

Curriculum Vitae

Nico Lachmann Professor, Dr. rer. nat.
d.o.b. August 01st, 1980, in Grevesmühlen, Germany

University Education

2016 Habilitation Regenerative Medicine, MHH
2008–2012 PhD Program “Regenerative Science”, MHH
2006–2008 Master in “Biomedicine”, Hannover Medical School (MHH) and Yale University
2003–2006 Bachelor of “Life Science”, Leibniz University Hannover (LUH)

Scientific Career

Since 2022 Head, Research Group, “ATTRACT”, Fraunhofer Institute for Toxicology and Experimental Medicine (ITEM)
Since 2022 Consultant, Catalent
Since 2021 Member, Extended Board, German Stem Cell Network (GSCN)
Since 2021 Representative, EU adviser for research grants within the framework of Horizon Europe, MHH
Since 2020 Head, Research Group, “Applied Stem Cells and Translational Macrophage Research”, MHH
Since 2020 Associate Professor, Department of Pediatric Pneumology, Allergology and Neonatology, MHH
Since 2019 Member, Section II (Department of Internal Medicine, Pediatrics and Surgery), MHH
Since 2019 Member, Steering committee REBIRTH “Center for Translational and Regenerative Medicine”, MHH
Since 2018 Member, Faculty, MHH
2015–2020 Head, Research Group, “Translational Hematology of Congenital Diseases”, MHH
Since 2014 Member, committee “Research Week”, MHH and LUH
2013–2019 Adjunct Instructor, Pulmonary Biology, Cincinnati Children’s Hospital Medical Center
2012–2015 Postdoctoral Fellow, REBIRTH Cluster of Excellence, “Reprogramming and Gene Therapy”, MHH
2012–2013 Postdoctoral Fellow, , Max-Planck-Institute for Molecular Biomedicine
2012–2013 Member, Faculty of “Ethikuniversität an der Medizinischen Hochschule Hannover“,

Awards and Honors

2022 ERC Proof of Concept Grant “iPYRO”
2019 ERC Starting Grant “iPSC2Therapy”
2019 Young Investigator Award, GSCN
2015 Abstract Achievement Award, American Society of Hematology (ASH)
2015 Fellowship for Interdisciplinary Sciences, Joachim Herz Stiftung
2015 Best-Poster-Award, German Stem Cell Network (GSCN)
2015 Best Clinical Research Award, German Society for Pulmonology (DGP)
2015 Klaus Betke Fellowship
2014 Top Abstract Award & Best Translational Research, German Society of Hematology and Oncology (DGHO)
2014 Selected as top abstract at “Presidential Symposium”, American Society for Gene and Cell Therapy (ASGCT)
2014 Young Academy Fellowship, MHH
2013 Eva-Luise Köhler Forschungspreis für seltene Erkrankungen 2013
2012 HiLF-Grant intramural program, MHH

Citation Record

Total citations: 1884; h-index:22; h-index since 2017: 20(Google Scholar September 9th, 2022)

Top-10 selected Publications

Ackermann, M., A. Rafiei Hashtchin, F. Manstein, M. Carvalho Oliveira, H. Kempf, R. Zweigerdt, and **N. Lachmann**. 2022. Continuous human iPSC-macrophage mass production by suspension culture in stirred tank bioreactors. **Nature Protocols**. . doi: [10.1038/s41596-021-00654-7](https://doi.org/10.1038/s41596-021-00654-7).

Rafiei Hashtchin, A., B. Fehlhaber, M. Hetzel, F. Manstein, J. L. Stalp, S. Glage, M. Abeln, R. Zweigerdt, A. Munder, D. Viemann, M. Ackermann, and **N. Lachmann**. 2021. Human iPSC-derived macrophages for efficient *Staphylococcus aureus* clearance in a murine pulmonary infection model. **Blood Advances**. 5:5190-5201. doi: [10.1182/bloodadvances.2021004853](https://doi.org/10.1182/bloodadvances.2021004853).

Dannenmann, B., M. Klimiankou, B. Oswald, A. Solovyeva, J. Mardan, M. Nasri, M. Ritter, A. Zahabi, P. Arreba-Tutusaus, P. Mir, F. Stein, S. Kandabarau, **N. Lachmann**, T. Moritz, T. Morishima, M. Konantz, C. Lengerke, T. Ripperger, D. Steinemann, M. Erlacher, C. M. Niemeyer, C. Zeidler, K. Welte, and J. Skokowa. 2021. iPSC modeling of stage-specific leukemogenesis reveals BAALC as a key oncogene in severe congenital neutropenia. **Cell Stem Cell**. 28:906-922.e6. doi: [10.1016/j.stem.2021.03.023](https://doi.org/10.1016/j.stem.2021.03.023).

Ackermann, M., K. Haake, H. Kempf, P. Kaschutnig, A. Weiss, A. H. H. Nguyen, M. Abeln, S. Merkert, M. P. Kühnel, D. Hartmann, D. Jonigk, T. Thum, A. Kispert, M. D. Milsom, and **N. Lachmann**. 2021. A 3D iPSC-differentiation model identifies interleukin-3 as a regulator of early human hematopoietic specification. **Haematologica** (Roma). 106:1354-1367. doi: [10.3324/haematol.2019.228064](https://doi.org/10.3324/haematol.2019.228064)

Ackermann, M., H. Kempf, M. Hetzel, C. Hesse, A. R. Hashtchin, K. Brinkert, J. W. Schott, K. Haake, M. P. Kühnel, S. Glage, C. Figueiredo, D. Jonigk, K. Sewald, A. Schambach, S. Wronski, T. Moritz, U. Martin, R. Zweigerdt, A. Munder, and **N. Lachmann**. 2018. Bioreactor-based mass production of human iPSC-derived macrophages enables immunotherapies against bacterial airway infections. **Nature Communications**. 9:5088-13. doi: [10.1038/s41467-018-07570-7](https://doi.org/10.1038/s41467-018-07570-7).

Happle, C., **N. Lachmann**, M. Ackermann, A. Mirenska, G. Göhring, K. Thomay, A. Mucci, M. Hetzel, T. Glomb, T. Suzuki, C. Chalk, S. Glage, O. Dittrich-Breiholz, B. Trapnell, T. Moritz, and G. Hansen. 2018. Pulmonary Transplantation of Human Induced Pluripotent Stem Cell-derived Macrophages Ameliorates Pulmonary Alveolar Proteinosis. **American Journal of Respiratory and Critical Care Medicine**. 198:350-360. doi: [10.1164/rccm.201708-1562OC](https://doi.org/10.1164/rccm.201708-1562OC).

Hetzel, M., A. Mucci, P. Blank, A. H. H. Nguyen, J. Schiller, O. Halle, M. Kühnel, S. Billig, R. Meineke, D. Brand, V. Herder, W. Baumgärtner, F. Bange, R. Goethe, D. Jonigk, R. Förster, B. Gentner, J. Casanova, J. Bustamante, A. Schambach, U. Kalinke, and **N. Lachmann**. 2018. Hematopoietic stem cell gene therapy for IFN γ R1 deficiency protects mice from mycobacterial infections. **Blood**. 131:533-545. doi: [10.1182/blood-2017-10-812859](https://doi.org/10.1182/blood-2017-10-812859)

Neehus, A., J. Lam, K. Haake, S. Merkert, N. Schmidt, A. Mucci, M. Ackermann, M. Schubert, C. Happle, M. P. Kühnel, P. Blank, F. Philipp, R. Goethe, D. Jonigk, U. Martin, U. Kalinke, U. Baumann, A. Schambach, J. Roesler, and **N. Lachmann**. 2018. Impaired IFN γ -Signaling and Mycobacterial Clearance in IFN γ R1-Deficient Human iPSC-Derived Macrophages. **Stem Cell Reports**. 10:7-16. doi: [10.1016/j.stemcr.2017.11.011](https://doi.org/10.1016/j.stemcr.2017.11.011).

Suzuki, T., P. Arumugam, T. Sakagami, **N. Lachmann**, C. Chalk, A. Sallese, S. Abe, C. Trapnell, B. Carey, T. Moritz, P. Malik, C. Lutzko, R. E. Wood, and B. C. Trapnell. 2014. Pulmonary macrophage transplantation therapy. **Nature** (London). 514:450-454. doi: [10.1038/nature13807](https://doi.org/10.1038/nature13807)

Lachmann, N., C. Happle, M. Ackermann, D. Lüttge, M. Wetzke, S. Merkert, M. Hetzel, G. Kensah, M. Jara-Avaca, A. Mucci, J. Skuljec, A. Dittrich, N. Pfaff, S. Brenning, A. Schambach, D. Steinemann, G. Göhring, T. Cantz, U. Martin, N. Schwerk, G. Hansen, and T. Moritz. 2014. Gene Correction of Human Induced Pluripotent Stem Cells Repairs the Cellular Phenotype in Pulmonary Alveolar Proteinosis. **American Journal of Respiratory and Critical Care Medicine**. 189:167-182. doi: [10.1164/rccm.201306-1012OC](https://doi.org/10.1164/rccm.201306-1012OC)