

Editorial

# Introduction to the 1st *Molecules* Medicinal Chemistry Symposium (MMCS), Barcelona, 8 September 2017 <sup>†</sup>

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The Medicinal Chemistry section of the MDPI journal *Molecules* organized, for the first time, the *Molecules* Medicinal Chemistry Symposium (MMCS). The 1st MMCS was held in Barcelona (Spain), at the Faculty of Pharmacy and Food Sciences of the University of Barcelona, on 8 September 2017.

In its first edition, the MMCS was planned as a conference limited in time, to one day, in the audience, to about 50 attendees, and focused on a specific hot topic such as anti-infective drug discovery. Eventually, more than 70 attendees of 18 countries participated at the 1st MMCS, mostly from academia but also from pharmaceutical industry and product development partnerships.

Under the title *Emerging Drug Discovery Approaches against Infectious Diseases*, the 1st MMCS was conceived as a monographic conference that sought to gather together experts in the field of medicinal chemistry of anti-infective agents, with the aim of providing a forum for discussion on novel drug structural classes, therapeutic approaches, biological targets, and resistance mechanisms, which could pave the way for the development of optimized therapies against bacterial, protozoan, viral, and fungal infections.

The 1st MMCS was organized in five **plenary lectures** by worldwide recognized researchers in this field:

- *Cell-based medicinal chemistry optimization of high-throughput screening hits towards orally active antimalarial and antituberculosis agents*, by Kelly CHIBALE, Department of Chemistry, University of Cape Town, Cape Town, South Africa.
- *Sustainable multi-target drugs for neglected tropical diseases caused by trypanosomatids: dream or reality?* by Maria Laura BOLOGNESI, Department of Pharmacy and Biotechnology, Alma Mater Studiorum—University of Bologna, Bologna, Italy.
- *Current pipeline of antimalarial therapies*, by Benoît LALEU, Medicines for Malaria Venture (MMV), Department ICC, University of Geneva, Geneva, Switzerland.
- *Highly sensitive bioluminescence imaging models for Chagas disease drug discovery*, by John M. KELLY, London School of Hygiene and Tropical Medicine, London, UK.
- *Antibiotic translocation and membrane barrier: New insights to combat bacterial resistance*, by Jean-Marie PAGÈS, UMR-MD1, TMCD2, Aix-Marseille University, IRBA, Marseille, France.

Ten submissions were selected to be presented as **oral communications**:

- *Multicomponent reactions with heterocycles: A source of novel scaffolds for antiparasitic and antiviral agents*, by Rodolfo Lavilla, University of Barcelona, Spain.

- *Structure guided design of Xanthomonas oryzae pv. oryzae topoisomerase I inhibitors*, by Lakindu Samaranayake, University of Colombo, Sri Lanka.
- *Design of potential antimalarial agents based on a homology model of Plasmodium falciparum glucose-6-phosphate dehydrogenase*, by Caterina Pont, University of Barcelona, Spain.
- *Structure-activity relationship of Arg10-teixobactin: A recently discovered antimicrobial peptide*, by Fernando Albericio, University of KwaZulu-Natal, South Africa, and University of Barcelona, Spain.
- *Diversity-oriented synthesis and chemical genetics of peptidomimetics to address lead discovery of anti-infective agents*, by Andrea Trabocchi, University of Florence, Italy.
- *The search for new antimicrobial agents, by site-selective peptide modification*, by Alicia Boto, CSIC Institute of Natural Products and Agrobiology, Spain.
- *Design and synthesis of cysteine protease inhibitors*, by Florenci González Adelantado, University Jaume I, Spain.
- *Lipid-oligonucleotide conjugates forming G-quadruplex (lipoquads) as potent inhibitors of HIV entry*, by Ramon Eritja, IQAC-CSIC, Spain.
- *Nitrosyl [2Fe-2S] ferredoxin mimetics as new nitric oxide donating antibacterial agents*, by Nataliya Sanina, Russian Academy of Sciences, Russia.
- *Cultivated and natural plant flora with antibacterial action collected from Palestine*, by Hazem D. Sawalha, Arab American University, Palestine.

The scientific program was completed with 34 posters, which were presented and displayed during the entire duration of the conference.

During the closing ceremony, two presentations were nominated for the Awards to the Best Oral Presentation and to the Best Poster. The former was granted to Alicia Boto, for her presentation *The search for new antimicrobial agents, by site-selective peptide modification*, and the latter was granted to Francesc Rabanal (University of Barcelona, *Design, synthesis and activity of new polymyxins*).

In light of the excellent atmosphere at the 1st MMCS and the outstanding level of all the scientific sessions, the second edition has been planned for 2019. More details will be disclosed soon!!!

We thank all the attendees for their precious contribution to the scientific success of this conference, the Sponsors, and all the people involved in the organization of the conference, especially the MDPI staff of the Barcelona office.

**Conflicts of Interest:** The authors declare no conflict of interest.



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