

## Curriculum vitae Aiswarya Prasad

Lausanne, Switzerland | [aiswarya.prasad1998@gmail.com](mailto:aiswarya.prasad1998@gmail.com) | [aiswarya.prasad@unil.ch](mailto:aiswarya.prasad@unil.ch)

I am keen on leveraging microbiome engineering and synthetic biology to tackle critical challenges in health and agriculture. My goal is to integrate cutting-edge sequencing, multi-omic approaches, and automation to understand and manipulate complex microbial communities effectively.

### Education

Ph.D. in Quantitative Biology 2020 – Present  
University of Lausanne, Switzerland  
Thesis title: Ecology and Evolution of the honeybee gut microbiome

BS and MS in Biology (4+1 yrs) 2015 – 2020  
Indian Institute of Science, Bangalore

### Fellowships and Awards

Faculty of Biology and Medicine (FBM) PhD Fellowship 2020 – 2023  
*International PhD fellowship award granted by the Faculty of Biology and Medicine (FBM), University of Lausanne*

Mathilde Agassiz scholarship 2020 – 2021  
*Scholarship of CHF 70k awarded to one chosen candidate recommended by the FBM.*

KVPY Fellowship 2015 – 2020  
*Stipend and contingency to fund BSc and MS awarded by the Indian government (All-India Rank: 335)*

Bronze Medal in iGEM Competition 2016  
*Boston, USA*  
*Co-founded the first team from the institute and won a bronze medal at the iGEM competition. Co-appSecured 3 grants for research and travel from the Wellcome Trust Indian Alliance, the Govt. of India, DBT and the State government of Karnataka.*

### Publications

Mazel, F., Prasad, A., Engel, P. (2024) Host specificity of gut microbiota associated with social bees: patterns and processes. *Microbiology and Molecular Biology Reviews* (In Press)

Prasad A., Pallujam A. D., et al (2024). Symbiont loss and gain, rather than co-diversification shapes honeybee gut microbiota diversity and function. [bioRxiv](https://doi.org/10.1101/2024.09.11.612390), 2024.09.11.612390 (In Review)

Baud, G. L., Prasad, A., Ellegaard, K. M., & Engel, P. (2023). *Turnover of strain-level diversity modulates functional traits in the honeybee gut microbiome between nurses and foragers.* [Genome Biology](https://doi.org/10.1016/j.genbi.2023.100000), 24(1), 283.

Sarton-Lohéac, G., Nunes da Silva, C. G., Mazel, F., Baud, G., de Bakker, V., Das, S., El Chazli, Y., Ellegaard, K., Carcia-Carcera, M., Glover, N., Liberti, J., Nacif Marçal, L., Prasad, A., Sommerville, V., SAGE class 2019-2020 and 2020-2021, Bonilla-Rosso, G., & Engel, P. (2023). *Deep divergence and genomic diversification of gut symbionts of neotropical stingless bees.* [Mbio](https://doi.org/10.1016/j.mbs.2023.100000), 14(2), e03538-22.

## Invited Talks

The Local Pangenome Oct 2023  
 Alicante, Spain  
*Variation and specialization of structure and function of gut microbial community across host species*

Academic Seminar Series Apr 2023  
 School of Science, Monash University Malaysia  
*Evolutionary and functional insight into gut microbial community diversity across honeybee species*

## Conference Participation

Gordon Research Conference and Seminar (Animal Microbe Symbiosis) Jun 2023  
 Lucca, Italy  
*Poster: Evolutionary and functional insight into gut microbial community diversity across honeybee species using metagenomics*

CSHL Meeting: Microbiome Oct 2023  
 Cold Spring Harbor Laboratories, USA  
*Poster: Whole-genome shotgun metagenomics reveals differences in gut microbiomes among honeybee species*

SymbNET PhD Summer School on Host-Microbe Symbiosis Jul 2022  
 Instituto Gulbenkian de Ciência, Lisbon  
*Poster: Understanding the evolution of the gut microbiome across honeybee species*

## Teaching

Teaching Assistant – SAGE (Sequence A GEnome) course 2021 - 2024  
*Masters-level course teaching bioinformatics through research*

## Professional service

Peer review of journal publications 2023 – Present  
*Ecological Monographs (1) and Insect Molecular Biology (1)*

Workshop Evaluation Committee Jan 2023  
*Workshop and tutorial selection for the BC2 (Basel Computational Biology Conference)*

Local volunteer Aug 2022  
*ISME-18 (International Society of Microbial Ecology) conference*

## Department service

Organizing committee Sep 2023  
*Annual (DMF) Department Science Retreat*

DMF Faculty Hiring Committee May 2023  
*Postdoc/PhD Representative*

## Outreach and Extracurricular engagement

[Contributor](#) - Methods in Microbiomics Jan 2024  
 Set of guidelines and best practices for robust and reproducible pipelines

Open Science Meeting National center for competence in Research (NCCR) Microbiomes, Switzerland	<i>Nov 2023</i>
Decolonizing North-South Research Collaboration Centre for Development and Environment, University of Bern	<i>Aug 2022</i>
<a href="#">Moderator</a> – Health and Data Privacy Committee iGEM India BioSummit (Online)	<i>Jul 2020</i>
<a href="#">Delegate</a> at United Nations Convention on Biological Diversity Sharm El-Sheikh, Egypt	<i>Nov 2018</i>

## References

Philipp Engel  
Professor, University of Lausanne  
[philipp.engel@unil.ch](mailto:philipp.engel@unil.ch)

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