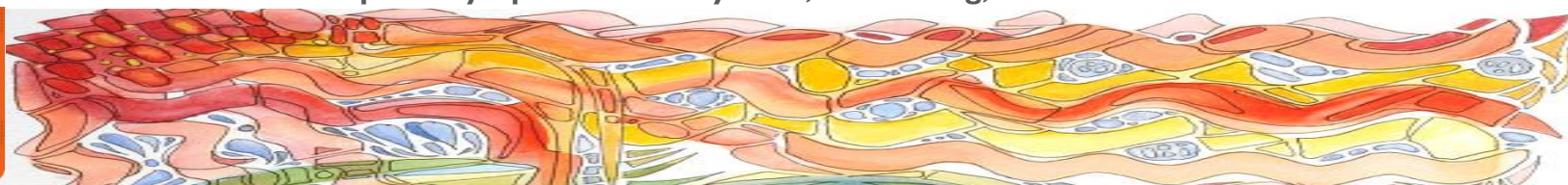


Pre-clinical development of antimicrobial peptides

International Workshop and Symposium 13 May 2022, Strasbourg, France



With financial support by the
ACADEMIC CONSORTIUM 21
www.ac21.org

to stimulate collaboration and
discussions between its members

University of
Stellenbosch,
South Africa



University of
Minnesota, USA



University of
Freiburg,
Germany



University of
Strasbourg,
France



The workshop will take place at the
European Doctoral College
46 Boulevard de la Victoire
(tram stop Observatoire)
www.cde.unistra.fr

AMPs – OUR LAST RESORT ANTIBIOTIC GROUP

In view of a worldwide re-emergence of infectious diseases and a rapid increase in pathogens that are multi-resistant to commercially available antibiotics new strategies to fight such infections have to be developed. Novel agents with completely novel mechanisms of action are desirable where natural compounds such as antimicrobial peptides are effector molecules of innate immunity and provide a first line of defence against a multitude of pathogenic microorganisms. Notably, when compared to antibiotics which interact with specific cellular proteins, bacteria are less likely to develop resistance to antimicrobial peptides interfering with the barrier function of the lipid bilayer of the cell membrane.

Therefore, naturally occurring antimicrobial peptides have been studied to develop new concepts for new pharmaceutical compounds with increased efficiency and these have also been used to bio-functionalise the surfaces of medical devices, implants and other biomaterials. In lipid membranes, antimicrobial peptides form nanopores and channels, or they disrupt the membrane assembly in a different manner. Furthermore, they are capable of self-assembling into various supramolecular nanostructures, that have a number of potentially significant applications from serving as templates for building nanoscale structures, antimicrobial materials with slow release activity, porous materials that can be designed as filters/purification devices, or as part of implants with build-in antimicrobial activity.

Research projects on antimicrobial peptides and/or in materials sciences are already strong in the four universities. By bringing together various aspects of this research ranging from biology, polymer chemistry to molecular modelling the workshop aims at stimulating new ideas, innovative concepts and to establish ongoing and new collaborations.

PROGRAMME

The programme will be established predominantly from contributions from the four member universities and published on <http://www-chimie.unistra.fr/~rmnmc/>

DEADLINE 15 APRIL 2022

For oral presentations and posters please send your title and abstract (<250 words) to bechinge@unistra.fr (mention as subject: AC21 workshop)

TRAVEL GRANTS

Several AC21 funded travel grants for overseas participants from AC21 institutions are available, preferentially to young scientists. Awardees will be selected from the submissions.

REGISTRATION

Participation is free of charge but requires registration through the following web site: <https://site.corsizio.com/c/6230c9d487d01c82f0bde6a8>

SCIENTIFIC COMMITTEE

Prof. Marina Rautenbach, Stellenbosch
Prof. Sven-Ulrik Gorr, Minneapolis
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Prof. Burkhard Bechinger, Strasbourg