

Curriculum Vitae Dr. Petra Pjevac

Current position: Post-doctoral Researcher
Division of Microbial Ecology
Department of Microbiology and Ecosystem Science
Research network CMM
University of Vienna,
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Date of Birth: 31st March 1988

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Prior employment and education

June 2014 – Feb 2015

Post-doctoral Researcher in the Department of Molecular Ecology of Dr. Rudolf Amann at the Max Planck Institute for Marine Microbiology, Bremen, Germany

(Maternity leave September – November 2014)

April 2011 – May 2014

Dr. rer. nat (magna cum laude) from the University Bremen FB2 doctoral program and the International Max Planck Research School for Marine Microbiology (MarMic IMPRES), Bremen, Germany

Thesis Title: 'Co-existence and niche differentiation of sulfur oxidizing bacteria in marine environments'

Supervisor: Prof. Dr. Rudolf Amann, Dr. Marc Mußmann, Dr. Anke Meyerdierks

(Maternity leave June – October 2013)

Sep 2009 – March 2011

M.Sc. in Marine Microbiology from the International Max Planck Research School for Marine Microbiology (MarMic IMPRES), Max Planck Institute for Marine Microbiology & University Bremen FB2, Bremen, Germany

Thesis Title: 'Metabolism of elemental sulfur and pyrite in intertidal sediments'

Sep 2006 – Aug 2009

B.Sc. in Molecular Biology from the University of Zagreb, Faculty of Natural Sciences, Department of Biology, Zagreb, Croatia

Honors, Awards, Stipends

March 2015

FFG Research Career Grant – Relocation Grant

March 2014 – Feb 2015

Stipend of the 'Christiane Nüsslein-Volhard-Foundation' supporting excellent female researchers with children in experimental natural sciences and medicine

Sep 2006 – Aug 2009

Croatian Governmental Stipend for excellent students from Areas of Special State Concern

April 2006

1st rank at Croatian National Competition of Young Biologist, 12th grade

Publications

2015

S. Dyksma, K. Bischof, B. M. Fuchs, K. Hoffmann, D. Meier, A. Meyerdierks, P. Pjevac, D. Probandt, M. Richter, R. Stepanauskas, and M. Mußmann. Ubiquitous *Gammaproteobacteria* dominate dark carbon fixation in coastal sediments. *ISME J* (accepted)

H. Daims, E. V. Lebedeva, P. Pjevac, P. Han, C. Herbold, M. Albertsen, N. Jehmlich, M. Palatinszky, J. Vierheilig, A. Bulaev, R. H. Kirkegaard, M. V. Bergen, T. Rattei, B. Bendinger, P. H. Nielsen, and M. Wagner. Complete nitrification by *Nitrospira* bacteria. *Nature* (doi: 10.1038/nature16461)

P. Pjevac*, M. Korlević, J.S. Berg, E. Bura-Nakić, R. Amann, I. Ciglencečki, and S. Orlić. Community shift from phototrophic to chemotrophic sulfide oxidation following anoxic holomixis in a shallow stratified sea-water lake. *Applied and Environmental Microbiology* (doi: 10.1128/AEM.02435-14) (* - corresponding author)

2014

M. Winkel[§], P. Pjevac[§], M. Kleiner, S. Littmann, A. Meyerdierks, R. Amann, and M. Mussmann. Identification and activity of acetate-assimilating microorganisms in diffuse hydrothermal fluids. *FEMS Microbiology Ecology* (doi: 10.1111/1574-6941.12429) (° - equal contribution)

P. Pjevac, A. Jr. Kamyshny, S. Dyksma, and M. Mussmann (2014) Microbial consumption of zero-valence sulfur in marine benthic habitats. *Environmental Microbiology* (doi: 10.1111/1462-2920.12410)

E. P. Reeves[§], M. Y. Yoshinaga[§], P. Pjevac[§], N. Goldenstein, J. Peplies, A. Meyerdierks, R. Amann, W. Bach, and K.-U. Hinrichs. Microbial lipids reveal carbon assimilation patterns on hydrothermal sulfide chimneys. *Environmental Microbiology* (doi: 10.1111/1462-2920.12525) (° - equal contribution)

Contributions at scientific meetings and conferences

“ICON-4” – 4th international conference on Nitrification (and related processes); poster presentation (28.06.-01.07.2015, Edmonton, Canada)

“AGU Fall Meeting 2014” - Annual meeting of the American Geophysical Union; poster presentation (15.12.-19.12.2014, San Francisco, USA)

“VAAM2013” - Annual Conference of the Association for General and Applied Microbiology; poster presentation (10.03.-13.03.2013, Bremen, Germany)

“ISME14” - 14th International Symposium of Microbial Ecology; two poster presentations (19.08.-24.08.2012, Copenhagen, Denmark)

DEBI RCN 2012 Crustal Processes Meeting; poster presentation (07.06.-09.06.2012, Bremen, Germany)

"EGU2012" - European Geosciences Union General Assembly 2012; poster presentation (22.04.-27.04.2012, Vienna, Austria)

EMBO Workshop on Microbial Sulfur Metabolism 2012; oral presentation (15.04.-18.04.2012, Noordwijkerhout, the Netherlands)

"VAAM2012" - Annual Conference of the Association for General and Applied Microbiology; poster presentation (18.03.-21.03.2012, Tübingen, Germany)

"ISEM 3" - 3rd international symposium of ecology in Montenegro; poster presentation (8.10.-12.10.2008, Herceg Novi, Montenegro)

Main research Interests

- Niche-differentiation among prokaryotes
- Microbial nitrogen/sulfur cycling and nitrogen/sulfur biogeochemistry
- Microbe-mineral interactions and microbial processes in sediments
- Autotrophic carbon fixation mechanisms in prokaryotes
- Geosphere-biosphere interactions
- Microbiology of chemosynthetic environments
- Extremophiles
- Biochemical isotope fractionation processes

Methods experience and training

- classical molecular biology methods: DNA/RNA extraction, PCR amplification, cloning, MDA, sequencing
- cultivation and enrichment of microorganisms
- physiological experiments with stable isotope labeling techniques (^{13}C , ^{15}N , ^{18}O)
- bioinformatics analysis of next-generation amplicons sequencing data (e.g. mother, SilvaNGS) and genomic/metagenomic data, including *de novo* assembly (e.g. Velvet, IDBA, SPAdes), binning (e.g. Metawatt), read mapping (e.g. bowtie, bmap), gene calling (e.g. prodigal), annotation pipelines (e.g. IMG, JCoast, MG-RAST)
- *in situ* hybridization techniques (e.g. FISH, CARD-FISH, click-FISH, gold-FISH) and advanced microscopy skills (e.g. epifluorescence microscopy, laser scanning microscopy, scanning electron microscopy)
- *in situ* colonization experiments in sedimentary and deep-sea environments
- sampling and biogeochemical analysis (e.g. sulfide, elemental sulfur, sulfate, nitrate, ammonium)

Other qualifications

Languages other than English:

- Croatian (native speaker)
- German (native speaker level, C2)
- Spanish, Italian and Russian inc. Cyrillic writing (basic understanding, A1-A2)

Diving license CMAS R2 (advanced open water diver)

Driving license B category