



## **From Addressing the Haggis to Addressing Oral Health**

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In January 2024, SULSA led a delegation of academics from across its 13 members to the Rheinland-Pfalz Lande. During this trip, the delegation visited universities, industry and the Ministry for Science and Health which strengthened the budding relationship between Rheinland-Pfalz and Scotland across all areas of life sciences. The visit concluded with a Burns Supper and Ceilidh at the Johannes Gutenberg University of Mainz (JGU Mainz) where I delivered the Ode to a Haggis.

I was selected as an early career representative for the delegation and given the opportunity to engage with leading life sciences researchers and connect with industry representatives. A highlight of the trip was being introduced to Professor Ralf Heermann and his research group at JGU Mainz, an internationally recognised microbiology team working at the forefront of bacterial communication and novel therapeutic development.



During initial conversations, we identified several overlapping research interests and complementary methodologies. Follow on reciprocal visits were supported by JGU Mainz and Scotland's International Collaboration Fund which was funded by Scottish Government to support Horizon Europe activity and was delivered by SULSA on behalf of Research Innovation Scotland. These in-person visits were crucial in establishing the collaboration, enabling us to explore laboratory techniques, exchange ideas, and co-develop experimental approaches that would not have been possible remotely.



*Visit 1: JGU visiting GCU with SULSA (November 2024)*

Building on preliminary data from earlier visits, we successfully secured €201,000 in June 2025 through the BWG Biotech-Fellows-International programme, funded by the Rheinland-Pfalz Ministry for Science and Health (Ministerium für Wissenschaft und Gesundheit). This award supports a two-year postdoctoral position based at JGU Mainz, alongside additional funding for me to take part in project meetings and carry out collaborative experiments on site in Germany throughout the project.

The project aims to identify novel quorum quenchers (QQ), compounds which disrupt bacterial communication, to inhibit biofilm formation by *Streptococcus mutans*, a key contributor to dental caries. In collaboration with the Institute for Biotechnology and Drug Research (IBWF) in Mainz, home to the world's largest fungal strain collection (22,000 strains), we will screen fungal metabolites to discover new ways of reducing biofilm formation on the tooth surface - bridging expertise in quorum sensing (Mainz) and oral microbiology (Glasgow).



*Visit 2: GCU visiting JGU (March 2025)*

This represents the start of a long-term, international partnership in microbiology between Glasgow Caledonian University and Johannes Gutenberg Universität, made possible by SULSA's vital investment in international collaboration and early-career researcher development. Since the partnership began in 2021, 14 unilateral and bilateral research exchanges between Rheinland-Pfalz and Scotland have been jointly funded by the Rheinland-Pfalz Ministry for Science and Health, Scottish Government Office in Berlin and SULSA. Through the International Collaboration Fund, 25 research exchanges were funded with an additional 5 being supported through SULSA funding to strengthen Scotland's participation in Horizon Europe consortia.