

## Curriculum Vitae

Personal information Ger van Zandbergen

### Work experience

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1. Employer: Paul Ehrlich Institut
  - Start date: 052011
  - End date:
  - Position 1: Head of the Immunology Division and acting Head of the Infectiology Division
  - Activities: The divisions are is responsible for the marketing authorization and official batch release testing of therapeutic antibodies, antisera and vaccines and manages a cross\_divisional OMCL service laboratory for the (physico\_)chemical and immunological safety testing of biomedicines. Biosimilar antibodies have now been marketed for the first time. One important question is whether the safety and efficacy of these follow\_on versions is equivalent to already authorized innovator biomedicines. Establishing and developing a unique set of sensitive analytical methods for the comparison of biosimilars with the innovator product enables us to understand the clinical relevance of potential molecular differences. We also exploit our expertise in the field of human immune cells to experimentally evaluate regulatory problems working with models close to the molecular pattern of human disease. In this regard, we currently focus on prototypic adjuvants and chemical constituents with the aim to identify their specific immunological effects and characterize their safety profile.
  - Country: Germany
2. Employer: University Clinic Mainz
  - Start date: 082014
  - End date: 31.12.2024
  - Position: University Professor for Experimental Infection Immunology
  - Activities: Pathogens hiding in immune cells have evolved multiple strategies to circumvent detection and prevent elimination. To understand the underlying pathogen\_host interactions, we study pathogen\_containing compartments and their development in primary human immune cells. To this end, we apply state of the art live cell imaging of compartment development and investigate host cell proteins involved in the dynamics of cellular defence. Combining this approach with electron microscopy analysis of the primary human host cell ultrastructure will enable us to understand how intracellular pathogens restrain an effective immune response. Genetic modification of primary human host cells finally allows us to investigate and manipulate susceptibility and resistance factors on a molecular level. Our ultimate goal is to identify cellular factors that actually are able to eliminate intracellular pathogens.
  - Country: Germany
3. Employer: University Clinic Lübeck and Ulm
  - Start date: 012000
  - End date: 042011
  - Position: Postdoc and principal investigator
  - Activities: Basic research in infection immunology focusing on the human immune system
  - Country: Germany
4. Employer: University of Leiden
  - Start date: 081995
  - End date: 012000
  - Position: PhD Student
  - Activities: Basic research on antibody Fc\_receptor interactions
  - Country: Netherlands

### Education and training

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1. Subject: University of Groningen
  - Start date: 081991
  - End date: 081995
  - Qualification: Biology degree
  - Organisation: Focus on Molecular Genetics and Tumor Immunology
  - Country: Netherlands
2. Subject: University of Leiden, department of Nephrology
  - Start date: 081995
  - End date: 111999
  - Qualification: PhD
  - Organisation: Basic research on IgA with the IgA Fc receptor CD89 in IgA Nephropathy
  - Country: Netherlands
3. Subject: Dutch Foundation for Scientific Research (SMBWO)
  - Start date: 081995
  - End date: 032007
  - Qualification: Certified as Medical\_Biology Immunologist
  - Organisation: Skills in medical Immunology
  - Country: Netherlands
4. Subject: University Clinic Ulm
  - Start date: 082007
  - End date: 032009
  - Qualification: Habilitation in the field of Infection Immunology
  - Organisation: Basic research in Apoptosis driven infections
  - Country: Germany

5. Subject: ZWM, Zentrum für Wissenschaftsmanagement

- Start date: 032011
- End date: 032012
- Qualification: Professional Management Program (PMP) für Führungskräfte
- Organisation: Professional management skills in science
- Country: Germany

## Additional information

### Publications

Publication Record H\_Index: 40 (Mai 2025) 76 peer\_reviewed original publications, 7 reviews, 2 book chapters 10 selected Publications 1. Roßmann L, Bagola K, Stephen T, Gerards AL, Walber B, Ullrich A, Schülke S, Kamp C, Spreitzer I, Hasan M, David\_Watine B, Shorte SL, Bastian M, van Zandbergen G. (2021) Distinct single\_component adjuvants steer human DC\_mediated T\_cell polarization via Toll\_like receptor signaling toward a potent antiviral immune response. Proc Natl Acad Sci U S A. 2021 Sep 28;118(39):e2103651118. 2. Turoňová B, Sikora M, Schürmann C, Hagen WJH, Welsch S, Blanc FEC, von Bülow S, Gecht M, Bagola K, Hörner C, van Zandbergen G, Landry J, de Azevedo NTD, Mosalaganti S, Schwarz A, Covino R, Mühlebach MD, Hummer G, Krijnse Locker J, Beck M. (2020) In situ structural analysis of SARS\_CoV\_2 spike reveals flexibility mediated by three hinges. Science. 2020 Oct 9;370(6513):203\_208. 3. Crauwels P, Bank E, Walber B, Wenzel UA, Agerberth B, Chanyalew M, Abebe M, König R, Ritter U, Reiling N, van Zandbergen G (2019). Cathelicidin Contributes to the Restriction of Leishmania in Human Host Macrophages. Front Immunol. 2019 Nov 22;10:2697. 4. Arens K, Filippis C, Kleinfelder H, Goetzee A, Reichmann G, Crauwels P, Waibler Z, Bagola K, van Zandbergen G (2018). Anti\_Tumor Necrosis Factor α Therapeutics Differentially Affect Leishmania Infection of Human Macrophages. Front Immunol. 2018 Jul 31;9:1772. 5. Filippis C, Arens K, Noubissi Nzeteu GA, Reichmann G, Waibler Z, Crauwels P, van Zandbergen G (2017). Nivolumab Enhances In Vitro Effector Functions of PD\_1+ T\_Lymphocytes and Leishmania\_Infected Human Myeloid Cells in a Host Cell\_Dependent Manner. Front Immunol. 2017 Dec 22;8:1880. 6. Crauwels P, Bohn R, Thomas M, Gottwalt S, Jäckel F, Krämer S, Bank E, Tenzer S, Walther P, Bastian M, van Zandbergen G (2015) Apoptotic\_like Leishmania exploit the host's autophagy machinery to reduce T\_cell\_mediated parasite elimination. Autophagy. 2015;11(2):285\_97. 7. van Zandbergen G, Klinger M, Mueller A, Dannenberg S, Gebert A, Solbach W, Laskay T(2004) Cutting edge: neutrophil granulocyte serves as a vector for Leishmania entry into macrophages. J Immunol. 2004 Dec 1;173(11):6521\_5. 8. van Zandbergen G, Bollinger A, Wenzel A, Kamhawi S, Voll R, Klinger M, Müller A, Hölischer C, Herrmann M, Sacks D, Solbach W, Laskay T.(2006) Leishmania disease development depends on the presence of apoptotic promastigotes in the virulent inoculum. Proc Natl Acad Sci U S A. 2006 Sep 12;103(37):13837\_42. Epub 2006 Aug 31. Erratum in: Proc Natl Acad Sci U S A. 2006 Oct 31;103(44):16615 9. Laskay T, van Zandbergen G, Solbach W (2008) Neutrophil granulocytes as host cells and transport vehicles for intracellular pathogens: apoptosis as infection\_promoting factor. Immunobiology. 2008;213(3\_4):183\_91. doi: 10.1016/j.imbio.2007.11.010. Epub 2008 Feb 8. Review. 10. van Egmond M, van Garderen E, van Spruiel AB, Damen CA, van Amersfoort ES, van Zandbergen G, van Hattum J, Kuiper J, van de Winkel JG.(2000) FcαRI\_positive liver Kupffer cells: reappraisal of the function of immunoglobulin A in immunity. Nat Med. 2000 Jun;6(6):680\_5.

### Projects

Since 2016 Member of the Steering committee LOEWE Center "DRUID – Novel Drug Targets against Poverty\_Related and Neglected Tropical Infectious Diseases" 2014\_2015 Organizer of the ceremony in the Paulskirche and a Scientific Symposium entitled "From Salvarsan to personalized medicine" on the occasion of the 100th anniversary of Paul Ehrlich. Since 2011 Member of the Steering committee of the Research Center for Immunotherapy (FZI) Johannes \_Gutenberg \_University Mainz. 2010\_2015 Coordinator of the research program, Infection Biology of Macrophages, University of Ulm, funded by the Carl Zeiss Foundation

### Memberships

Dutch society of Immunology (until 2000) German society of Immunology German society of microbiology

### Other Relevant Information

2008\_2017 Speaker of the Infection Immunology Working Group of the German Society for Immunology and Microbiology (DGfI and DGfM) 2008\_2012 Member of the Steering committee of the European COST Action on: Life or death of protozoan parasites. 2005\_2007 Consultant/Head of Laboratory: Antibody based detection systems, Atto\_Lab GmbH, Lübeck