



Curriculum Vitae

Personal information **Bettina Wiegmann**

Work experience

2008-2017	Resident physician, Department for Cardiothoracic, Transplantation and Vascular Surgery, Hannover Medical School
2008-2016 (LEBAO)	Research assistant, Leibniz research laboratories for Biotechnology and Artificial Organs (LEBAO)
Since 2017	Cardiac surgeon, Department for Cardiothoracic, Transplantation and Vascular Surgery, Hannover Medical School
2017-today	Working Group Leader „Ex-vivo Organ Perfusion“, Lower Saxony Centre for Biomedical Engineering, Implant Research and Development (NIFE)
2018-today	Working Group Leader „Biohybrid Lung“, Lower Saxony Centre for Biomedical Engineering, Implant Research and Development (NIFE)
2019-today	Research coordinator of the Dpt. for Cardiothoracic, Transplantation and Vascular Surgery, Lower Saxony Centre for Biomedical Engineering, Implant Research and Development (NIFE)
2019-today	Deputy head of the Lower Saxony Centre for Biomedical Engineering, Implant Research and Development (NIFE), Area Tissue Engineering

Education and training

1998-2001	Education as a nurse, Hannover Medical School
2001-2007	Medical studies, Hannover Medical School
2007	Medical license (Approbation), Hannover Medical School
2011	Medical doctorate (Dr. med.)
2017	Consultant for cardiac surgery (Fachärztin), Department for Cardiothoracic, Transplantation and Vascular Surgery, Hannover Medical School
2018	Emergency physician (Notfallmedizinerin)
2022	Venia legendi for Cardiac Surgery (Priv. Doz.)

Additional information

Publications

Martins Costa, A., Halfwerk, F. R., Thiel, J.-N., **Wiegmann, B.**, Neidlin, M., & Arens, J. (2023). Effect of hollow fiber configuration on the gas exchange performance of artificial membrane lungs. *Journal of Membrane Science*, 680, 121742. <https://doi.org/10.1016/j.memsci.2023.121742>

Schuhenn, J., Meister, T. L., Todt, D., Bracht, T., Schork, K., Billaud, J.-N., Elsner, C., Heinen, N., Karakoese, Z., Haid, S., Kur Eisenacher, M., Di, Y., Lew, J., Falzarano, D., Chen, J., Yuan, Z., Pietschmann, T., **Wiegmann, B.**, Uebner, H., Taube, C., Le-Krawczyk, A., Ludwig, S., Sitek, B., Steinmann, E., Dittmer, U., Lavender, K.J., Stutter, K., Pfaender, S. (2022). Differential immune signatures are associated with suppression of SARS-CoV-2 infection. *Proceedings of the National Academy of Sciences*, 119(11), e2111600119. <https://doi.org/10.1073/pnas.2111600119>

Durán, V., Grabski, E., Hozsa, C., Becker, J., Yasar, H., Monteiro, J. T., Costa, B., Koller, N., Lueder, Y., **Wiegmann, B.**, Brandt, C.-M., Lepenies, B., Tampé, R., Förster, R., Bošnjak, B., Furch, M., Graalman, T., & Kalinke, U. (2021). Fucosylated lipid nanoparticles efficiently inhibit mycobacterial propagation in human myeloid cells. *Journal of Controlled Release*, 334, 201–212. <https://doi.org/10.1016/j.jconrel.2021.04.012>

Calabrese, F., Schiavon, M., Perissinotto, E., Lunardi, F., Marulli, G., Di Gregorio, G., Pezzuto, F., Edith Vuljan, S., Forin, E., **Wiegmann, B.**, Warnecke, G., & Rea, F. (2020). Organ Care System Lung resulted in lower apoptosis and iNOS expression in donor lungs. *Annals of Thoracic Surgery*, 109(12), 3639–3648. <https://doi.org/10.1111/ajt.16187>

Warnecke, G., Van Raemdonck, D., Smith, M. A., Massard, G., Kukreja, J., Rea, F., Loor, G., De Robertis, F., Nagendran, J., Díaz, F. J., Knosalla, C., Bermudez, C. A., Tsui, S., McCurry, K., Wang, I.-W., Deuse, T., Lesèche, G., Thomas, P., Tudorache, I., **Wiegmann, B.**, Sommer, W., Neyrinck, A., Schiavon, M., Calabrese, F., Santelmo, N., Olland, A., Falcoz, P.E., Simon, A.R., Van Hertz, M., Haverich, A., Ardehali, A. (2018). Normothermic ex-vivo preservation with the portable Organ Care System Lung de transplantation (INSPIRE): a randomised, open-label, non-inferiority, phase 3 study. *The Lancet Respiratory Medicine*, 6(5), 393–403. [https://doi.org/10.1016/S2213-2600\(18\)30136-X](https://doi.org/10.1016/S2213-2600(18)30136-X)

Sander, J., Schmidt, S. V., Cirovic, B., McGovern, N., Papantonopoulou, O., Hardt, A.-L., Aschenbrenner, A. C., Kreer, C., Quasthoff, S., Schmidleithner, L. M., Theis, H., Thi Huong, L. D., Sumatoh, H. R. B., Lauterbach, M. A. R., Schulte-Schrepping, J., Günther, P., Ulas, T., Klee, K., Katzmarski, N., Herresthal, S., Krebs, W., Martin, B., Latz, E., Haendler, K., Kraut, M., Kolanus, W., Beyer, M., **Wiegmann, B.**, Burgdorf, S., Melosh, N.A., Newell, E.V., Ginhoux, F., Schlitzer, A., Schultze, J. L. (2017). Cellular Differentiation of Treg Cells Is Regulated by Time-Dependent Interleukin-4 Signaling and the Transcriptional Regulator NCOR2. *Immunity*, 47(6), 1051-1062. <https://doi.org/10.1016/j.immuni.2017.11.024>

Pflaum, M., Kühn-Kauffeldt, M., Schmeckebeier, S., Dipresa, D., Chauhan, K., **Wiegmann, B.**, Haug, R. J., Schein, J., Haverich, A. (2017). Endothelialization and characterization of titanium dioxide-coated gas-exchange membranes for application in the bioartificial lung. *Biomaterialia*, 50, 510-521. <https://doi.org/10.1016/j.actbio.2016.12.017>

Sommer, W., Ius, F., Salman, J., Avsar, M., Tudorache, I., Kühn, C., **Wiegmann, B.**, Marsch, G., Kaufeld, T., Zinne, N., Fuehr, A., Gottlieb, J., Boethig, D., Haverich, A., Welte, T., & Warnecke, G. (2015). Survival and spirometry outcomes after lung transplantation in patients aged 70 years and older. *The Journal of Heart and Lung Transplantation*, 34(10), 1325-1333. <https://doi.org/10.1016/j.healun.2015.07.014>

Wiegmann, B., Figueiredo, C., Gras, C., Pflaum, M., Schmeckebeier, S., Korossis, S., Haverich, A., & Blasczyk, R. (2014). Prevention of allogeneneic endothelial cells in a biohybrid lung by silencing HLA-class I expression. *Biomaterials*, 35(28), 8123-8133. <https://doi.org/10.1016/j.biomaterials.2014.06.007>

Warnecke, G., Moradiellos, J., Tudorache, I., Kühn, C., Avsar, M., **Wiegmann, B.**, Sommer, W., Ius, F., Kunze, C., Gottlieb, J., Haverich, A. (2012). Normothermic perfusion of donor lungs for preservation and assessment with the Organ Care System Lung before transplantation: a pilot study of 12 patients. *The Lancet*, 380(9856), 1851-1858. [https://doi.org/10.1016/S0140-6736\(12\)61344-0](https://doi.org/10.1016/S0140-6736(12)61344-0)

Projects

Since 2014	Principal Investigator, German Center for Lung Research (DZL)
2015-2018 Transplantation	Member of the Scientific Advisory Board of the Integrated Research and Treatment Center
Since 2015	Reviewer of the "German Foundation for Heart Research"
2016-2018	Member of the Editorial Board of the American Society of Artificial Internal Organs (ASAIO) Journal, Section Editor "Biohybrid".
Since 2017	Project leader, Clinical Research Group 311, (Pre-) terminal heart and lung failure: mechanical unloading and repair, German Research Foundation (DFG)
Since 2017	Project leader, priority program 2014, "Towards an implantable lung", DFG
Since 2018	Scientific Advisory Board Member of the Transplantation Center, Hannover Medical School (MHH)
Since 2018	Management Board Member of the Transplantation Center, MHH
Since 2018	Member of the Steering Committee Prevention of the German Centers for Health Research as representative of the DZL
Since 2018	Board member of the Transplantation Center, Junior Scientist, MHH
Since 2020	Member of the "European Commission Experts Panels on Medical Devices"
Since 2021	Member of the Program Committee of the DFG Priority Program "Towards Implantable Lungs" as elected representative of the Principal Investigator
Since 2023	Member of the Advisory Board, Central Animal Laboratory of the MHH
Since 2023	Mentor of the network for female cardiac surgeons, German Society for Thoracic and Cardiovascular Surgery (DGTHG)
Since 2023 (ASAIO)	Elected member of the "Board of Trustees" of the American Society for Artificial Internal Organs

Memberships

Academic Distinctions

2008	Research Award 2008, German Society for Thoracic Surgery (DGT)
2008	Poster Award 2008, DGT
2009 Surgery (DGTHG)	Thoracic Surgery Research Fellowship 2009, German Society for Thoracic and Cardiovascular Surgery (DGTHG)
2009	ASAIO Y Nose International Fellowship, American Society for Artificial Internal Organs
2009	Travel grant 2009 for the best presentation, German Transplantation Society (DTG)
2013	Travel grant 2013 for the best presentation, DTG
2014	Travel grant 2014 for the best presentation, DTG
2021	Teaching Award 2021, Module Stem Cell Research and Tissue Engineering
2022	1 st , 2 nd and 3 rd Poster Prize, Spring School 2022, German Research Foundation (DFG) Priority Program "Towards an implantable lung"
2022	Poster Prize of the German Centre for Lung research, Disease Area "Endstage lung disease"
2023	Top graded Pulmonary Abstract, American Society for Artificial Internal Organs

Other Relevant Information