

Curriculum Vitae

Holger Heine Professor, Dr. rer.nat.
Research Center Borstel - Leibniz Lung Center
Head, Research Group Innate Immunity
Deputy Director, Priority Area Chronic Lung Diseases
d.o.b. January 13th, 1966, in Neumünster, Germany

University Education

2013 Adjunct Professor, Faculty of Mathematics and Natural Sciences, CAU Kiel
2004 Habilitation Immunology and Cell Biology, CAU Kiel
1995 Doctorate Ph.D., CAU Kiel
1987–1992 Studies of Biology, Christian-Albrechts-University (CAU) Kiel

Scientific Career

Since 2019 Deputy Director, Priority Area Chronic Lung Diseases, Research Center Borstel –
Leibniz Lung Center, Borstel, Germany
Since 2004 Head, Research Group, Division of Innate Immunity, Department of
Immunology and Cell Biology, Research Center Borstel, Borstel, Germany
2002–2004 Junior Research Group Leader, Division of Innate Immunity, Department of
Immunology and Cell Biology, Research Center Borstel, Borstel, Germany
1999–2001 Postdoctoral Fellow, Department of Immunology and Cell Biology, Research
Center Borstel, Borstel, Germany
1996–1999 Postdoctoral Fellow, Maxwell Finland Laboratory for Infectious Diseases, Boston
Medical Center, Boston, USA
1993-1995 PhD student, Research Center Borstel, Borstel, Germany

Citation Record

Total citations: 13,590; h-index: 54; h-index since 2019: 33(Google Scholar August 19th, 2024)

Top-10 selected Publications

1. Kuehnast, T., Kumpitsch, C., Mohammadzadeh, R., Weichhart, T., Moissl-Eichinger, C., and Heine, H. 2024. 'Exploring the human archaeome: its relevance for health and disease, and its complex interplay with the human immune system', *The FEBS journal*. 10.1111/febs.17123
2. Zamyatina, A., Strobl, S., Zucchetta, D., Vasicek, T., Alessandro, M., Ruda, A., Widmalm, G., and Heine, H. 2024. 'Nonreducing Sugar Scaffold Enables the Development of Immunomodulatory TLR4-specific LPS Mimetics with Picomolar Potency', *Angew Chem Int Ed Engl*: e202408421. 10.1002/anie.202408421
3. Heine, H., Adanitsch, F., Peternelj, T. T., Haegman, M., Kasper, C., Ittig, S., Beyaert, R., Jerala, R., and Zamyatina, A. 2021. 'Tailored Modulation of Cellular Pro-inflammatory Responses With Disaccharide Lipid A Mimetics', *Front Immunol*, 12: 631797. 10.3389/fimmu.2021.631797
4. Vierbuchen, T., Stein, K., and Heine, H. 2019. 'RNA is taking its Toll: Impact of RNA-specific Toll-like receptors on health and disease', *Allergy*, 74: 223-35. 10.1111/all.13680
5. Stein, K., Brand, S., Jenckel, A., Sigmund, A., Chen, Z. J., Kirschning, C. J., Kauth, M., and Heine, H. 2017. 'Endosomal recognition of *Lactococcus lactis* G121 and its RNA by dendritic cells is key to its allergy-protective effects', *The Journal of allergy and clinical immunology*, 139: 667-78 e5. 10.1016/j.jaci.2016.06.018
6. Vierbuchen, T., Bang, C., Rosigkeit, H., Schmitz, R. A., and Heine, H. 2017. 'The Human-Associated Archaeon *Methanosphaera stadtmanae* Is Recognized through Its RNA and Induces TLR8-Dependent NLRP3 Inflammasome Activation', *Front Immunol*, 8: 1535. 10.3389/fimmu.2017.01535
7. Bang, C., Weidenbach, K., Gutsmann, T., Heine, H., and Schmitz, R. A. 2014. 'The intestinal archaea *Methanosphaera stadtmanae* and *Methanobrevibacter smithii* activate human dendritic cells', *PLoS one*, 9: e99411. 10.1371/journal.pone.0099411
8. Debarry, J., Hanuszkiewicz, A., Stein, K., Holst, O., and Heine, H. 2010. 'The allergy-protective properties of *Acinetobacter lwoffii* F78 are imparted by its lipopolysaccharide', *Allergy*, 65: 690-7. 10.1111/j.1398-9995.2009.02253.x
9. Debarry, J., Garn, H., Hanuszkiewicz, A., Dickgreber, N., Blumer, N., von Mutius, E., Bufe, A., Gatermann, S., Renz, H., Holst, O., and Heine, H. 2007. '*Acinetobacter lwoffii* and *Lactococcus lactis* strains isolated from farm cowsheds possess strong allergy-protective properties', *The Journal of allergy and clinical immunology*, 119: 1514-21. 10.1016/j.jaci.2007.03.023
10. Heine, H., Kirschning, C. J., Lien, E., Monks, B. G., Rothe, M., and Golenbock, D. T. 1999. 'Cutting edge: cells that carry A null allele for toll-like receptor 2 are capable of responding to endotoxin', *J Immunol*, 162: 6971-5. 10.4049/jimmunol.162.12.6971