

The first international School of Neuroendocrinology took place in Seillac near Tours on the Loire river in France September 22-25, 2007. It was a collaborative project between the Polish Society for Neuroendocrinology and the Société de Neuroendocrinologie, and supported, in part, by the International Neuroendocrine Federation (INF). The School was extraordinarily well organized by the local chair, Yves Tillet.

It was an appropriate time to organize such a School since in recent years important breakthroughs in neuroendocrinology have occurred in parallel with new discoveries in neuroscience. For example, new animal models to study feeding behaviour and the relationship of neuropeptides to obesity have been developed, novel concepts in neural transmission have emerged and the use of contemporary imaging techniques to study neuroendocrine systems has increased. Neuroendocrinologists, like other biologists, are also facing ethical problems in their research, which are now beginning to have an impact on the review process for EU project applications and this important aspect of contemporary biology was covered for the first time during the School.

The program included two round tables, nine lectures and a visit to the INRA Research Center of Nouzilly, a Center internationally recognized for its studies of reproductive neuroendocrinology. The topics were selected to highlight new aspects of research considered to be particularly important to the future development of the field of Neuroendocrinology. Twentynine students coming from 13 different countries (Canada, France, Italy, Japan, Lebanon, Netherlands, Poland, Russia, Sweden, Switzerland, Tunisia, UK and USA,) were able to present their work during two poster sessions. A major aim of the School was to facilitate exchanges between young neuroscientists interested in neuroendocrinology, foster discussion around teaching courses presented by eminent neuroscientists, and encourage possible future collaborations.

The first round table conducted by Ian Clarke (Clayton, Australia) and Stanislaw Oksana (Olsztyn, Poland) focused on the use of large domestic animals such as the sheep and pig as particularly powerful models to study reproductive and feeding behaviours. Miklos Palkovits (Budapest, Hungary) gave an overview of neuroanatomical techniques available to study neuroendocrine pathways in the brain. Vincent Prévot (Lille, France) presented a discussion of how to study the interactions between neurons and glia (astrocytes and tanycytes) in the median eminence in relation to the regulation of GnRH secretion.

The second day started with the novel concept of a round table to discuss the ethical problems that neuroendocrinologists are facing in their research. Practice and health issues, social consequences of research findings, deontology (ethics), vivisection, conflict of interest, and media relations were some of the interesting points covered by Hervé Chneiweiss (Paris, France) and Pierre Le Neindre (Nouzilly, France).

A clinical perspective of neuroendocrinology was nicely introduced by Jolanta Kunert-Radek (Lodz, Poland), who discussed the various approaches that are used to study pituitary adenoma.

In order to develop a “friendly atmosphere” between students and teachers, a trip to one of the most visited places in France, Amboise, was organized later on the second day. The weather was sunny which added to the experience of visiting the castle of François Ier and the last house of Leonardo Da Vinci at the Clos Lucé. After the visit, some took the opportunity to watch a World Cup rugby game in a bar of Amboise.

The third day generated extensive discussion between mentors and students on various aspects of neuroendocrinology. Iain Clarke, building on his earlier round table participation, presented stimulating data demonstrating how two important functions (reproduction and feeding) interact at the hypothalamic level to achieve the reciprocal regulation of these two physiological processes. Michael Meaney (Montreal, Canada) presented exciting data on how environmental signals can change genes involved in neuroendocrine function, and Gavin Kelsey (Babraham, UK) showed how imprinted genes are developmentally expressed, regulated and involved in neuroendocrine pathways. Gareth Leng (Edinburgh, UK) provided a provocative and compelling argument for dendritic release of oxytocin from magnocellular neurons as the main source of the circulating hormone. New sophisticated imaging technologies to study *in vivo* blood flow and cell-cell interactions in the pituitary gland were described by Patrice Mollard (Montpellier, France). Finally, George Fink (Melbourne, Australia) talked about the role of sex steroids in determining mood, mental state and behaviour.

At the kind invitation of the INRA Research Center of Nouzilly, on the last day of the School all participants visited Nouzilly where they toured in small groups various laboratories working on large domestic animals. The visit was illustrated by three successive technical exhibitions: (1) Measurement of GnRH neuronal activity by time-laps calcium imaging; (2) Stereotaxic implantation of cannulae in sheep hypothalamus; and (3) Chronic third ventricle cerebrospinal fluid sampling and intra-hypothalamic injections in conscious sheep.

The students completed a questionnaire, which revealed their enthusiasm for the School. The major criticism was that there was not enough time for students to present all their data and to ask all their questions. Some also would have liked to have a greater coverage of clinical aspects in Neuroendocrinology.

Exchange of addresses and photographs taken during the School will permit the students to keep in touch in their future career.

INF is anticipating it will support a second School of Neuroendocrinology, which is to be held in Japan (organizer; Professor Yoichi Ueta) in 2009, a year before the International Congress of Neuroendocrinology (ICN 2010) in Rouen, France, organized by Professor Hubert Vaudry.

William ROSTENE, Secretary of the INF