Methods in ENZYMOLOGY

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Computer Methods, Part B

Edited by

Michael L. Johnson
Ludwig Brand

VOLUME FOUR HUNDRED AND SIXTY-SEVEN

METHODS IN ENZYMOLOGY

Computer Methods, Part B

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PREFACE

A general perception exists that the only applications of computers and computer methods in biological and biomedical research are either basic statistical analysis or the searching of DNA sequence databases. While these are important applications they only scratch the surface of the current and potential applications of computers and computer methods in biomedical research. The various chapters within this volume include a wide variety of applications that extend beyond this limited perception.

The use of computers and computational methods has become ubiquitous in biological and biomedical research. This has been driven by numerous factors, a few of which follow: One primary reason is the emphasis being placed on computers and computational methods within the National Institutes of Health (NIH) Roadmap; another factor is the increased level of mathematical and computational sophistication among researchers, particularly amongst junior scientists, students, journal reviewers, and NIH Study Section members; and another is the rapid advances in computer hardware and software which make these methods far more accessible to the rank and file research community.

The training of the majority of senior M.D.s and Ph.D.s in clinical or basic disciplines at academic research and medical centers commonly does not include advanced coursework in mathematics, numerical analysis, statistics, or computer science. The chapters within this volume have been written in order to be accessible to this target audience.

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LUDWIG BRAND

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