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PREFACE

A symposium on "Recent Advances in Steroid Endocrinology" was held at the Royal Society of Medicine in London on 1 November 1990 to mark the retirement of Professor V. H. T. James from the Department of Chemical Pathology at St Mary's Hospital Medical School, London.

The proceedings of this symposium are published in this issue of *The Journal of Steroid Biochemistry and Molecular Biology* in recognition of the contribution that Professor James has made to steroid endocrinology both nationally and internationally.

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(*Organizing Committee*)

A TRIBUTE TO PROFESSOR VIVIAN H. T. JAMES

Professor James has had a distinguished career in research, predominantly in the field of steroid endocrinology and particularly endocrine control mechanisms and their application in the diagnostic investigation of disease. His first post was with the Medical Research Council as a member of the scientific staff. Here he was assigned to a joint team, MRC—Glaxo Laboratories, which was given the task of developing a commercial method for the production of cortisol. At that time, only extremely small amounts of this steroid were available for therapeutic purposes, and we were dependent upon supplies from the U.S.A. It was therefore considered essential to have a U.K. source of supply. The starting material was a plant sapogenin and the work required the development of a complex synthetic route to the corticosteroids. This project required three years to bring to a successful conclusion and produced the commercial method for corticosteroid synthesis, which was then used for the next few decades. During this time he obtained his Ph.D. from the research which he did on the plant sapogenins, which led to the determination of their structure and the discovery of some new plant steroids.

This work stimulated a long-term interest in steroid endocrinology and when he left the MRC to join the new Department of Chemical Pathology at St Mary's Hospital Medical School headed by Albert Neuberger, he set out to develop methods which would be of sufficient sensitivity to be able to reliably measure steroid hormones in blood. His intention was to apply these techniques to the investigation of endocrine physiology and endocrine disorders.

Investigation of the fluorescent properties of steroids led to a suitably sensitive automated assay for plasma cortisol and this was applied to the exploration of novel techniques for the investigation of hypothalamic–pituitary–adrenal (HPA) function in man. Using the observation that hypoglycaemia caused an increase in plasma cortisol levels, together with Professors V. Wynn and J. Landon, he investigated in detail the mechanism of this phenomenon and used the results to produce a protocol which, for the first time, enabled HPA function to be evaluated quickly and quantitatively in patients with suspected endocrine disease. Taking advantage of the newly available synthetic ACTH, a rapid and simple test of adrenocortical function was developed, which made it possible to investigate patients quickly, safely, and on an out-patient basis. These two tests, developed in the mid 1960s, are still regarded as the most definitive tests available for investigating HPA function and are used routinely in endocrine departments worldwide.

Using these investigative methods, he then went on with other clinical colleagues to explore the pathophysiology of various endocrine disorders and, in particular, to examine the clinically important problem of pituitary adrenal suppression caused by the administration of corticosteroids. This work defined the speed of onset, the effect of dosage, and the time taken for endocrine function to be restored to normal after steroid administration ceased. The beneficial effect of alternate day steroid therapy on endocrine function was also established.