Dongeun Huh

List of Publications by Citations

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	Reconstituting organ-level lung functions on a chip. *Science*, **2010**, 328, 1662-8	33.3	2416
54	From 3D cell culture to organs-on-chips. *Trends in Cell Biology*, **2011**, 21, 745-54	18.3	1235
53	Human gut-on-a-chip inhabited by microbial flora that experiences intestinal peristalsis-like motions and flow. *Lab on A Chip*, **2012**, 12, 2165-74	7.2	991
52	Organs-on-chips at the frontiers of drug discovery. *Nature Reviews Drug Discovery*, **2015**, 14, 248-60	64.1	765
51	A human disease model of drug toxicity-induced pulmonary edema in a lung-on-a-chip microdevice. *Science Translational Medicine*, **2012**, 4, 159ra147	17.5	624
50	Microengineered physiological biomimicry: organs-on-chips. *Lab on A Chip*, **2012**, 12, 2156-64	7.2	505
49	Microfabrication of human organs-on-chips. *Nature Protocols*, **2013**, 8, 2135-57	18.8	441
48	A mechanosensitive transcriptional mechanism that controls angiogenesis. *Nature*, **2009**, 457, 1103-8	50.4	416
47	Acoustically detectable cellular-level lung injury induced by fluid mechanical stresses in microfluidic airway systems. *Proceedings of the National Academy of Sciences of the United States of America*, **2007**, 104, 18886-91	11.5	365
46	Tuneable elastomeric nanochannels for nanofluidic manipulation. *Nature Materials*, **2007**, 6, 424-8	27	301
45	Microfluidics for flow cytometric analysis of cells and particles. *Physiological Measurement*, **2005**, 26, R73-98	2.9	296
44	Organoids-on-a-chip. *Science*, **2019**, 364, 960-965	33.3	249
43	Gravity-driven microfluidic particle sorting device with hydrodynamic separation amplification. *Analytical Chemistry*, **2007**, 79, 1369-76	7.8	228
42	Leakage-free bonding of porous membranes into layered microfluidic array systems. *Analytical Chemistry*, **2007**, 79, 3504-8	7.8	154
41	Placenta-on-a-chip: a novel platform to study the biology of the human placenta. *Journal of Maternal-Fetal and Neonatal Medicine*, **2016**, 29, 1046-54	2	143
40	Mechanochemical control of mesenchymal condensation and embryonic tooth organ formation. *Developmental Cell*, **2011**, 21, 758-69	10.2	137
39	Efficient formation of uniform-sized embryoid bodies using a compartmentalized microchannel device. *Lab on A Chip*, **2007**, 7, 770-6	7.2	132

38	A microengineered pathophysiological model of early-stage breast cancer. *Lab on A Chip*, **2015**, 15, 3350-7	7.2	130
37	A microphysiological model of the human placental barrier. *Lab on A Chip*, **2016**, 16, 3065-73	7.2	125
36	Individually programmable cell stretching microwell arrays actuated by a Braille display. *Biomaterials*, **2008**, 29, 2646-55	15.6	99
35	Reversible switching of high-speed air-liquid two-phase flows using electrowetting-assisted flow-pattern change. *Journal of the American Chemical Society*, **2003**, 125, 14678-9	16.4	80
34	Use of Air-Liquid Two-Phase Flow in Hydrophobic Microfluidic Channels for Disposable Flow Cytometers. *Biomedical Microdevices*, **2002**, 4, 141-149	3.7	79
33	Microphysiological Engineering of Self-Assembled and Perfusable Microvascular Beds for the Production of Vascularized Three-Dimensional Human Microtissues. *ACS Nano*, **2019**, 13, 7627-7643	16.7	73
32	Red blood cells induce necroptosis of lung endothelial cells and increase susceptibility to lung inflammation. *American Journal of Respiratory and Critical Care Medicine*, **2014**, 190, 1243-54	10.2	67
31	Placental Drug Transport-on-a-Chip: A Microengineered In Vitro Model of Transporter-Mediated Drug Efflux in the Human Placental Barrier. *Advanced Healthcare Materials*, **2018**, 7, 1700786	10.1	63
30	DNA linearization through confinement in nanofluidic channels. *Analytical and Bioanalytical Chemistry*, **2008**, 391, 2395-409	4.4	58
29	Use of three-dimensional organoids and lung-on-a-chip methods to study lung development, regeneration and disease. *European Respiratory Journal*, **2018**, 52,	13.6	58
28	Multiscale reverse engineering of the human ocular surface. *Nature Medicine*, **2019**, 25, 1310-1318	50.5	53
27	Native extracellular matrix-derived semipermeable, optically transparent, and inexpensive membrane inserts for microfluidic cell culture. *Lab on A Chip*, **2017**, 17, 3146-3158	7.2	48
26	Instantaneous fabrication of arrays of normally closed, adjustable, and reversible nanochannels by tunnel cracking. *Lab on A Chip*, **2010**, 10, 1627-30	7.2	47
25	Microfluidic model of bubble lodging in microvessel bifurcations. *Applied Physics Letters*, **2006**, 89, 244103	3.4	34
24	Dynamics of liquid plugs of buffer and surfactant solutions in a micro-engineered pulmonary airway model. *Langmuir*, **2010**, 26, 3744-52	4	33
23	In Vitro Granuloma Models of Tuberculosis: Potential and Challenges. *Journal of Infectious Diseases*, **2019**, 219, 1858-1866	7	31
22	Polydopamine-Based Interfacial Engineering of Extracellular Matrix Hydrogels for the Construction and Long-Term Maintenance of Living Three-Dimensional Tissues. *ACS Applied Materials & Interfaces*, **2019**, 11, 23919-23925	9.5	25
21	Constructive remodeling of a synthetic endothelial extracellular matrix. *Scientific Reports*, **2015**, 5, 18290	4.9	23

20	A fluorescent lateral flow biosensor for the quantitative detection of Vaspin using upconverting nanoparticles. *Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy*, **2020**, 226, 117610	4.4	23
19	Roles of fluid shear stress and retinoic acid in the differentiation of primary cultured human podocytes. *Experimental Cell Research*, **2017**, 354, 48-56	4.2	19
18	A microengineered model of RBC transfusion-induced pulmonary vascular injury. *Scientific Reports*, **2017**, 7, 3413	4.9	14
17	Microfluidics, Lung Surfactant, and Respiratory Disorders. *Laboratory Medicine*, **2009**, 40, 203-209	1.6	14
16	Generalized On-Demand Production of Nanoparticle Monolayers on Arbitrary Solid Surfaces via Capillarity-Mediated Inverse Transfer. *Nano Letters*, **2019**, 19, 2074-2083	11.5	14
15	Surface-directed engineering of tissue anisotropy in microphysiological models of musculoskeletal tissue. *Science Advances*, **2021**, 7,	14.3	12
14	Organ-on-a-chip technology for nanoparticle research. *Nano Convergence*, **2021**, 8, 20	9.2	12
13	Organ-on-a-chip technology for the study of the female reproductive system. *Advanced Drug Delivery Reviews*, **2021**, 173, 461-478	18.5	9
12	Organomimetic microsystems technologies. *Biomedical Engineering Letters*, **2012**, 2, 88-94	3.6	8
11	Real-time monitoring of liver fibrosis through embedded sensors in a microphysiological system. *Nano Convergence*, **2021**, 8, 3	9.2	7
10	Microfluidic Multi-Scale Homogeneous Mixing with Uniform Residence Time Distribution for Rapid Production of Various Metal Core–Shell Nanoparticles. *Advanced Functional Materials*, **2021**, 31, 2007856	15.6	6
9	A bioinspired microfluidic model of liquid plug-induced mechanical airway injury. *Biomicrofluidics*, **2018**, 12, 042211	3.2	5
8	A Human Vascular Injury-on-a-Chip Model of Hemostasis. *Small*, **2021**, 17, e2004889	11	5
7	iPreP is a three-dimensional nanofibrillar cellulose hydrogel platform for long-term ex vivo preservation of human islets. *JCI Insight*, **2019**, 4,	9.9	4
6	Soft robotic constrictor for in vitro modeling of dynamic tissue compression. *Scientific Reports*, **2021**, 11, 16478	4.9	4
5	Extracellular Matrix Optimization for Enhanced Physiological Relevance in Hepatic Tissue-Chips. *Polymers*, **2021**, 13,	4.5	4
4	A three-dimensional in vitro model of the peripheral nervous system. *NPG Asia Materials*, **2021**, 13,	10.3	4
3	Microphysiological models of human organs: A case study on microengineered lung-on-a-chip systems **2019**, 187-208		3

2	A microphysiological model of human trophoblast invasion during implantation.. *Nature Communications*, **2022**, 13, 1252	17.4	3
1	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). *Advanced Healthcare Materials*, **2018**, 7, 1870008	10.1	2