

PROGRAM 8th NanoSIMS user meeting at the Max Planck Institute for Marine Microbiology in Bremen

The meeting will take place in the Seminar room 4012 on the 4th floor.

Monday, August 20th, 2018

- 9:00 Registration open – Groundfloor Foyer
- 9:45 - 10:00 Jana Milucka (MPI for Marine Microbiology, Germany) – Welcome Address**
- 10:00 - 10:45 Dagmar Woebken (University of Vienna, Austria) – Keynote Lecture**
- 10:45 - 11:15 Coffee Break – Small Foyer**
- 11:15 - 11:35 Julia Dürschlag (MPI for Marine Microbiology, GER) – *Picoeukaryotic algae are the main primary producers in the South Pacific Gyre*
- 11:35 - 11:55 Nadine Lehnen (MPI for Marine Microbiology, GER) – *Visualization of N₂ fixation by endophytic bacteria in the roots of the giant seagrass Posidonia oceanica*
- 11:55 - 12:15 Rhona Stuart (Lawrence Livermore National Laboratory, USA) – *Using NanoSIMS to characterize canonical and novel metabolite transfer in cyanobacteria-moss symbioses*
- 12:15 - 12:35 Katharina Kitzinger (MPI for Marine Microbiology, GER) – *Cyanate and urea utilization by marine Thaumarchaeota*
- 12:35 - 12:55 Anne Dekas (Stanford University, USA) – *Improving quantitative analysis of uncultured Archaea using nanoSIMS*
- 13:00 - 14:00 Lunch – Groundfloor Foyer**
- 14:00 - 14:45 Manuel Liebeke (MPI for Marine Microbiology, GER) – Keynote Lecture
Spatial mapping of metabolites in host-microbe interactions**
- 14:45 - 15:05 Alexander Khachikyan (MPI for Marine Microbiology, GER) – *Nonlinear relationship between single-cell biomass and volume based on the direct measurements*
- 15:05 - 15:25 Angela Vogts (Leibniz Institute for Baltic Sea Research, GER) – *Tuning the nanoSIMS – primary beam, secondary beam, routine operation*
- 15:30 - 16:00 Coffee Break – Small Foyer**
- 16:00 - 16:20 Rebeca Lopez-Adams (University of Manchester, GBR) – *Imaging nitrate-dependent Fe(II) oxidation by a newly isolated As(III)-oxidising bacterium*
- 16:20 - 16:40 Sina Schorn (MPI for Marine Microbiology, GER) – *Flow of methane-derived carbon through a microbial community in a stratified lake*
- 16:40 - 17:00 Federica Calabrese (UFZ, GER) – *Abiotic factors shaping single-cell metabolic heterogeneity in monoclonal microbial populations*
- 17:00 - 17:20 Peta Clode (University of Western Australia, AUS) – *¹⁵N metabolism in the marine photoautotroph, Synechococcus: Comparing complementary bulk and single-cell level analytical techniques*

17:20 – 18:00 Open discussion – Use of standards in life sciences

18:00 Dinner – Groundfloor Foyer

19:00 Poster Session – Groundfloor Foyer

Tuesday, August 21st, 2018

9:00 - 9:45 Katie Moore (University of Manchester, GBR) – Keynote Lecture

9:45 - 10:05 Christopher Jones (University of Manchester, GBR) – *NanoSIMS beam damage to hydrogen trapping sites in zirconium alloys: Development of a damage accumulation model and accompanying experimental results*

10:05 - 10:25 Dan Lévy (IMPMC, FRA) – *D/H mapping on FIB section of weakly hydrated/hydroxylated material*

10:25 - 10:45 Kexue Li (University of Oxford, GBR) – *3D-characterization of Cl and Se distributions at interfaces in CdSeTe solar cells using nanoSIMS*

10:45 - 11:15 Coffee Break – Small Foyer

11:15 - 12:00 Michael Wiedenbeck (GFZ, GER) – Keynote Lecture
Calibration challenges for high precision isotope ratio dominations: the perspective from the world of large geometry SIMS

12:00 - 12:20 Silver Sung-Yun Hsiao (Institute of Earth Science, TWN) – *Uptake and fractionation of nitrogen stable isotopes in otolith organic materials*

12:20 - 12:40 Johann Lugmeier (TU Munich, GER) – *Dynamic implant - an approach for homogeneous nanoSIMS pre-implantation for a large measurement field*

12:40 - 13:00 Isoji Miyagi (Geological Survey of Japan, JPN) – *Estimation of pre-eruptive magmatic depth and physical properties of prenatal caldera volcano: a challenge using EPMA, SIMS, and MELTS*

13:00 -14:00 Lunch – Groundfloor Foyer

14:00 - 14:20 Rong Liu (Western Sydney University, AUS)

14:20 - 15:00 CAMECA

transfer to city centre (individual)

17:00 - 19:00 **City tour – Roland-Statue at Bremer Marktplatz**

19:00 Dinner – Restaurant Ständige Vertretung

Wednesday, August 22nd, 2018

8:45 Meet at MPI – Groundfloor Foyer

9:00 - 10:00 Lab tours Bruker – Bruker Daltonik GmbH

10:00 - 10:30 Coffee Break – Groundfloor Foyer

10:30 - 11:30 Lab tours MPI – Groundfloor Foyer

11:30 **End of meeting**