Anthal I P M Smits

List of Publications by Year
in descending order

49 papers	1,673 citations	304743 22 h-index	289244 40 g-index
56 all docs	56 docs citations	56 times ranked	1663 citing authors

#	Article	IF	Citations
1	Animal studies for the evaluation of in situ tissue-engineered vascular grafts â€” a systematic review, evidence map, and meta-analysis. Npj Regenerative Medicine, 2022, 7, 17.	5.2	10
2	Mechanisms of Calcification in Materials for Valvular and Vascular In Situ Tissue Engineering. European Journal of Vascular and Endovascular Surgery, 2022, 63, e44-e45.	1.5	1
3	Marker-Independent Monitoring of in vitro and in vivo Degradation of Supramolecular Polymers Applied in Cardiovascular in situ Tissue Engineering. Frontiers in Cardiovascular Medicine, 2022, 9, .	2.4	5
4	Donor Heterogeneity in the Human Macrophage Response to a Biomaterial Under Hyperglycemia <i>In Vitro</i>. Tissue Engineering - Part C: Methods, 2022, 28, 440-456.	2.1	4
5	Distinct Effects of Heparin and Interleukinâ€4 Functionalization on Macrophage Polarization and In Situ Arterial Tissue Regeneration Using Resorbable Supramolecular Vascular Grafts in Rats. Advanced Healthcare Materials, 2021, 10, e2101103.	7.6	11
6	Inflammatory and regenerative processes in bioresorbable synthetic pulmonary valves up to two years in sheepâ€“Spatiotemporal insights augmented by Raman microspectroscopy. Acta Biomaterialia, 2021, 135, 243-259.	8.3	18
7	Immuno-regenerative biomaterials for in situ cardiovascular tissue engineering â€“ Do patient characteristics warrant precision engineering?. Advanced Drug Delivery Reviews, 2021, 178, 113960.	13.7	29
8	Probing Single-Cell Macrophage Polarization and Heterogeneity Using Thermo-Reversible Hydrogels in Droplet-Based Microfluidics. Frontiers in Bioengineering and Biotechnology, 2021, 9, 715408.	4.1	12
9	Imparting Immunomodulatory Activity to Scaffolds via Biotinâ€“Avidin Interactions. ACS Biomaterials Science and Engineering, 2021, 7, 5611-5621.	5.2	5
10	Layer-specific cell differentiation in bi-layered vascular grafts under flow perfusion. Biofabrication, 2020, 12, 015009.	7.1	43
11	Hemodynamic loads distinctively impact the secretory profile of biomaterial-activated macrophages â€“ implications for<i>in situ</i>vascular tissue engineering. Biomaterials Science, 2020, 8, 132-147.	5.4	45
12	Differential Leaflet Remodeling of BoneÂMarrow Cell Pre-Seeded Versus Nonseeded Bioresorbable Transcatheter Pulmonary Valve Replacements. JACC Basic To Translational Science, 2020, 5, 15-31.	4.1	32
13	Optimization of Anti-kinking Designs for Vascular Grafts Based on Supramolecular Materials. Frontiers in Materials, 2020, 7, .	2.4	14
14	Inconsistency in Graft Outcome of Bilayered Bioresorbable Supramolecular Arterial Scaffolds in Rats. Tissue Engineering - Part A, 2020, 27, 894-904.	3.1	11
15	Vascular Tissue Engineering: Pathological Considerations, Mechanisms, and Translational Implications. , 2020, , 95-134.		2
16	Transcatheter-Delivered Expandable Bioresorbable Polymeric Graft With Stenting Capacity Induces Vascular Regeneration. JACC Basic To Translational Science, 2020, 5, 1095-1110.	4.1	8
17	InÂSitu Remodeling Overrules Bioinspired Scaffold Architecture of Supramolecular Elastomeric Tissue-Engineered Heart Valves. JACC Basic To Translational Science, 2020, 5, 1187-1206.	4.1	38
18	Human In Vitro Model Mimicking Materialâ€Driven Vascular Regeneration Reveals How Cyclic Stretch and Shear Stress Differentially Modulate Inflammation and Matrix Deposition. Advanced Biology, 2020, 4, e1900249.	3.0	23

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19	A Multi-Cue Bioreactor to Evaluate the Inflammatory and Regenerative Capacity of Biomaterials under Flow and Stretch. Journal of Visualized Experiments, 2020, , .	0.3	6
20	Elastin in Vascular Grafts. , 2020, , 379-410.		2
21	Tissue-engineered heart valves. , 2019, , 123-176.		3
22	The degradation and performance of electrospun supramolecular vascular scaffolds examined upon in vitro enzymatic exposure. Acta Biomaterialia, 2019, 92, 48-59.	8.3	25
23	Macrophage-Driven Biomaterial Degradation Depends on Scaffold Microarchitecture. Frontiers in Bioengineering and Biotechnology, 2019, 7, 87.	4.1	89
24	Cyclic Strain Affects Macrophage Cytokine Secretion and Extracellular Matrix Turnover in Electrospun Scaffolds. Tissue Engineering - Part A, 2019, 25, 1310-1325.	3.1	25
25	Elastin in Vascular Grafts. , 2019, , 1-32.		3
26	Tissue engineering meets immunoengineering: Prospective on personalized in situ tissue engineering strategies. Current Opinion in Biomedical Engineering, 2018, 6, 17-26.	3.4	41
27	Modulation of macrophage phenotype and protein secretion via heparin-IL-4 functionalized supramolecular elastomers. Acta Biomaterialia, 2018, 71, 247-260.	8.3	65
28	Sheep-Specific Immunohistochemical Panel for the Evaluation of Regenerative and Inflammatory Processes in Tissue-Engineered Heart Valves. Frontiers in Cardiovascular Medicine, 2018, 5, 105.	2.4	20
29	Can We Grow Valves Inside the Heart? Perspective on Material-based In Situ Heart Valve Tissue Engineering. Frontiers in Cardiovascular Medicine, 2018, 5, 54.	2.4	45
30	Host Response and Neo-Tissue Development during Resorption of a Fast Degrading Supramolecular Electrospun Arterial Scaffold. Bioengineering, 2018, 5, 61.	3.5	24
31	Decoupling the Effect of Shear Stress and Stretch on Tissue Growth and Remodeling in a Vascular Graft. Tissue Engineering - Part C: Methods, 2018, 24, 418-429.	2.1	48
32	In situ heart valve tissue engineering using a bioresorbable elastomeric implant â€" From material design to 12 months follow-up in sheep. Biomaterials, 2017, 125, 101-117.	11.4	231
33	Biomaterial-driven in situ cardiovascular tissue engineeringâ€"a multi-disciplinary perspective. Npj Regenerative Medicine, 2017, 2, 18.	5.2	181
34	Ex vivo culture platform for assessment of cartilage repair treatment strategies. ALTEX: Alternatives To Animal Experimentation, 2017, 34, 267-277.	1.5	30
35	Early in-situ cellularization of a supramolecular vascular graft is modified by synthetic stromal cell-derived factor-1Î± derived peptides. Biomaterials, 2016, 76, 187-195.	11.4	95
36	<i>In Situ</i> Tissue Engineering: Seducing the Body to Regenerate. Tissue Engineering - Part A, 2016, 22, 1061-1062.	3.1	11

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37	Development of Nonâ€Cell Adhesive Vascular Grafts Using Supramolecular Building Blocks. Macromolecular Bioscience, 2016, 16, 350-362.	4.1	47
38	<i>In Situ</i> Tissue Engineering of Functional Small-Diameter Blood Vessels by Host Circulating Cells Only. Tissue Engineering - Part A, 2015, 21, 2583-2594.	3.1	92
39	Differential Response of Endothelial and Endothelial Colony Forming Cells on Electrospun Scaffolds with Distinct Microfiber Diameters. Biomacromolecules, 2014, 15, 821-829.	5.4	49
40	Synergistic protein secretion by mesenchymal stromal cells seeded in 3D scaffolds and circulating leukocytes in physiological flow. Biomaterials, 2014, 35, 9100-9113.	11.4	36
41	Shear flow affects selective monocyte recruitment into <scp>MCP</scp>â€1â€loaded scaffolds. Journal of Cellular and Molecular Medicine, 2014, 18, 2176-2188.	3.6	35
42	Then and now: hypes and hopes of regenerative medicine. Trends in Biotechnology, 2013, 31, 121-123.	9.3	10
43	A Mesofluidics-Based Test Platform for Systematic Development of Scaffolds for<i>In Situ</i>Cardiovascular Tissue Engineering. Tissue Engineering - Part C: Methods, 2012, 18, 475-485.	2.1	20
44	Modulating the Inflammatory Response for In Situ Tissue Engineering â€“ The Role of MCP-1. , 2012, , .		0
45	3D Engineered Micro-Tissue Models to Study Cardiovascular (Patho)biology and Regeneration. , 2012, , .		0
46	Tissue engineering of heart valves: advances and current challenges. Expert Review of Medical Devices, 2009, 6, 259-275.	2.8	126
47	Inflammatory and Regenerative Processes in Bioresorbable Synthetic Pulmonary Valves Up to 2 Years in Sheep: ÂSpatiotemporal Insights Augmented by Raman Microspectroscopy. SSRN Electronic Journal, 0, , .	0.4	0
48	Il-4 functionalized 2D and 3D structures based on supramolecular interactions for in-situ vascular regeneration. Frontiers in Bioengineering and Biotechnology, 0, 4, .	4.1	0
49	The Degradation and Performance of Electrospun Supramolecular Vascular Scaffolds Examined Upon <i>In Vitro</i> Enzymatic Exposure. SSRN Electronic Journal, 0, , .	0.4	0