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Nota di contenuto	Front Cover; Contents; Preface; Acknowledgments; Editors; Contributors; Chapter 1: Giant Unilamellar Vesicles (GUVs) as a Laboratory to Study Mesoscopic Lipid Domains in Membranes; Chapter 2: An Active Basis for the Nanoscopic Organization of Membrane Components in Living Cell Membranes; Chapter 3: Functional Role of Membrane Lipids in EGF Receptor Dynamics and Regulation; Chapter 4: Tetraspanins as Master Organizers of the Plasma Membrane; Chapter 5: B Cell Receptor Signaling; Chapter 6: Imaging the Complexity, Plasticity, and Dynamics of Caveolae Chapter 7: Membrane Microdomains Enriched in Ceramides : From Generation to Function Chapter 8: Domains of Phosphoinositides in the Plasma Membrane; Chapter 9: Signaling Phagocytosis : Role of Specialized Lipid Domains; Chapter 10: Fluctuation Spectroscopy Methods for the Analysis of Membrane Processes; Chapter 11: Spatial Intensity Distribution Analysis (SpIDA) : A Method to Probe Membrane Receptor Organization in Intact Cells; Chapter 12: Live-Cell TIRF Imaging of Molecular Assembly and Plasma Membrane Topography; Chapter 13: Laurdan Identifies Different Lipid Membranes in Eukaryotic Cells Chapter 14: Development of Optical Highlighter Fluorescent Proteins and Their Applications in Super-Resolution Fluorescence Microscopy Chapter 15: Targeting Dyes for Biology; Chapter 16:

Combined Topography, Recognition, and Fluorescence Measurements on Cells; Chapter 17: Super-Resolution Imaging with Single-Molecule Localization; Chapter 18: Visualization and Resolution in Localization Microscopy; Chapter 19: Molecular Plasma Membrane Dynamics Dissected by STED Nanoscopy and Fluorescence Correlation Spectroscopy (STED-FCS)
Chapter 20: Nanophotonic Approaches for Nanoscale Imaging and Single-Molecule Detection at Ultrahigh ConcentrationsBack Cover

Sommario/riassunto

Cell Membrane Nanodomains: From Biochemistry to Nanoscopy describes recent advances in our understanding of membrane organization, with a particular focus on the cutting-edge imaging techniques that are making these new discoveries possible. With contributions from pioneers in the field, the book explores areas where the application of these novel techniques reveals new concepts in biology. It assembles a collection of works where the integration of membrane biology and microscopy emphasizes the interdisciplinary nature of this exciting field. Beginning with a broad description of membrane orga
