

Albers, Sonja-Verena

ORCID: 0000-0003-2459-2226 | Researcher ID: H-8689-2019

Date of birth: 20.03.1972

Nationality: German

Married, two children (18-20 years old)

EDUCATION

- 2001 **PhD in Molecular Microbiology**, University of Groningen, Netherlands
(supervisors: Arnold Driessen, Wil Konings)
- 1996 **Diplom in Biology**, University of Würzburg, Germany (Diploma thesis at the Max Planck Institute for Biochemistry, Martinsried, Germany in the lab of Wolfram Zillig)

CURRENT POSITIONS

- 2021 - **Dean of the Faculty of Biology**
Faculty of Biology, University of Freiburg, Germany
- 2014 - **Full Professor for Microbiology**
Faculty of Biology, University of Freiburg, Germany

PREVIOUS POSITIONS

- 2008 – 2014 **Max Planck Research group leader** (free floater)
Max Planck Institute for Terrestrial Microbiology, Marburg, Germany
- 2006 – 2008 **VIDI laureate** (from the Dutch Research Council (NWO) Talent Programme)
Molecular Microbiology, University of Groningen, Netherlands
- 2003 – 2006 **VENI laureate** (from the Dutch Research Council (NWO) Talent Programme)
Molecular Microbiology, University of Groningen, Netherlands
- 2001 – 2003 **Postdoctoral researcher** (in the group of Prof. Dr. A. Driessen)
Molecular Microbiology, University of Groningen, Netherlands

FELLOWSHIPS AND AWARDS

- 2024 ERC Advanced grant, ARCHCELLORG
- 2023 elected Fellow of the American Academy of Microbiology
- 2022 elected Member of the Leopoldina (German National Academy of Sciences)
- 2019 MOMENTUM grant (Cell biology of Archaea) by the VW Foundation
- 2019 elected Member of EMBO (European Molecular Biology Organization)
- 2017 elected Fellow of the European Academy of Microbiology (EAM)
- 2012 ERC starting grant, ARCHAELLUM
- 2012 Research Award (Forschungspreis) from the German General and Applied Association of Microbiology (VAAM), Germany
- 2006 VIDI grant by the Dutch Science Organization (NWO)
- 2003 EMBO short term fellowship to visit the lab of Christa Schleper
- 2003 VENI grant by the Dutch Science Organization (NWO)
- 1998 Marie Curie long term fellowship (TRM, EU), University of Groningen, The Netherlands
- 1997 DAAD short term scholarship (German Academic Exchange Service), for starting the PhD at the University of Groningen

ORGANISATION OF SCIENTIFIC MEETINGS

- 2022 Co-Organizer of the **EMBO Workshop Molecular Biology of Archaea**, Frankfurt, Germany
- 2019 Session chair at **FEMS 2019 – 8th Congress of European Microbiologists**, Glasgow, UK
- 2013 Chair of the **Gordon Research Conference on Archaea: Ecology, Metabolism and Molecular Biology**, Il Pico, Italy

- 2012 Organizer of the **Molecular Biology of Archaea Meeting**, MPI for Terrestrial Microbiology, Marburg, Germany
- 2011 Vice-Chair of the **Gordon Research Conference on Archaea: Ecology, Metabolism and Molecular Biology**, Waterville Valley, USA

INSTITUTIONAL RESPONSIBILITIES (selection)

- 2022 – Vice Chairman of the Tenure Committee of the University of Freiburg
- 2021 – Dean of the Faculty of Biology, University of Freiburg, Germany
- 2019 – Member of the Senate, University of Freiburg, Germany
- 2019 – 2021 Vice Dean of the Faculty of Biology, University of Freiburg, Germany
- 2019 – 2021 Member of the PhD Examiner Board, the Faculty of Biology, University of Freiburg, Germany
- 2018 – Member of the Senate's committee for Gender and Diversity, University of Freiburg, Germany
- 2014 – Member of different search Committees, University of Freiburg, Germany

REVIEWING ACTIVITIES

- 2023 – External Scientific Advisory Board, Centro de Biología Molecular Severo Ochoa (CBM), Madrid, Spain
- 2019 – 2023 Chair of the Life Sciences panel of FWO (Belgium Science Foundation), Brussels, Belgium

Grants and fellowships: Ad hoc reviewer for national and international funding agencies, including ERC, DFG (German Research Foundation), NIH (National Institutes of Health, US), ANR (French National Research Agency), NWO (Dutch Research Council), etc.

Editorial boards: Member of the Editorial Boards of eLife, FEMS Microbiology Reviews, mBio, Antonie van Leeuwenhoek, Microbiology, Journal of Bacteriology, and Extremophiles

Peer review: Ad hoc reviewer for leading scientific journals, including Cell, Nature, Nature Microbiology, eLife, Molecular Microbiology, ISME, Environmental Microbiology, etc.

MEMBERSHIPS OF SCIENTIFIC SOCIETIES

- 2002 – Member of the American Society for Microbiology
- 2000 – Member of the Netherlands Society for Biochemistry and Molecular Biology, NL
- 2000 – Member of the General and Applied Microbiology (VAAM), Germany

Most important publications:

1. Nußbaum P, Kureisaite-Ciziene D, Bellini D, van der Does C, Kojic M, Taib, N, Gribaldo S, Loose M, Löwe J, **Albers SV** (2024) PRC domain-containing proteins modulate FtsZ-based archaeal cell division. *Nat Microbiol* 9(3):698-711. doi:10.1101/2023.03.28.534543
(Identified an unexpected new cell division protein in Archaea)
2. Nußbaum P, Gerstner M, Dingethal M, Erb C, **Albers SV** (2021) The archaeal protein SepF is essential for cell division in *Haloferax volcanii*. **Nature Communications**, 12:3469. doi: 10.1038/s41467-021-23686-9.
3. Nußbaum P, Ithurbide S, Walsh JC, Patro M, Delpech F, Rodriguez-Franco M, Curmi PMG, Duggin IG, Quax TEF, **Albers SV**. (2020) An oscillating MinD protein determines the cellular position of the motility machinery in Archaea. **Curr Biol** 30:4956-4972.e4. doi: 10.1016/j.cub.2020.09.073. (Demonstrated that MinD proteins are not involved in cell division in Haloarchaea)
4. Van Wolferen M, Shajahan A, Heinrich K, Brenziger S, Black IM, Wagner A,

- Briegel A, Azadi P, **Albers SV** (2020) Species-specific recognition of Sulfolobales mediated by UV-inducible pili and S-layer glycosylation patterns. *mBio*, 11:e03014. doi: 10.1128/mBio.03014-19 (Demonstrated that species specificity of cell-cell aggregation for DNA exchange is established by the recognition of the N-glycosylation pattern of the S-layer by the pilus)
5. Tsai C.-L., Tripp P, Sivabalasarma S, Zhang C, Rodriguez-Franco M, Wipfler RL, Chaudhury P, Banerjee A, Beeby M, Whitaker RJ, Tainer JA, **Albers SV**. (2019) The periplasmic FlaG/F complex structure and its essential role for archaeellar swimming motility. *Nature Microbiol*, 5:216-225. Doi: 10.1038/s41564-019-0622-3 (*Demonstrated that FlaF/G are the stators of the archaeellum*)
 6. Quax, T.E.F., Altegoer, F., Rossi, F., Li, Z., Rodrigues-Franco, M., Kraus, F., Bange, G., **Albers, S.V.** (2018) Structure and function of the archaeal response regulator CheY. *Proc Natl Acad Sci USA* 115, E1259-E1268. Doi: 10.1073/pnas.1716661115 (*Solved the structure of archaeal CheY, showing that the binding site for CheF is different than the one for FliM in bacterial CheY, another adaptation to the archaeellum*)
 7. van Wolferen, M., Wagner, A., van der Does, C., and **Albers, S.V.** (2016). The archaeal Ced system imports DNA. *Proc. Natl. Acad. Sci. USA* 113, 2496-2501. Doi: 10.1073/pnas.1513740113 (*Identification of the first archaeal DNA transporter*)
 8. Banerjee, A., Tsai, C.L., Chaudhury, P., Tripp, P., Arvai, A.S., Ishida, J.P., Tainer, J.A., and **Albers, S.V.** (2015). FlaF is a β -sandwich protein that anchors the archaeellum in the archaeal cell envelope by binding the S-layer protein. *Structure* 23, 863-872. Doi: 10.1016/j.str.2015.03.001
 9. Reindl, S., Ghosh, A., Williams, G.J., Lassak, K., Neiner, T., Henche, A.L., **Albers, S.V.***, and Tainer, J.A.* (2013). Insights on Flal Functions in archaeal motor assembly and motility from structures, conformations and genetics. *Mol. Cell* 49, 1069-1082. *corresponding. Doi: 10.1016/j.molcel.2013.01.014 (*demonstrated that the ATPase Flal has two functions: first it assembles the archaeellum filament, and after a switch rotates it*)
 10. Reimann, J., Esser, D., Orell, A., Amman, F., Pham, TK, Noirel, J., Lindas, A.C., Bernander, R., Wright, P.C., Siebers, B., **Albers, S.V.** (2013) Archaeal signal transduction: impact of protein phosphatase deletions on cell size, motility, and energy metabolism in *Sulfolobus acidocaldarius*. *Mol. Cell. Proteomics* 12, 3980-23. doi:10.1074/mcp.M113.027375 (*analysis of the phosphorylation-dependent network in S. acidocaldarius*)