

Curriculum Vitae

Anna Lena Jung Dr. rer. nat.
d.o.b. August 10th, 1987, in Karlsruhe, Germany

University Education

2016 Doctorate Biomedical Science, Philipps-University Marburg
2010–2012 Master Studies of Biomedical Science, Philipps-University Marburg
2007–2010 Bachelor Studies of Biomedical Science, Philipps-University Marburg

Scientific Career

Since 2024 Participant in the DZL Academy Mentoring Program, DZL
Since 2023 Member of the advisory board of the program "Entwicklung und Management von Forschungsprojekten (EMF)" (development and management of research projects) of the graduate schools of the universities Kassel and Marburg
Since 2023 Elected PostDoc representative at the board of the "Marburg Research Academy (MARA)", Philipps-University Marburg
Since 2021 Lecturer in the Graduate Program "Marburg School of Microbiology", Philipps-University Marburg
Since 2020 Faculty Member of the international Max Planck Research School "Principles of Microbial Life: From molecules to cells, from cells to interactions" (IMPRS- μ Life), Marburg
Since 2020 Junior Research Group Leader at the Institute for Lung Research, Philipps-University Marburg
Since 2020 Co-Head of the Core Facility "Bacterial Vesicles", Faculty of Medicine, Philipps-University Marburg
2016–2020 Postdoctoral Fellow, Institute for Lung Research, Philipps-University Marburg

Awards and Honors

2023 Participant in the Else von Behring Mentoring Program, Faculty of Medicine, Philipps-Universität Marburg
2022 Poster Award at SFB-TR 84 "3rd International Conference – Innate Immunity of the Lung – Improving Pneumonia Outcome"
2018 Alumni Lindau Nobel Laureate Meeting
2016 Poster Award at the 5th DZL International Symposium in Hamburg
2014 Travel Award of the International Graduate Program "Molecular Biology and Medicine of the Lung"
2013 Oral Presentation Award at the Autumn Meeting of the German Respiratory Society (DGP) Infectiology & Tuberculosis Section

Citation Record

Total citations: 766; h-index: 14; h-index since 2019: 13 (Google Scholar June 24th, 2024)

Top-10 selected Publications

Burt M, Angelidou G, Mais CN, Preußner C, Glatter T, Heimerl T, Groß R, Vallejo JS, Boosarpu G, Pogge von Strandmann E, Müller JA, Bange G, Becker A, Lehmann M, Jonigk D, Neubert L, Freitag H, Paczia N, Schmeck B, *Jung AL*. Lipid A in outer membrane vesicles shields bacteria from polymyxins. *J Extracell Ves* 2024;13(5):e12447. doi: [10.1002/jev2.12447](https://doi.org/10.1002/jev2.12447).

Pandi A, Adam D, Zare A, Trinh VT, Schäfer SL, Wiegand M, Klabunde B, Bobkova E, Kushwaha M, Foroughijabbari Y, Braun P, Spahn C, Preußner C, Pogge von Strandmann E, Bode HB, von Buttlar H, Bertrams W, *Jung AL*, Abendroth F, Schmeck B, Hummer G, Vázquez O, Erb TJ. Cell-free biosynthesis combined with deep learning accelerates de novo-development of antimicrobial peptides. *Nat Commun* 2023; 14(1):7197. doi: [10.1038/s41467-023-42434-9](https://doi.org/10.1038/s41467-023-42434-9).

Klabunde B, Wesener A, Bertrams W, Beinborn I, Paczia N, Surmann K, Blankenburg S, Wilhelm J, Serrania J, Knoop K, Elsayed EM, Laakmann K, *Jung AL*, Kirschbaum A, Hammerschmidt S, Alshaar B, Gisch N, Abu Mraheil M, Becker A, Völker U, Vollmeister E, Benedikter BJ, Schmeck B. NAD⁺ metabolism is a key modulator of bacterial respiratory epithelial infections. *Nat Commun* 2023; 14(1):5818. doi: [10.1038/s41467-023-41372-w](https://doi.org/10.1038/s41467-023-41372-w).

Jung AL, Han M, Griss K, Bertrams W, Nell C, Greulich T, Klemmer A, Klemmer A, Pott H, Heider D, Vogelmeier CF, Hippenstiel S, Suttorp N, Schmeck B. Novel Protein Biomarkers for Pneumonia and Acute COPD Exacerbations: a Pilot Study. *Front Med* 2023; 10:1180746. doi: [10.3389/fmed.2023.1180746](https://doi.org/10.3389/fmed.2023.1180746).

Laakmann K, Eckersberg JM, Hapke M, Wiegand M, Bierwagen J, Beinborn I, Preußner C, Pogge von Strandmann E, Heimerl T, Schmeck B, *Jung AL*. Bacterial extracellular vesicles repress the vascular protective factor RNase1 in human lung endothelial cells. *Cell Commun Signal* 2023; 21(1):111. doi: [10.1186/s12964-023-01131-2](https://doi.org/10.1186/s12964-023-01131-2).

Bierwagen J*, Wiegand M*, Laakmann K, Danov O, Limburg H, Herbel SM, Heimerl T, Dorna J, Jonigk D, Preußner C, Bertrams W, Braun A, Sewald K, Schulte LN, Bauer S, Pogge von Strandmann E, Böttcher-Friebertshäuser E, Schmeck B, *Jung AL*. Bacterial vesicles block viral replication in macrophages via TLR4-TRIF-axis. *Cell Commun Signal* 2023; 21(1):65. doi: [10.1186/s12964-023-01086-4](https://doi.org/10.1186/s12964-023-01086-4).

Jung AL, Schmeck B, Wiegand M, Bedenbender K, Benedikter BJ. The clinical role of host and bacterial-derived extracellular vesicles in pneumonia. *Adv Drug Deliv Rev* 2021; 176:113811. doi: [10.1016/j.addr.2021.05.021](https://doi.org/10.1016/j.addr.2021.05.021).

Jung AL, Møller Jørgensen M, Bæk R, Griss K, Han M, Auf Dem Brinke K, Timmesfeld N, Bertrams W, Greulich T, Koczulla R, Hippenstiel S, Suttorp N, Schmeck B. Surface Proteome of Plasma Extracellular Vesicles as Biomarkers for Pneumonia and acute Exacerbation of Chronic Obstructive Pulmonary Disease. *J Infect Dis* 2020; 221(2):325-335. doi: [10.1093/infdis/jiz460](https://doi.org/10.1093/infdis/jiz460).

Scheller N, Herold S, Kellner R, Bertrams W, *Jung AL*, Janga H, Greulich T, Schulte LN, Vogelmeier CF, Lohmeyer J, Schmeck B. Pro-viral MicroRNAs Detected in Extracellular Vesicles from Bronchoalveolar Lavage Fluid of Patients with Influenza Virus-induced Acute Respiratory Distress Syndrome. *J Infect Dis* 2019; 219(4):540-543. doi: [10.1093/infdis/jiy554](https://doi.org/10.1093/infdis/jiy554).

Jung AL, Stoiber C, Herkt CE, Schulz C, Bertrams W, Schmeck B. *Legionella pneumophila*-derived outer membrane vesicles promote bacterial replication in macrophages. *PLoS Pathog* 2016; 12(4):e1005592. doi: [10.1371/journal.ppat.1005592](https://doi.org/10.1371/journal.ppat.1005592).