





Novel leads and drugs and their mechanism of action

in the field of vector borne parasitic disease

15 May 2023

online

WG1/WG2 Workshop of the COST Action CA21111 One Health drugs against parasitic vector borne diseases in Europe and beyond OneHealthdrugs

The event is open to PhD, young innovators and senior scientists from both academia and pharma.

Description

The workshop "Novel leads and drugs and their mechanism of action in the field of vector borne parasitic disease" is jointly organized by WG1 "Compound libraries coordination and integration of compound design" and WG2 "Integration of early phase studies and low environmental impact actions" of the COST Action CA21111 OneHealthDrugs.

The focus of the workshop is to bring together experts to report and discuss common definitions of novel leads and drugs and their mechanisms of action in view also of their impact on OneHealth needs. The workshop will give an overview about the state of art in the field and will help to plan a roadmap to achieve basic objectives of the COST Action. This workshop is connected with WG1/WG2 activity based on the handling of chemical compound information and the usage of compound databases/repositories and WG3 activity on the profile of leads and drug candidate.

Final Agenda

14:00 - 14:05 **Ulrike Wittig** (Heidelberg Institute for Theoretical Studies, DE) *Welcome*

14:05 – 14:15 **Maria Paola Costi** (Universita di Modena e Reggio Emilia, IT) Introduction to COSTAction CA21111 OneHealthDrugs

Session chair: Theodora Calogeropoulou 14:15 - 14:40 Jean-Claude Dujardin (Institute of Tropical Medicine, Antwerp, BE) Quiescence in Leishmania, a target for a new generation of chemotherapeutic innovations

14:40 - 15:05 John M. Kelly (London School of Hygiene and Tropical Medicine, UK) Drugs for Trypanosoma cruzi infection: Exploring mode of action and mechanisms of resistance

15:05 - 15:30 **Manfred Jung** (Institute of Pharmaceutical Sciences, University of Freiburg, DE) *Targeting epigenetics to combat vector borne parasitic diseases*

Session chair: Cecilia Pozzi 15:30 - 15:45 **Aleksandar Cvetkovski** (University "Goce Delcev" Stip, Faculty of medical science, Stip, MK) *From drug discovery to drug development: drug solid forms*

15:45 - 16:00 **Kayhan Ilbeigi** (Laboratory of Microbiology, Parasitology and Hygiene, University of Antwerp, BE) *Preclinical development of a novel therapeutic candidate for the treatment of animal trypanosomiasis*

16:00 - 16:15 **Sébastien Pomel** (Faculté de Pharmacie, Université Paris-Saclay, FR) Deciphering the mechanism of action of VP343, a drug candidate for the treatment of visceral leishmaniasis

16:15 - 16:30 **Katharina Possart** (Institute for Pharmaceutical Biology and Phytochemistry, University Münster, DE) *Comparative in silico and in vitro search for dual inhibitors of the Trypanosoma brucei and Leishmania major pteridine reductase 1 and dihydrofolate reductase*

16:30 - 16:45 **Najma Rachidi** (Molecular Parasitology, Institut Pasteur, Paris, FR) *Targeting casein kinase 1 as a novel strategy for the design of antileishmanial agents*

16:45 - 17:00

Harry P. de Koning (College of Medical, Veterinary and Life Sciences, University of Glasgow, UK) *Optimising leads for parasitic diseases: specificity by target or by targeting?*