

# RUTH LYDIA SCHMIDT

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Dear Members of the Selection Committee,

I was pleased to learn of the available Postdoc position on integrative omics of plant-microbe interactions between Wageningen University and Utrecht University. I was immediately intrigued by the projects approach, which very much aligns with my previous experience and I see myself thrive best in a multidisciplinary environment that allows me to use my creativity, speed and passion for data. With a Ph.D. in microbial ecology and eight years of experience in research, data analysis and statistics in the context of sustainable agriculture, I am confident I will be a valuable asset to your dynamic team.

In my previous position as a Data Scientist at one of the leading data analytics companies, Plotly, I learned to develop dashboards for multi-omics data to better explore microbial responses to climate change. This project has allowed me to hugely expand my programming and data visualization skills in R as well as to gain experience in Python, HTML & CSS and in open-source data management (for an example of a metabolomics Dash app see [here](#)). The just described expertise will be undoubtedly be beneficial for the Postdoctoral position as it equips me with the technical skills to build innovative tools for the implementation of omics strategies to connect genes, transcripts and metabolites in the context of host-microbe interactions.

During my PhD and postdoctoral experience, I worked extensively with omics data, ranging from (meta)genomics, (meta)transcriptomics, proteomics and metabolomics to infer biological insights into molecular mechanisms underlying microbial communication in the context of plant health. One of the main findings of my PhD was that microbes use [terpenes to interact with each other](#) and regulate behavior in the responding organism and their host. These findings set the basis to study [volatiles as one of the key mediators](#) by which the different partners of the wheat holobiont communicate under drought stress. Thus, I am well versed in a variety of bioinformatics, statistical as well as data visualization methods (for an example of a Markdown presentation of a recent study using a range of statistical and visualization methods in R see [here](#)).

Working across disciplines and with international organizations, including as a partnership coordinator for 500 Women Scientists and as a policy consultant for the International Union for Conservation of Nature (IUCN), allowed me to develop excellent communication and project management skills. Together with my outgoing nature and strong team spirit, I am confident that my communication and writing skills will be valuable in the supervision and collaboration with other PhD students and postdocs across the participating institutes.

Overall, I trust that my multidisciplinary strengths as a data scientist, researcher, and science communicator will allow me to meet the needs of the Postdoctoral Position and vision to collaboratively work towards unraveling new insights into microbe-microbe and plant-microbe interactions in the endosphere microbiome. I am very excited about the prospect of joining this project. Thank you for your consideration and I look forward to hearing from you soon.

Sincerely,

Ruth Schmidt