Abstract Histidine Kinase Inhibitors as Novel Anti-infectives

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 block expression of activities required to cause disease and cope with environmental stresses. Inhibiting the processes in disease-causing bacteria offers some clear advantages, as the drugs would disarm the pathogen, enabling the host innate immune system to eradicate them from the body. As only infectious bacteria will be affected the community of beneficial bacteria which compete with pathogens in the intestine, upper respiratory tract and urogenital tract and should be relatively unaffected. This Transnational Network will meet to aligning research activities and devise a strategy to develop new anti-infective drugs targeted to histidine kinases in multi-drug resistant pathogens.

Project Members

Composition of the Working Group	
Coordinator and Member	Prof. Jerry Wells, Host-microbe Interactomics Group, Animal Sciences Department, Wageningen University, The Netherlands. **Roles:** Coordinator of Working Group, Chair of discussion group in Workshop 2, preparation of workshop summaries, contacting industrial platform (InP) members, author of current opinion articles, organisation of workshops and liaison with industrial platform.
Member	Dr Nadya Velikova, Host-microbe Interactomics Group, Animal Sciences Department, Wageningen University, The Netherlands. **Roles:** Member of Working Group, organization of Website, organization of workshops, preparation of workshop summaries, author of current opinion articles.
Member	Dr Paul Finn, InhibOx, Oxford, United Kingdom. **Roles:** member of Working Group, Chair of discussion group in Workshop 1, preparation of workshop summaries, contacting industrial platform members, author of current opinion articles and organisation of workshops.
Member	Dr Alberto Marina, Crystallography of Macromolecules Unit, Department of Genomics and Proteomics, Institute of Biomedicine of Valencia, Spain. **Roles:** member of Working Group, Chair of discussion group in Workshop 2, preparation of workshop summaries, contacting industrial platform members, author of current opinion articles and organisation of workshops.

The Working group will eventually comprise of around invited 25 experts from industry and academia at each workshop. They will contribute to the activities of the Working Group and a number of these persons will be involved in the writing of current opinion articles, presenting current research and giving feedback of the workshop discussion groups to all participants.