

## Curriculum Vitae

### Prof. Dr. med. Leif Erik Sander

**Name:** Leif Erik Sander  
**Date of birth:** May 31<sup>st</sup> 1977  
**Place of birth:** Oldenburg (Oldb.), Germany



#### Current address

Dept. of Infectious Diseases & Critical Care Medicine  
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#### Higher Education

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- 2006** Dissertation (Dr. med.), *summa cum laude*, Hannover Medical School, Germany  
**2001-2005** Doctoral student (Dr. med.) Hannover Medical School, Germany  
**1998-2005** Medical School, Hannover Medical School (MHH), Hannover, Germany  
**1997-1998** *Examen philosophicum*, University of Oslo (UiO), Oslo, Norway

#### Academic Career

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- Since 2022** Full Professor (W3) and Director of Infectious Diseases and Critical care Medicine, Charité – Universitätsmedizin Berlin, Head of “Personalized Medicine in Infectious Diseases” group, Berlin Institute of Health, Berlin, Germany  
**2016-2022** Associate Professor (W2), Charité – Universitätsmedizin Berlin  
**2012-2017** Emmy Noether Group Leader, Dept. of Infectious Diseases & Respiratory Medicine, Charité - Universitätsmedizin, Berlin  
**2008-2011** Postdoctoral Fellow, Dept. of Medicine, Immunology Institute, Mount Sinai School of Medicine (MSSM), New York, NY, USA

#### Clinical Career

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- 2022-** Director of the Dept. of Infectious Diseases & Critical Care, Charité - Universitätsmedizin, Berlin, Germany  
**2019-2022** Attending & Senior Consultant, Dept. of Infectious Diseases & Respiratory Medicine, Charité - Universitätsmedizin Berlin, Germany  
**2017-2019** Clinical Fellow (Facharzt), Infectious Diseases Dept. of Infectious Diseases & Respiratory Medicine, Charité - Universitätsmedizin Berlin, Germany  
**2011-2017** Resident (Assistenzarzt) Dept. of Infectious Diseases & Respiratory Medicine, Charité - Universitätsmedizin Berlin, Germany  
**2006-2008** Resident (Assistenzarzt) Dept. of Medicine III, RWTH University Hospital Aachen, Germany

#### Leadership and Advisory roles

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- 2025-** Member of the advisory board (Beirat) of the Paul-Ehrlich Gesellschaft (PEG)  
**2024-** Member of the advisory Board of the Center for Infection Medicine (CIM) of the University Hospital Cologne, Germany

<b>2024-</b>	Member of the Expert Council of the Federal Government of Germany “Health & Resilience”, spokesperson of the working group on “Health Security”
<b>2024-</b>	Advisor to the Accelerating Clinical Trials in the EU (ACT-EU) initiative of the European Medicines Agency (EMA)
<b>2023-</b>	Member of the Executive Board of the German Society of Infectious Diseases (DGI)
<b>2022-2025</b>	External Advisor to the National Advisory Committee on Vaccines (STIKO)
<b>2021-2023</b>	Member of the Expert Council of the Federal Government of Germany on COVID-19 (ExpertInnenrat der Bundesregierung zu COVID-19)
<b>2020-2025</b>	Speaker of a national consortium “Collaborative Immunity Platform of the NUM” (COVIM), funded by the Federal Ministry of Education & Research
<b>2017-2022</b>	Member of the steering board of the DFG International Graduate School IRTG2290 (Berlin – Canberra)

## Awards and Honors

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<b>2024</b>	Hartmann-Lecture Award of the Hannover Medical School (MHH)
<b>2012</b>	Theodor Frerichs Prize of the German Society of Internal Medicine (DGIM)
<b>2012</b>	Emmy Noether Fellowship of the German Research Council (DFG)
<b>2008</b>	DFG Postdoctoral Fellowship (Forschungsstipendium)
<i>Calls for Professorships (Rufe)</i>	
<b>2022</b>	Professorship for ‘Infectious Diseases’ (W3), Charité – Universitätsmedizin Berlin (accepted)
<b>2021</b>	Professorship for ‘Pulmonology and Clinical Infectious Diseases’ (W3), Christian Albrechts University Kiel & UKSH Campus Kiel (declined)
<b>2020</b>	Professorship for ‘Lung Inflammation and Repair’ (W3), Justus Liebig University Gießen and UKGM Gießen (declined)
<b>2016</b>	Professorship for ‘Immunology of Infectious Diseases and Vaccinology’ (W2), Charité – Universitätsmedizin Berlin (accepted)
<b>2013</b>	Professorship for ‘Immunology’ (W3), University of Hohenheim (declined)

## Third Party Funding

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2008-2010	DFG	SA-1940/1-1 Forschungsstipendium	79.560 €
2011-2013	ESCMID	Identification of RNA receptors	18.500 €
2011-2014	DFG	SFB-TRR 84	111.872,97 €
2012–2017	DFG	SA-1940/2-1 Emmy Noether Gruppe	1.189.000,00 €
2012–2016	EKFS	Superinfections in Pneumonie	261.159,41 €
2013–2014	DAAD	D-AUS PPP	7.066,00 €
2014–2017	Era-Net / BMBF	Haplo-Infect-ERA	232.282,11 €
2014–2023	DFG	SFB-TRR 84, C08	974.053,08 €
2015–2016	DFG	SA-1940/2-1 Emmy Noether Fortsetzung	162.111,67 €
2016–2017	DFG	Mikrob. Vitalität-3	114.595,38 €
2017–2023	DFG	IRTG-GRK2290	306.140,63 €
2018–2023	DFG	SFB-TRR 84, C10	374.523,33 €
2019–2020	Industrie-Koop (Curevac)	RNA formulations for APC responses	13.495,61 €
2020–2021	BMBF / BIH	PA-COVID Studie	429.817,79 €
2020–2021	BMBF / BIH	COVID-19 Plattform	662.000,00 €
2020–2021	BMBF NUM	COVIM 1.0	3.050.061,89 €

2020–2022	BMBF	RECAST	336.944,61 €
2020–2022	BUA	PreP-Corona Konsortium	139.313,40 €
2020–2022	BMBF	PROVID	160.357,75 €
2021–2022	BfArM	COVIM Boost Studie	1.003.228,04 €
2021–2022	Zalando	Spende	100.000,00 €
2021–2022	BMBF	COVID-Transkriptomik	4.020,68 €
2021–2023	Industrie-Koop. (Miltenyi)	SARS-CoV-2 T cell responses	88.218,01 €
2022–2023	Industrie-Koop. (Belyntic)	Self-adjuvanted vpeptide vaccine	142.126,58 €
2022–2024	EMA	SEMVAc Study	5.374.796,53 €
2023–2026	Stiftung Charité	Visiting Fellowship Ran Balicer	557.221,33 €
2024–2025	BMBF NUM	COVIM 2.0	900.973,22 €
2024–2025	BMBF	IMMME	37.820,36 €
2024–2026	Volkswagen Stiftung	SWARM-Learning for infectious Diseases	726.200,00 €
2024–2026	Einstein Stiftung	EC-EDI (Vor Antrag)	600.000,00 €
2024–2027	DFG	SA1940/6-1 MAID	203.650,00 €
2025–2026	DFG	SFB TRR 418 TPZ01	75.666,15 €
2025–2026	id.DRIVE Consortium	id.DRIVE Studie	414.327,30 €
2025–2027	Forskningsrådet	mRNA vaccine for Salmon	36.000,00 €
2025–2027	Industrie (GSK)	RSV-VE Studie	140.986,41 €
2025–2027	BMBF	IMMME2	96.601,87 €
2025–2029	BMBF	PAIS	91.043,42 €
2025–2029	DFG	SFB TRR 418 TPA01	322.200,00 €
<b>Total</b>			<b>19.427.229,85 €</b>

## Scientific Publications

Peer reviewed articles: 173, h-Index: 60, Citations: 19,599 ([Google Scholar](#))

Full Bibliography: [NCBI](#)

### 10 Selected Publications

- Hillus D, Le NH, Tober-Lau P, Fietz AK, Hoffmann C, Stegherr R, Huang L, Baumgarten A, Voit F, Bickel M, Goldstein G, Wyen C, Stocker H, Wünsche T, Lee M, Schulbin H, Vallée M, Bohr U, Potthoff A, Cordes C, Isner C, Knox B, Carmona A, Stobäus N, Balicer R; SEMVAc Study Group; Kurth F, **Sander LE**. Safety and effectiveness of MVA-BN vaccination against mpox in at-risk individuals in Germany (SEMVAc and TEMVAc): a combined prospective and retrospective cohort study. *Lancet Infect Dis*. 2025;25(7):775-787
- Lesbats J, Brillac A, Reisz JA, Mukherjee P, Lhuissier C, Fernández-Monreal M, Dupuy JW, Sequeira A, Tioli G, De La Calle Arregui C, Pinson B, Wendisch D, Rousseau B, Efeyan A, **Sander LE**, D'Alessandro A, Garaude J. Macrophages recycle phagocytosed bacteria to fuel immunometabolic responses. *Nature*. 2025;640(8058):524-533
- Knoll R, Helbig ET, (...) CAPNETZ Study Group; Pa-COVID-19 Study Group; Saliba AE, Ulas T, Polansky JK, Sawitzki B, **Sander LE\***, Schultze JL\*, Aschenbrenner AC\*, Kurth F\*. The life-saving benefit of dexamethasone in severe COVID-19 is linked to a reversal of monocyte dysregulation. *Cell*. 2024;187(16):4318-4335.e20
- Gruell H, Vanshylla K, Tober-Lau P, Hillus D, Schommers P, Lehmann C, Kurth F, **Sander LE\***, Klein F\*. mRNA booster immunization elicits potent neutralizing serum activity against the SARS-CoV-2 Omicron variant. *Nat Med*. 2022 Mar;28(3):477-480.
- Hillus D, Schwarz T, Tober-Lau P, Vanshylla K, Hastor H, Thibeault C, Jentzsch S, Helbig ET, Lippert LJ, Tscheak P, Schmidt ML, Riege J, Solarek A, von Kalle C, Dang-Heine C, Gruell H, Kopankiewicz P, Suttorp N, Drosten C, Bias H, Seybold J; EICOV/COVIM Study Group; Klein F,

- Kurth F\*, Corman VM\*, **Sander LE\***. Safety, reactogenicity, and immunogenicity of homologous and heterologous prime-boost immunisation with ChAdOx1 nCoV-19 and BNT162b2: a prospective cohort study. *Lancet Respir Med*. 2021;9(11):1255-1265
6. Wendisch D, Dietrich O, Mari T, von Stillfried S, (...) Wolff T\*, Boor P\*, Selbach M\*, Saliba AE\*, **Sander LE\***. SARS-CoV-2 infection triggers profibrotic macrophage responses and lung fibrosis. *Cell*. 2021;184(26):6243-6261.e27.
  7. Braun J, Loyal L, Frentsch M, Wendisch D, Georg P, Kurth F, Hippenstiel S, Dingeldey M, Kruse B, Fauchere F, Baysal E, Mangold M, Henze L, Lauster R, Mall MA, Beyer K, Röhmel J, Voigt S, Schmitz J, Miltenyi S, Demuth I, Müller MA, Hocke A, Witzernath M, Suttorp N, Kern F, Reimer U, Wenschuh H, Drosten C, Corman VM, Giesecke-Thiel C\*, **Sander LE\***, Thiel A\*. SARS-CoV-2-reactive T cells in healthy donors and patients with COVID-19. *Nature*. 2020 Nov;587(7833):270-274
  8. Schulte-Schrepping J, Reusch N, Paclik D, Baßler K, Schlickeiser S, Zhang B, Krämer B, Krammer T, Brumhard S, Bonaguro L, De Domenico E, Wendisch D, (...) Schultze JL\*, Aschenbrenner AC\*, Li Y\*, Nattermann J\*, Sawitzki B\*, Saliba AE\*, **Sander LE\***. Severe COVID-19 Is Marked by a Dysregulated Myeloid Cell Compartment. *Cell*. 2020;182(6):1419-1440.e23.
  9. Ugolini M, Gerhard J, Burkert S, Jensen KJ, Georg P, Ebner F, Volkens SM, Thada S, Dietert K, Bauer L, Schäfer A, Helbig ET, Opitz B, Kurth F, Sur S, Dittrich N, Gaddam S, Conrad ML, Benn CS, Blohm U, Gruber AD, Hutloff A, Hartmann S, Boekschoten MV, Müller M, Jungersen G, Schumann RR, Suttorp N, **Sander LE**. Recognition of microbial viability via TLR8 drives TFH cell differentiation and vaccine responses. *Nat Immunol*. 2018 Apr;19(4):386-396
  10. **Sander LE**, Davis MJ, Boekschoten MV, Amsen D, Dascher CC, Ryffel B, Swanson JA, Müller M, Blander JM. Detection of prokaryotic mRNA signifies microbial viability and promotes immunity. *Nature*. 2011;474(7351):385-9

\*shared last authors

## Patents and Inventions

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1. **CH204/2025** *JCV and BKV epitopes for use in vaccines, diagnostic pro-cedures and cell therapy* (pending)
2. **CH993/2020** *Methods that measure soluble ACE2 for prediction of SARS-COV-2 infection and vaccination outcome* (pending)
3. **WO 2021/239949** *A1 Human recombinant monoclonal antibody against SARS-CoV-2 spike glycoprotein*
4. **WO 2021/244996** *A1 Synthetic Oligosaccharide Vaccines Against Streptococcus Pneumoniae with Microparticle - Adjuvant Formulations*
5. **WO 2021/214179** *A2/A3 Synthetic Streptococcus pneumoniae saccharide conjugates to conserved membrane protein*
6. **US9844592** *B2* / **US 10,588,964** *B2* *Bacterial RNAs as vaccine adjuvants*
7. **EP 2368564** *B1* *Pharmaceutical composition containing SAA for use in the treatment of acute and chronic dysregulated inflammatory diseases or conditions*