Amanda X Chen

List of Publications by Year
in descending order

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92 papers	12,595 citations	57758 44 h-index	48315 88 g-index
96 all docs	96 docs citations	96 times ranked	17339 citing authors

#	Article	IF	Citations
1	Microfluidic organs-on-chips. Nature Biotechnology, 2014, 32, 760-772.	17.5	2,468
2	Rapid casting of patterned vascular networks for perfusable engineered three-dimensional tissues. Nature Materials, 2012, 11, 768-774.	27.5	1,661
3	Microscale culture of human liver cells for drug development. Nature Biotechnology, 2008, 26, 120-126.	17.5	1,088
4	Controlling cell interactions by micropatterning in co-cultures: Hepatocytes and 3T3 fibroblasts. Journal of Biomedical Materials Research Part B, 1997, 34, 189-199.	3.1	496
5	Synchronized cycles of bacterial lysis for in vivo delivery. Nature, 2016, 536, 81-85.	27.8	487
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	Programmable probiotics for detection of cancer in urine. Science Translational Medicine, 2015, 7, 289ra84.	12.4	326
8	A long-duration dihydroorotate dehydrogenase inhibitor (DSM265) for prevention and treatment of malaria. Science Translational Medicine, 2015, 7, 296ra111.	12.4	254
9	Cell and tissue engineering for liver disease. Science Translational Medicine, 2014, 6, 245sr2.	12.4	247
10	CRISPR/Cas9 cleavage of viral DNA efficiently suppresses hepatitis B virus. Scientific Reports, 2015, 5, 10833.	3.3	245
11	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
12	A human monoclonal antibody prevents malaria infection by targeting a new site of vulnerability on the parasite. Nature Medicine, 2018, 24, 408-416.	30.7	235
13	Identification of small molecules for human hepatocyte expansion and iPS differentiation. Nature Chemical Biology, 2013, 9, 514-520.	8.0	230
14	Deep, noninvasive imaging and surgical guidance of submillimeter tumors using targeted M13-stabilized single-walled carbon nanotubes. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 13948-13953.	7.1	221
15	Modeling host interactions with hepatitis B virus using primary and induced pluripotent stem cell-derived hepatocellular systems. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 12193-12198.	7.1	220
16	Assessment of hepatocellular function within PEG hydrogels. Biomaterials, 2007, 28, 256-270.	11.4	188
17	Mass-encoded synthetic biomarkers for multiplexed urinary monitoring of disease. Nature Biotechnology, 2013, 31, 63-70.	17.5	176
18	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

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19	Development of Lightâ€Activated CRISPR Using Guide RNAs with Photocleavable Protectors. Angewandte Chemie - International Edition, 2016, 55, 12440-12444.	13.8	144
20	In situ expansion of engineered human liver tissue in a mouse model of chronic liver disease. Science Translational Medicine, 2017, 9, .	12.4	133
21	Selfâ€Sealing Porous Siliconâ€Calcium Silicate Coreâ€“Shell Nanoparticles for Targeted siRNA Delivery to the Injured Brain. Advanced Materials, 2016, 28, 7962-7969.	21.0	123
22	Micropatterned coculture of primary human hepatocytes and supportive cells for the study of hepatotropic pathogens. Nature Protocols, 2015, 10, 2027-2053.	12.0	119
23	Exploring interactions between rat hepatocytes and nonparenchymal cells using gene expression profiling. Hepatology, 2004, 40, 545-554.	7.3	118
24	InÂVitro Culture, Drug Sensitivity, and Transcriptome of Plasmodium Vivax Hypnozoites. Cell Host and Microbe, 2018, 23, 395-406.e4.	11.0	118
25	Micropatterned Cellâ€“Cell Interactions Enable Functional Encapsulation of Primary Hepatocytes in Hydrogel Microtissues. Tissue Engineering - Part A, 2014, 20, 2200-2212.	3.1	115
26	Human iPSC-Derived Hepatocyte-like Cells Support Plasmodium Liver-Stage Infection InÂVitro. Stem Cell Reports, 2015, 4, 348-359.	4.8	109
27	Host Cell Phosphatidylcholine Is a Key Mediator of Malaria Parasite Survival during Liver Stage Infection. Cell Host and Microbe, 2014, 16, 778-786.	11.0	104
28	Mapping functional humoral correlates of protection against malaria challenge following RTS,S/AS01 vaccination. Science Translational Medicine, 2020, 12, .	12.4	100
29	Nanoparticles That Sense Thrombin Activity As Synthetic Urinary Biomarkers of Thrombosis. ACS Nano, 2013, 7, 9001-9009.	14.6	98
30	Antimalarial activity of primaquine operates via a two-step biochemical relay. Nature Communications, 2019, 10, 3226.	12.8	94
31	Aberrant Glycosylation Promotes Lung Cancer Metastasis through Adhesion to Galectins in the Metastatic Niche. Cancer Discovery, 2015, 5, 168-181.	9.4	91
32	Synthetic biomarkers: a twenty-first century path to early cancer detection. Nature Reviews Cancer, 2021, 21, 655-668.	28.4	84
33	Porous Silicon Nanoparticle Delivery of Tandem Peptide Antiâ€Infectives for the Treatment of Pseudomonas aeruginosa Lung Infections. Advanced Materials, 2017, 29, 1701527.	21.0	82
34	Mechanisms of cooperation in cancer nanomedicine: towards systems nanotechnology. Trends in Biotechnology, 2014, 32, 448-455.	9.3	81
35	Smart nanosystems: Bio-inspired technologies that interact with the host environment. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 14460-14466.	7.1	77
36	Evidential Deep Learning for Guided Molecular Property Prediction and Discovery. ACS Central Science, 2021, 7, 1356-1367.	11.3	73

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37	Steroid Hormone Function Controls Non-competitive Plasmodium Development in Anopheles. Cell, 2019, 177, 315-325.e14.	28.9	72
38	Harnessing Protease Activity to Improve Cancer Care. Annual Review of Cancer Biology, 2018, 2, 353-376.	4.5	70
39	Estrogen Activation of G-Proteinâ€“Coupled Estrogen Receptor 1 Regulates Phosphoinositide 3-Kinase and mTOR Signaling to Promote Liver Growth in Zebrafish and Proliferation of HumanÂHepatocytes. Gastroenterology, 2019, 156, 1788-1804.e13.	1.3	69
40	Two chemoattenuated PfSPZ malaria vaccines induce sterile hepatic immunity. Nature, 2021, 595, 289-294.	27.8	68
41	Personalized RNA Medicine for Pancreatic Cancer. Clinical Cancer Research, 2018, 24, 1734-1747.	7.0	67
42	Degradable hydrogels derived from PEGâ€diacrylamide for hepatic tissue engineering. Journal of Biomedical Materials Research - Part A, 2015, 103, 3331-3338.	4.0	62
43	A robust cell culture system supporting the complete life cycle of hepatitis B virus. Scientific Reports, 2017, 7, 16616.	3.3	61
44	Tâ€cadherin modulates hepatocyte functions in vitro. FASEB Journal, 2008, 22, 3768-3775.	0.5	54
45	Nanoparticle delivery of immunostimulatory oligonucleotides enhances response to checkpoint inhibitor therapeutics. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 13428-13436.	7.1	51
46	Activity-Based Diagnostics: An Emerging Paradigm for Disease Detection and Monitoring. Trends in Molecular Medicine, 2020, 26, 450-468.	6.7	51
47	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
48	Machine learning guided association of adverse drug reactions with in vitro target-based pharmacology. EBioMedicine, 2020, 57, 102837.	6.1	44
49	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
50	Engineered Livers for Infectious Diseases. Cellular and Molecular Gastroenterology and Hepatology, 2018, 5, 131-144.	4.5	41
51	Expansion, in vivoâ€“ex vivo cycling, and genetic manipulation of primary human hepatocytes. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 1678-1688.	7.1	41
52	Transient Support from Fibroblasts is Sufficient to Drive Functional Vascularization in Engineered Tissues. Advanced Functional Materials, 2020, 30, 2003777.	14.9	38
53	Host AMPK Is a Modulator of Plasmodium Liver Infection. Cell Reports, 2016, 16, 2539-2545.	6.4	37
54	Non-viral delivery of CRISPR/Cas9 complex using CRISPR-GPS nanocomplexes. Nanoscale, 2019, 11, 21317-21323.	5.6	34

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55	Quantifying co-cultured cell phenotypes in high-throughput using pixel-based classification. Methods, 2016, 96, 6-11.	3.8	32
56	A Plasmodium berghei sporozoite-based vaccination platform against human malaria. Npj Vaccines, 2018, 3, 33.	6.0	32
57	Endothelial Thermotolerance Impairs Nanoparticle Transport in Tumors. Cancer Research, 2015, 75, 3255-3267.	0.9	29
58	Development of Lightâ€Activated CRISPR Using Guide RNAs with Photocleavable Protectors. Angewandte Chemie, 2016, 128, 12628-12632.	2.0	29
59	A single-cell liver atlas of Plasmodium vivax infection. Cell Host and Microbe, 2022, 30, 1048-1060.e5.	11.0	29
60	Sustainedâ€Release Synthetic Biomarkers for Monitoring Thrombosis and Inflammation Using Pointâ€ofâ€Care Compatible Readouts. Advanced Functional Materials, 2016, 26, 2919-2928.	14.9	28
61	A vascularized model of the human liver mimics regenerative responses. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.1	27
62	Probing nanoantenna-directed photothermal destruction of tumors using noninvasive laser irradiation. Applied Physics Letters, 2009, 95, 233701.	3.3	26
63	New Methods in Tissue Engineering: Improved Models for Viral Infection. Annual Review of Virology, 2014, 1, 475-499.	6.7	23
64	Towards a Humanized Mouse Model of Liver Stage Malaria Using Ectopic Artificial Livers. Scientific Reports, 2017, 7, 45424.	3.3	23
65	Targeting liver stage malaria with metformin. JCI Insight, 2019, 4, .	5.0	23
66	Drug-induced amplification of nanoparticle targeting to tumors. Nano Today, 2014, 9, 550-559.	11.9	22
67	Protease activity sensors noninvasively classify bacterial infections and antibiotic responses. EBioMedicine, 2018, 38, 248-256.	6.1	22
68	Viral genome imaging of hepatitis C virus to probe heterogeneous viral infection and responses to antiviral therapies. Virology, 2016, 494, 236-247.	2.4	17
69	Infection of laboratory colonies of Anopheles mosquitoes with Plasmodium vivax from cryopreserved clinical isolates. International Journal for Parasitology, 2016, 46, 679-683.	3.1	17
70	Tumor penetrating nanomedicine targeting both an oncomiR and an oncogene in pancreatic cancer. Oncotarget, 2019, 10, 5349-5358.	1.8	15
71	Disruption of cell-cell contact-mediated notch signaling via hydrogel encapsulation reduces mesenchymal stem cell chondrogenic potential. Journal of Biomedical Materials Research - Part A, 2015, 103, 1291-1302.	4.0	12
72	In Vitro Alterations Do Not Reflect a Requirement for Host Cell Cycle Progression during Plasmodium Liver Stage Infection. Eukaryotic Cell, 2015, 14, 96-103.	3.4	10

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73	Improving Drug Discovery by Nucleic Acid Delivery in Engineered Human Microlivers. Cell Metabolism, 2019, 29, 727-735.e3.	16.2	10
74	Controlled Apoptosis of Stromal Cells to Engineer Human Microlivers. Advanced Functional Materials, 2020, 30, 1910442.	14.9	9
75	Ionic Liquidâ€Mediated Transdermal Delivery of Thrombosisâ€Detecting Nanosensors. Advanced Healthcare Materials, 2022, 11, e2102685.	7.6	9
76	Host protease activity classifies pneumonia etiology. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.1	9
77	High-Throughput Platform for Identifying Molecular Factors Involved in Phenotypic Stabilization of Primary Human Hepatocytes In Vitro. Journal of Biomolecular Screening, 2016, 21, 897-911.	2.6	8
78	Silicon Microchips for Manipulating Cell-cell Interaction. Journal of Visualized Experiments, 2007, , 268.	0.3	6
79	Theranostic Layerâ€byâ€Layer Nanoparticles for Simultaneous Tumor Detection and Gene Silencing. Angewandte Chemie, 2020, 132, 2798-2805.	2.0	5
80	Peptide Spiders: Peptideâ€“Polymer Conjugates to Traffic Nucleic Acids. Molecular Pharmaceutics, 2020, 17, 3633-3642.	4.6	5
81	Directing Cholangiocyte Morphogenesis in Natural Biomaterial Scaffolds. Advanced Science, 2022, 9, e2102698.	11.2	5
82	Hepatic tissue engineering. , 2020, , 737-753.		3
83	Protease Activity Analysis: A Toolkit for Analyzing Enzyme Activity Data. ACS Omega, 2022, 7, 24292-24301.	3.5	3
84	Macro-to-Micro Interface for the Control of Cellular Organization. Journal of Microelectromechanical Systems, 2014, 23, 391-397.	2.5	2
85	Silicon Nanoparticles: Porous Silicon Nanoparticle Delivery of Tandem Peptide Antiâ€Infectives for the Treatment of Pseudomonas aeruginosa Lung Infections (Adv. Mater. 35/2017). Advanced Materials, 2017, 29, .	21.0	2
86	Tissue Engineering: Controlled Apoptosis of Stromal Cells to Engineer Human Microlivers (Adv.) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 22	14.9	2
87	Tissue Engineering of the Liver. , 2006, , 417-471.		1
88	RÃ¼cktitelbild: Theranostic Layerâ€byâ€Layer Nanoparticles for Simultaneous Tumor Detection and Gene Silencing (Angew. Chem. 7/2020). Angewandte Chemie, 2020, 132, 2936-2936.	2.0	1
89	Controlling cell interactions by micropatterning in co-cultures: Hepatocytes and 3T3 fibroblasts. , 1997, 34, 189.		1
90	Controlling cell interactions by micropatterning in co-cultures: Hepatocytes and 3T3 fibroblasts. , 1997, 34, 189.		1

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91	Tissue Engineering of the Liver. , 0, , 933-953.		0
92	Definitive depolarization signatures in nanomedicine. , 2017, , .		0