

## **MEETING ABSTRACTS**

## TOWARD AN INNOVATIVE TREATMENT OF ALZHEIMER'S DISEASE: DESIGN OF MULTI-TARGET DIRECTED LIGANDS (MTDLs) TARGETING ACETYLCHOLINESTERASE (AChE) AND alpha-7 NICOTINIC RECEPTORS (alpha-7 nAChRs)



Mégane Pons<sup>1</sup>, Buron Frédéric<sup>2</sup>, Ludovic Jean<sup>1</sup>, Sylvie Chalon<sup>3</sup>, Sylvain Routier<sup>2</sup>, Pierre-Yves Renard<sup>1</sup>

- <sup>1</sup> Laboratoire COBRA, UMR 6014, Université de Rouen-Normandie, Rue Lucien Tesnière, F-76130 Mont-Saint-Aignan
- <sup>2</sup> ICOA, UMR 7311, Université d'Orléans, F-45067 Orleans
- <sup>3</sup> UMR Inserm U930, Université François Rabelais de Tours, CHRU de Tours, F-37044 Tours Cedex 9, France

E-mail: megane.pons@etu.univ-rouen.fr

Alzheimer's disease (AD) is a complex and progressive neurodegenerative disorder. The available therapy is limited to the symptomatic treatment and its efficacy remains unsatisfactory [1]. In view of the prevalence and expected increase in the incidence of AD, the development of an effective therapy is crucial for public health. Due to the multifactorial etiology of this disease, the multi-target-directed ligand (MTDL) approach is a promising method in search for new drugs for AD. Aiming at developing new MTDLs, this project consists on the development of new multifunctional agents, which will act simultaneously on the different players in AD pathology. The project aims at developing MTDLs by combining an AChE inhibitory activity with an alpha-7 nAChR activation [2].

Keywords: Alzheimer's disease; MTDLs; AChE; nAChR

## References

- 1. http://www.alz.co.uk/research/world-report-2012
- 2. S. Routier et al, 2012, WO2012143526A1