MECHANISMS IN RECOMBINATION

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This volume is dedicated to three pioneers in the study of recombination

CARL C. LINDEGREN

MARY B. MITCHELL

ALEXANDER WEINSTEIN

Foreword

This book contains the papers presented at the Twenty-Seventh Annual Biology Division Research Conference which was held April 1-4, 1974 in Gatlinburg, Tennessee. The topic of the symposium was Mechanisms in Recombination and it follows by exactly twenty years the previous Gatlinburg Symposium on Genetic Recombination. During this interval, and the preceding years as well, the process of recombination has remained a central and tantalizing problem for geneticists. The subject assumes added significance with the recent appeal by a committee of leading scientists for a moratorium on the construction of certain types of recombinant molecules. That autonomously replicating molecules linking portions of prokaryotic and eukaryotic DNA can now be produced *in vitro* attests to the technical advances that have taken place in this field. Nevertheless, the details underlying the process *in vivo* continue to be elusive.

This symposium brought together individuals studying recombination in organisms as widely separated as bacteriophage and mammals and using disciplinary approaches of comparable diversity. Consequently the present volume summarizes much of current strategies and concepts concerning the subject.

The meeting was sponsored by the Biology Division of the Oak Ridge National Laboratory (operated by the Union Carbide Corporation for the U. S. Atomic Energy Commission) with the support and encouragement of its director, H. I. Adler. The organizing committee was chaired by J. K. Setlow and included R. F. Grell, R. D. Hotchkiss and E. Volkin. Special thanks are due to the speakers, to I. R. Lehman, G. Mosig, S. H. Goodgal, R. K. Mortimer, C. W. Hinton, and R. D. Hotchkiss who acted as chairmen of the sessions, and to M. J. Loop for arranging many of the details. I am happy to acknowledge the invaluable assistance of C. L. Smith and the generous help of W. E. Cohn in the editing of this volume.

Rhoda F. Grell
Editor

September, 1974

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