

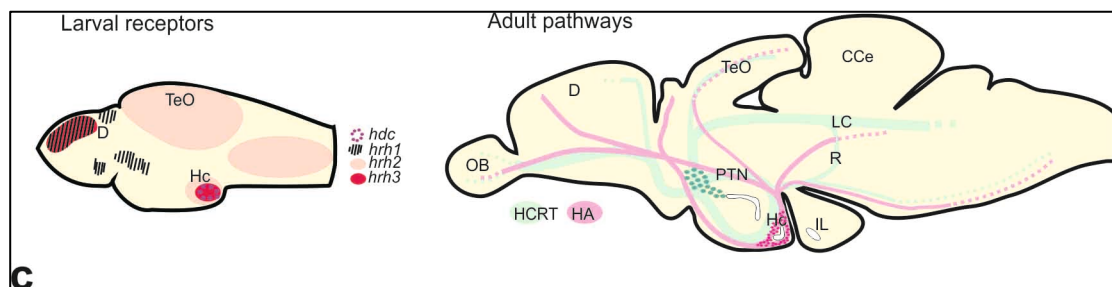
Monday, December 2nd, 2019 – 12h15
Department of Physiology, Bugnon 7, 1005 Lausanne
Seminar room, 6th floor

Regulation of histamine and hypocretin systems in developing brain

Prof. Pertti Panula MD, PhD

Department of Anatomy
University of Helsinki
Helsinki, FI

Host : Prof. Mehdi Tafti



Two hypothalamic systems, the histaminergic and hypocretin neurons, are parts of the wake-promoting network. Hypocretin activates strongly the histaminergic neurons, whereas the effects of hypocretin neurons on histaminergic system are not well known. In narcoleptic humans, the hypocretin neurons degenerate, whereas the number of histamine-synthesizing neurons increases. The significance and mechanism of this increase are not known.

The seminar will describe regulation of the number of histamine neurons, and how dopamine regulates the number of both histamine and hypocretin neurons in zebrafish. Zebrafish has very similar histamine and hypocretin systems as mammals. The newly described cerebral dopamine neurotrophic factor regulates both the dopaminergic system and the wake-promoting systems. Potential mechanisms of these interactions are discussed.