

# TRAVEL GRANT REPORT

## The 10<sup>th</sup> International Conference on *Legionella*

**Yokohama, Japan: 20.09 – 24.09.2022**

*Molecular Microbiology*

Author of report

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I had the honor to receive a SSM travel grant to attend the 10<sup>th</sup> International Conference on *Legionella*, which took place in Yokohama, Japan, from the 20<sup>th</sup> of September to the 24<sup>th</sup> of September 2022. During the conference the major advances on the topics of *Legionella* ecology, virulence, detection, and epidemiology were presented in daily sessions. This conference also gave me the opportunity to establish contact and interact with international researchers from the *Legionella* field and to update my knowledge.



Social event at the conference

At the 10<sup>th</sup> International Conference on *Legionella*, I presented my work on endoplasmic reticulum (ER)-*Legionella* containing vacuole (LCV) membrane contact sites (MCS). Using dually fluorescence-labeled *Dictyostelium discoideum* amoeba, we revealed that components of the MCS localize to the ER or to the LCV and that these proteins promote intracellular replication of *L. pneumophila* and LCV remodeling. Moreover we could show that the *L. pneumophila* effectors LepB and SidC modulate the phosphoinositide lipid PtdIns(4)P on LCVs, which in turn determines LCV remodeling. Taken together, we found that the *Legionella*-driven PtdIns(4)P gradient at LCV-ER MCSs promotes VAP-, OSBP- and Sac1-dependent pathogen vacuole remodeling.



Presenting my work at the conference

I sincerely thank the SSM for the financial support and the organizers of the congress for a very stimulating conference.



View from the Landmark Tower in Yokohama