

Hang Lu

List of Publications by Citations

Source: <https://exaly.com/author-pdf/5689173/hang-lu-publications-by-citations.pdf>

Version: 2024-04-23

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

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

105
papers

3,163
citations

32
h-index

54
g-index

116
ext. papers

3,773
ext. citations

8.1
avg, IF

5.4
L-index

#	Paper	IF	Citations
105	Oxygen sensation and social feeding mediated by a <i>C. elegans</i> guanylate cyclase homologue. <i>Nature</i> , 2004 , 430, 317-22	50.4	442
104	Automated on-chip rapid microscopy, phenotyping and sorting of <i>C. elegans</i> . <i>Nature Methods</i> , 2008 , 5, 637-43	21.6	299
103	Real-time multimodal optical control of neurons and muscles in freely behaving <i>Caenorhabditis elegans</i> . <i>Nature Methods</i> , 2011 , 8, 153-8	21.6	167
102	A microfluidic array for large-scale ordering and orientation of embryos. <i>Nature Methods</i> , 2011 , 8, 171-176	21.6	122
101	Long-term high-resolution imaging and culture of <i>C. elegans</i> in chip-gel hybrid microfluidic device for developmental studies. <i>Lab on A Chip</i> , 2010 , 10, 1862-8	7.2	117
100	Imaging single-cell signaling dynamics with a deterministic high-density single-cell trap array. <i>Analytical Chemistry</i> , 2011 , 83, 7044-52	7.8	113
99	Microfluidics for the analysis of behavior, nerve regeneration, and neural cell biology in <i>C. elegans</i> . <i>Current Opinion in Neurobiology</i> , 2009 , 19, 561-7	7.6	96
98	Microfluidic chamber arrays for whole-organism behavior-based chemical screening. <i>Lab on A Chip</i> , 2011 , 11, 3689-3697	7.2	83
97	Autonomous screening of <i>C. elegans</i> identifies genes implicated in synaptogenesis. <i>Nature Methods</i> , 2012 , 9, 977-80	21.6	82
96	Microfluidics-enabled phenotyping, imaging, and screening of multicellular organisms. <i>Lab on A Chip</i> , 2010 , 10, 1509-17	7.2	81
95	Computer-enhanced high-throughput genetic screens of <i>C. elegans</i> in a microfluidic system. <i>Lab on A Chip</i> , 2009 , 9, 38-40	7.2	67
94	An insulin-to-insulin regulatory network orchestrates phenotypic specificity in development and physiology. <i>PLoS Genetics</i> , 2014 , 10, e1004225	6	62
93	Automated high-throughput cell microsurgery on-chip. <i>Lab on A Chip</i> , 2009 , 9, 2764-6	7.2	61
92	Microfluidics as a tool for <i>C. elegans</i> research. <i>WormBook</i> , 2013 , 1-19		58
91	Autoinhibition of a Neuronal Kinesin UNC-104/KIF1A Regulates the Size and Density of Synapses. <i>Cell Reports</i> , 2016 , 16, 2129-2141	10.6	53
90	Hydrogel-droplet microfluidic platform for high-resolution imaging and sorting of early larval <i>Caenorhabditis elegans</i> . <i>Lab on A Chip</i> , 2015 , 15, 1424-31	7.2	52
89	Laterally orienting <i>C. elegans</i> using geometry at microscale for high-throughput visual screens in neurodegeneration and neuronal development studies. <i>PLoS ONE</i> , 2012 , 7, e35037	3.7	49

88	An integrin β intermediate affinity state mediates biomechanical platelet aggregation. <i>Nature Materials</i> , 2019 , 18, 760-769	27	48
87	A multispectral optical illumination system with precise spatiotemporal control for the manipulation of optogenetic reagents. <i>Nature Protocols</i> , 2012 , 7, 207-20	18.8	48
86	Microfluidic trap array for massively parallel imaging of Drosophila embryos. <i>Nature Protocols</i> , 2013 , 8, 721-36	18.8	46
85	A multi-channel device for high-density target-selective stimulation and long-term monitoring of cells and subcellular features in <i>C. elegans</i> . <i>Lab on A Chip</i> , 2014 , 14, 4513-4522	7.2	45
84	Dynamics of Inductive ERK Signaling in the Drosophila Embryo. <i>Current Biology</i> , 2015 , 25, 1784-90	6.3	43
83	Kinetics of gene derepression by ERK signaling. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013 , 110, 10330-5	11.5	43
82	Pre-TCR ligand binding impacts thymocyte development before β TCR expression. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015 , 112, 8373-8	11.5	41
81	Automated and controlled mechanical stimulation and functional imaging in vivo in <i>C. elegans</i> . <i>Lab on A Chip</i> , 2017 , 17, 2609-2618	7.2	39
80	Von Willebrand factor-A1 domain binds platelet glycoprotein Ib in multiple states with distinctive force-dependent dissociation kinetics. <i>Thrombosis Research</i> , 2015 , 136, 606-12	8.2	35
79	Advances in microfluidic cell separation and manipulation. <i>Current Opinion in Chemical Engineering</i> , 2013 , 2, 398-404	5.4	35
78	Single-cell analysis of embryoid body heterogeneity using microfluidic trapping array. <i>Biomedical Microdevices</i> , 2014 , 16, 79-90	3.7	34
77	Microfluidic-based patterning of embryonic stem cells for in vitro development studies. <i>Lab on A Chip</i> , 2013 , 13, 4617-24	7.2	34
76	A gene-expression-based neural code for food abundance that modulates lifespan. <i>ELife</i> , 2015 , 4, e06259.9		32
75	A generalizable, tunable microfluidic platform for delivering fast temporally varying chemical signals to probe single-cell response dynamics. <i>Analytical Chemistry</i> , 2014 , 86, 10138-47	7.8	32
74	A Systematic Ensemble Approach to Thermodynamic Modeling of Gene Expression from Sequence Data. <i>Cell Systems</i> , 2015 , 1, 396-407	10.6	32
73	An automated programmable platform enabling multiplex dynamic stimuli delivery and cellular response monitoring for high-throughput suspension single-cell signaling studies. <i>Lab on A Chip</i> , 2015 , 15, 1497-507	7.2	29
72	Parallel Processing of Two Mechanosensory Modalities by a Single Neuron in <i>C. elegans</i> . <i>Developmental Cell</i> , 2019 , 51, 617-631.e3	10.2	26
71	An Afferent Neuropeptide System Transmits Mechanosensory Signals Triggering Sensitization and Arousal in <i>C. elegans</i> . <i>Neuron</i> , 2018 , 99, 1233-1246.e6	13.9	25

70	Muscle contraction phenotypic analysis enabled by optogenetics reveals functional relationships of sarcomere components in <i>Caenorhabditis elegans</i> . <i>Scientific Reports</i> , 2016 , 6, 19900	4.9	25
69	Quantitative screening of genes regulating tryptophan hydroxylase transcription in <i>Caenorhabditis elegans</i> using microfluidics and an adaptive algorithm. <i>Integrative Biology (United Kingdom)</i> , 2013 , 5, 372-80	3.7	22
68	Optics-Integrated Microfluidic Platforms for Biomolecular Analyses. <i>Biophysical Journal</i> , 2016 , 110, 1684-1697	4.1	22
67	Regulation of synaptic extracellular matrix composition is critical for proper synapse morphology. <i>Journal of Neuroscience</i> , 2014 , 34, 12678-89	6.6	21
66	Automated Processing of Imaging Data through Multi-tiered Classification of Biological Structures Illustrated Using <i>Caenorhabditis elegans</i> . <i>PLoS Computational Biology</i> , 2015 , 11, e1004194	5	20
65	Deep phenotyping unveils hidden traits and genetic relations in subtle mutants. <i>Nature Communications</i> , 2016 , 7, 12990	17.4	19
64	An automated platform to monitor long-term behavior and healthspan in <i>Caenorhabditis elegans</i> under precise environmental control. <i>Communications Biology</i> , 2020 , 3, 297	6.7	18
63	Droplet array for screening acute behaviour response to chemicals in <i>Caenorhabditis elegans</i> . <i>Lab on A Chip</i> , 2017 , 17, 4303-4311	7.2	18
62	An integrated platform for large-scale data collection and precise perturbation of live <i>Drosophila</i> embryos. <i>Scientific Reports</i> , 2016 , 6, 21366	4.9	17
61	A microfluidic trap array for longitudinal monitoring and multi-modal phenotypic analysis of individual stem cell aggregates. <i>Lab on A Chip</i> , 2017 , 17, 3634-3642	7.2	16
60	On-chip functional neuroimaging with mechanical stimulation in <i>Caenorhabditis elegans</i> larvae for studying development and neural circuits. <i>Lab on A Chip</i> , 2018 , 18, 601-609	7.2	15
59	Ankyrin Is An Intracellular Tether for TMC Mechanotransduction Channels. <i>Neuron</i> , 2020 , 107, 112-125.e10	10.9	14
58	A perspective on optical developments in microfluidic platforms for <i>Caenorhabditis elegans</i> research. <i>Biomicrofluidics</i> , 2014 , 8, 011301	3.2	14
57	Microfluidics in systems biology-hype or truly useful?. <i>Current Opinion in Biotechnology</i> , 2016 , 39, 215-220	11.4	13
56	Recent Advances and Trends in Microfluidic Platforms for <i>C. elegans</i> Biological Assays. <i>Annual Review of Analytical Chemistry</i> , 2018 , 11, 245-264	12.5	13
55	Single-cell resolution of intracellular T cell Ca dynamics in response to frequency-based HO stimulation. <i>Integrative Biology (United Kingdom)</i> , 2017 , 9, 238-247	3.7	12
54	Temporal ordering and registration of images in studies of developmental dynamics. <i>Development (Cambridge)</i> , 2015 , 142, 1717-24	6.6	12
53	Trends in high-throughput and functional neuroimaging in <i>Caenorhabditis elegans</i> . <i>Wiley Interdisciplinary Reviews: Systems Biology and Medicine</i> , 2017 , 9, e1376	6.6	11

52	Quantitative multivariate analysis of dynamic multicellular morphogenic trajectories. <i>Integrative Biology (United Kingdom)</i> , 2015 , 7, 825-33	3.7	11
51	Enabling systems biology approaches through microfabricated systems. <i>Analytical Chemistry</i> , 2013 , 85, 8882-94	7.8	11
50	Microfluidics for High-Throughput Quantitative Studies of Early Development. <i>Annual Review of Biomedical Engineering</i> , 2016 , 18, 285-309	12	11
49	Parallel imaging of embryos for quantitative analysis of genetic perturbations of the Ras pathway. <i>DMM Disease Models and Mechanisms</i> , 2017 , 10, 923-929	4.1	10
48	Automated screening of <i>C. elegans</i> neurodegeneration mutants enabled by microfluidics and image analysis algorithms. <i>Integrative Biology (United Kingdom)</i> , 2018 , 10, 539-548	3.7	10
47	Molecular evolution of troponin I and a role of its N-terminal extension in nematode locomotion. <i>Cytoskeleton</i> , 2016 , 73, 117-30	2.4	10
46	Multimodal Stimulation in a Microfluidic Device Facilitates Studies of Interneurons in Sensory Integration in <i>C. elegans</i> . <i>Small</i> , 2020 , 16, e1905852	11	9
45	Twitchin kinase inhibits muscle activity. <i>Molecular Biology of the Cell</i> , 2017 , 28, 1591-1600	3.5	8
44	Synthesizing developmental trajectories. <i>PLoS Computational Biology</i> , 2017 , 13, e1005742	5	8
43	A programmable platform for sub-second multichemical dynamic stimulation and neuronal functional imaging in <i>C. elegans</i> . <i>Lab on A Chip</i> , 2018 , 18, 505-513	7.2	8
42	Animal microsurgery using microfluidics. <i>Current Opinion in Biotechnology</i> , 2014 , 25, 24-9	11.4	8
41	Microfluidic platform with spatiotemporally controlled micro-environment for studying long-term <i>C. elegans</i> developmental arrests. <i>Lab on A Chip</i> , 2017 , 17, 1826-1833	7.2	7
40	A microfluidic systems biology approach for live single-cell mitochondrial ROS imaging. <i>Methods in Enzymology</i> , 2013 , 526, 219-30	1.7	6
39	Sequentially pulsed fluid delivery to establish soluble gradients within a scalable microfluidic chamber array. <i>Biomicrofluidics</i> , 2013 , 7, 11804	3.2	6
38	smFISH in chips: a microfluidic-based pipeline to quantify in situ gene expression in whole organisms. <i>Lab on A Chip</i> , 2020 , 20, 266-273	7.2	6
37	Genetic control of encoding strategy in a food-sensing neural circuit. <i>ELife</i> , 2017 , 6,	8.9	5
36	Reverse-Correlation Analysis of the Mechanosensation Circuit and Behavior in <i>C. elegans</i> Reveals Temporal and Spatial Encoding. <i>Scientific Reports</i> , 2019 , 9, 5182	4.9	4
35	Rapid and multi-cycle smFISH enabled by microfluidic ion concentration polarization for profiling of tissue-specific gene expression in whole. <i>Biomicrofluidics</i> , 2019 , 13, 064101	3.2	4

34	Recent Advances in Microfluidic Techniques for Systems Biology. <i>Analytical Chemistry</i> , 2019 , 91, 315-329	7.8	4
33	Graphical-model framework for automated annotation of cell identities in dense cellular images. <i>ELife</i> , 2021 , 10,	8.9	4
32	Conformational changes in twitchin kinase in vivo revealed by FRET imaging of freely moving. <i>ELife</i> , 2021 , 10,	8.9	4
31	Dynamic Mitochondrial Migratory Features Associated with Calcium Responses during T Cell Antigen Recognition. <i>Journal of Immunology</i> , 2019 , 203, 760-768	5.3	3
30	A spontaneous complex structural variant in rcan-1 increases exploratory behavior and laboratory fitness of <i>Caenorhabditis elegans</i> . <i>PLoS Genetics</i> , 2020 , 16, e1008606	6	3
29	Microfluidic auto-alignment of protein patterns for dissecting multi-receptor crosstalk in platelets. <i>Lab on A Chip</i> , 2018 , 18, 2966-2974	7.2	3
28	Time-Resolved Single-Cell Assay for Measuring Intracellular Reactive Oxygen Species upon Exposure to Ambient Particulate Matter. <i>Environmental Science & Technology</i> , 2020 , 54, 13121-13130	10.3	3
27	Fast, versatile and quantitative annotation of complex images. <i>BioTechniques</i> , 2019 , 66, 269-275	2.5	2
26	Microfluidic perfusion modulates growth and motor neuron differentiation of stem cell aggregates. <i>Analyst, The</i> , 2020 , 145, 4815-4826	5	2
25	Quantification of Information Encoded by Gene Expression Levels During Lifespan Modulation Under Broad-range Dietary Restriction in <i>C. elegans</i> . <i>Journal of Visualized Experiments</i> , 2017 ,	1.6	2
24	High-Temporal-Resolution smFISH Method for Gene Expression Studies in Embryos. <i>Analytical Chemistry</i> , 2021 , 93, 1369-1376	7.8	2
23	Microswimmer Combing: Controlling Interfacial Dynamics for Open-Surface Multifunctional Screening of Small Animals. <i>Advanced Healthcare Materials</i> , 2021 , 10, e2001887	10.1	2
22	Automated and Dynamic Control of Chemical Content in Droplets for Scalable Screens of Small Animals.. <i>Small</i> , 2022 , e2200319	11	2
21	Digging deeper: methodologies for high-content phenotyping in <i>Caenorhabditis elegans</i> . <i>Lab Animal</i> , 2019 , 48, 207-216	0.4	1
20	Graphical-Model Framework for Automated Annotation of Cell Identities in Dense Cellular Images		1
19	A beneficial genomic rearrangement creates multiple versions of calcipressin in <i>C. elegans</i>		1
18	HeALTH: An Automated Platform for Long-term Longitudinal Studies of Whole Organisms under Precise Environmental Control		1
17	A Multicellular Network Mechanism for Temperature-Robust Food Sensing. <i>Cell Reports</i> , 2020 , 33, 108526	6	1

16	Reverse-Correlation Analysis of the Mechanosensation Circuit and Behavior in <i>C. elegans</i> Reveals Temporal and Spatial Encoding		1
15	Enabling high-throughput single-animal gene-expression studies with molecular and micro-scale technologies. <i>Lab on A Chip</i> , 2020 , 20, 4528-4538	7.2	1
14	Emerging applications of microfluidic techniques for in vitro toxicity studies of atmospheric particulate matter. <i>Aerosol Science and Technology</i> , 2021 , 55, 623-639	3.4	1
13	Calcium Dynamics of Ex Vivo Long-Term Cultured CD8+ T Cells Are Regulated by Changes in Redox Metabolism. <i>PLoS ONE</i> , 2016 , 11, e0159248	3.7	1
12	Deep learning for robust and flexible tracking in behavioral studies for <i>C. elegans</i> .. <i>PLoS Computational Biology</i> , 2022 , 18, e1009942	5	1
11	A portable, low-cost device for precise control of specimen temperature under stereomicroscopes. <i>PLoS ONE</i> , 2020 , 15, e0230241	3.7	0
10	Topological Data Analysis of Locomotion and Behavior. <i>Frontiers in Artificial Intelligence</i> , 2021 , 4, 6683953		0
9	Evo-Devo on Chip 2013 , 59-79		
8	Molecular evolution of troponin I and a role of its N-terminal extension in nematode locomotion. <i>Cytoskeleton</i> , 2016 , 73, Spc1-Spc1	2.4	
7	A spontaneous complex structural variant in <i>rcan-1</i> increases exploratory behavior and laboratory fitness of <i>Caenorhabditis elegans</i> 2020 , 16, e1008606		
6	A spontaneous complex structural variant in <i>rcan-1</i> increases exploratory behavior and laboratory fitness of <i>Caenorhabditis elegans</i> 2020 , 16, e1008606		
5	A spontaneous complex structural variant in <i>rcan-1</i> increases exploratory behavior and laboratory fitness of <i>Caenorhabditis elegans</i> 2020 , 16, e1008606		
4	A spontaneous complex structural variant in <i>rcan-1</i> increases exploratory behavior and laboratory fitness of <i>Caenorhabditis elegans</i> 2020 , 16, e1008606		
3	A spontaneous complex structural variant in <i>rcan-1</i> increases exploratory behavior and laboratory fitness of <i>Caenorhabditis elegans</i> 2020 , 16, e1008606		
2	A spontaneous complex structural variant in <i>rcan-1</i> increases exploratory behavior and laboratory fitness of <i>Caenorhabditis elegans</i> 2020 , 16, e1008606		
1	Automated and Dynamic Control of Chemical Content in Droplets for Scalable Screens of Small Animals (Small 17/2022). <i>Small</i> , 2022 , 18, 2270085		11