**International Working Group on Histidine Kinase Inhibitors as Novel Anti-infectives**

New antibacterials are urgently needed because of the growing problem of multi-drug resistance. This project is supported by the JPIAMR and ZonMw to stimulate new antibiotics development through international collaboration.

**Background**

The growing problem of antibiotic resistance and the lack of newly discovered antibiotics poses a major threat to human and animal health. We have previously identified a panel of inhibitors targeting bacterial histidine kinases in bacteria that inhibit targets involved in the regulation of virulence and stress response pathways in bacterial pathogens (Velikova et al., 2016 Sci Rep). Inhibiting virulence mechanisms in disease-causing bacteria would disarm the pathogen, enabling the host innate immune system to eradicate the pathogen from the body and reduce selection for emergence and spread of drug-resistance in host-associated microbiota.

**Aims and objectives**

The activities of this Transnational Network are aimed at aligning international research activities and combining expertise to devise the most efficient strategy to further develop new anti-infective drugs targeted to histidine kinases. The objectives of the proposed Transnational Network are to bring together scientists from academia and industry working in relevant multidisciplinary fields to develop integrated strategies to overcome the permeability barrier of Gram-negative cell envelopes and further develop newly discovered histidine kinase inhibitors as anti-virulence therapies.