172ND MEETING
OF THE
SOCIETY FOR ENDOCRINOLOGY

27-29 November 1985

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Julia Polak was born in Buenos Aires, Argentina and received her medical training at the University of Buenos Aires. She was fortunate there to meet another bright young doctor, Daniel Catovsky, whom she married 18 months before qualifying. While at university she, needless to say, walked off with all the undergraduate prizes. Partly influenced by her uncle, the famous neuropathologist, she went immediately into pathology and in 1967 won the Benito de Udaondo Cardiology prize for establishing new ways of visualising common arteries.

To extend her training she obtained a fellowship in 1968 to visit the Department of Professor A G Everson Pearse at the Royal Postgraduate Medical School, then, and perhaps still, the only department specialising in pure histochemistry. These were exciting times at the Hammersmith as Tony Pearse was developing and extending his concept of the similarity of regulating tissue throughout the body (Amine Precursor Uptake Decarboxylation, APUD, system). This concept was well ahead of its time and anticipated the later understanding of the unity of regulatory peptide control systems.

Julia Polak's tremendous energy and scientific insight was immediately recognised and in 1970 she was given the Staff appointment of Assistant Lecturer. At this time she and her husband, who was making equally important strides in the Leukaemia Unit at the Royal Postgraduate Medical School, began to entertain the idea of staying permanently in the UK.

By 1973 Julia had begun to form round her a small team of active scientists investigating the localisation and function of the regulatory peptide system. Numerous seminal publications attest to the activity of this period and still form the basis of the subject. Her work proceeded in two parallel directions; firstly the development of novel histochemical techniques, both at light and electron-microscopical level (in the tradition of Pearse whose text book "Histochemistry" had for years been the subject bible) and secondly the particular distribution and pathophysiology of each of the new elements of the rapidly expanding regulatory peptide system.

In 1984 she was appointed Professor of Endocrine Pathology. Her current team numbers some 40 people, including numerous visiting Fellows and very many seminal publications have resulted from her work. The current activity of the department includes pioneering exploration of the technique of hybridisation histochemistry for the localisation and assessment of messenger RNA, immune electron-microscopy to show at the ultrastructural level the tissues producing particular regulatory peptides and associated products, development of better techniques for visualisation at the light microscopical level, including gold and silver staining, and the painstaking and very valuable mapping of the peripheral nervous system utilising such techniques as retrograde tracing of dye markers introduced into the peripheral nerves themselves. The story is by no means complete as the Society for Endocrinology Medal Lecture well illustrates.
Étienne-Émile Baulieu was born in Strasbourg, France, in 1926, the son of a notable medical practitioner, Leon Blum, who had been the first in Europe to use insulin in the treatment of diabetes. Baulieu seemed destined to follow his father in a career in medicine; he was educated at Lycée Pasteur, and Faculté de Médecine and Faculté des Sciences, Paris. While attending the Faculté he became friendly with Max-Pernand Jayle, Professor of Biochemistry, forming a relationship which fuelled his ambition to follow the combined paths of biochemistry and clinical medicine. Of the research interests of Professor Jayle, he selected the study of sex hormones as being most rewarding to laboratory research, and thus embarked on his illustrious career in endocrinology. As a very young Associate Professor, he soon made his mark with the significant discovery of the prototype of "conjugated steroids", dehydroepiandrosterone sulphate. He was the first to note the conversion of this compound to oestrogens in pregnancy. On the strength of these observations, Baulieu was welcomed as a visiting scientist in the laboratory of Seymour Lieberman, in Columbia University. Whilst in the USA, he met Gregory Pincus, who convinced him of the importance of fertility control and of the development of contraceptive agents, and encouraged him to represent France on a WHO Commission to investigate the problems of population control.

Upon his return to France, Baulieu was determined to bring together endocrinology and the burgeoning field of molecular biology. At the Faculté de Médecine de Bicêtre in Paris, most notably in collaboration with Paul Robel and Edwin Milgrom, he contributed to outstanding advances in the detection and characterization of receptors for steroid hormones, being among the first to produce physicochemical studies on receptors for oestrogens, androgens and progesterone. He was made Professor of Biochemistry at Bicêtre in 1970.

Since that time the output of Baulieu and his renowned team of researchers has been prodigious, as evidenced by the fact that he has published more than 200 papers in scientific and medical journals and numbers among the 1000 most cited scientists. His work on steroid receptors has been pioneering and inspiring, yielding invaluable information and innovative concepts. Highlights include elucidation of regulatory mechanisms controlling concentration of receptors (the down-regulation of progesterone receptors by progesterone and their increase by oestrogens) and its proposal for clinical application - the "tamoxifen challenge test" in endometrial and breast cancers - in which an increase in progesterone receptors makes cells potentially more susceptible to anti-mitotic progesterone action; non-genomic actions of steroid hormones - investigations leading to the discovery of enzymatic activities and the localization of a new type of progesterone receptor in membranes of oocytes; the purification of hormone-binding receptor subunits and a hormone non-binding subunit which is common to receptors for all steroid hormones and which may have relevance to stress proteins; and the development of antibodies and immunohistochemical techniques for detection of receptor.

In addition, returning to earlier interests, Baulieu has shown the accumulation of DHA sulphate and other 3β-hydroxy-Δ5-steroids in the brain, where they are increased after stress independently of peripheral gland sources. Changes in steroid concentration relate to heterosexual exposure and aggressive behaviour. These exciting observations encourage the innovative concept of "neurosteroids".

His early interest in fertility control has culminated in the development and study of an anti-progesterone agent, RU 486, in collaboration with Roussel-Uclaf. An agent blocking progesterone action at receptor level had been sought for many years, and the devizing of this compound, dependent upon Baulieu's extensive characterization of the progesterone receptor, enlarges significantly the domain of anti-steroid hormone application and fertility control.

In a limited space, it is not possible to do full justice to the achievements of Étienne-Émile Baulieu and his colleagues, and publishing deadlines coupled with their endeavours ensure that such an attempt will always be out-of-date. However, his unique contribution to biomedical research has been recognized by many major accolades. Now Director of "Unité de Recherches 33", Institut National de la Santé et de la Recherche Médicale (INSERM), he has received, amongst others, the Reichstein Award of the International Society of Endocrinology (1972), the Roussel Prize (with EV Jensen) (1976) and the 1st European Lecture Award of the Society for Endocrinology (1985). He has been awarded the Chevalier de l'Ordre du Mérite (1967) and de la Légion d'Honneur (1976) and Officer de la Légion d'Honneur (1982) for scientific merits. He was elected to the French Academy of Sciences in 1982.