

# Dongeun Huh

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

55  
papers

10,700  
citations

32  
h-index

58  
g-index

58  
ext. papers

12,533  
ext. citations

12.2  
avg, IF

6.47  
L-index

#	Paper	IF	Citations
55	A microphysiological model of human trophoblast invasion during implantation.. <i>Nature Communications</i> , <b>2022</b> , 13, 1252	17.4	3
54	Surface-directed engineering of tissue anisotropy in microphysiological models of musculoskeletal tissue. <i>Science Advances</i> , <b>2021</b> , 7,	14.3	12
53	Organ-on-a-chip technology for the study of the female reproductive system. <i>Advanced Drug Delivery Reviews</i> , <b>2021</b> , 173, 461-478	18.5	9
52	A Human Vascular Injury-on-a-Chip Model of Hemostasis. <i>Small</i> , <b>2021</b> , 17, e2004889	11	5
51	Microfluidic Multi-Scale Homogeneous Mixing with Uniform Residence Time Distribution for Rapid Production of Various Metal CoreShell Nanoparticles. <i>Advanced Functional Materials</i> , <b>2021</b> , 31, 2007856	15.6	6
50	Real-time monitoring of liver fibrosis through embedded sensors in a microphysiological system. <i>Nano Convergence</i> , <b>2021</b> , 8, 3	9.2	7
49	Organ-on-a-chip technology for nanoparticle research. <i>Nano Convergence</i> , <b>2021</b> , 8, 20	9.2	12
48	Soft robotic constrictor for in vitro modeling of dynamic tissue compression. <i>Scientific Reports</i> , <b>2021</b> , 11, 16478	4.9	4
47	Extracellular Matrix Optimization for Enhanced Physiological Relevance in Hepatic Tissue-Chips. <i>Polymers</i> , <b>2021</b> , 13,	4.5	4
46	A three-dimensional in vitro model of the peripheral nervous system. <i>NPG Asia Materials</i> , <b>2021</b> , 13,	10.3	4
45	A fluorescent lateral flow biosensor for the quantitative detection of Vaspin using upconverting nanoparticles. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , <b>2020</b> , 226, 117610	4.4	23
44	Organoids-on-a-chip. <i>Science</i> , <b>2019</b> , 364, 960-965	33.3	249
43	Polydopamine-Based Interfacial Engineering of Extracellular Matrix Hydrogels for the Construction and Long-Term Maintenance of Living Three-Dimensional Tissues. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 23919-23925	9.5	25
42	Microphysiological Engineering of Self-Assembled and Perfusable Microvascular Beds for the Production of Vascularized Three-Dimensional Human Microtissues. <i>ACS Nano</i> , <b>2019</b> , 13, 7627-7643	16.7	73
41	In Vitro Granuloma Models of Tuberculosis: Potential and Challenges. <i>Journal of Infectious Diseases</i> , <b>2019</b> , 219, 1858-1866	7	31
40	Multiscale reverse engineering of the human ocular surface. <i>Nature Medicine</i> , <b>2019</b> , 25, 1310-1318	50.5	53
39	iPreP is a three-dimensional nanofibrillar cellulose hydrogel platform for long-term ex vivo preservation of human islets. <i>JCI Insight</i> , <b>2019</b> , 4,	9.9	4

38	Generalized On-Demand Production of Nanoparticle Monolayers on Arbitrary Solid Surfaces via Capillarity-Mediated Inverse Transfer. <i>Nano Letters</i> , <b>2019</b> , 19, 2074-2083	11.5	14
37	Microphysiological models of human organs: A case study on microengineered lung-on-a-chip systems <b>2019</b> , 187-208		3
36	Placenta-on-a-Chip: Placental Drug Transport-on-a-Chip: A Microengineered In Vitro Model of Transporter-Mediated Drug Efflux in the Human Placental Barrier (Adv. Healthcare Mater. 2/2018). <i>Advanced Healthcare Materials</i> , <b>2018</b> , 7, 1870008	10.1	2
35	A bioinspired microfluidic model of liquid plug-induced mechanical airway injury. <i>Biomicrofluidics</i> , <b>2018</b> , 12, 042211	3.2	5
34	Placental Drug Transport-on-a-Chip: A Microengineered In Vitro Model of Transporter-Mediated Drug Efflux in the Human Placental Barrier. <i>Advanced Healthcare Materials</i> , <b>2018</b> , 7, 1700786	10.1	63
33	Use of three-dimensional organoids and lung-on-a-chip methods to study lung development, regeneration and disease. <i>European Respiratory Journal</i> , <b>2018</b> , 52,	13.6	58
32	Roles of fluid shear stress and retinoic acid in the differentiation of primary cultured human podocytes. <i>Experimental Cell Research</i> , <b>2017</b> , 354, 48-56	4.2	19
31	A microengineered model of RBC transfusion-induced pulmonary vascular injury. <i>Scientific Reports</i> , <b>2017</b> , 7, 3413	4.9	14
30	Native extracellular matrix-derived semipermeable, optically transparent, and inexpensive membrane inserts for microfluidic cell culture. <i>Lab on A Chip</i> , <b>2017</b> , 17, 3146-3158	7.2	48
29	Placenta-on-a-chip: a novel platform to study the biology of the human placenta. <i>Journal of Maternal-Fetal and Neonatal Medicine</i> , <b>2016</b> , 29, 1046-54	2	143
28	A microphysiological model of the human placental barrier. <i>Lab on A Chip</i> , <b>2016</b> , 16, 3065-73	7.2	125
27	A microengineered pathophysiological model of early-stage breast cancer. <i>Lab on A Chip</i> , <b>2015</b> , 15, 3350-72	7.2	130
26	Organs-on-chips at the frontiers of drug discovery. <i>Nature Reviews Drug Discovery</i> , <b>2015</b> , 14, 248-60	64.1	765
25	Constructive remodeling of a synthetic endothelial extracellular matrix. <i>Scientific Reports</i> , <b>2015</b> , 5, 18290	4.9	23
24	Red blood cells induce necroptosis of lung endothelial cells and increase susceptibility to lung inflammation. <i>American Journal of Respiratory and Critical Care Medicine</i> , <b>2014</b> , 190, 1243-54	10.2	67
23	Microfabrication of human organs-on-chips. <i>Nature Protocols</i> , <b>2013</b> , 8, 2135-57	18.8	441
22	A human disease model of drug toxicity-induced pulmonary edema in a lung-on-a-chip microdevice. <i>Science Translational Medicine</i> , <b>2012</b> , 4, 159ra147	17.5	624
21	Human gut-on-a-chip inhabited by microbial flora that experiences intestinal peristalsis-like motions and flow. <i>Lab on A Chip</i> , <b>2012</b> , 12, 2165-74	7.2	991

20	Microengineered physiological biomimicry: organs-on-chips. <i>Lab on A Chip</i> , <b>2012</b> , 12, 2156-64	7.2	505
19	Organomimetic microsystems technologies. <i>Biomedical Engineering Letters</i> , <b>2012</b> , 2, 88-94	3.6	8
18	Mechanochemical control of mesenchymal condensation and embryonic tooth organ formation. <i>Developmental Cell</i> , <b>2011</b> , 21, 758-69	10.2	137
17	From 3D cell culture to organs-on-chips. <i>Trends in Cell Biology</i> , <b>2011</b> , 21, 745-54	18.3	1235
16	Dynamics of liquid plugs of buffer and surfactant solutions in a micro-engineered pulmonary airway model. <i>Langmuir</i> , <b>2010</b> , 26, 3744-52	4	33
15	Reconstituting organ-level lung functions on a chip. <i>Science</i> , <b>2010</b> , 328, 1662-8	33.3	2416
14	Instantaneous fabrication of arrays of normally closed, adjustable, and reversible nanochannels by tunnel cracking. <i>Lab on A Chip</i> , <b>2010</b> , 10, 1627-30	7.2	47
13	Microfluidics, Lung Surfactant, and Respiratory Disorders. <i>Laboratory Medicine</i> , <b>2009</b> , 40, 203-209	1.6	14
12	A mechanosensitive transcriptional mechanism that controls angiogenesis. <i>Nature</i> , <b>2009</b> , 457, 1103-8	50.4	416
11	DNA linearization through confinement in nanofluidic channels. <i>Analytical and Bioanalytical Chemistry</i> , <b>2008</b> , 391, 2395-409	4.4	58
10	Individually programmable cell stretching microwell arrays actuated by a Braille display. <i>Biomaterials</i> , <b>2008</b> , 29, 2646-55	15.6	99
9	Leakage-free bonding of porous membranes into layered microfluidic array systems. <i>Analytical Chemistry</i> , <b>2007</b> , 79, 3504-8	7.8	154
8	Tunable elastomeric nanochannels for nanofluidic manipulation. <i>Nature Materials</i> , <b>2007</b> , 6, 424-8	27	301
7	Acoustically detectable cellular-level lung injury induced by fluid mechanical stresses in microfluidic airway systems. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2007</b> , 104, 18886-91	11.5	365
6	Gravity-driven microfluidic particle sorting device with hydrodynamic separation amplification. <i>Analytical Chemistry</i> , <b>2007</b> , 79, 1369-76	7.8	228
5	Efficient formation of uniform-sized embryoid bodies using a compartmentalized microchannel device. <i>Lab on A Chip</i> , <b>2007</b> , 7, 770-6	7.2	132
4	Microfluidic model of bubble lodging in microvessel bifurcations. <i>Applied Physics Letters</i> , <b>2006</b> , 89, 244103	9.4	34
3	Microfluidics for flow cytometric analysis of cells and particles. <i>Physiological Measurement</i> , <b>2005</b> , 26, R73-98	2.9	296

2	Reversible switching of high-speed air-liquid two-phase flows using electrowetting-assisted flow-pattern change. <i>Journal of the American Chemical Society</i> , <b>2003</b> , 125, 14678-9	16.4	80
1	Use of Air-Liquid Two-Phase Flow in Hydrophobic Microfluidic Channels for Disposable Flow Cytometers. <i>Biomedical Microdevices</i> , <b>2002</b> , 4, 141-149	3.7	79