# IMMUNE SERA: A CONCISE EXPOSITION OF OUR PRESENT KNOWLEDGE OF INFECTION AND IMMUNITY

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Immune Sera: A Concise Exposition of Our Present Knowledge of Infection and Immunity by Charles Frederick Bolduan & John Koopman

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CHARLES FREDERICK BOLDUAN & JOHN KOOPMAN

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# IMMUNE SERA

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A CONCISE EXPOSITION OF OUR PRESENT KNOWLEDGE OF

### INFECTION AND IMMUNITY

BY

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AND

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#### FIFTH EDITION, THOROUGHLY REVISED

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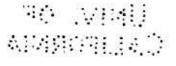
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PIONEER IN SPECIFIC SERUM THERAPY AND SERUM DIAGNOSIS IN AMERICA, FOUNDER OF THE FIRST MUNICIPAL SERUM LABORATORY IN THE WORLD, THIS VOLUME IS DEDICATED AS A TOKEN OF GREAT ADMIRATION AND ESTEEM

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### PREFACE TO THE FIFTH EDITION

THIS little book has had such a gratifying reception at the hands of physicians and students that no change either in scope or plan has been made in the present edition. The entire material has, however, undergone a careful revision. Because of the repeated demands for information regarding the making of Wassermann tests, it has been deemed advisable to describe in detail the technique employed under the supervision of one of the writers in the Serological Laboratory of the New York City Department of Health.

NEW YORK, April, 1917.

CHARLES BOLDUAN.

### PREFACE TO THE FOURTH EDITION

THE favorable reception accorded to the previous editions of this book, together with the fact that our knowledge of the subject has increased considerably in the past few years, has led the author to undertake a thorough revision of the work.

In its first edition, in 1904, this book dealt only with certain antibodies whose discovery had aroused

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### PREFACE

a great deal of scientific interest, namely, hæmolysins, cytotoxins, and precipitins. To this was added, in subsequent editions, a discussion of antitoxins, agglutinins, and opsonins. All these topics were naturally embraced under the title "Immune Sera." In the present (fourth) edition, while the old title has been retained, the scope of the subject matter has been greatly extended, so that now there is presented an exposition of the main facts of infection and immunity.

It is but natural that any discussion of the immunity reactions should center about the ingenious side-chain theory of Ehrlich, which has dominated the work in this field. Its heuristic value has unquestionably been very great. At the same time it cannot be doubted that some of the deductions from the theory have led, here and there, to strained conceptions which apparently violate established biological facts. While presenting Ehrlich's views at length, therefore, the author has endeavored to bring out clearly just why and wherein certain other investigators differ. The aim of the book has been to present a broad, clear outline of the main facts and theories concerning infection and immunity, and while this may perhaps have led to the omission of some really excellent studies, it was felt best not to confuse the beginner with a mass of apparently contradictory observations.

CHARLES BOLDUAN.

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