Aleksander Skardal

List of Publications by Year
in descending order

76	7,621	76196 40	91712 69
papers	citations	h-index	g-index

79	79	79	8488
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Multisensor-integrated organs-on-chips platform for automated and continual in situ monitoring of organoid behaviors. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E2293-E2302.	3.3	570
2	Bioprinted Amniotic Fluid-Derived Stem Cells Accelerate Healing of Large Skin Wounds. Stem Cells Translational Medicine, 2012, 1, 792-802.	1.6	539
3	Evaluation of hydrogels for bioâ€printing applications. Journal of Biomedical Materials Research - Part A, 2013, 101A, 272-284.	2.1	453
4	Multi-tissue interactions in an integrated three-tissue organ-on-a-chip platform. Scientific Reports, 2017, 7, 8837.	1.6	407
5	Bioprinting vessel-like constructs using hyaluronan hydrogels crosslinked with tetrahedral polyethylene glycol tetracrylates. Biomaterials, 2010, 31, 6173-6181.	5.7	397
6	Organoid-on-a-chip and body-on-a-chip systems for drug screening and disease modeling. Drug Discovery Today, 2016, 21, 1399-1411.	3.2	387
7	Photocrosslinkable Hyaluronan-Gelatin Hydrogels for Two-Step Bioprinting. Tissue Engineering - Part A, 2010, 16, 2675-2685.	1.6	386
8	Biomaterials for Integration with 3-D Bioprinting. Annals of Biomedical Engineering, 2015, 43, 730-746.	1.3	373
9	A hydrogel bioink toolkit for mimicking native tissue biochemical and mechanical properties in bioprinted tissue constructs. Acta Biomaterialia, 2015, 25, 24-34.	4.1	358
10	In Situ Bioprinting of Autologous Skin Cells Accelerates Wound Healing of Extensive Excisional Full-Thickness Wounds. Scientific Reports, 2019, 9, 1856.	1.6	297
11	Dynamically Crosslinked Gold Nanoparticle â€“ Hyaluronan Hydrogels. Advanced Materials, 2010, 22, 4736-4740.	11.1	204
12	A reductionist metastasisâ€onâ€aâ€chip platform for in vitro tumor progression modeling and drug screening. Biotechnology and Bioengineering, 2016, 113, 2020-2032.	1.7	183
13	Optimization of collagen type I-hyaluronan hybrid bioink for 3D bioprinted liver microenvironments. Biofabrication, 2019, 11, 015003.	3.7	171
14	Tissue specific synthetic ECM hydrogels for 3-D inÂvitro maintenance of hepatocyte function. Biomaterials, 2012, 33, 4565-4575.	5.7	165
15	Drug compound screening in single and integrated multi-organoid body-on-a-chip systems. Biofabrication, 2020, 12, 025017.	3.7	141
16	Liver-Tumor Hybrid Organoids for Modeling Tumor Growth and Drug Response In Vitro. Annals of Biomedical Engineering, 2015, 43, 2361-2373.	1.3	118
17	Substrate elasticity controls cell proliferation, surface marker expression and motile phenotype in amniotic fluid-derived stem cells. Journal of the Mechanical Behavior of Biomedical Materials, 2013, 17, 307-316.	1.5	111
18	Characterizing the micro-scale elastic modulus of hydrogels for use in regenerative medicine. Journal of the Mechanical Behavior of Biomedical Materials, 2013, 27, 115-127.	1.5	108

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19	In vitro patient-derived 3D mesothelioma tumor organoids facilitate patient-centric therapeutic screening. Scientific Reports, 2018, 8, 2886.	1.6	106
20	Immersion Bioprinting of Tumor Organoids in Multi-Well Plates for Increasing Chemotherapy Screening Throughput. Micromachines, 2020, 11, 208.	1.4	103
21	Probing prodrug metabolism and reciprocal toxicity with an integrated and humanized multi-tissue organ-on-a-chip platform. Acta Biomaterialia, 2020, 106, 124-135.	4.1	101
22	A multiâ€site metastasisâ€onâ€aâ€chip microphysiological system for assessing metastatic preference of cancer cells. Biotechnology and Bioengineering, 2019, 116, 936-944.	1.7	96
23	Engineered extracellular matrices with cleavable crosslinkers for cell expansion and easy cell recovery. Biomaterials, 2008, 29, 4521-4531.	5.7	94
24	A tunable hydrogel system for longâ€term release of cellâ€secreted cytokines and bioprinted in situ wound cell delivery. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2017, 105, 1986-2000.	1.6	92
25	3D bioprinting for high-throughput screening: Drug screening, disease modeling, and precision medicine applications. Applied Physics Reviews, 2019, 6, .	5.5	91
26	Model of Patient-Specific Immune-Enhanced Organoids for Immunotherapy Screening: Feasibility Study. Annals of Surgical Oncology, 2020, 27, 1956-1967.	0.7	91
27	The generation of 3-D tissue models based on hyaluronan hydrogel-coated microcarriers within a rotating wall vessel bioreactor. Biomaterials, 2010, 31, 8426-8435.	5.7	90
28	Heparin-modified gelatin scaffolds for human corneal endothelial cell transplantation. Biomaterials, 2014, 35, 4005-4014.	5.7	82
29	Solubilized Amnion Membrane Hyaluronic Acid Hydrogel Accelerates Full-Thickness Wound Healing. Stem Cells Translational Medicine, 2017, 6, 2020-2032.	1.6	79
30	Environmental Toxin Screening Using Human-Derived 3D Bioengineered Liver and Cardiac Organoids. Frontiers in Public Health, 2018, 6, 103.	1.3	77
31	In situ patterned micro 3D liver constructs for parallel toxicology testing in a fluidic device. Biofabrication, 2015, 7, 031001.	3.7	75
32	Label-free analysis of physiological hyaluronan size distribution with a solid-state nanopore sensor. Nature Communications, 2018, 9, 1037.	5.8	73
33	Appendiceal Cancer Patient-Specific Tumor Organoid Model for Predicting Chemotherapy Efficacy Prior to Initiation of Treatment: A Feasibility Study. Annals of Surgical Oncology, 2019, 26, 139-147.	0.7	69
34	Mesenchymal stem cells support growth and organization of host-liver colorectal-tumor organoids and possibly resistance to chemotherapy. Biofabrication, 2017, 9, 021002.	3.7	63
35	Stiffness of hyaluronic acid gels containing liver extracellular matrix supports human hepatocyte function and alters cell morphology. Journal of the Mechanical Behavior of Biomedical Materials, 2016, 55, 87-103.	1.5	58
36	Deconstructed Microfluidic Bone Marrow Onâ€Aâ€Chip to Study Normal and Malignant Hemopoietic Cellâ€“Niche Interactions. Small, 2019, 15, e1902971.	5.2	58

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37	Pleural Effusion Aspirate for Use in 3D Lung Cancer Modeling and Chemotherapy Screening. ACS Biomaterials Science and Engineering, 2019, 5, 1937-1943.	2.6	58
38	Applications of Bioengineered 3D Tissue and Tumor Organoids in Drug Development and Precision Medicine: Current and Future. BioDrugs, 2018, 32, 53-68.	2.2	54
39	Bioprinting Cellularized Constructs Using a Tissue-specific Hydrogel Bioink. Journal of Visualized Experiments, 2016, , e53606.	0.2	49
40	Amnion membrane hydrogel and amnion membrane powder accelerate wound healing in a full thickness porcine skin wound model. Stem Cells Translational Medicine, 2020, 9, 80-92.	1.6	45
41	A mechanically robust thixotropic collagen and hyaluronic acid bioink supplemented with gelatin nanoparticles. Bioprinting, 2019, 16, e00058.	2.9	43
42	Tissue-specific extracellular matrix promotes myogenic differentiation of human muscle progenitor cells on gelatin and heparin conjugated alginate hydrogels. Acta Biomaterialia, 2017, 62, 222-233.	4.1	41
43	Bioengineered Submucosal Organoids forIn VitroModeling of Colorectal Cancer. Tissue Engineering - Part A, 2017, 23, 1026-1041.	1.6	38
44	Personalized Identification of Optimal HIPEC Perfusion Protocol in Patient-Derived Tumor Organoid Platform. Annals of Surgical Oncology, 2020, 27, 4950-4960.	0.7	36
45	Simulating the human colorectal cancer microenvironment in 3D tumor-stroma co-cultures in vitro and in vivo. Scientific Reports, 2020, 10, 9832.	1.6	34
46	Optical Tracking and Digital Quantification of Beating Behavior in Bioengineered Human Cardiac Organoids. Biosensors, 2017, 7, 24.	2.3	31
47	Development of a Colorectal Cancer 3D Micro-tumor Construct Platform From Cell Lines and Patient Tumor Biospecimens for Standard-of-Care and Experimental Drug Screening. Annals of Biomedical Engineering, 2020, 48, 940-952.	1.3	29
48	Hyaluronan chemistries for three-dimensional matrix applications. Matrix Biology, 2019, 78-79, 337-345.	1.5	27
49	Multi-Cell Type Glioblastoma Tumor Spheroids for Evaluating Sub-Population-Specific Drug Response. Frontiers in Bioengineering and Biotechnology, 2020, 8, 538663.	2.0	21
50	Patient-Specific Sarcoma Organoids for Personalized Translational Research: Unification of the Operating Room with Rare Cancer Research and Clinical Implications. Annals of Surgical Oncology, 2022, 29, 7354-7367.	0.7	21
51	Exploration of Dynamic Elastic Modulus Changes on Glioblastoma Cell Populations with Aberrant EGFR Expression as a Potential Therapeutic Intervention Using a Tunable Hyaluronic Acid Hydrogel Platform. Gels, 2017, 3, 28.	2.1	18
52	Peritoneal Metastases from Appendiceal Cancer. Surgical Oncology Clinics of North America, 2018, 27, 551-561.	0.6	16
53	A high-throughput approach to compare the biocompatibility of candidate bioink formulations. Bioprinting, 2020, 17, e00068.	2.9	16
54	Bioprinting Essentials of Cell and Protein Viability. , 2015, , 1-17.		13

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55	A Rapid Crosslinkable Maleimide-Modified Hyaluronic Acid and Gelatin Hydrogel Delivery System for Regenerative Applications. Gels, 2021, 7, 13.	2.1	13
56	ASO Author Reflections: Co-cultured Lymph Node and Tumor Organoids as a Platform for the Creation of Adaptive Immunity and Predict Response to Immunotherapy. Annals of Surgical Oncology, 2020, 27, 1968-1969.	0.7	12
57	3D scaffold-free microlivers with drug metabolic function generated by lineage-reprogrammed hepatocytes from human fibroblasts. Biomaterials, 2021, 269, 120668.	5.7	11
58	In Situ Deployment of Engineered Extracellular Vesicles into the Tumor Niche via Myeloidâ€Derived Suppressor Cells. Advanced Healthcare Materials, 2022, 11, e2101619.	3.9	11
59	Multiâ€Domain Photopatterned 3D Tumor Constructs in a Microâ€Physiological System for Analysis, Quantification, and Isolation of Infiltrating Cells. Advanced Biology, 2020, 4, e1900273.	3.0	10
60	Strategies for developing complex multi-component in vitro tumor models: Highlights in glioblastoma. Advanced Drug Delivery Reviews, 2022, 180, 114067.	6.6	10
61	Tumor cell-conditioned media drives collagen remodeling via fibroblast and pericyte activation in an inÂvitro premetastatic niche model. IScience, 2022, 25, 104645.	1.9	9
62	Biofabrication Technologies for Developing In Vitro Tumor Models. Cancer Drug Discovery and Development, 2018, , 51-70.	0.2	8
63	Body-on-a-Chip: Regenerative Medicine for Personalized Medicine. , 2019, , 769-786.		8
64	Increasing Accuracy of In Vitro Cancer Models: Engineering Stromal Complexity into Tumor Organoid Platforms. Advanced NanoBiomed Research, 2021, 1, 2100061.	1.7	8
65	Native human collagen type I provides a viable physiologically relevant alternative to xenogeneic sources for tissue engineering applications: A comparative in vitro and in vivo study. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2022, , .	1.6	5
66	Personalizing Cancer Treatments Empirically in the Laboratory: Patient-Specific Tumor Organoids for Optimizing Precision Medicine. Current Stem Cell Reports, 2018, 4, 97-104.	0.7	4
67	Using organoid models to predict chemotherapy efficacy: the future of precision oncology?. Expert Review of Precision Medicine and Drug Development, 2019, 4, 317-336.	0.4	4
68	Exploiting maleimide-functionalized hyaluronan hydrogels to test cellular responses to physical and biochemical stimuli. Biomedical Materials (Bristol), 2022, 17, 025001.	1.7	4
69	HyStemÂ®: A Unique Clinical Grade Hydrogel for Present and Future Medical Applications. , 2019, , .		3
70	Bioprinting for Wound Healing Applications. Frontiers in Nanobiomedical Research, 2017, , 325-353.	0.1	2
71	Biofabrication of advancedin vitroandex vivocancer models for disease modeling and drug screening. Future Drug Discovery, 2021, 3, .	0.8	2
72	Body-on-a-chip: three-dimensional engineered tissue models. , 2020, , 1443-1458.		1

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73	Biopolymers forIn VitroTissue Model Biofabrication. , 2016, , 137-164.		1
74	Biofabricated tumor microenvironments for studying colorectal cancer in vitro and in vivo.. Journal of Clinical Oncology, 2019, 37, e14689-e14689.	0.8	0
75	Exploiting three-dimensional human hepatic constructs to investigate the impact of rs174537 on fatty acid metabolism. PLoS ONE, 2022, 17, e0262173.	1.1	0
76	ASO Author Reflections: Sarcoma Organoids: Neutralizing the Word â€œRareâ€•in Rare Cancers. Annals of Surgical Oncology, 0, , .	0.7	0