

# Alexander Revzin

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/6576513/publications.pdf>

Version: 2024-02-01

78  
papers

4,251  
citations

126858

33  
h-index

114418

63  
g-index

82  
all docs

82  
docs citations

82  
times ranked

6541  
citing authors

#	ARTICLE	IF	CITATIONS
1	Microbiota-activated PPAR- $\beta$ signaling inhibits dysbiotic Enterobacteriaceae expansion. <i>Science</i> , 2017, 357, 570-575.	6.0	796
2	Aptamer-Based Electrochemical Biosensor for Interferon Gamma Detection. <i>Analytical Chemistry</i> , 2010, 82, 8131-8136.	3.2	271
3	Development of an aptasensor for electrochemical detection of exosomes. <i>Methods</i> , 2016, 97, 88-93.	1.9	212
4	Heparin-based hydrogel as a matrix for encapsulation and cultivation of primary hepatocytes. <i>Biomaterials</i> , 2010, 31, 3596-3603.	5.7	179
5	Simultaneous detection of cell-secreted TNF- $\alpha$ and IFN- $\gamma$ using micropatterned aptamer-modified electrodes. <i>Biomaterials</i> , 2012, 33, 7347-7355.	5.7	135
6	Mechanical Stretch Increases Expression of CXCL1 in Liver Sinusoidal Endothelial Cells to Recruit Neutrophils, Generate Sinusoidal Microthrombi, and Promote Portal Hypertension. <i>Gastroenterology</i> , 2019, 157, 193-209.e9.	0.6	134
7	Macrophages contribute to the pathogenesis of sclerosing cholangitis in mice. <i>Journal of Hepatology</i> , 2018, 69, 676-686.	1.8	119
8	Liver injury-on-a-chip: microfluidic co-cultures with integrated biosensors for monitoring liver cell signaling during injury. <i>Lab on A Chip</i> , 2015, 15, 4467-4478.	3.1	112
9	Integrin $\alpha$ 1-enriched extracellular vesicles mediate monocyte adhesion and promote liver inflammation in murine NASH. <i>Journal of Hepatology</i> , 2019, 71, 1193-1205.	1.8	112
10	Detecting multiple cell-secreted cytokines from the same aptamer-functionalized electrode. <i>Biosensors and Bioelectronics</i> , 2015, 64, 43-50.	5.3	108
11	IRE1A Stimulates Hepatocyte-Derived Extracellular Vesicles That Promote Inflammation in Mice With Steatohepatitis. <i>Gastroenterology</i> , 2020, 159, 1487-1503.e17.	0.6	105
12	An aptasensor for electrochemical detection of tumor necrosis factor in human blood. <i>Analyst</i> , 2013, 138, 4321.	1.7	101
13	Micropatterned Aptasensors for Continuous Monitoring of Cytokine Release from Human Leukocytes. <i>Analytical Chemistry</i> , 2011, 83, 8286-8292.	3.2	96
14	Microfluidic fabrication of bioactive microgels for rapid formation and enhanced differentiation of stem cell spheroids. <i>Acta Biomaterialia</i> , 2016, 34, 125-132.	4.1	96
15	Microfluidic compartments with sensing microbeads for dynamic monitoring of cytokine and exosome release from single cells. <i>Analyst</i> , 2016, 141, 679-688.	1.7	90
16	Characterizing the Effects of Heparin Gel Stiffness on Function of Primary Hepatocytes. <i>Tissue Engineering - Part A</i> , 2013, 19, 2655-2663.	1.6	74
17	Immobilizing Enzymes onto Electrode Arrays by Hydrogel Photolithography to Fabricate Multi-Analyte Electrochemical Biosensors. <i>ACS Applied Materials &amp; Interfaces</i> , 2010, 2, 748-755.	4.0	72
18	One step fabrication of hydrogel microcapsules with hollow core for assembly and cultivation of hepatocyte spheroids. <i>Acta Biomaterialia</i> , 2017, 50, 428-436.	4.1	72

#	ARTICLE	IF	CITATIONS
19	Detecting Transforming Growth Factor- $\beta$ Release from Liver Cells Using an Aptasensor Integrated with Microfluidics. <i>Analytical Chemistry</i> , 2014, 86, 8865-8872.	3.2	65
20	Hepatocyte-Derived Lipotoxic Extracellular Vesicle Sphingosine 1-Phosphate Induces Macrophage Chemotaxis. <i>Frontiers in Immunology</i> , 2018, 9, 2980.	2.2	65
21	Cultivating hepatocytes on printed arrays of HGF and BMP7 to characterize protective effects of these growth factors during in vitro alcohol injury. <i>Biomaterials</i> , 2010, 31, 5936-5944.	5.7	56
22	Micropatterned Surfaces Functionalized with Electroactive Peptides for Detecting Protease Release from Cells. <i>Analytical Chemistry</i> , 2013, 85, 220-227.	3.2	56
23	A microfluidic platform for cultivating ovarian cancer spheroids and testing their responses to chemotherapies. <i>Microsystems and Nanoengineering</i> , 2020, 6, 93.	3.4	56
24	Miniature Enzyme-Based Electrodes for Detection of Hydrogen Peroxide Release from Alcohol-Injured Hepatocytes. <i>Analytical Chemistry</i> , 2013, 85, 932-939.	3.2	49
25	Detecting cell-secreted growth factors in microfluidic devices using bead-based biosensors. <i>Microsystems and Nanoengineering</i> , 2017, 3, .	3.4	48
26	Multilayered Heparin Hydrogel Microwells for Cultivation of Primary Hepatocytes. <i>Advanced Healthcare Materials</i> , 2014, 3, 126-132.	3.9	43
27	Electrochemical Desorption of Proteins from Gold Electrode Surface. <i>Electroanalysis</i> , 2006, 18, 1885-1892.	1.5	40
28	Micropatterned Nanocomposite Hydrogels for Biosensing Applications. <i>Electroanalysis</i> , 2011, 23, 1142-1149.	1.5	39
29	Electrochemical biosensors for on-chip detection of oxidative stress from immune cells. <i>Biomicrofluidics</i> , 2011, 5, 32008-3200811.	1.2	38
30	Micropatterned Sensing Hydrogels Integrated with Reconfigurable Microfluidics for Detecting Protease Release from Cells. <i>Analytical Chemistry</i> , 2013, 85, 11893-11901.	3.2	38
31	Cell biology is different in small volumes: endogenous signals shape phenotype of primary hepatocytes cultured in microfluidic channels. <i>Scientific Reports</i> , 2016, 6, 33980.	1.6	37
32	Automated Droplet-Based Microfluidic Platform for Multiplexed Analysis of Biochemical Markers in Small Volumes. <i>Analytical Chemistry</i> , 2019, 91, 5133-5141.	3.2	37
33	Super enhancer regulation of cytokine-induced chemokine production in alcoholic hepatitis. <i>Nature Communications</i> , 2021, 12, 4560.	5.8	37
34	Micropatterning of bioactive heparin-based hydrogels. <i>Soft Matter</i> , 2011, 7, 3133-3140.	1.2	34
35	Heparin hydrogel sandwich cultures of primary hepatocytes. <i>European Polymer Journal</i> , 2015, 72, 726-735.	2.6	34
36	Growth Factor-Bearing Polymer Brushes - Versatile Bioactive Substrates Influencing Cell Response. <i>Biomacromolecules</i> , 2015, 16, 3530-3542.	2.6	31

#	ARTICLE	IF	CITATIONS
37	Reconfigurable microfluidics with integrated aptasensors for monitoring intercellular communication. <i>Lab on A Chip</i> , 2014, 14, 1695-1704.	3.1	30
38	Core-shell hydrogel microcapsules enable formation of human pluripotent stem cell spheroids and their cultivation in a stirred bioreactor. <i>Scientific Reports</i> , 2021, 11, 7177.	1.6	30
39	Biosensors for Cell Analysis. <i>Annual Review of Biomedical Engineering</i> , 2015, 17, 165-190.	5.7	29
40	Ethanol Negatively Regulates Hepatic Differentiation of hESC by Inhibition of the MAPK/ERK Signaling Pathway In Vitro. <i>PLoS ONE</i> , 2014, 9, e112698.	1.1	28
41	HLA Class I Depleted hESC as a Source of Hypoimmunogenic Cells for Tissue Engineering Applications. <i>Tissue Engineering - Part A</i> , 2015, 21, 2559-2571.	1.6	26
42	Embryonic Stem Cells Cultured in Microfluidic Chambers Take Control of Their Fate by Producing Endogenous Signals Including LIF. <i>Stem Cells</i> , 2016, 34, 1501-1512.	1.4	26
43	Functional imaging of neuron-astrocyte interactions in a compartmentalized microfluidic device. <i>Microsystems and Nanoengineering</i> , 2016, 2, 15045.	3.4	24
44	Nanowire Aptasensors for Electrochemical Detection of Cell-Secreted Cytokines. <i>ACS Sensors</i> , 2017, 2, 1644-1652.	4.0	24
45	Microfluidic co-cultures with hydrogel-based ligand trap to study paracrine signals giving rise to cancer drug resistance. <i>Lab on A Chip</i> , 2015, 15, 4614-4624.	3.1	23
46	Sensing Conductive Hydrogels for Rapid Detection of Cytokines in Blood. <i>Advanced Healthcare Materials</i> , 2016, 5, 659-664.	3.9	22
47	Microchamber Cultures of Bladder Cancer: A Platform for Characterizing Drug Responsiveness and Resistance in PDX and Primary Cancer Cells. <i>Scientific Reports</i> , 2017, 7, 12277.	1.6	21
48	Bioactive Photodegradable Hydrogel for Cultivation and Retrieval of Embryonic Stem Cells. <i>Advanced Functional Materials</i> , 2015, 25, 4650-4656.	7.8	20
49	Fabrication of composite microfluidic devices for local control of oxygen tension in cell cultures. <i>Lab on A Chip</i> , 2019, 19, 306-315.	3.1	20
50	Reconfigurable microfluidics combined with antibody microarrays for enhanced detection of T-cell secreted cytokines. <i>Biomicrofluidics</i> , 2013, 7, 024105.	1.2	18
51	Using reconfigurable microfluidics to study the role of HGF in autocrine and paracrine signaling of hepatocytes. <i>Integrative Biology (United Kingdom)</i> , 2015, 7, 815-824.	0.6	17
52	Synectin promotes fibrogenesis by regulating PDGFR isoforms through distinct mechanisms. <i>JCI Insight</i> , 2017, 2, .	2.3	16
53	Electrochemical Biosensors for On-Chip Detection of Oxidative Stress from Cells. <i>Methods in Enzymology</i> , 2013, 526, 107-121.	0.4	14
54	Microfluidic confinement enhances phenotype and function of hepatocyte spheroids. <i>American Journal of Physiology - Cell Physiology</i> , 2020, 319, C552-C560.	2.1	14

#	ARTICLE	IF	CITATIONS
55	Ductular reaction-on-a-chip: Microfluidic co-cultures to study stem cell fate selection during liver injury. <i>Scientific Reports</i> , 2016, 6, 36077.	1.6	13
56	An electrochemical aptasensor for detection of bovine interferon gamma. <i>Analytical Methods</i> , 2017, 9, 4527-4532.	1.3	13
57	Nanoprojectile Secondary Ion Mass Spectrometry for Analysis of Extracellular Vesicles. <i>Analytical Chemistry</i> , 2021, 93, 7481-7490.	3.2	13
58	Nanoparticle-Enabled Multiplexed Electrochemical Immunoassay for Detection of Surface Proteins on Extracellular Vesicles. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 52321-52332.	4.0	13
59	Microencapsulated Immunoassays for Detection of Cytokines in Human Blood. <i>ACS Sensors</i> , 2019, 4, 578-585.	4.0	12
60	A mathematical method for extracting cell secretion rate from affinity biosensors continuously monitoring cell activity. <i>Biomicrofluidics</i> , 2014, 8, 021501.	1.2	11
61	Hepatocyte cultures: From collagen gel sandwiches to microfluidic devices with integrated biosensors. <i>APL Bioengineering</i> , 2021, 5, 041504.	3.3	11
62	Microfluidic devices, accumulation of endogenous signals and stem cell fate selection. <i>Differentiation</i> , 2020, 112, 39-46.	1.0	8
63	Coupling tumor necrosis factor-related apoptosis-inducing ligand to iron oxide nanoparticles increases its apoptotic activity on HCT116 and HepG2 malignant cells: effect of magnetic core size. <i>Journal of Interdisciplinary Nanomedicine</i> , 2019, 4, 34-50.	3.6	7
64	Reconfigurable microfluidic device with integrated antibody arrays for capture, multiplexed stimulation, and cytokine profiling of human monocytes. <i>Biomicrofluidics</i> , 2015, 9, 044115.	1.2	6
65	Harnessing endogenous signals from hepatocytes using a low volume multi-well plate. <i>Integrative Biology (United Kingdom)</i> , 2017, 9, 427-435.	0.6	6
66	Automated Microfluidic System with Active Mixing Enables Rapid Analysis of Biomarkers in 5 $\mu$ L of Whole Blood. <i>Analytical Chemistry</i> , 2022, 94, 9706-9714.	3.2	6
67	Understanding Suboptimal Response to Immune Checkpoint Inhibitors. <i>Advanced Biology</i> , 2023, 7, e2101319.	1.4	5
68	Development of Micropatterned Cell-Sensing Surfaces. <i>Methods in Cell Biology</i> , 2014, 121, 75-90.	0.5	4
69	Sensing cell-secreted molecules. <i>Bioanalytical Reviews</i> , 2012, 4, 87-95.	0.1	3
70	Bioactive hydrogel microcapsules for guiding stem cell fate decisions by release and reloading of growth factors. <i>Bioactive Materials</i> , 2022, 15, 1-14.	8.6	3
71	Stereomask Lithography for Multi-Protein Patterning. <i>Methods in Cell Biology</i> , 2014, 119, 175-192.	0.5	2
72	10.1063/1.3608135.1., 2011,,.		2

#	ARTICLE	IF	CITATIONS
73	Microfluidic Fabrication of Core-Shell Microcapsules carrying Human Pluripotent Stem Cell Spheroids. <i>Journal of Visualized Experiments</i> , 2021, , .	0.2	2
74	Coating Bioactive Microcapsules with Tannic Acid Enhances the Phenotype of the Encapsulated Pluripotent Stem Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 27274-27286.	4.0	2
75	Prospects and Opportunities for Microsystems and Microfluidic Devices in the Field of Otorhinolaryngology. <i>Clinical and Experimental Otorhinolaryngology</i> , 2021, 14, 29-42.	1.1	1
76	Micropattern-assisted nanoassembly: Ordered nanocolloidal array on PEG microstructures. , 2009, , .		0
77	Interfacial Nanoadhesive: Universal Nanopatternable Interfacial Bonding ( <i>Adv. Mater.</i> 46/2011). <i>Advanced Materials</i> , 2011, 23, 5550-5550.	11.1	0
78	Universal Anisotropically Conductive Nano-adhesive of PDMS Oligomers. <i>Materials Research Society Symposia Proceedings</i> , 2013, 1553, 1.	0.1	0