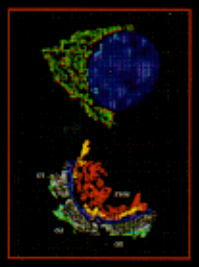
METHODS FOR ANALYSIS OF GOLGI COMPLEX FUNCTION



Edited by
Franck Perez
Institut Curie, CNRS UMR144, 26 rue d'Ulm, Paris Cedex, France

David J. Stephens
School of Biochemistry, University of Bristol, Medical Sciences Building, University Walk, Bristol, UK

Understanding Golgi apparatus organization and function continues to be the subject of intense research. Its unique structure and central role in both anterograde and retrograde membrane traffic, along with its conservation across most eukaryotes, places the Golgi apparatus at the center of many studies. Despite knowledge of its existence since its discovery by Camillo Golgi in 1897, the Golgi apparatus continues to be the subject of research that exploits the very latest in cell biological approaches. Collecting protocols in a single volume such as this serves multiple purposes in terms of dissemination of new techniques among researchers and sparking ideas, but also emphasizes the key role that members of the Golgi community have had in developing these methods and refining the protocols in the first place. These range from in vitro reconstitution through to whole animal experiments. In this volume we have sought to bring together examples of state-of-the-art tools that are applied to study Golgi biology. The contributors are truly expert in their arena both in terms of their knowledge of Golgi biology and the techniques described. Many of these techniques are of course equally applicable to many other fields of biology and this volume provides a snapshot of some of this diversity.

KEY FEATURES

- The volume is organized into three core sections; Model Systems and Functional Studies, Imaging Studies, and New Frontiers.
- Examples that span in vitro and in vivo contexts.
- Descriptions of new tools and approaches in the field.

Cover image: Top: A 3D deconvoluted LM-image of a live insulin-secreting cell engineered to express green fluorescent protein (GFP)-tagged Golgi N-acetylgalactosamine:polypeptide N-acetylgalactosaminyltransferase 2 (GalNAcT2). Bottom: A dual-axis 3D tomogram of the Golgi region in a rodent HIT-T15 cell and its accompanying 3D model. Credit: from chapter authored by Brad J. Marsh and Margit Pavelka

Volume 118 of METHODS IN CELL BIOLOGY
Series Editors: Leslie Wilson, Paul Matsudaira and Phong Tran

ELSEVIER

ACADEMIC PRESS
An imprint of Elsevier
store.elsevier.com

ISBN 978-0-12-417164-0
9 780124 171640