# LECITHIN AND ALLIED SUBSTANCES; THE LIPINS

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Lecithin and Allied Substances; The Lipins by Hugh MacLean

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# **HUGH MACLEAN**

# LECITHIN AND ALLIED SUBSTANCES; THE LIPINS



### MONOGRAPHS ON BIOCHEMISTRY

R. H. A. PLIMMER, D.Sc.
AND
F. G. HOPKINS, M.A., M.B., D.Sc., F.R.S.

### GENERAL PREFACE.

THE subject of Physiological Chemistry, or Biochemistry, is enlarging its borders to such an extent at the present time, that no single text-book upon the subject, without being cumbrous, can adequately deal with it as a whole, so as to give both a general and a detailed account of its present position. It is, moreover, difficult, in the case of the larger text-books, to keep abreast of so rapidly growing a science by means of new editions, and such volumes are therefore issued when much of their contents has become obsolete.

For this reason, an attempt is being made to place this branch of science in a more accessible position by issuing a series of monographs upon the various chapters of the subject, each independent of and yet dependent upon the others, so that from time to time, as new material and the demand therefor necessitate, a new edition of each monograph can be issued without re-issuing the whole series. In this way, both the expenses of publication and the expense to the purchaser will be diminished, and by a moderate outlay it will be possible to obtain a full account of any particular subject as nearly current as possible.

The editors of these monographs have kept two objects in view: firstly, that each author should be himself working at the subject with which he deals; and, secondly, that a Bibliography, as complete as possible, should be included, in order to avoid cross references, which are apt to be wrongly cited, and in order that each monograph may yield full and independent information of the work which has been

done upon the subject.

It has been decided as a general scheme that the volumes first issued shall deal with the pure chemistry of physiological products and with certain general aspects of the subject. Subsequent monographs will be devoted to such questions as the chemistry of special tissues and particular aspects of metabolism. So the series, if continued, will proceed from physiological chemistry to what may be now more properly termed chemical physiology. This will depend upon the success which the first series achieves, and upon the divisions of the subject which may be of interest at the time.

R. H. A. P. -F. G. H.

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# LECITHIN AND ALLIED SUBSTANCES

## THE LIPINS

BY

HUGH MACLEAN, M.D., D.Sc.



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### PREFACE.

In the present monograph an attempt has been made to present the subject of the lipins in as simple a form as the state of our knowledge permits. The task has been a difficult one, owing chiefly to the chaotic state of the literature dealing with these bodies; the loose manner in which the term "lipoid" has been used has also added not a little to the general confusion. A good deal of space has been given to a description of such alleged lipin substances as protagon and jecorin; it was felt that a detailed discussion of these bodies was necessary in order that the reader might fully appreciate the very insecure and inconclusive evidence on which their existence as chemical entities had been based.

Much of the monograph was written under adverse conditions, and more especially was this the case with Chapter VIII, which deals with the biological aspect of the subject. Before this chapter could be finished I was called to France, and was faced with the alternative of postponing the appearance of the volume indefinitely or of publishing it with this part treated much less fully than I could wish and with the omission of the section dealing with the phenomena of hæmolysis and immunity. The fact that little or nothing is known with certainty of the physiological functions of the lipins suggested that no great loss would ensue from a curtailment of this part, and, after consultation with the Editors, it was resolved to publish the manuscript as it stood. If a second edition should ever be called for, some of the part dealing with the alleged lipins might be curtailed, and a more complete description of the biological aspect of the subject inserted.

Our knowledge of the lipins has been materially increased within the last few years, but, strange as it may seem, we really know little to-day beyond that which was known and published by Thudichum over twenty years ago. Indeed, recent advances are in many cases but corroborations of Thudichum's wonderful experimental work. That the brilliant investigations of this observer should have been so long neglected and despised is an anomaly which perhaps was in some measure due to Thudichum's more or less obscure literary style; his pugnacity towards his opponents may also have contributed to produce this result. Whatever the cause, it is only justice to his memory to affirm that he has done more for lipin chemistry than has been done by any other individual.

H. MACLEAN.

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