I am currently a PhD student in the laboratory of Dr. Pukatzki in the Department of Medical Microbiology and Immunology. I joined Dr. Pukatzki’s laboratory in 2010 after completing a Bachelor of Science degree in Molecular Medicine at the University of Ulm, Germany. During my undergraduate degree, I got my first research experience in the research group of Dr. Frank Kirchhoff, who is working on the human immunodeficiency virus, HIV.

In the laboratory of Dr. Pukatzki, I am being trained in molecular, biochemical and bioinformatic methods, as well as in-vivo models to study the type VI secretion system (T6SS) of the Gram-negative bacterium *Vibrio cholerae*. This bacterium can cause cholera, a potentially deadly disease characterized by watery diarrhea. The type VI secretion system functions as a molecular syringe that enables bacteria to kill neighbouring bacteria. This ability is crucial for the successful survival of bacteria in dense microbial communities.

In our *Nature Communications* publication, we describe that pandemic *V. cholerae* strains use the type VI secretion system to compete against non-pandemic strains. This competitive behaviour segregates pandemic *V. cholerae* strains from non-pandemic strains and might be crucial to establish a successful infection.

These findings advance our understanding of the pathogen *V. cholerae* and provide the basis for new ways of treating infections and monitoring pathogenic bacteria for the benefit of the patient. Because the pandemic strains use a different set of T6SS effectors than non-pandemic strains, a highly specific therapy against these strains based on the T6SS could be developed. Additionally, the T6SS activity specific to pandemic strains could be used as a biomarker for pandemic strains in a simple set-up that provides results quickly and does not depend on technically demanding tools.

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