

## PREFACE

The steroid hormones of the testes, ovaries and adrenal glands exert profound influences on the pituitary gland to control their own secretion via the release of gonadotropins and ACTH. The steroids also influence behavior. Both of these phenomena, the control of behavior and the stimulation and inhibition of pituitary secretion, involve the brain. The effects of hormones on the brain have been studied by a wide variety of methods including electrophysiology, psychology, autoradiography, labeled protein binding techniques, and steroid chemistry, with the hormone applied systemically or locally to cerebral neurons by stereotaxic implantation or iontophoresis. Fresh applications of these methods were discussed authoritatively by more than 30 experts from 12 countries assembled in Los Angeles for a three-day workshop conference on "Steroid Hormones and Brain Function."

Emphasis was placed on the differential effects of the steroids in the fetus, the newborn, the prepubertal and the mature subject. Sites and mechanism of the feedback actions of the steroids were given broad consideration in their facilitatory and inhibitory effects on both behavior and pituitary secretion. Special emphasis was placed on the sterilizing and behavioral effects of early androgen treatment. Finally, the clinical implications of steroid deficit and hypersecretion were discussed. The wealth of new data leave no doubt that certain regions of the brain are influenced directly by steroid hormones with references both to behavior and to control of pituitary secretion by the hypothalamic "releasing factors."

The conference was co-sponsored by the UCLA Forum in Medical Sciences, the UCLA Brain Research Institute and the International Brain Research Organization (IBRO/UNESCO). Dr. Victor E. Hall, Editor-in-Chief of the UCLA Forum publications, played a very active role in editing the manuscripts. Mrs. Judith Heller, Assistant Editor, skillfully managed the major assignment of assembling the manuscripts, discussions, corrections, figures and proofs into a unified volume. Without their invaluable services the book could not have been published in a reasonable period of time. Financial support for the conference by UCLA Forum funds was supplemented by generous gifts from Abbott Laboratories, CIBA Pharmaceutical Company, the Kroc Foundation, Eli Lilly & Company, Ortho Pharmaceutical Corporation, G. D. Searle & Company, Schering Corporation, Schering AG, Wallace Laboratories, and The Squibb Institute for Medical Research.

C. Sawyer and R. Gorski

