

## Prof. Andreas Diefenbach, MD

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### 1 | General information

Contact details: Department of Microbiology, Infectious Diseases and Immunology,  
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Current position: Professor of Microbiology (W3), Director, Department of Microbiology, Infectious Diseases and Immunology, Charité - Universitätsmedizin Berlin (CBF-CVK-CCM)

Researcher unique identifier(s): ORCID-ID: 0000-0002-9176-9530, Web of Science Researcher ID: T-2589-2018

### 2 | Academic education

1998 – 2002 Postdoctoral Fellowship, University of California, Berkeley, USA  
1989 – 1996 Medical School, University of Erlangen (clinical electives: Hammersmith Hospital, Imperial College, London, UK)

### 3 | Advanced academic qualifications:

1997 MD thesis, Microbiology/Immunology, "Regulation der Parasitenausbreitung bei der murinen *Leishmania major* Infektion", University of Erlangen (Supervisor: Werner Solbach)  
1996 MD, Medicine, University of Erlangen

### 4 | Postgraduate professional career:

Since 2020 Scientific Director, Labor Berlin  
Since 2018 Professor, Freie Universität Berlin, Department Biology, Chemistry and Pharmacy  
Since 2016 Professor (W3) and Director/Chair, Department of Microbiology, Infectious Diseases and Immunology, Charité - University Medical Centre Berlin  
Laboratory Head, Developmental and Mucosal Immunology, German Rheumatism Research Center in Berlin: A Leibniz Institute  
Director, Department of Microbiology and Hygiene (Fachbereich Mikrobiologie und Hygiene), Labor Berlin  
2013 – 2016 Professor (W3) and Director/Chair, Institute of Medical Microbiology and Hygiene, Johannes-Gutenberg University of Mainz, Medical Centre  
2012 Board Exam (Facharztprüfung), Microbiology, Virology and Epidemiology of Infections (Mikrobiologie, Virologie und Infektionsepidemiologie)  
2007 – 2013 Deputy Director, Institute of Medical Microbiology and Hygiene, University of Freiburg, Medical Centre  
2007 – 2013 Professor (W3), Microbiology & Molecular Infection Immunology (Mikrobiologie & Molekulare Infektionsimmunologie), University of Freiburg, Medical Centre  
2007 – 2010 Adjunct Professor of Pathology, Department of Pathology, New York University Medical Center, New York, USA  
2003 – 2006 *Irene Diamond Assistant Professor of Immunology* (tenure track), Assistant Professor of Pathology, Skirball Institute of Biomolecular Medicine, New York University Medical Center, New York, USA  
1999 – 2003 Postdoctoral Fellow, Department of Molecular & Cell Biology, University of California, Berkeley, USA  
1998 Resident, Institute for Clinical Microbiology, Immunology & Hygiene (Institut für Klinische Mikrobiologie, Immunologie & Hygiene), University of Erlangen  
1996 – 1997 Intern, Institute for Clinical Microbiology, Immunology & Hygiene (Institut für Klinische Mikrobiologie, Immunologie & Hygiene), University of Erlangen

1992 – 1997

MD student, Institute for Clinical Microbiology, Immunology &amp; Hygiene (Institut für Klinische Mikrobiologie, Immunologie &amp; Hygiene), University of Erlangen

## 5 | Other:

### Awards/Honors

- Visiting Professor, Chiba University, Chiba, Japan (2019)
- Elected Member, Berlin-Brandenburg Academy of Sciences (2018)
- Highly Cited Researcher, Immunology, Clarivate Analytics, Web of Science (since 2017)
- Einstein Professorship of Microbiology, Einstein Foundation Berlin (2018)
- ERC Starting/Consolidator Grant (2013)
- Main Scientific Prize, Deutsche Gesellschaft für Mikrobiologie und Hygiene (2010)
- Kavli Fellow, National Academy of Sciences USA & Alexander-von-Humboldt-Stiftung (2009)
- Whitehead Fellowship for Junior Faculty in Biomedical Sciences (2004 – 2005)
- Irene Diamond Professorship for Immunology (2018)
- Postdoctoral Fellowship for Physicians, Howard Hughes Medical Institute (2003 – 2006)
- Dissertation Award (*summa cum laude*), University of Erlangen (1998)
- Stipend, Dr. Carl Duisberg Stiftung (1993 – 1994)

### Selected other professional activities:

- Coordinator, Else Kröner Fresenius Stiftung Promotionskolleg “Re-thinking Health” at Charité - Universitätsmedizin Berlin (since 2021)
- Board, Graduate School Centre for Infection Biology and Immunology (ZIBI) (since 2021)
- Editorial Board, Immunity (since 2019)
- Liaison Professor (Vertrauensdozent), German Academic Scholarship Foundation (Studienstiftung des Deutschen Volkes) (2017)
- Coordinator, DFG Priority Program 1937 “Innate Lymphoid Cells” (2016 – 2023)
- Speaker, Research Centre Immunology, Universitätsmedizin Mainz (2015 – 2016)
- Steering Committee, International PhD Program of Institute of Molecular Biology (IMB) and University of Mainz (2015)
- Director, Integrated Research and Training Group (IRTG-IMM) of SFB 620 (2009 – 2013)

## 6 | Selected publications:

1. Witkowski M, Tizian C, Ferreira-Gomes M, Niemeyer D, Jones TC, Heinrich F, Frischbutter S, Angermair S, Hohnstein T, Mattiola I, Nawrath P, McEwen S, Zocche S, Viviano E, Heinz GA, Maurer M, Kölsch U, Chua RL, Aschman T, Meisel C, Radke J, Sawitzki B, Roehmel J, Allers K, Moos V, Schneider T, Hanitsch L, Mall MA, Conrad C, Radbruch H, Duerr CU, Trapani JA, Marcenaro E, Kallinich T, Corman VM, Kurth F, Sander LE, Drosten C, Treskatsch S, Durek P, Kruglov A, Radbruch A, Mashreghi MF, **Diefenbach A**. Untimely TGF $\beta$  responses in COVID-19 limit antiviral functions of NK cells. **Nature** 2021; 600(7888):295-301
2. Guendel F, Kofoed-Branzk M, Gronke K, Tizian C, Witkowski M, Cheng HW, Heinz GA, Heinrich F, Durek P, Norris PS, Ware CF, Ruedl C, Herold S, Pfeffer K, Hehlhans T, Waisman A, Becher B, Giannou AD, Brachs S, Ebert K, Tanriver Y, Ludewig B, Mashreghi MF, Kruglov AA, **Diefenbach A**. Group 3 Innate Lymphoid Cells Program a Distinct Subset of IL-22BP-Producing Dendritic Cells Demarcating Solitary Intestinal Lymphoid Tissues. **Immunity** 2020; 53(5):1015-1032
3. Schaupp L, Muth S, Rogell L, Kofoed-Branzk M, Melchior F, Lienenklaus S, Ganai-Vonarburg SC, Klein M, Guendel F, Hain T, Schütze K, Grundmann U, Schmitt V, Dorsch M, Spanier J, Larsen PK, Schwanz T, Jäckel S, Reinhardt C, Bopp T, Danckwardt S, Mahnke K, Heinz GA, Mashreghi MF, Durek P, Kalinke U, Kretz O, Huber TB, Weiss S, Wilhelm C, Macpherson AJ, Schild H, **Diefenbach A\***, Probst HC\*. Microbiota-Induced Type I Interferons Instruct a Poised Basal State of Dendritic Cells. **Cell** 2020; 181(5):1080-1096
4. Gronke K, Hernández PP, Zimmermann J, Klose CSN, Kofoed-Branzk M, Guendel F, Witkowski M, Tizian C, Amann L, Schumacher F, Glatt H, Triantafyllopoulou A, **Diefenbach A**. Interleukin-22 protects intestinal stem cells against genotoxic stress. **Nature** 2019; 566(7743):249-253
5. Hernández PP, Mahlakoiv T, Yang I, Schwierzeck V, Nguyen N, Guendel F, Gronke K, Ryffel B, Hoelscher C, Dumoutier L, Renaud JC, Suerbaum S, Staeheli P, **Diefenbach A**. Interferon- $\lambda$  and interleukin 22 act synergistically for the induction of interferon-stimulated genes and control of rotavirus infection. **Nat Immunol** 2015; 16(7):698-707

6. Klose CSN, Flach M, Möhle L, Rogell L, Hoyler T, Ebert K, Fabiunke C, Pfeifer D, Sexl V, Fonseca-Pereira D, Domingues RG, Veiga-Fernandes H, Arnold SJ, Buslinger M, Dunay IR, Tanriver Y, **Diefenbach A**. Differentiation of type 1 ILCs from a common progenitor to all helper-like innate lymphoid cell lineages. **Cell** 2014; 157(2):340-356
7. Klose CS, Kiss EA, Schwierzeck V, Ebert K, Hoyler T, d'Hargues Y, Göppert N, Croxford AL, Waisman A, Tanriver Y, **Diefenbach A**. A T-bet gradient controls the fate and function of CCR6-ROR $\gamma$ t<sup>+</sup> innate lymphoid cells. **Nature** 2013; 494(7436):261-265
8. Hoyler T, Klose CS, Souabni A, Turqueti-Neves A, Pfeifer D, Rawlins EL, Voehringer D, Buslinger M, **Diefenbach A**. The transcription factor GATA-3 controls cell fate and maintenance of type 2 innate lymphoid cells. **Immunity** 2012; 37(4):634-648
9. Ganal SC, Sanos SL, Kallfass C, Oberle K, Johner C, Kirschning C, Lienenklaus S, Weiss S, Staeheli P, Aichele P, **Diefenbach A**. Priming of natural killer cells by nonmucosal mononuclear phagocytes requires instructive signals from commensal microbiota. **Immunity** 2012; 37(1):171-186
10. Kiss EA, Vonarbourg C, Kopfmann S, Hobeika E, Finke D, Esser C, **Diefenbach A**. Natural aryl hydrocarbon receptor ligands control organogenesis of intestinal lymphoid follicles. **Science** 2011; 334(6062):1561-1565

\*contributed equally/\*co-corresponding author