PHYSIOLOGICAL AND THERAPEUTIC EFFECTS OF CORTICOTROPIN (ACTH) AND CORTISONE

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Physiological and
Therapeutic Effects of

CORTICOTROPIN (ACTH) *and* CORTISONE

By

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CHARLES C THOMAS • PUBLISHER
Springfield • Illinois • U.S.A.

CHARLES C THOMAS • PUBLISHER
BANNERSTONE HOUSE
301-327 East Lawrence Avenue, Springfield, Illinois, U.S.A.

Published simultaneously in the British Commonwealth of Nations by
BLACKWELL SCIENTIFIC PUBLICATIONS, LTD., OXFORD, ENGLAND

Published simultaneously in Canada by
THE RYERSON PRESS, TORONTO

Printed in the United States of America

Dedicated to

our wives

Introduction

In the fall of 1948, Hench, Kendall, Slocumb and Polley, of the Mayo Clinic, initiated their studies of the therapeutic value of cortisone in rheumatoid arthritis. These studies were extended to corticotropin early in 1949. The dramatic suppression of the symptoms of this and other diseases which involve the inflammation of tissues has opened new vistas to laboratory and clinical investigators. Prior to this time the only proven therapeutic value of the adrenal cortical hormones was in the treatment of adrenal cortical insufficiency and the therapeutic value of corticotropin had not been established.

In retrospect, it appears that many of us who are students of the adrenal cortex have led sequestered lives. We have cautiously explored some of the channels of adrenal cortical hormone action discovered by the pioneers but now find that those channels which have been known to us are only a small part of a network which spreads into every field of medicine and vertebrate biology. The ubiquitous consequences of adrenal cortical hormone action have now become the concern of the specialist in each field of medical science. Moreover, these hormones have attracted the attention of the sur-

geon and all others who are interested in the repair of damaged tissues and the healing of wounds. As an outcome, students in the endocrine field are confronted with many new data, terms and concepts from investigators in other fields whose research has centered upon these hormones which affect the structure and function of many tissues and the symptomatology of many diseases.

This book is written for the physician and for the graduate student who is seeking orientation in the field without reading the voluminous literature on the subject. The bibliography is not complete, but key references to the literature are listed. In addition to corticotropin and cortisone, attention is given to hydrocortisone and other biologically active steroid compounds of the adrenal cortex which are of therapeutic importance. Since the experience of the authors is limited to the laboratory, we have sought the guidance of clinical investigators in preparing the chapters which review the therapeutic effects of these hormones. The other chapters have been read by laboratory investigators. Each of the following has read one or more chapters of the book: P. S. Cammarata, H. F. Hailman, F. E. Visscher, H. L. Mason, R. G. Sprague, H. F. Polley, A. Albert, P. H. Forsham, G. Sayers, D. M. Woodbury, R. Gaunt, F. L. Engel, J. Remington, C. A. Winter, L. H. Sarett, H. C. Stoerk, F. H. Bethell, W. D. Robinson, J. W. Henderson, J. R. Quinn, T. B. Fitzgerald and D. J. Merchant. Our acknowledgment of the kind assistance of these biologists and physicians is not intended to imply that any of them agree fully with the content of the book.

D. J. I.

B. L. B.

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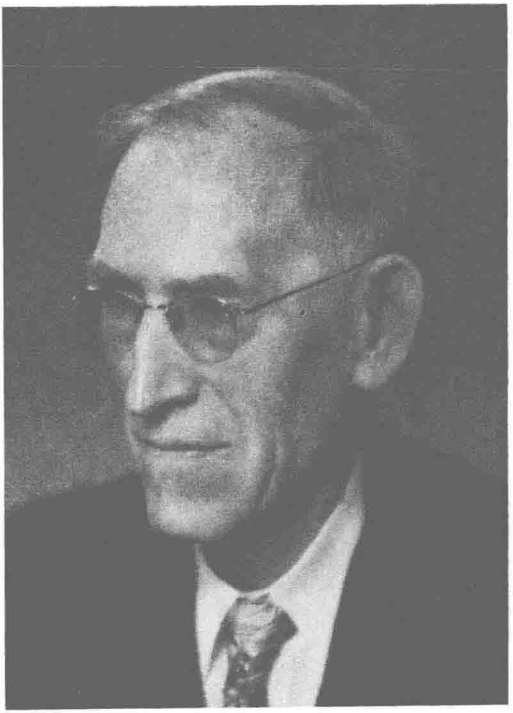
P. E. Smith



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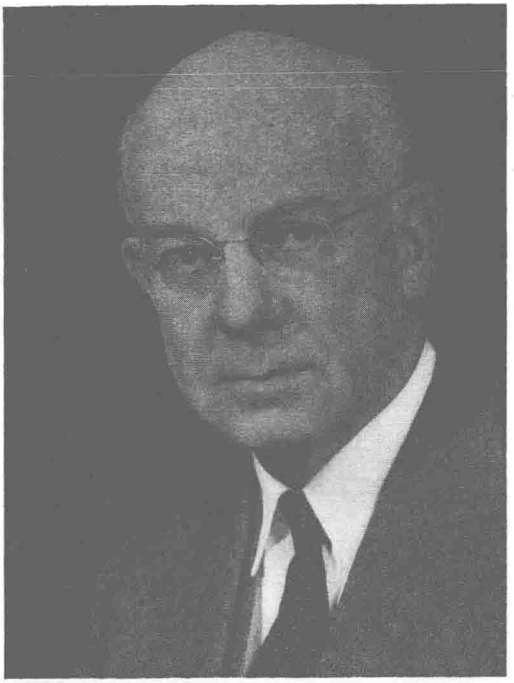

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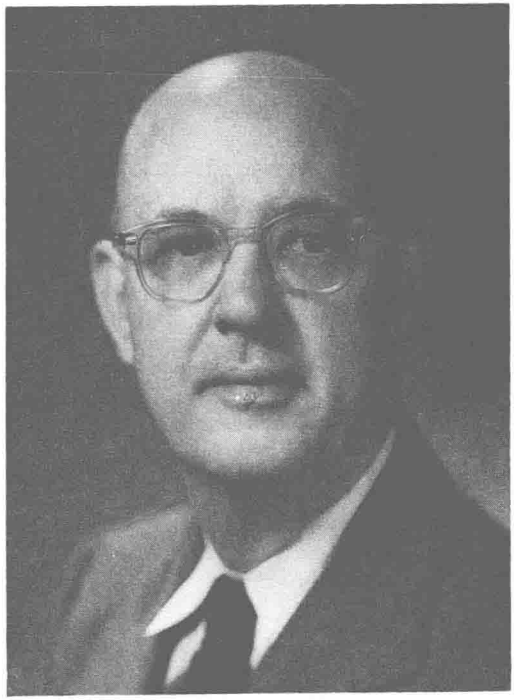

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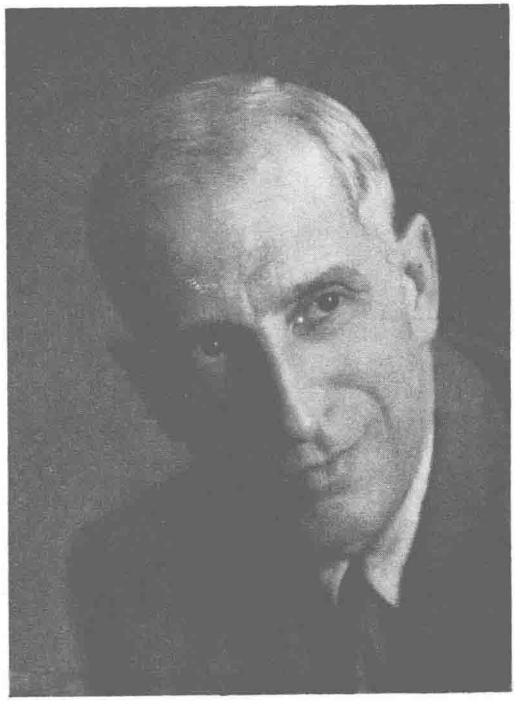

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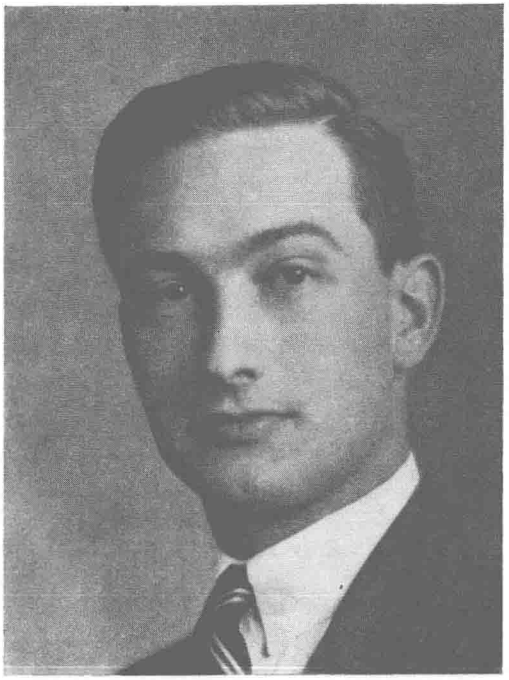

L. H. Sarett

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