

Curriculum Vitae

Janna Nawroth PI, Ph.D.
d.o.b. October 29th, 1979, in Wilhelmshaven, Germany

University Education

2013 Doctorate (PhD) in Biology, California Institute of Technology (USA)
2001–2007 Bachelor and Master of Molecular Biotechnology at the University of Heidelberg

Scientific Career

Since 2021 TUM Junior Fellow, School of Natural Sciences, Technical University Munich
Since 2021 PI at Helmholtz Pioneer Campus, Helmholtz Munich
2019- 2021 Senior Research Associate at University of Southern California, USA
2016- 2019 Associate Director of Research and Development, Emulate Inc., USA
2013- 2016 Postdoctoral Research Fellow, Harvard University, USA

Awards and Honors

2025 Henriette Herz Scout Award, Alexander von Humboldt Foundation, Bonn
2023 Whitman Research Fellowship, Marine Biology Laboratory (MBL), USA
2020 ERC-Starting Grant
2020 Leibniz Programme for Women Professors Award (declined)
2013-2016 Harvard Wyss Technology Development Fellowship
2013 Demetriades–Tsafka–Kokkalis Price for best Ph.D. thesis in Nanotechnology and related fields
2008-2012 Gordon and Betty Moore Fellowship for Graduate Studies, California Institute of Technology, USA
2005 DAAD Fellowship for Master Research
2003-2004 ERASMUS MUNDUS Scholarship
2001 – 2007 Fellowship from the German National Merit Foundation (Studienstiftung des Deutschen Volkes)

Citation Record

Total citations: 4,338; h-index:25; h-index since 2021: 21 (Google Scholar March 13th, 2022)

Top-10 selected Publications

Burgess JK, **Nawroth JC**, Ibáñez-Fonseca A, Gavara N. The importance of mechanical forces in chronic respiratory diseases. *European Respiratory Review* 2026 Feb 4;35(179):250155. doi: [10.1126/scitranslmed.abe5407](https://doi.org/10.1126/scitranslmed.abe5407).

Melo-Narvaez MC, Eger C, Bertrams W, Benedikter BJ, Ling F, Jones MR, Jung AL, Pauck K, Weckler BC, Pott H, Procida-Kowalski T, Wilhelm J, Vollmeister E, Garn H, Kirschbaum A, Rohde G, Wygrecka M, **Nawroth JC**, Talavera-López C, Schmeck B, Lehmann M. “Single-cell mapping reveals CXCL11 as a driver of mucus production and inflammation in influenza A virus exacerbation in COPD”, *Thorax*. Feb 23:thorax-2025-224202; doi: 10.1136/thorax-2025-224202

Roth D, Zampa B, Augustin R, Payandehjoo D, Porcella G, Şahin AT, van der Does AM, **Nawroth JC**. “Release, Transfer, Fold: Using a Silicone Adhesive for On-Demand 3D Tissue Engineering”. *ACS Biomaterials Science & Engineering*. 2025 Nov 10;11(11):6506-6514; doi: 10.1021/acsbomaterials.5c01130

Korkmaz RÜ, Omony J, Tan X, Klotz M, Dragunas G, Chen S, Shankhwar S, Ertüz Z, Müller C, Ragab M, Jeridi A, Augustin R, **Nawroth JC**, Kapellos TS, Rankl B, Yildirim AÖ, von Mutius E. “The Therapeutic Potential of Farm Dust Extracts in a Mouse Model of Eosinophilic Inflammation”. *Allergy*. 2025 Oct 22. doi: 10.1111/all.70121

Klassen MC, Balázs A, Zöllner J, Cleve N, Czichon L, von Schledorn L, Hegermann J, **Nawroth JC**, Roth D, Mielenz M, Hedtfeld S, Stanke F, Rubil T, Ius F, Jonigk D, Hanrahan JW, Ruhparwar A, Olmer R, Mall MA, Merkert S, Martin U. “Human induced pluripotent stem cells for in vitro modeling of impaired mucociliary clearance in cystic fibrosis lung disease”. *Stem Cell Research & Therapy*. 2025 Oct 21;16(1):573; doi: 10.1186/s13287-025-04737-0

Roth D & Şahin AT, Ling F, Tepho N, Senger CN, Quiroz EJ, Calvert BA, Does vdA, Güney TG, Glasl S, Schadewijk vA, Schledorn vL, Olmer R, Kanso E, **Nawroth JC*** & Ryan AL*. “Structure-function relationships of mucociliary clearance in human airways”. *Nature Communications* 2025 Mar 12;16(1):2446; *co-senior and co-corresponding authors; doi: 10.1038/s41467-025-57667-z

Koc-Gunel S, Liu EC, Gautam LK, Calvert BA, Murthy S, Harriott NC, **Nawroth JC**, Zhou B, Krymskaya VP, Ryan AL. “Targeting fibroblast-endothelial cell interactions in LAM pathogenesis using 3D spheroid models and spatial transcriptomics.” *JCI Insight* 2025 Feb 4;10(6):e187899; doi: 10.1172/jci.insight.187899

*Ling F, Essock-Burns T, McFall-Ngai M, Katija K, **Nawroth JC*** & Kanso E*. “Flow Physics Guides Morphological Diversity of Ciliated Organs”. *Nature Physics* 2024 Jul; 20:1679–1686; *co-senior and co-corresponding authors; 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; *co-first authors; doi: 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 Jun; Volume 21:100713; doi: 10.1016/j.mtbio.2023.100713