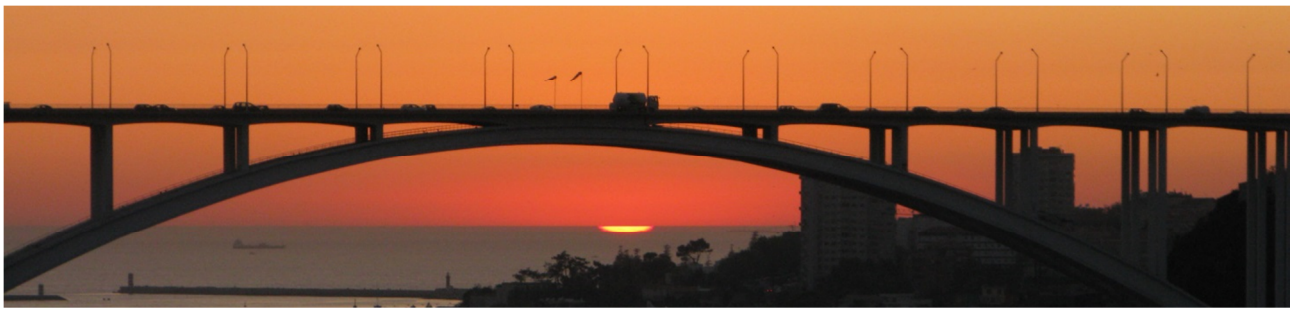
Joint Annual Meeting 2017

BOOK OF THE ABSTRACTS

EpiChemBio (CM1406) and MuTaLig COST (CA15135) actions joint annual meeting

A bridge between EpiChemBio and MuTaLig COST Actions



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22-24 September 2017

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Short communication common topics 2

Cross metathesis for the synthesis of HDAC inhibitors. Potential in multitarget drug design.

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Histone deacetylases[1] represent a family of eleven zinc-dependant enzymes. Their over expression has been correlated to several human diseases, in particular cancers. The search for compounds able to selectively inhibit one of these HDAC is of high importance to obtain less side effect during treatment as well as avoiding of target effects. In this work we have designed a series of inhibitors using an asymmetric cross metathesis approach. We present[2,3] the synthesis, some molecular modelling and the biological activities of the prepared compounds.

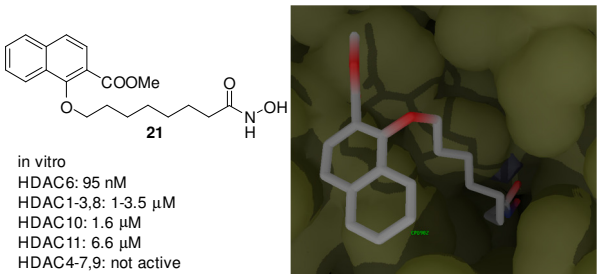

Figure 1: Identified selective HDAC6 inhibitor

References

1. Bertrand, P. *Eur. J. Med. Chem.* **2010**, *45*, 2095 – 2116. Roche, J. Bertrand P. *European Journal of Medicinal Chemistry* **2016**, *121*, 451-483.
2. Zwick V. et al. *Bioorg. Med. Chem. Lett.* **2016**, *26*, 154-9.
3. Zwick V. et al. *Bioorg. Med. Chem. Lett.* **2016**, *26*, 4955-9.