



# The Neuroscience Letter

## New grants

A research grant on "Mechanisms of action associated with the effects of antenatal alcoholization on the PIGF and glutamatergic systems at the cerebrovascular level: study on the **ireb** mouse and human" has been bestowed by the Institut de Recherche Scientifique sur les Boissons (IREB) to the Laboratory "Microvascular Endothelium and Neonatal Brain damages" (EA 4309). The work will be carried out under the direction of Dr **Bruno GONZALEZ** (total amount awarded € 7,000).

## Mobility



Within the framework of the TC2N project, Mr **Ismael DAHER** and **Karim ATMANI**, Master students at the University of Rouen, will perform a 4 month training stay at the University of Portsmouth in the teams "Genetics of Brain Development" and "Metabolism and Obesity".

## Scientific meetings



Within the framework of the seminars of Inserm Unit 982, Dr **Fabrice BILLET** (Faculty of Pharmacy at the University of Limoges) will present on April 19<sup>th</sup>, 2012, at 1:00 PM, in the meeting room of PRIMACEN at the Faculty of Science and Technology, in Mont-Saint-Aignan (Rouen, France), a seminar entitled "Study of mechanisms of repair of the nerve tissue". Contact: Dr **Maité MONTERO** ([maite.montero@univ-rouen.fr](mailto:maite.montero@univ-rouen.fr)).

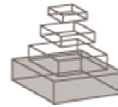


On the occasion of the Summer School on «Experimental models of cerebral diseases» organized in Caen, three lectures will be given on Friday, April 6<sup>th</sup>, 2012 from 9:00 AM to 12:30 PM, room Horowitz at the Cyceron center. The invited speakers are Dr **Marlène WIART** (CREATIS, UMR 5220 CNRS, Inserm U 1044, Lyon) «MRI in assessment of therapeutic strategies in stroke», Pr **Samuel VAL-ABLE** (CERVOxy, UMR 6301 CNRS, Caen) «Multimodal imaging of brain tumors : from clinic to animal models» and Pr **Catherine LUBETZKI** (CRICM-UPMC / Inserm UMR S 975 / CNRS UMR 7225, Paris) «Myelin repair in multiple sclerosis». Contacts: **Carine ALI** ([ali@cyceron.fr](mailto:ali@cyceron.fr)) and **Omar TOUZANI** ([touzani@cyceron.fr](mailto:touzani@cyceron.fr)).



Pr **Darek GORECKI** was invited to present a research seminar at the Institute of Genetic Medicine at the University of Newcastle and a lecture to the pupils of the Middle school Cowes Enterprise, Isle of Wight (Great Britain).

## Scientific edition



Dr **Hubert VAUDRY** (Rouen) and Dr **Jae Young SEONG** (Seoul) will edit a Research Topic of Frontiers in Neuroendocrine Science entitled "Neuropeptide GPCRs in Neuroendocrinology" which will gather a hundred articles written by world leaders of neuropeptides and their receptors.

## Recrutement



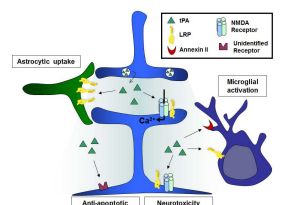
Mr **Damien CHAPMAN** has been recruited as Engineer at the PRIMACEN Platform within the framework of the TC2N project. His work will consist in developing metrology tests, in training researchers from other sites who wish to use the equipments of PRIMACEN, and to set up two new systems of microscopy that PRIMACEN will acquire in the next few months.



Dr **Emilie CARON** has been recruited as Engineer in the Metabolic Platform of Lille within the framework of the TC2N project. She will have in charge the management of this Platform, will develop protocols for metabolic analyses, and will be the privileged interlocutor for the members of the TC2N network to optimize their experimental protocols related to the energy metabolism analysis.

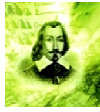
Dr **Chun-Fu LIEN** and Dr **Christopher YOUNG** have been recruited as TC2N staff. Dr **LIEN** will be involved in hypoxia-ischemia studies with particular emphasis on the analyses of the dystrophin-associated protein complex. Dr **YOUNG** will analyze the role played by specific purinergic (ATP) receptors in the pathogenesis of muscular dystrophy. Both projects have strong collaborative links with laboratories in Rouen and new TC2N collaborations are being established.

Dr **Oscar MARCOS** has been recruited on a post-doctoral contract within Inserm U 919 located in the Cyceron center (Caen). In the laboratory "Serine Protease and Pathophysiology of the Neurovascular Unit" managed by Pr **Denis VIVIEN**, he will study the



effects of the tPA on the cerebral parenchyme (Vivien *et al.*, *J. Cereb. Blood Flow and Metab.*, 2011 for revue).

## Nominations



The Invited Professor mandate of Dr **David VAUDRY** in the Centre INRS - Institut Armand-Frappier was renewed for 2 year duration starting from June 1<sup>st</sup>, 2012. This nomination will allow to strengthen the exchanges between the team of Dr **David VAUDRY** (Inserm U982, Rouen) and the team of Pr **Alain FOURNIER** (Laboratory of Molecular and Pharmacological Studies of Peptides, Montreal).

## 16<sup>th</sup> Annual meeting of the LARC-Neuroscience network



During the LARC-Neuroscience meeting that will take place on November 9<sup>th</sup>, 2012, in Portsmouth, Pr **Graham COLLINGRIDGE** (Director of the Center MRC for Synaptic Plasticity and former President of the British Society of Neurosciences) will give a lecture entitled "*Synaptic plasticity in the hippocampus*" and Pr **Peter SOMOGYI** (Director of the Anatomical Neuropharmacology Unit at the University of Oxford) will give a lecture entitled "*Space and time in cooperating neuronal circuits of the hippocampus*".

## Information about the Core Facility of Behavioral Analysis



The Core Facility of Behavioral Analysis (SCAC) of the Institute for Biomedical Research and Innovation (IRIB), located at the Faculty of Medicine and Pharmacy of Rouen, has acquired the following new equipment:

- **Skinner box for mouse effective conditioning, with an option of auto-administration (8 devices):** to study dependences to drugs and their sedative effects, action of pharmacological agents, capacity of memorization, response to novelty, mechanism of habituation, exploration, mental retardation, response times, attention, etc.. The principle of this device is based on learning by trials and errors: the animal learns how to make a link between his behavior and an environmental event. It generates an association between the stimulations, the behavior of the animal and the effect, favorable or unfavorable for him, induced by his behavior on the physical or social environment.
- **Device of fear conditioning with an option for Startle reflex (4 devices for rat or mouse):** for the studies, on mouse or rat, of conditioning, acquisition, memory,

retention, fear conditioning, sensori-motor deficits (PPI, Pre-Pulse Inhibition), reactivity (Acoustic Startle Response). The principle of this test is based on the capacity of the animals to establish an associations between diverse elements of their environment and the arisen of significant events diverse elements of their environment and the appearance of significant events.

These equipments come in addition to approximately thirty already available behavioral tests within the SCAC, which is a core facility of behavioral and functional exploration that allows to study eating disorders, developmental deficits, depression, anxiety, nutrition, learning, memory, pain, motricity, drug dependency, neurodegenerative disorders, neurotoxicity, etc.... The SCAC is specialized in the analysis of animal models, essentially rodents, mimicking emotional and motor pathologies affecting human. For further information concerning the available equipment within the SCAC and their use, please contact Dr **Jean-Claude DO REGO**: [jean-claude.dorego@univ-rouen.fr](mailto:jean-claude.dorego@univ-rouen.fr); 33 (0)2 35148215.

## Publications

Pr **Darek GORECKI** recently contributed to two publications where some research aspects were supported by TC2N: **Lien, C-F, Molnar E, Toman P, Tsibouklis J, Pilkington G, Górecki DC, Barbu E.** *In vitro* assessment of alkylglyceryl-functionalized chitosan nanoparticles as permeating vectors for the blood-brain barrier. *Biomacromolecules* (in press). PMID: 22409486.

**Redhead M, Mantovani G, Nawaz S, Carbone P, Górecki DC, Alexander C, Bosquillon C.** Relationship between the affinity of PEO-PPO-PEO block copolymers for biological membranes and their cellular effects. *Pharmaceutical Research* (in press). PMID: 22392332.

## Brain Awareness Week

About one hundred people attended the lay-public lectures that were given in the auditorium h2o in Rouen, on Saturday, March 17, 2012, as part of the Brain awareness Week program. Some of these lectures can now be found on the website of Science Action at: [www.scienceaction.asso.fr/Videos](http://www.scienceaction.asso.fr/Videos). The next Brain Awareness Week will be held from March 11 to 17, 2013.

## TC2N project

The next steering committee of the TC2N project will take place at the Cycleron center in Caen on Thursday, April 5, 2012 from 15:30. Contact : Dr **David VAUDRY**

Find us on:

<http://larc-neurosciences.org>



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