Molecular Mechanisms of Membrane Traffic

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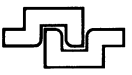

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Molecular Mechanisms of Membrane Traffic

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Preface

The study of membrane traffic in reconstituted cell-free systems has generated an unprecedented amount of new information on the biochemistry, molecular biology and genetics of membrane-based molecular events that underly normal and abnormal cellular function. Many of the individual steps have now been isolated and dissected in simple systems that permit detailed molecular analyses of transport mechanisms and their regulation. Reconstituted events of intercompartment transport include inter-membrane recognition, and controlled membrane fusion-fission reactions.

Among the many advances is the growing awareness of a remarkable evolutionary conservation of many of the components involved in the many steps of membrane traffic, this realization has accelerated greatly the pace of progress in the field.

This book provides a collection of participant contributions from the 1992 Summer Research Conference, "Molecular Mechanisms of Membrane Traffic," jointly sponsored with NATO by the American Society of Cell Biology. The conference was held May 9-13, at the Airlie Conference Center in the Virginia countryside, near Warrenton.

The conference was attended by 158 scientists. A unique feature was the high proportion of young scientists among the participants. Approximately 65% were students, postdoctoral fellows and young investigators. Each attendee contributed to the conference with either a platform or poster presentation.

The major focus of the conference was on new data that begins to provide, for the first time, a detailed picture of the molecular events of vesicular membrane traffic. Both the small molecular mass GTP-binding and trimeric G proteins were implicated in practically all membrane traffic steps and provided a major theme of the conference.

We thank the plenary speakers who contributed so much to the success and continuity of the program, and Dottie Doyle and the staff of the American Society of Cell Biology National Office for exquisite program organization and local arrangements. Appreciation is extended as well to Prof. Placido Navas, Chairperson of the NATO Advisory Committee, and Sarah Craw for capable assistance in the organization of this volume.

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D. J. Morré
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