

# **FREE RADICALS** *in* **BIOLOGICAL SYSTEMS**

## **EDITORS**

**M. S. BLOIS, JR.**

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**ACADEMIC PRESS • New York and London**

# Free Radicals in Biological Systems

PROCEEDINGS OF A SYMPOSIUM HELD AT  
STANFORD UNIVERSITY, MARCH, 1960

EDITORS

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1961

ACADEMIC PRESS · *New York and London*

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ACADEMIC PRESS INC.

111 FIFTH AVENUE

NEW YORK 3, N. Y.

*United Kingdom Edition*

Published by

ACADEMIC PRESS INC. (LONDON) LTD.

17 OLD QUEEN STREET, LONDON S. W. 1

*Library of Congress Catalog Card Number: 60-16982*

PRINTED IN THE UNITED STATES OF AMERICA

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## PREFACE

This Symposium on Free Radicals in Biological Systems was held at Stanford University March 21-23, 1960, for the purpose of bringing together those professionally diverse scientists who were actively conducting research in this field. The reports of these individuals are contained in this volume.

General interest in this subject has been growing steadily for several years, and especially since electron paramagnetic resonance techniques and equipment have become readily available. By the summer of 1959, it appeared timely to review the progress that had been recently made and to assess the future. An inquiry as to the merits of such a meeting was therefore made at that time to a sampling of individuals known to be active in this field and was met with enthusiasm and cooperation.

In preparing the program, it was hoped that the speculative years were perhaps largely past, and that we would hear of concrete results. We were not disappointed. As short a time as seven years ago a question frequently heard was "... do free radicals *really occur* in biological systems?" This has been answered affirmatively, and the emphasis is now on specific mechanisms in which free radicals are involved, physico-chemical properties of individual radical species, means by which radical side reactions are avoided *in vivo*, mechanisms of free radical production, stabilization, and termination, etc. One conclusion seems inescapable: the near future will see a continuing increase in our understanding of this important phase of molecular biology.

The Symposium was made possible by the cooperation of the many contributors and participants, and the invaluable assistance of the Biophysics and Biophysical Chemistry Study Section under Research Grant RG-5048 from the Division of Research Grants of the National Institutes of Health, Public Health Service, United States Department of Health, Education and Welfare.

Special notes of gratitude are due Dr. R. H. Bolt, formerly Principal Consultant to the Study Section, for encouragement and advice during the formative stages of the Symposium, to Professor Robley Williams, Chairman, and Dr. W. L. Koltun, Principal Consultant, of the Study Section for their personal interest and assistance, and Professor Melvin Calvin, Dr. R. M. Lemmon, Dr. R. O. Lindblom, and Dr. M. Weissbluth

for their participation on the organizing committee. Special mention is made of Mr. E. B. Rickansrud and Miss Ruth McConnell of the W. W. Hansen Laboratories of Physics, whose energy and thoroughness helped foster the illusion that organizing a symposium is a simple task!

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*July, 1960*

**Free Radicals  
in  
Biological Systems**

### ERRATUM

Page 7, first line: the asterisk refers to the second paragraph from the bottom on page 14, reading, "The strength of Michaelis' convictions . . . ."

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