

KOREA-US Frontiers in Health and Life Sciences

2025. 11. 6^(Thu) - 7^(Fri)
Four Seasons Hotel, Grandballroom(3F)



Curriculum Vitae

Name	First Name	Ian	Last Name	Wong
Country	USA			
Affiliation	School of Engineering, Brown University			



Educational Background

Ph.D. in Materials Science & Engineering, Stanford University (January 2010)
A.B. magna cum laude in Applied Mathematics, Harvard University (May 2003)

Professional Career

Visiting Scholar in Mechanical Engineering (sabbatical), MIT, 2023 - 2024
Associate Professor of Pathology & Laboratory Medicine (by courtesy), Brown University, 2022 - present
Associate Professor of Engineering, Brown University (with tenure), 2022 – present
Assistant Professor of Pathology & Laboratory Medicine (by courtesy), Brown University, 2014 - 2021
Assistant Professor of Engineering, Brown University, 2013 – 2021
Damon Runyon-Walter Winchell Postdoctoral Fellow, Massachusetts General Hospital, 2010-2013

Research Field

Biomaterials, mechanobiology, microfluidics, nanofabrication, soft matter, topological data analysis

Papers, Books, etc. presented or published by your name

KOREA-US
**Frontiers in Health
and Life Sciences**

2025. **11. 6**^(Thu) - **7**^(Fri)
Four Seasons Hotel, Grandballroom(3F)



Guo M, **Wong IY**, Moore AS, Medalia O, Lippincott-Schwartz J, Weitz DA, Goldman RD. Vimentin intermediate filaments as structural and mechanical coordinators of mesenchymal cells. *Nat Cell Biol.* 2025 Aug;27(8):1210-1218. doi: 10.1038/s41556-025-01713-x. Epub 2025 Aug 5. PMID: 40764390.

Kim J, Jeong H, Falcó C, Hruska AM, Martinson WD, Marzoratti A, Araiza M, Yang H, Franck C, Carrillo JA, Guo M, **Wong IY**. Collective Transitions from Orbiting to Matrix Invasion in 3D Multicellular Spheroids. *bioRxiv* [Preprint]. 2025 Feb 11:2025.02.10.636936. doi: 10.1101/2025.02.10.636936. PMID: 39990484; PMCID: PMC11844419.

Leggett SE, Patel M, Valentin TM, Gamboa L, Khoo AS, Williams EK, Franck C, **Wong IY**. Mechanophenotyping of 3D multicellular clusters using displacement arrays of rendered tractions. *Proc Natl Acad Sci U S A.* 2020 Mar 17;117(11):5655-5663. doi: 10.1073/pnas.1918296117. Epub 2020 Mar 2. PMID: 32123100; PMCID: PMC7084145.

Leggett SE, Neronha ZJ, Bhaskar D, Sim JY, Perdikari TM, **Wong IY**. Motility-limited aggregation of mammary epithelial cells into fractal-like clusters. *Proc Natl Acad Sci U S A.* 2019 Aug 27;116(35):17298-17306. doi: 10.1073/pnas.1905958116. Epub 2019 Aug 14. PMID: 31413194; PMCID: PMC6717304.

Leggett SE, **Wong IY**. Nanomedicine: Catching tumour cells in the zone. *Nat Nanotechnol.* 2017 Mar;12(3):191-193. doi: 10.1038/nnano.2016.264. Epub 2016 Nov 21. PMID: 27870839.

Wong IY, Javaid S, Wong EA, Perk S, Haber DA, Toner M, Irimia D. Collective and individual migration following the epithelial-mesenchymal transition. *Nat Mater.* 2014 Nov;13(11):1063-71. doi: 10.1038/nmat4062. Epub 2014 Aug 17. PMID: 25129619; PMCID: PMC4209198.