

# Yi-Chin Toh

## List of Publications by Year in descending order

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59  
papers

3,056  
citations

236925

25  
h-index

161849

54  
g-index

66  
all docs

66  
docs citations

66  
times ranked

4012  
citing authors

#	ARTICLE	IF	CITATIONS
1	A practical guide to microfluidic perfusion culture of adherent mammalian cells. Lab on A Chip, 2007, 7, 681.	6.0	409
2	A novel 3D mammalian cell perfusion-culture system in microfluidic channels. Lab on A Chip, 2007, 7, 302.	6.0	392
3	A microfluidic 3D hepatocyte chip for drug toxicity testing. Lab on A Chip, 2009, 9, 2026.	6.0	378
4	A guide to the organ-on-a-chip. Nature Reviews Methods Primers, 2022, 2, .	21.2	247
5	A gel-free 3D microfluidic cell culture system. Biomaterials, 2008, 29, 3237-3244.	11.4	157
6	Fluid shear stress primes mouse embryonic stem cells for differentiation in a self-renewing environment <i>via</i> heparan sulfate proteoglycans transduction. FASEB Journal, 2011, 25, 1208-1217.	0.5	113
7	Decolourisation of azo dyes by white-rot fungi (WRF) isolated in Singapore. Enzyme and Microbial Technology, 2003, 33, 569-575.	3.2	94
8	A 3D printed microfluidic perfusion device for multicellular spheroid cultures. Biofabrication, 2017, 9, 045005.	7.1	85
9	Fabrication of integrated microfluidic devices by direct ink writing (DIW) 3D printing. Sensors and Actuators B: Chemical, 2019, 297, 126609.	7.8	71
10	Self-aligning Tetris-Like (TILE) modular microfluidic platform for mimicking multi-organ interactions. Lab on A Chip, 2019, 19, 2178-2191.	6.0	64
11	Cost-effective differentiation of hepatocyte-like cells from human pluripotent stem cells using small molecules. Biomaterials, 2015, 70, 115-125.	11.4	62
12	A pump-free microfluidic 3D perfusion platform for the efficient differentiation of human hepatocyte-like cells. Biotechnology and Bioengineering, 2017, 114, 2360-2370.	3.3	60
13	Cellular responses to a nanofibrous environment. Nano Today, 2006, 1, 34-43.	11.9	58
14	Scalable alignment of three-dimensional cellular constructs in a microfluidic chip. Lab on A Chip, 2013, 13, 4124.	6.0	55
15	Patient-specific hepatocyte-like cells derived from induced pluripotent stem cells model pazopanib-mediated hepatotoxicity. Scientific Reports, 2017, 7, 41238.	3.3	47
16	Application of a polyelectrolyte complex coacervation method to improve seeding efficiency of bone marrow stromal cells in a 3D culture system. Biomaterials, 2005, 26, 4149-4160.	11.4	44
17	Modulation of integrin and E-cadherin-mediated adhesions to spatially control heterogeneity in human pluripotent stem cell differentiation. Biomaterials, 2015, 50, 87-97.	11.4	44
18	A 3D Microfluidic Model to Recapitulate Cancer Cell Migration and Invasion. Bioengineering, 2018, 5, 29.	3.5	39

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19	Advancing stem cell research with microtechnologies: opportunities and challenges. Integrative Biology (United Kingdom), 2010, 2, 305.	1.3	36
20	Functionally Enhanced Human Stem Cell Derived Hepatocytes in Galactosylated Cellulosic Sponges for Hepatotoxicity Testing. Molecular Pharmaceutics, 2016, 13, 1947-1957.	4.6	36
21	The controlled presentation of TGF- $\beta$ 1 to hepatocytes in a 3D-microfluidic cell culture system. Biomaterials, 2009, 30, 3847-3853.	11.4	33
22	A method for human teratogen detection by geometrically confined cell differentiation and migration. Scientific Reports, 2015, 5, 10038.	3.3	29
23	Substrate stiffness modulates the multipotency of human neural crest derived ectomesenchymal stem cells via CD44 mediated PDGFR signaling. Biomaterials, 2018, 167, 153-167.	11.4	28
24	Acrylated epoxidized soybean oil/hydroxyapatite-based nanocomposite scaffolds prepared by additive manufacturing for bone tissue engineering. Materials Science and Engineering C, 2021, 118, 111400.	7.3	28
25	A Configurable Three-Dimensional Microenvironment in a Microfluidic Channel for Primary Hepatocyte Culture. Assay and Drug Development Technologies, 2005, 3, 169-176.	1.2	27
26	Human Pluripotent Stem Cell-Derived Neural Crest Cells for Tissue Regeneration and Disease Modeling. Frontiers in Molecular Neuroscience, 2019, 12, 39.	2.9	27
27	Determination of critical shear stress for maturation of human pluripotent stem cell-derived endothelial cells towards an arterial subtype. Biotechnology and Bioengineering, 2019, 116, 1164-1175.	3.3	27
28	Bridging the academia-to-industry gap: organ-on-a-chip platforms for safety and toxicology assessment. Trends in Pharmacological Sciences, 2021, 42, 715-728.	8.7	26
29	Scalable cell alignment on optical media substrates. Biomaterials, 2013, 34, 5078-5087.	11.4	25
30	Fabrication of Complex 3D Fluidic Networks via Modularized Stereolithography. Advanced Engineering Materials, 2020, 22, 1901109.	3.5	24
31	Dendrimer hydrazides as multivalent transient inter-cellular linkers. Biomaterials, 2008, 29, 3693-3702.	11.4	23
32	Mechanical compaction directly modulates the dynamics of bile canaliculi formation. Integrative Biology (United Kingdom), 2013, 5, 390-401.	1.3	23
33	Microfabricated silicon nitride membranes for hepatocyte sandwich culture. Biomaterials, 2008, 29, 3993-4002.	11.4	22
34	Wound healing properties of magnesium mineralized antimicrobial nanofibre dressings containing chondroitin sulphate – a comparison between blend and core-shell nanofibres. Biomaterials Science, 2020, 8, 3454-3471.	5.4	22
35	A liver-immune coculture array for predicting systemic drug-induced skin sensitization. Lab on A Chip, 2018, 18, 3239-3250.	6.0	19
36	Bio-mimicking Shear Stress Environments for Enhancing Mesenchymal Stem Cell Differentiation. Current Stem Cell Research and Therapy, 2020, 15, 414-427.	1.3	19

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37	What can microfluidics do for human microbiome research?. <i>Biomicrofluidics</i> , 2020, 14, 051303.	2.4	18
38	Topography elicits distinct phenotypes and functions in human primary and stem cell derived endothelial cells. <i>Biomaterials</i> , 2020, 234, 119747.	11.4	16
39	Highly-customizable 3D-printed peristaltic pump kit. <i>HardwareX</i> , 2021, 10, e00202.	2.2	16
40	Environmental Specification of Pluripotent Stem Cell Derived Endothelial Cells Toward Arterial and Venous Subtypes. <i>Frontiers in Bioengineering and Biotechnology</i> , 2019, 7, 143.	4.1	13
41	A Micropatterned Humanâ€™specific Neuroepithelial Tissue for Modeling Gene and Drugâ€™induced Neurodevelopmental Defects. <i>Advanced Science</i> , 2021, 8, 2001100.	11.2	13
42	Spatially organized in vitro models instruct asymmetric stem cell differentiation. <i>Integrative Biology (United Kingdom)</i> , 2011, 3, 1179.	1.3	12
43	A vascular-liver chip for sensitive detection of nutraceutical metabolites from human pluripotent stem cell derivatives. <i>Biomicrofluidics</i> , 2020, 14, 034108.	2.4	12
44	Comparative Craniofacial Bone Regeneration Capacities of Mesenchymal Stem Cells Derived from Human Neural Crest Stem Cells and Bone Marrow. <i>ACS Biomaterials Science and Engineering</i> , 2021, 7, 207-221.	5.2	10
45	Enhancement of Endothelialization by Topographical Features Is Mediated by PTP1B-Dependent Endothelial Adherens Junctions Remodeling. <i>ACS Biomaterials Science and Engineering</i> , 2021, 7, 2661-2675.	5.2	8
46	Quantitative Image-Based Cell Viability (QuantICV) Assay for Microfluidic 3D Tissue Culture Applications. <i>Micromachines</i> , 2020, 11, 669.	2.9	7
47	Integration of a microfluidic multicellular coculture array with machine learning analysis to predict adverse cutaneous drug reactions. <i>Lab on A Chip</i> , 2022, 22, 1890-1904.	6.0	7
48	Fluid Flow Induces Differential Detachment of Live and Dead Bacterial Cells from Nanostructured Surfaces. <i>ACS Omega</i> , 2022, 7, 23201-23212.	3.5	6
49	Integrating sensitive quantification of hepatic metabolic functions by capillary electrophoresis with laser-induced fluorescence detection. <i>Analyst, The</i> , 2008, 133, 326.	3.5	4
50	Stencil Micropatterning of Human Pluripotent Stem Cells for Probing Spatial Organization of Differentiation Fates. <i>Journal of Visualized Experiments</i> , 2016, , .	0.3	4
51	Stencil Micropatterning for Spatial Control of Human Pluripotent Stem Cell Fate Heterogeneity. <i>Methods in Molecular Biology</i> , 2016, 1516, 171-181.	0.9	3
52	A physiological adipose-on-chip disease model to mimic adipocyte hypertrophy and inflammation in obesity. <i>Organs-on-a-Chip</i> , 2022, 4, 100021.	3.2	3
53	Fabrication of Complex 3D Fluidic Networks via Modularized Stereolithography. <i>Advanced Engineering Materials</i> , 2020, 22, 2070012.	3.5	2
54	Hepatic Bioactivation of Skin-Sensitizing Drugs to Immunogenic Reactive Metabolites. <i>ACS Omega</i> , 2019, 4, 13902-13912.	3.5	1

#	ARTICLE	IF	CITATIONS
55	Design and fabrication of micro/nanofluidics devices and systems. Progress in Molecular Biology and Translational Science, 2022, 186, 15-58.	1.7	1
56	Leveraging on being smallâ€”Singapore's strategy to catalyze integrative innovations. Lab on A Chip, 2011, 11, 1853.	6.0	0
57	Gratings on a Dish: A Scalable Cell Alignment Substrate on Optical Media. , 2013, , .		0
58	Spatio-Temporally Patterned Neuroectoderm Tissue Recapitulates Early Neural Tube Morphogenesis and Pathogenesis. SSRN Electronic Journal, 0, , .	0.4	0
59	Induced pluripotent stem cells-derived craniofacial mesenchymal progenitor cells. , 2022, , 19-43.		0