



Benedikt Geier

Postdoctoral Scholar, Infectious Diseases

 Curriculum Vitae available Online

Bio

BIO

B.Sc. Biology, Ludwig Maximilian University (LMU), Munich/Germany (2013)

M.Sc. Biology and bioimaging, Ludwig Maximilian University (LMU), Munich/Germany (2015)

Ph.D., Animal-Microbe Symbioses, Max Planck Institute for Marine Microbiology in Bremen/Germany (2020)

Benedikt joined the Amieva Lab from Germany in 2022. During his B.Sc. and M.Sc. programs in zoology, he became fascinated with 3D imaging approaches to study small animal microanatomy. He spent his PhD developing in situ imaging approaches to study deep-sea symbioses and fell in love with studying host-microbe interactions. In the Amieva Lab, Benedikt will advance his previously developed correlative chemical imaging techniques to resolve metabolic and cellular interactions that drive *H. pylori* pathogenesis in the gastric glands.

HONORS AND AWARDS

- Newcomb Cleveland Prize for most outstanding scientific paper of 2022 (coauthor), American Association for the Advancement of Science (2022)
- Postdoctoral fellowship, Human Frontier in Science Program (HFSP) long-term fellowship (2022)
- Best talk during "IT MA(t)TERs Conference", Max Planck Institutes for Terrestrial and Marine Microbiology (2021)
- Otto Hahn Medal for outstanding scientific achievements during doctorate studies, Max Planck Society (2021)
- Best students' poster of the International Max Planck Research Schools program Marmic, Max Planck Institute for Marine Microbiology (2019)
- Best students' talk at the annual ISCE conference, International Society of Chemical Ecology (ISCE) (2019)
- MDPI 2018 travel award, Metabolites (2018)
- MSI Award for "brilliant ideas or works achieved using mass spectrometry imaging techniques", ImaBiotech (2018)

STANFORD ADVISORS

- Manuel Amieva, Postdoctoral Faculty Sponsor

LINKS

- Twitter: <https://twitter.com/benebio3d>
- Google Profile: <https://g.co/kgs/SQpdsA>

Publications

PUBLICATIONS

- **Connecting structure and function from organisms to molecules in small-animal symbioses through chemo-histo-tomography** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Geier, B., Oetjen, J., Ruthensteiner, B., Polikarpov, M., Gruber-Vodicka, H. R., Liebeke, M.
2021; 118 (27)
- **Hunting the eagle killer: A cyanobacterial neurotoxin causes vacuolar myelinopathy** *SCIENCE*
Breinlinger, S., Phillips, T. J., Haram, B. N., Mares, J., Yerena, J., Hrouzek, P., Sobotka, R., Henderson, W., Schmieder, P., Williams, S. M., Lauderdale, J. D., Wilde, H., Gerrin, et al
2021; 371 (6536): 1335–+
- **Spatial metabolomics of in situ host-microbe interactions at the micrometre scale** *NATURE MICROBIOLOGY*
Geier, B., Sogin, E. M., Michellod, D., Janda, M., Kompauer, M., Spengler, B., Dubilier, N., Liebeke, M.
2020; 5 (3): 498–+
- **Coming together-symbiont acquisition and early development in deep-sea bathymodioline mussels** *PROCEEDINGS OF THE ROYAL SOCIETY B-BIOLOGICAL SCIENCES*
Franke, M., Geier, B., Hammel, J. U., Dubilier, N., Leisch, N.
2021; 288 (1957): 20211044
- **Determination of Abundant Metabolite Matrix Adducts Illuminates the Dark Metabolome of MALDI-Mass Spectrometry Imaging Datasets** *ANALYTICAL CHEMISTRY*
Janda, M., Seah, B. B., Jakob, D., Beckmann, J., Geier, B., Liebeke, M.
2021; 93 (24): 8399-8407
- **Armored with skin and bone: A combined histological and mu CT-study of the exceptional integument of the Antsingy leaf chameleon *Brookesia perarmata* (Angel, 1933)** *JOURNAL OF MORPHOLOGY*
Schucht, P. J., Ruehr, P. T., Geier, B., Glaw, F., Lambertz, M.
2020; 281 (7): 754-764
- **Asynchronous division by non-ring FtsZ in the gammaproteobacterial symbiont of *Robbea hypermnestra***. *Nature microbiology*
Leisch, N., Pende, N., Weber, P. M., Gruber-Vodicka, H. R., Verheul, J., Vischer, N. O., Abby, S. S., Geier, B., den Blaauwen, T., Bulgheresi, S.
2016; 2: 16182
- **A specific and widespread association between deep-sea *Bathymodiolus* mussels and a novel family of Epsilonproteobacteria** *ENVIRONMENTAL MICROBIOLOGY REPORTS*
Assie, A., Borowski, C., van der Heijden, K., Raggi, L., Geier, B., Leisch, N., Schimak, M. P., Dubilier, N., Petersen, J. M.
2016; 8 (5): 805-813