



# The Mathematical Theory of Integrative Physiology: Application to hippocampus for drug discovery

Submitted by Emmanuel Lemoine on Thu, 01/30/2014 - 14:51

Titre	The Mathematical Theory of Integrative Physiology: Application to hippocampus for drug discovery
Type de publication	Communication
Type	Communication avec actes dans un congrès
Année	2010
Langue	Anglais
Date du colloque	2010
Titre du colloque	IEEE Fifth International Conference on Bio-Inspired Computing: Theories and Applications, BIC-TA 2010
Titre des actes ou de la revue	IEEE Fifth International Conference on Bio-Inspired Computing: Theories and Applications, BIC-TA 2010
Pagination	1406 - 1416
Auteur	Bennani, Omar [1], Chauvet, Pierre [2], Dupont, Jean-Marc [3]
Pays	Royaume-Uni
Ville	Liverpool
Mots-clés	CA1 circuit [4], Computing system [5], drug discovery [6], hippocampus [7], integrative physiology [8], mathematical analysis [9], mathematical theory [10], Mathematical Theory of Integrative Physiology [11], MTIP [12], pharmaceutical industry [13], physiological models [14]
Résumé en anglais	The modeling and the simulation of biological structure needs a united formalism for all parts of a living system. For this purpose the MTIP (Mathematical Theory of Integrative Physiology) has been developed, by Pr Gilbert Chauvet, to offer an integrated description of a living system. In this paper we will present mainly the passage from a mathematical view of a living subsystem (CA1 circuit of the hippocampus) to its computational implementation and the development of the simulator that goes with it in the aim to use and validate the MTIP.
Notes	Date du colloque : 09/2010
URL de la notice	<a href="http://okina.univ-angers.fr/publications/ua1558">http://okina.univ-angers.fr/publications/ua1558</a> [15]
DOI	10.1109/BICTA.2010.5645287 [16]
Lien vers le document en ligne	<a href="http://dx.doi.org/10.1109/BICTA.2010.5645287">http://dx.doi.org/10.1109/BICTA.2010.5645287</a> [16]

## Liens

- [1] [http://okina.univ-angers.fr/publications?f\[author\]=1895](http://okina.univ-angers.fr/publications?f[author]=1895)
- [2] <http://okina.univ-angers.fr/pierre.chauvet/publications>
- [3] [http://okina.univ-angers.fr/publications?f\[author\]=1898](http://okina.univ-angers.fr/publications?f[author]=1898)
- [4] [http://okina.univ-angers.fr/publications?f\[keyword\]=6488](http://okina.univ-angers.fr/publications?f[keyword]=6488)

- [5] [http://okina.univ-angers.fr/publications?f\[keyword\]=5795](http://okina.univ-angers.fr/publications?f[keyword]=5795)
- [6] [http://okina.univ-angers.fr/publications?f\[keyword\]=6490](http://okina.univ-angers.fr/publications?f[keyword]=6490)
- [7] [http://okina.univ-angers.fr/publications?f\[keyword\]=3201](http://okina.univ-angers.fr/publications?f[keyword]=3201)
- [8] [http://okina.univ-angers.fr/publications?f\[keyword\]=6491](http://okina.univ-angers.fr/publications?f[keyword]=6491)
- [9] [http://okina.univ-angers.fr/publications?f\[keyword\]=6493](http://okina.univ-angers.fr/publications?f[keyword]=6493)
- [10] [http://okina.univ-angers.fr/publications?f\[keyword\]=6492](http://okina.univ-angers.fr/publications?f[keyword]=6492)
- [11] [http://okina.univ-angers.fr/publications?f\[keyword\]=6489](http://okina.univ-angers.fr/publications?f[keyword]=6489)
- [12] [http://okina.univ-angers.fr/publications?f\[keyword\]=3204](http://okina.univ-angers.fr/publications?f[keyword]=3204)
- [13] [http://okina.univ-angers.fr/publications?f\[keyword\]=6494](http://okina.univ-angers.fr/publications?f[keyword]=6494)
- [14] [http://okina.univ-angers.fr/publications?f\[keyword\]=5922](http://okina.univ-angers.fr/publications?f[keyword]=5922)
- [15] <http://okina.univ-angers.fr/publications/ua1558>
- [16] <http://dx.doi.org/10.1109/BICTA.2010.5645287>

Publié sur *Okina* (<http://okina.univ-angers.fr>)