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Profile

I am a bioinformatician with 6+ years of experience in a research setting. I have experience with a wide variety of sequencing technologies and frequently work with high-volume datasets (RNA-seq, DNA-seq). During my research, I have become well acquainted with a wide variety of bioinformatic tools and coding languages in order to analyze these data as well as communicating the results and biological significance to a wide range of audiences.

Professional Experience

Postgraduate Researcher 10/2021 to Present

Centre for Microbiology and Environmental Systems Sciences, University of Vienna

- Implemented transcriptomic workflows with emphasis on reproducibility
- Maintained and updated conventional NGS workflows

Lecturer and Course Coordinator 10/2020 to Present

Centre for Microbiology and Environmental Systems Sciences, University of Vienna

- Created new course lesson plan and curriculum (course: Computational metagenomics)
- Revised and updated curriculum (course: Bioinformatics for non-bioinformaticians)
- Utilized conventional, hybrid, and online formats

Postgraduate Researcher 09/2017 to 10/2021

Centre for Microbiology and Environmental Systems Sciences, University of Vienna

- Created reproducible metagenomics and transcriptomic workflows
- Maintained and curated datasets with over 400 unique metagenomes
- Planned sequencing efforts for independent projects based on sequencer and depth requirements
- Organized and participated in sampling trips with international collaborators
- Provided bioinformatic support and project supervision to students

Staff Scientist 09/2015 to 06/2017

Department of Biological Sciences, Northern Illinois University

- Coordinated efforts for high-throughput sequencing projects (metagenomics and amplicon)
- Maintained and updated Unix based systems
- Revised reproducible metagenomics workflows

Education

Doctor of Philosophy in Microbial Ecology 09/2017 to Present

University of Vienna

PI: Jillian Petersen

Topic: 'Phylogenetic and Metabolic Diversity of Lucinid Clam Symbionts'

Master of Science in Biological Sciences

09/2015 to 06/2017

Northern Illinois University

PI: Wesley Swingley

Topic: 'Metagenomic Analysis of Deep-Branching Firmicutes and New Representatives of Known Genera From The Calumet Wetlands, A Highly Alkaline Environment'

Bachelor of Science in Biology

09/2010 to 06/2014

University of Wisconsin-Madison

Publications

Osvatic, J. T., Kunert, K., Hausmann, B., Yuen, B., Petersen, J.M. (2021). Diversity of symbionts within deep-sea lucinid groups. Manuscript in preparation.

Amorim K., Loick-Wilde N., Yuen B., **Osvatic, J. T.**, Wäge-Recchioni J., Hausmann B., Petersen, J.M., Fabian J., Wodarg D., Zettler L. M. (2021). Chemoautotrophy, symbiosis and sedimented diatoms support the high biomass of benthic molluscs in the Namibian shelf. Manuscript submitted for publication.

Osvatic, J. T., Wilkins, L. G., Leibrecht, L., Leray, M., Zauner, S., Polzin, J., Camacho, Y., Gros, O., van Gils, J., Eisen J., Petersen, J. & Yuen, B. (2021). Global biogeography of chemosynthetic symbionts reveals both localized and globally distributed symbiont groups. *Proceedings of the National Academy of Sciences*, 118(29).

Brunet, J., Ziobro, R., **Osvatic, J.**, & Clayton, M. K. (2019). The effects of time, temperature and plant variety on pollen viability and its implications for gene flow risk. *Plant Biology*, 21(4), 715-722.

Ohlsson, J. I., **Osvatic, J. T.**, Becraft, E. D., & Swingley, W. D. (2019). Microbial community in hyperalkaline steel slag-fill emulates serpentinizing springs. *Diversity*, 11(7), 103.

Petersen, J. M., & **Osvatic, J.** (2018). Microbiomes in natura: importance of invertebrates in understanding the natural variety of animal-microbe interactions. *Msystems*, 3(2), e00179-17.

Bioinformatic Skills

- Programming languages: Perl, Python, R, Linux Bash
- Experience and familiarity with sequencing technologies (Oxford Nanopore and Illumina)
- Metagenomic assembly (SPAdes, MEGAHIT) and binning (Anvi'o, CONCOCT, MetaBAT) software
- Transcriptomic analyses (BBMap, featureCounts, DESeq2 and edgeR)
- FAIR implementation in workflows

Additional Skills

- Languages: English (Native) and German (B1.2)
- Scientific project development and budgeting

References

- Reference 1: Dr. Jillian Petersen
Associate Professor
Division of Microbial Ecology
Centre for Microbiology and Environmental Systems Sciences
Email: jillian.petersen@univie.ac.at
- Reference 2: Dr. Petra Pjevac
Senior Scientist
Joint Microbiome Facility
Medical University of Vienna and University of Vienna
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- Reference 3: Dr. Thomas Rattei
Full Professor
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