

## **Publications de l'Institut Necker (depuis 1999)**

**2006**

**FODOR M., KORDON C., EPELBAUM J.**

Anatomy of the Hypophysiotropic Somatostatinergic and Growth Hormone-releasing Hormone System Minireview.

*Neurochem. Res.*, 31 (2), 137-143, 2006

(Services cités : Institut Necker)

The central control of growth hormone (GH) secretion from the pituitary gland is ultimately achieved by the interaction between two hypothalamic neurohormones, somatostatin which inhibits and growth hormone-releasing hormone (GHRH) which stimulates GH release. The regulation of the somatostatin and GHRH release from the hypothalamus is regulated by a range of other neuropeptides, neurotransmitters, neurohormones. In this mini review we attempt to provide a short summary covering the anatomy and chemical characteristics of the various cell populations regulating GH secretion as a tribute to Miklos Palkovits who pioneered the field of functional neuroanatomy of hypothalamic networks.

**KORDON C.**

A tribute to miklos palkovits.

*Neurochem. Res.*, 31 (2), 121, 2006

(Services cités : Institut Necker)

**2005**

**KORDON C., ZIZZARI P., BLUET-PAJOT M.T.**

A century of GH research revisited: from linear models to network complexity.

*J. Endocrinol. Invest.*, 28 (5 Suppl.), 2-9, 2005

(Services cités : Institut Necker)

The history of GH started with the pioneer clinical and anatomical observations of Pierre Marie, who described the symptoms of acromegaly in 1886. Progressively, histochemical and histophysiological methods made it possible to characterize most cell types responsible for normal or pathological pituitary hormone secretion. Although the methods applied were indirect, and hormonal function assigned to each cell type could only be inferred from correlations, the quality of the corresponding studies was such that most of their results proved correct. In the second half of the XXth century, biochemical methods and bioassays led, between 1943 and 1956, to the production from pituitary extracts of highly purified fractions containing somatotropin activity. The subsequent demonstration that hypothalamo-hypophyseal interactions are of a neurohumoral nature permitted isolation of neuropeptides, a new class of neurotransmitters, many of which turned into major therapeutic agents. Subsequent purification of hundreds of neuropeptides, many with hypophysiotropic activity, and mapping of neurons producing them permitted to shift from relatively simple theories, postulating that stimulatory and inhibitory peptides are sufficient to account for the physiological control of pituitary secretion to more complex models. These permitted to understand how complex neuronal networks can produce a fine tuning of multiple combinations of neuropeptides and neurotransmitters, which interact with each other to adapt hormonal secretion to discrete physiological and pathological

conditions.

**2004**

**BAUDOIN L., HAEFFNER-CAVAILLON N., PINHAS N., MOUCHET S., KORDON C.**

Bibliometric indicators : realities, myth and prospective.

*M S-Méd. Sci.*, 20 (10), 909-915, 2004

(Services cités : Institut Necker)

The impact factor of scientific reviews, calculated by the Institute for Scientific Information (ISI), is increasingly used to evaluate the performance of scientists and programmes. Bibliometric indicators, originally designed for other purposes than individual evaluation, are very useful tools provided their interpretation is not extrapolated beyond their limits of validity. Here we present a critical analysis of appropriate uses and misuses of bibliometric data based on case studies. We also outline anticipated consequences of new information technologies, such as electronic journals or open access schemes, on the mode of science production, evaluation and dissemination in biomedical sciences.

**DE MOTA N., REAUX-LE GOAZIGO A., EL MESSARI S., CHARTREL N., ROESCH D., DUJARDIN C., KORDON C., VAUDRY H., MOOS F., LLORENS-CORTES C.**

Apelin, a potent diuretic neuropeptide counteracting vasopressin actions through inhibition of vasopressin neuron activity and vasopressin release.

*Proc. Nat. Acad. Sci. USA*, 101 (28), 10464-10469, 2004

(Services cités : Institut Necker)

Apelin, a recently isolated neuropeptide that is expressed in the supraoptic and the paraventricular nuclei, acts on specific receptors located on vasopressinergic neurons. The increased phasic pattern of these neurons facilitates sustained antidiuresis during dehydration or lactation. Here, we investigated whether apelin interacts with arginine vasopressin (AVP) to maintain body fluid homeostasis. We first characterized the predominant molecular forms of endogenous hypothalamic and plasma apelin as corresponding to apelin 13 and, to a lesser extent, to apelin 17. We then demonstrated that, in lactating rats, apelin was colocalized with AVP in supraoptic nucleus magnocellular neurons and given intracerebroventricularly inhibited the phasic electrical activity of AVP neurons. In lactating mice, intracerebroventricular administration of apelin 17 reduced plasma AVP levels and increased diuresis. Moreover, water deprivation, which increases systemic AVP release and causes depletion of hypothalamic AVP stores, decreased plasma apelin concentrations and induced hypothalamic accumulation of the peptide, indicating that AVP and apelin are conversely regulated to facilitate systemic AVP release and suppress diuresis. Opposite effects of AVP and apelin are likely to occur at the hypothalamic level through autocrine modulation of the phasic electrical activity of AVP neurons. Altogether, these data demonstrate that apelin acts as a potent diuretic neuropeptide counteracting AVP actions through inhibition of AVP neuron activity and AVP release. The coexistence of apelin and AVP in magnocellular neurons, their opposite biological effects, and regulation are likely to play a key role for maintaining body fluid homeostasis.

**2002**

**EVEN P., DEBRE B.**

in: *Avertissement aux malades, aux médecins et aux élus*. (Even P & Debré B. eds.)

Le Cherche-Midi (Paris), 2002, pp.1-448.

(Services cités : Institut Necker)

Notre système de santé, jugé l'un des premiers au monde, recueille l'adhésion des Français. L'implosion les menace pourtant : les mouvements récents d'infirmières et de médecins en sont révélateurs. L'ouvrage raconte malades, médecins et infirmières, pointe les dysfonctionnements et les gisements d'économie et montre que tout peut être sauvé. Un Etat garant et non gérant, davantage de place pour les acteurs de santé, pour une médecine plus proche des patients, telles sont les propositions de ce livre : un ministère de la Santé fort ; des Caisses d'assurance maladie - séparées des caisses de retraite et d'allocations familiales - élargies aux professionnels de santé et gérées à l'échelon régional ; des hôpitaux publics responsables et autonomes (participation des soignants à leur direction) financés sur les mêmes bases que les hôpitaux privés, en fonction des pathologies. Il faudra réviser la carte hospitalière ("trop d'hôpitaux, pas assez de soignants"). Il faudra fermer, fusionner ou reconvertir, alléger les administrations tentaculaires ; accentuer l'effort de prévention ; établir un dialogue confiant avec l'industrie pharmaceutique ; défendre une médecine clinique sobre et à l'échelle humaine ; mieux former médecins et professionnels de santé, apprendre à mieux, donc à moins prescrire, promouvoir la recherche, source des progrès futurs.

**2001**

**EVEN P.**

in: *Les Scandales des hôpitaux Paris et de l'hôpital Pitié-Salpêtrière*. (Even P. eds.)

Le Cherche Midi (Documents) (Paris), 2001, pp.1-249.

(Services cités : Institut Necker)

**HALE P.**

Mission now possible for aids fund - adequate support by the G8 countries is needed to defeat this global killer.

*Nature*, 412 (6844), 271-272, 2001

(Services cités : Institut Necker)

**HALE P., MAKGOBA M.W., MERSON M.H., QUINN T.C., RICHMAN D.D., VELLA S., WABWIRE MANGEN F., WAIN HOBSON S., WEISS R.A.**

Success hinges on support for treatment.

*Nature*, 412 (6844), 272, 2001

(Services cités : Institut Necker)

**2000**

**MEYER P.**

in: *Philosophie de la médecine*. (Meyer P. eds.)

Grasset (Collège Philosophie) (Paris), 2000, pp..

(Services cités : Institut Necker)