

Roland Hatzenpichler, PhD

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Professional Preparation

- University of Vienna Vienna, Austria Microbiology & Genetics Master of Natural Sciences, 2006
- University of Vienna Vienna, Austria Microbial Ecology Doctor of Natural Sciences (PhD), 2011
Pre-doctoral fellowship of the Austrian Academy of Sciences 2007-2009
- California Institute of Technology Pasadena, CA Geobiology 2011-2016
O.K. Earl Postdoctoral Scholar in Geobiology 2011-2012
Erwin Schrödinger Postdoctoral Scholar 2012-2014
NSF Center for Dark Energy Biosphere Investigations Senior Postdoctoral Scholar 2014-2016

Appointments

- Nov 2016 - present, Assistant Professor, Department of Chemistry and Biochemistry. Montana State University (MSU), Bozeman. Affiliated faculty at Thermal Biology Institute (MSU) and Center for Biofilm Engineering (MSU)
- Aug-Oct 2016, Assistant Research Professor, Department of Microbiology and Immunology, MSU

Awards

- 2017, NASA Early Career Fellowship
- 2011, Doc Award for outstanding PhD thesis by the City of Vienna, Austria

Peer reviewed publications

15 publications; +2 ms accepted

~1,600 citations, h-index: 10, i-10 index: 11

* corresponding equally contributing

Five most relevant publications

- **Hatzenpichler R***, Connon SA, Goudeau D, Malmstrom R, Woyke T, Orphan VJ. *Visualizing in situ translational activity for identifying and sorting slow-growing archaeal-bacterial consortia*. Proc Natl Acad Sci USA, 113: E4069-E4078 (2016)
 ► Discussed in Nature Microbiol “News & Views”
- **Hatzenpichler R*** and Orphan VJ. *Detection of protein-synthesizing microorganisms in the environment via bioorthogonal non-canonical amino acid tagging (BONCAT)*. Book chapter for *Hydrocarbon and Lipid Microbiology Protocols, Vol. 7: Single-cell and single-molecule methods*. Springer Protocols Handbooks, doi: 10.1007/8623_2015_61 (2015)
- **Hatzenpichler R***, Scheller S, Tavormina PL, Babin B, Tirrell D, and Orphan VJ. *In situ visualization of newly synthesized proteins in environmental microbes using amino acid tagging and click chemistry*. Environ Microbiol, 16: 2568-2590 (2014)
 ► Cover article ► Discussed in Environ Microbiol “Research Highlight”
- **Lebedeva EV, Hatzenpichler R**, Pelletier E, Schuster N, Hauzmayer S, Bulaev A, Grigorjeva NV, Galushko A, Schmid M, Palatinsky M, Le Paslier D, Daims H, and Wagner M. *Enrichment and genome sequence of the group I.1a ammonia-oxidizing archaeon “Ca. Nitrosotenuis uzonensis” representing a clade globally distributed in thermal habitats*. PLoS One, 8: e80835 (2013)
- **Hatzenpichler R**, Lebedeva EV, Spieck E, Stoecker K, Richter A, Daims H, and Wagner M. *A moderately thermophilic ammonia-oxidizing crenarchaeote from a hot spring*. Proc Natl Acad Sci USA, 105: 2134-2139 (2008)

Five other significant publications

- Tavormina PL, **Hatzenpichler R**, McGlynn S, Chadwick G, Dawson K, Connon S, and Orphan VJ. *Methyloprofundus sedimenti* gen. nov., sp. nov., an obligate methanotroph from ocean sediment belonging to DeepSea 1 clade of marine methanotrophs. *Int J Syst Evo Microbiol*, 65: 251–259 (2015)
- Ma L, Kim J, **Hatzenpichler R**, Karymov MA, Hubert N, Hanan IM, Chang EB, and Ismagilov RF. *Gene-targeted microfluidic cultivation validated by isolation of a gut bacterium listed in Human Microbiome Project's Most Wanted taxa*. *Proc Natl Acad Sci USA*, 111: 9768–9773 (2014)
- **Hatzenpichler R***. *Diversity, physiology, and niche differentiation of ammonia-oxidizing archaea*. *Appl Environ Microbiol*, 78: 7501-7510 (2012)
► Review article
- Shapiro OH, **Hatzenpichler R***, Buckley DH, Zinder SH, and Orphan VJ. *Multicellular photo-magnetotactic bacteria*. *Environ Microbiol Rep*, 3: 233-238 (2011)
► Chief Editor's Choice article
- Spang A, **Hatzenpichler R**, Brochier-Armanet C, Rattei T, Tischler P, Spieck E, Streit W, Stahl DA, Wagner M, and Schleper C. *Distinct gene set in two different lineages of ammonia-oxidizing archaea supports the phylum Thaumarchaeota*. *Trends Microbiol* 18:331-40 (2010)
► Cover article ► Most cited Trends Microbiol article in interval 2010-2015

Recently accepted manuscripts

- McKay LJ, **Hatzenpichler R**, Inskeep WP, and Fields MW. *Occurrence and expression of novel methane cycling genes by diverse archaeal phyla in hot spring sediments*. *Nat Sci Rep* Accepted
- Marlow JJ and **Hatzenpichler R**. *Assessing metabolic activity at methane seeps: a testing ground for slow-growing environmental systems*. Book chapter in *Microbial life in the deep biosphere*. Accepted

Professional Activities

- **2015-present, Associate Editor, *Frontiers in Microbiology - Microbial Physiology and Metabolism*. Impact factor: 4.16 (2017)**
- **2014-present, Member of Junior Advisory Group of the American Society of Microbiology (ASM)**
- 2016, member of General Meeting Planning Committee for *ASM Microbe 2016*, Boston, MA
- **regular ad hoc reviewer** for *The ISME Journal*, *FEMS Microbiology Reviews*, *Environmental Microbiology*, *Environmental Microbiology Reports*, *Applied and Environmental Microbiology*, *Frontiers in Microbiology*, *FEMS Microbiology Ecology*, *PLoS One*, *Microbiology*, *Nature Scientific Reports*, *Antonie van Leeuwenhoek Journal of Microbiology*, *Environmental Science and Technology*
- **external reviewer** for grant and fellowship applications to NASA's *Exobiology & Evolutionary Biology Program* (**panellist** in 2015), NASA's *Earth and Space Sciences Graduate Fellowship program*, NSF *Biological Oceanography program*, and the *French National Research Agency*
- 2016-present, 8 invited seminars and 3 invited conference talks since starting professorship at MSU
- 2008-present, 23 invited seminars and 8 invited conference talks before professorship

Teaching and mentoring

- Viola Krukenberg, postdoc, 2017-present; studying anaerobic carbon-cycling potential of microbes in Guaymas basin sediments through activity-based cell sorting and single cell genomics
- Nick Reichart, graduate student, 2017-present; ecophysiology of microbial dark matter in hot springs and development of novel bioorthogonal labeling approaches
- Juliana Beauchene, undergraduate student, 2017-present; activity of uncultured microbes in hot springs
- Michael Dorle, undergraduate student, 2016-present; activity of uncultured microbes in hot springs
- Grace Trytten, undergraduate student, 2017; bioorthogonal nucleotide labeling of freshwater microbes
- Margarit Branine, undergraduate student, 2016; topic: development of bioorthogonal fatty acid labeling