

## Curriculum Vitae

**Janna C. Nawroth** Ph.D.

d.o.b. October 29th, 1979, in Wilhelmshaven, Germany

### University Education

2013 PhD in Biology, California Institute of Technology (Caltech), Pasadena, CA, USA  
2001–2007 B.Sc. and M.Sc. of Molecular Biotechnology, Ruprecht-Karls-Universität Heidelberg

### Scientific Career

Since 2021 Principal Investigator at Helmholtz Pioneer Campus, Helmholtz Munich; and Junior Fellow at Technical University Munich (TUM)  
2019–2021 Senior Research Associate, Keck Medical School, University of Southern California, Los Angeles, CA, USA  
2016–2019 Associate Director of Research and Development, Emulate Inc., Boston, MA, USA  
2014–2016 Postdoctoral Fellow, Wyss Institute for Biologically Inspired Engineering, Harvard University, Cambridge, MA, USA  
2013 Postdoctoral Fellow, Department of Aeronautics, Caltech, Pasadena, CA, USA  
2005–2007 Research Associate, Yale School of Medicine, New Haven, CT, USA

### Awards and Honors

2023 VW foundation “Pioneering Research” Award  
2020 ERC-Starting Grant  
2020 Leibniz Programme for Women Professors Award (declined)  
2013 Harvard Wyss Technology Development Fellowship  
2013 Caltech Demetriades–Tsafka–Kokkalis Price for best Ph.D. thesis in Nanotechnology and related fields  
2005 DAAD scholarship for semester abroad  
2003 ERASMUS scholarship for semester abroad  
2001 Deutsche Studienstiftung Scholarship for Bachelor & Master studies

### Citation Record

Total citations: 3479; h-index:22; h-index since 2019: 19 (Google Scholar Sep 20<sup>th</sup>, 2024)

### Top-10 selected Publications

\* corresponding author

Ling F, Essock-Burns T, McFall-Ngai MN, Katija K, **Nawroth JC\*** & Kanso EA, “Flow Physics Guides Morphological Diversity of Ciliated Organ”. Nat Phys, 29 July 2025, ISSN 1745-2481  
doi: [10.1038/s41567-024-02591-0](https://doi.org/10.1038/s41567-024-02591-0)

**Nawroth JC**, Giez C, Klimovich A, Kanso EA, Bosch CG “Spontaneous body wall contractions shape and stabilize the symbiotic microbiota”. eLife 2023 Jul 3;12:e83637, doi: [10.7554/eLife.83637](https://doi.org/10.7554/eLife.83637)

**Nawroth JC**, Roth R, van Schadewijk A, Ravi A, Maulana TI, Senger CN, van Riet S, Ninaber DK, de Waal AM, Kraft D, Hiemstra PS, Ryan AL, van der Does AM. “Breathing on chip: Dynamic flow and stretch accelerate mucociliary maturation of airway epithelium in vitro” Materials Today Bio 2023, Volume 21:100713, doi: [10.1016/j.mtbio.2023.100713](https://doi.org/10.1016/j.mtbio.2023.100713)

**Nawroth JC\***, Petropolis DB, Manatakis DV, Maulana TI, Burchett G, Schlünder K, Witt A, Shukla A, Kodella K, Ronxhi J, Kulkarni G, Hamilton G, Seki E, Lu S, Karalis KC. Modeling alcohol-associated liver disease in a human Liver-Chip. Cell Rep. 2021 Jul 20;36(3):109393. doi: [10.1016/j.celrep.2021.109393](https://doi.org/10.1016/j.celrep.2021.109393).

Parekh KR, **Nawroth JC**, Pai A, Busch SM, Senger CN, Ryan AL. "Stem cells and lung regeneration". *Am J Physiol Cell Physiol*. 2020 Oct 1;319(4):C675-C693. doi: [10.1152/ajpcell.00036.2020](https://doi.org/10.1152/ajpcell.00036.2020)

**Nawroth JC\***, Lucchesi C, Cheng D, Shukla A, Ngyuen J, Shroff T, Varone A, Karalis K, Lee HH, Alves S, Hamilton GA, Salmon M, Villenave R. "A Microengineered Airway Lung Chip Models Key Features of Viral-induced Exacerbation of Asthma". *Am J Respir Cell Mol Biol*. 2020 Nov;63(5):591-600. doi: [10.1165/rcmb.2020-0010MA](https://doi.org/10.1165/rcmb.2020-0010MA).

**Nawroth JC**, Barrile R, Conegliano D, van Riet S, Hiemstra PS, Villenave R. *Stem cell-based Lung-on-Chips: The best of both worlds?* *Adv Drug Deliv Rev*. 2019 Feb 1; 140: 12–32. Published online 2018 Jul 25. doi: [10.1016/j.addr.2018.07.005](https://doi.org/10.1016/j.addr.2018.07.005)

**Nawroth JC**, Scudder L, Halvorson R, Tresback J, Ferrier J, Sheehy S, Cho A, Kannan S, Goss J, Sunyovszki I, Campbell P, Parker KK, "Automated fabrication of photopatterned gelatin hydrogels for organ-on-chips applications". *Biofabrication*, January 2018; 10:025004. doi: [10.1088/1758-5090/aa96de](https://doi.org/10.1088/1758-5090/aa96de)

**Nawroth JC**, Guo H, Dabiri JO, Ruby E, Kanso E, McFall-Ngai M, "Motile cilia create fluid-mechanical microhabitats for the active recruitment of the host microbiome". *Proc Natl Acad Sci USA*, August 2017. doi: [10.1073/pnas.1706926114](https://doi.org/10.1073/pnas.1706926114)

Benam K, Novak R, **Nawroth JC**, Hirano-Kobayashi M, Ferrante T, Choe Y, Prantil-Baun R, Bahinski A, Parker KK, Ingber DE. "Matched-comparative modeling of normal and diseased human airway responses using a microengineered breathing lung chip" *Cell Systems*, Nov 23;3(5):456-466. doi: [10.1016/j.cels.2016.10.003](https://doi.org/10.1016/j.cels.2016.10.003).