: Embryo Today Reviews, 2012, 96, 248-257.	3.6	115
66	Plasma-based biofunctionalization of vascular implants. Nanomedicine, 2012, 7, 1907-1916.	3.3	40
67	InÂvivo biocompatibility of a plasma-activated, coronary stent coating. Biomaterials, 2012, 33, 7984-7992.	11.4	57
68	Extracellular Matrix Molecules Facilitating Vascular Biointegration. Journal of Functional Biomaterials, 2012, 3, 569-587.	4.4	18
69	Electrospun synthetic human elastin:collagen composite scaffolds for dermal tissue engineering. Acta Biomaterialia, 2012, 8, 3714-3722.	8.3	137
70	Severe Burn Injuries and the Role of Elastin in the Design of Dermal Substitutes. Tissue Engineering - Part B: Reviews, 2011, 17, 81-91.	4.8	88
71	Tailoring the porosity and pore size of electrospun synthetic human elastin scaffolds for dermal tissue engineering. Biomaterials, 2011, 32, 6729-6736.	11.4	272
72	Stability of a Therapeutic Layer of Immobilized Recombinant Human Tropoelastin on a Plasma-Activated Coated Surface. Pharmaceutical Research, 2011, 28, 1415-1421.	3.5	15

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73	A multilayered synthetic human elastin/polycaprolactone hybrid vascular graft with tailored mechanical properties. Acta Biomaterialia, 2011, 7, 295-303.	8.3	253
74	Elastin as a Nonthrombogenic Biomaterial. Tissue Engineering - Part B: Reviews, 2011, 17, 93-99.	4.8	96
75	The immobilization of recombinant human tropoelastin on metals using a plasma-activated coating to improve the biocompatibility of coronary stents. Biomaterials, 2010, 31, 8332-8340.	11.4	96
76	Stages in tropoelastin coalescence during synthetic elastin hydrogel formation. Micron, 2010, 41, 268-272.	2.2	49
77	A Novel Elastin-coated e-PTFE Vascular Conduit. Heart Lung and Circulation, 2010, 19, 496-497.	0.4	1
78	Elastin-based materials. Chemical Society Reviews, 2010, 39, 3371.	38.1	214
79	Engineered Tropoelastin and Elastin-Based Biomaterials. Advances in Protein Chemistry and Structural Biology, 2009, 78, 1-24.	2.3	86
80	Primary human dermal fibroblast interactions with open weave three-dimensional scaffolds prepared from synthetic human elastin. Biomaterials, 2009, 30, 6469-6477.	11.4	87
81	Covalent immobilisation of tropoelastin on a plasma deposited interface for enhancement of endothelialisation on metal surfaces. Biomaterials, 2009, 30, 1675-1681.	11.4	118
82	Tropoelastin. International Journal of Biochemistry and Cell Biology, 2009, 41, 494-497.	2.8	200
83	Coacervation Is Promoted by Molecular Interactions between the PF2 Segment of Fibrillin-1 and the Domain 4 Region of Tropoelastin. Biochemistry, 2005, 44, 10271-10281.	2.5	59
84	A model two-component system for studying the architecture of elastin assembly in vitro. Journal of Structural Biology, 2005, 149, 282-289.	2.8	56
85	Specificity in the coacervation of tropoelastin: solvent exposed lysines. Journal of Structural Biology, 2005, 149, 273-281.	2.8	68
86	Enhanced Structure and Function of Stem Cell-Derived Beta-Like Cells Cultured on Extracellular Matrix. SSRN Electronic Journal, 0, , .	0.4	1