Heather Fleming

List of Publications by Year
in descending order

52	9,485	94433 37	182427 51
papers	citations	h-index	g-index

56	56	56	13554
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Rapid casting of patterned vascular networks for perfusable engineered three-dimensional tissues. Nature Materials, 2012, 11, 768-774.	27.5	1,661
2	Microscale culture of human liver cells for drug development. Nature Biotechnology, 2008, 26, 120-126.	17.5	1,088
3	Potential role of intratumor bacteria in mediating tumor resistance to the chemotherapeutic drug gemcitabine. Science, 2017, 357, 1156-1160.	12.6	1,059
4	Effect of cellâ€“cell interactions in preservation of cellular phenotype: cocultivation of hepatocytes and nonparenchymal cells. FASEB Journal, 1999, 13, 1883-1900.	0.5	827
5	Magnetic Iron Oxide Nanoworms for Tumor Targeting and Imaging. Advanced Materials, 2008, 20, 1630-1635.	21.0	516
6	Micromechanical control of cell-cell interactions. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 5722-5726.	7.1	353
7	Renal clearable catalytic gold nanoclusters for in vivo disease monitoring. Nature Nanotechnology, 2019, 14, 883-890.	31.5	333
8	Programmable probiotics for detection of cancer in urine. Science Translational Medicine, 2015, 7, 289ra84.	12.4	326
9	Cell and tissue engineering for liver disease. Science Translational Medicine, 2014, 6, 245sr2.	12.4	247
10	Geometric control of vascular networks to enhance engineered tissue integration and function. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 7586-7591.	7.1	237
11	Identification of small molecules for human hepatocyte expansion and iPS differentiation. Nature Chemical Biology, 2013, 9, 514-520.	8.0	230
12	Mass-encoded synthetic biomarkers for multiplexed urinary monitoring of disease. Nature Biotechnology, 2013, 31, 63-70.	17.5	176
13	Point-of-care diagnostics for noncommunicable diseases using synthetic urinary biomarkers and paper microfluidics. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 3671-3676.	7.1	167
14	Targeted Tumor-Penetrating siRNA Nanocomplexes for Credentialing the Ovarian Cancer Oncogene ID4. Science Translational Medicine, 2012, 4, 147ra112.	12.4	157
15	Acidification of Tumor at Stromal Boundaries Drives Transcriptome Alterations Associated with Aggressive Phenotypes. Cancer Research, 2019, 79, 1952-1966.	0.9	157
16	Humanized mice with ectopic artificial liver tissues. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 11842-11847.	7.1	144
17	Development of Lightâ€Activated CRISPR Using Guide RNAs with Photocleavable Protectors. Angewandte Chemie - International Edition, 2016, 55, 12440-12444.	13.8	144
18	In situ expansion of engineered human liver tissue in a mouse model of chronic liver disease. Science Translational Medicine, 2017, 9, .	12.4	133

#	Article	IF	Citations
19	InVERT molding for scalable control of tissue microarchitecture. Nature Communications, 2013, 4, 1847.	12.8	124
20	Neuron-Targeted Nanoparticle for siRNA Delivery to Traumatic Brain Injuries. ACS Nano, 2016, 10, 7926-7933.	14.6	110
21	Synthetic and living micropropellers for convection-enhanced nanoparticle transport. Science Advances, 2019, 5, eaav4803.	10.3	109
22	Nanoparticles That Sense Thrombin Activity As Synthetic Urinary Biomarkers of Thrombosis. ACS Nano, 2013, 7, 9001-9009.	14.6	98
23	Ultrasensitive tumour-penetrating nanosensors of protease activity. Nature Biomedical Engineering, 2017, 1, .	22.5	94
24	Synthetic biomarkers: a twenty-first century path to early cancer detection. Nature Reviews Cancer, 2021, 21, 655-668.	28.4	84
25	Harnessing Protease Activity to Improve Cancer Care. Annual Review of Cancer Biology, 2018, 2, 353-376.	4.5	70
26	Identification and Characterization of Receptor-Specific Peptides for siRNA Delivery. ACS Nano, 2012, 6, 8620-8631.	14.6	68
27	Degradable hydrogels derived from PEGâ€diacrylamide for hepatic tissue engineering. Journal of Biomedical Materials Research - Part A, 2015, 103, 3331-3338.	4.0	62
28	Engineering synthetic breath biomarkers for respiratory disease. Nature Nanotechnology, 2020, 15, 792-800.	31.5	59
29	Urinary detection of lung cancer in mice via noninvasive pulmonary protease profiling. Science Translational Medicine, 2020, 12, .	12.4	58
30	Classification of prostate cancer using a protease activity nanosensor library. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 8954-8959.	7.1	53
31	iRGD-guided Tumor-penetrating Nanocomplexes for Therapeutic siRNA Delivery to Pancreatic Cancer. Molecular Cancer Therapeutics, 2018, 17, 2377-2388.	4.1	52
32	Activity-Based Diagnostics: An Emerging Paradigm for Disease Detection and Monitoring. Trends in Molecular Medicine, 2020, 26, 450-468.	6.7	51
33	Disease Detection by Ultrasensitive Quantification of Microdosed Synthetic Urinary Biomarkers. Journal of the American Chemical Society, 2014, 136, 13709-13714.	13.7	50
34	Mathematical framework for activity-based cancer biomarkers. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 12627-12632.	7.1	50
35	A computational framework for identifying design guidelines to increase the penetration of targeted nanoparticles into tumors. Nano Today, 2013, 8, 566-576.	11.9	43
36	Microenvironment-triggered multimodal precision diagnostics. Nature Materials, 2021, 20, 1440-1448.	27.5	42

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37	Engineered Livers for Infectious Diseases. Cellular and Molecular Gastroenterology and Hepatology, 2018, 5, 131-144.	4.5	41
38	Transient Support from Fibroblasts is Sufficient to Drive Functional Vascularization in Engineered Tissues. Advanced Functional Materials, 2020, 30, 2003777.	14.9	38
39	Non-viral delivery of CRISPR/Cas9 complex using CRISPR-GPS nanocomplexes. Nanoscale, 2019, 11, 21317-21323.	5.6	34
40	Distinct Hepatic Geneâ€Expression Patterns of NAFLD in Patients With Obesity. Hepatology Communications, 2022, 6, 77-89.	4.3	25
41	Protease activity sensors noninvasively classify bacterial infections and antibiotic responses. EBioMedicine, 2018, 38, 248-256.	6.1	22
42	Tumor-Penetrating Delivery of siRNA against TNFÎ± to Human Vestibular Schwannomas. Scientific Reports, 2017, 7, 12922.	3.3	15
43	Activatable Zymography Probes Enable In Situ Localization of Protease Dysregulation in Cancer. Cancer Research, 2021, 81, 213-224.	0.9	15
44	Comparison of Modular PEG Incorporation Strategies for Stabilization of Peptideâ€“siRNA Nanocomplexes. Bioconjugate Chemistry, 2016, 27, 2323-2331.	3.6	14
45	Controlled Apoptosis of Stromal Cells to Engineer Human Microlivers. Advanced Functional Materials, 2020, 30, 1910442.	14.9	9
46	Host protease activity classifies pneumonia etiology. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.1	9
47	Synthetic Circuit-Driven Expression of Heterologous Enzymes for Disease Detection. ACS Synthetic Biology, 2021, 10, 2231-2242.	3.8	5
48	Protease activity sensors enable real-time treatment response monitoring in lymphangioleiomyomatosis. European Respiratory Journal, 2022, 59, 2100664.	6.7	5
49	Directing Cholangiocyte Morphogenesis in Natural Biomaterial Scaffolds. Advanced Science, 2022, 9, e2102698.	11.2	5
50	Prenatal detection and mapping of a distal 8p deletion associated with congenital heart disease. Prenatal Diagnosis, 1999, 19, 863-7.	2.3	4
51	Hepatic tissue engineering. , 2020, , 737-753.		3
52	Protease Activity Analysis: A Toolkit for Analyzing Enzyme Activity Data. ACS Omega, 2022, 7, 24292-24301.	3.5	3