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METHODS IN MOLECULAR BIOLOGY™ • 319
SERIES EDITOR: *John M. Walker*

Cell Imaging Techniques

Methods and Protocols

Edited by

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Cell imaging methodologies have now become essential research tools for a variety of disciplines that traditionally had not relied on them. In *Cell Imaging Techniques: Methods and Protocols,* distinguished international researchers describe in detail their state-of-the-art methods for the microscopic imaging of cells and molecules. The authors cover a wide spectrum of complementary techniques, including such methods as fluorescence microscopy, electron microscopy, atomic force microscopy, and laser scanning cytometry. Additional protocols on confocal scanning laser microscopy, quantitative computer-assisted image analysis, laser-capture microdissection, microarray image scanning, near-field scanning optical microscopy, and reflection contrast microscopy round out this eclectic collection of cutting-edge imaging techniques now available. The authors also discuss preparative methods for particles and cells by transmission electron microscopy. The protocols follow the successful *Methods in Molecular Biology*™ series format, each offering step-by-step laboratory instructions, an introduction outlining the principles behind the technique, lists of the necessary equipment and reagents, and tips on troubleshooting and avoiding known pitfalls.

Timely and highly practical, *Cell Imaging Techniques: Methods and Protocols* provides researchers and clinicians with a richly useful guide to selecting and performing the best imaging method from a bewildering variety of microscopy-based techniques.

FEATURES

- **Basic and clinical microscopic techniques found in today's core cell imaging facilities**
- **Light microscopic techniques to observe mRNA, calcium, and collagen molecules**
- **Preparative methods for transmission electron microscopy of particles and cells**
- **Tutorials to provide background for the more complex imaging techniques**
- **Step-by-step instructions to ensure successful results**
- **Tricks of the trade and notes on troubleshooting and avoiding known pitfalls**

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