

2nd Bacterial Morphogenesis Survival and Virulence Conference

Cape Town, South Africa; 24th – 28th November 2019

Clinical Microbiology

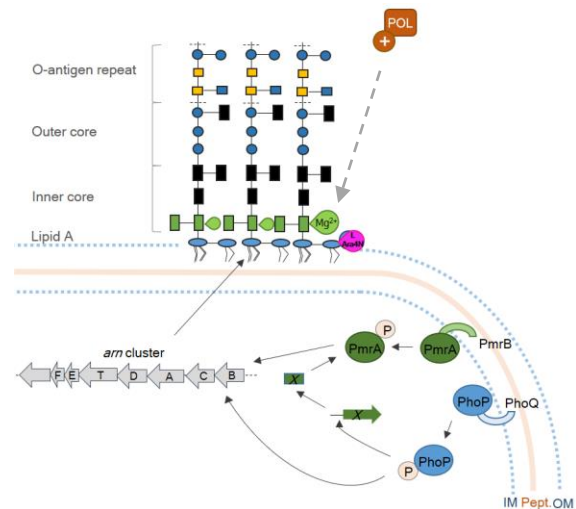
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The Bacterial Morphogenesis Survival and Virulence Conference (BMSV) in Cape Town (SA, 2nd edition) was organized by Prof. Dr. Bavesh Kana, Prof. Dr. Sunish Radhakrishnan, Prof. Dr. Patrick Viollier and Prof. Dr. Anjana Badrinarayanan. It was a 5 days congress that covered various topics about the impact of stress on microbes, inter alia the development of antibiotic resistance, cell composition and virulence. The financial support of the Swiss Society of Microbiology (SSM) allowed me to attend this meeting.



Mechanisms of resistance against the peptide antibiotics polymyxins (POL). Polymyxins displace cations on the outer-membrane (OM) and induce - via diverse two-component systems - the transcription of the *arr* cluster, which changes the charges of the OM.

I had the great opportunity to present my current doctoral research on antibiotic resistance in a short talk in the "Envelope Maintenance" session (2nd day). The main focus of my presentation was about the resistance mechanisms (predominantly located in the cell wall) towards the last-resort peptide antibiotics polymyxins and recently described peptidomimetics. The preceding and subsequent days, I attended each session and enhanced my knowledge about cell composition, virulence and regulation. I was particularly interested into the talks of (i) Dr. Man-Wah Tan who spoke about the BamA targeting compound MAB1 (identical target of some peptidomimetics) (ii) Prof. Jean-François Collet who investigates the structure of BamA and finally (iii) Dr. Mandy Mason

and Prof. Jan-Willem Veening who both employ the innovative CRISPRi-Seq to identify genetic determinants.

This conference was rewarding in term of feedbacks, networking and exchange between senior and junior scientists. I sincerely thank the SSM for the financial support and the organizers of the congress.