Màj 16/04/2020

UE 2.2. Current concepts in Neurosciences 12 ECTS

Parcours *Cellular, Integrative and Translational Neurosciences*

ST6: Metabolism & reproduction: from development to ageing of neuronal networks

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The survival of the species depends on a fine and coordinated regulation of energy metabolism and reproductive function, involving a constant dialogue between the central nervous system and the periphery. This thematic seminar addresses the physiopathology of the neuronal circuits controlling these two physiological functions, from their development to their ageing.

Duration: 2 days
Each day includes lectures and/or conferences by experts in the field and article analysis where students participate in the form of an article presentation and by leading the scientific discussion. The thematic seminar will be closed by a general discussion with the students (what "take-home message"? what research project could you propose to go further?).

Program
Day 1
- **Morning : courses**
  1. Hormonal programming of neuronal circuits (**Vincent Prévot**, U1172)
  2. Guidance molecules, formation and plasticity of neuronal networks (**Paolo Giacobini**, U1172)
  3. Blood-brain dialogue: interface regulation (**Bénédicte Dehouck**, U1172)
- **Afternoon : analysis of articles by students :**

Each student will choose one article to present (alone or in pairs) and one article to discuss from the proposed list (contact ariane.sharif@inserm.fr).

Day 2
- **Morning : courses**
  1. Glio-endothelio-neuronal interactions and control of reproduction and metabolism (**Ariane Sharif**, U1172).
  2. Ageing & metabolism (**Ruben Nogueiras**, Santiago de Compostela, Spain)
  3. Neuroinflammation & metabolism (**Markus Schwaninger**, Lübeck, Germany)
- **Afternoon : analysis of articles by students & general discussion**

Other topics potentially addressed (depending on speaker availability):
- Neuroinflammation & development
- Circumventricular organs & neuroinflammation
- Microglia, vascular development & neuroinflammation
- Fronto-temporal dementia & metabolism
- GnRH, ageing and Down syndrome