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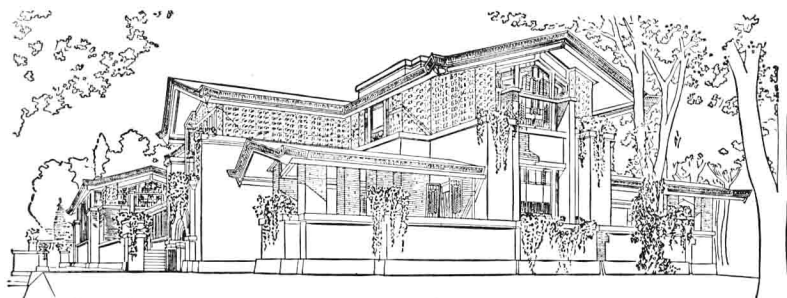
# LABORATORY AIDS IN ENDOCRINE DIAGNOSIS

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*By*

**ROBERTO F. ESCAMILLA, M.D.**

*Associate Clinical Professor of Medicine  
University of California Medical School  
San Francisco, California*



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IN  
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WILLARD O. THOMPSON, M.D.  
*Clinical Professor of Medicine*  
*University of Illinois College of Medicine*  
*Managing Editor, Journal of Clinical Endocrinology and Metabolism*  
*Editor, Journal of the American Geriatrics Society*  
*Chicago, Illinois*

## DEDICATION

*To DOCTOR HANS LISSER—stimulating teacher, preceptor,  
and colleague through years of training in that exacting  
art and science—the practice of clinical endocrinology.*

*This Book*

LABORATORY AIDS

IN

ENDOCRINE DIAGNOSIS

BY ROBERTO F. ESCAMILLA, M.D.

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## *Chapter I*

### INTRODUCTION

**I**N CLINICAL practice, laboratory tests frequently aid in the diagnosis and treatment of endocrinopathies. Many of the tests to be described are widely used—at times perhaps overused and given undue emphasis in the management of the patient. Therefore the word “Aids” has been purposely incorporated in the title in order to relegate laboratory procedures to their proper rank in relation to a thorough clinical examination.

Laboratory findings are for the most part only aids or adjuncts, not only in diagnosis but also in following the effects of treatment in endocrine disease. They do not replace or transcend a proper and complete anamnesis and physical examination of the patient. Furthermore, the fallibility of many of the tests is well known to anyone who has worked for any length of time in the laboratory. Many of the procedures are complicated and some of the steps may be uncertain even though the final results are expressed in exact figures. This persuasive preciseness may lead to a false sense of security so that at times serious errors can occur unless laboratory findings are correlated with clinical impressions. If the laboratory results indicate conclusions at variance with clinical facts it is prudent to place more credence in the clinical observations, and either repeat the tests (perhaps in another laboratory) or if necessary repeat or re-evaluate entire experiments. At times it is advantageous with some of the more complicated tests to confine them to one particular laboratory or even to repose confidence in one specially trained technician in interpreting results for clinical use.



On the other hand, lest the de-emphasis be carried too far, laboratory results occasionally can be most helpful and even definitive in diagnosis, e.g., the level of FSH excretion in the urine is of critical importance in distinguishing between pituitary infantilism and ovarian aplasia (being elevated in the latter). The laboratory may also be helpful in checking results of treatment—as in following the level of plasma cholesterol or the basal metabolic rate during treatment of hypothyroidism with desiccated thyroid substance. Also, laboratory studies have increased our knowledge about physiological changes in several of the endocrine diseases, and thus embellish and clarify the clinician's understanding of the patient and his disease, in a manner beneficial to both physician and patient.

In the following pages the various tests will be listed, noting the principal abnormalities found in the presently acknowledged endocrinopathies. In the final chapter (XII) this data is recapitulated in the form of a disease index, listing the various endocrine diseases and collecting under these headings the appropriate laboratory findings. This opposite approach offers the reader a cross reference to the material presented and provides a substitute for the customary index.

The tests listed are those which have been proved to have some clinical value, plus a few that seem particularly promising at this time. Laboratory procedures which still are highly experimental or are confined to research projects have been purposely omitted. In some instances more than one method is in use for the same test. The method given will be the one currently used in the laboratories in or connected with the University of California Hospital or Medical School.

In compiling a review of this type one must rely heavily on the generous help of friendly colleagues. Sin-