

THE LATEST EDITION OF THE DEFINITIVE TEXT IN THE FIELD OF FLUORESCENT PROTEINS

Green fluorescent protein (GFP), a biological marker cloned from jellyfish, has emerged from virtual obscurity to the forefront of biomolecular research in just a few years. GFP and related fluorescent proteins (FPs) have been intensely studied—the subjects of hundreds of in vivo projects worldwide. These studies have resulted in new applications and published articles, emerging at a breathtaking rate. The success of FPs and their many uses promise to make them some of the most powerful tools in biotechnology, pharmaceutical science, and molecular and cellular biology.

Written by pioneers in the field, this text tackles both theory and practice, offering numerous case studies, examples, illustrations, and troubleshooting tips. It examines how FPs are tailored for specific systems and used to maximize expression, and how variants are generated with altered properties. The text also explores new ways to use FPs and methods for enhancing detection in a variety of organisms and cell types.

This updated and expanded edition places emphasis on the rise of FPs and their applications in industry and biosensor research. *Green Fluorescent Protein: Properties, Applications, and Protocols, Second Edition* provides:

- New chapters on FPs, biosensors, and advances in the use of FPs in the biotechnology and pharmaceutical industries
- Detailed information about protocols using FPs
- Examples from recent notable studies
- Background on the biochemical and physical properties, three-dimensional structure, and molecular biology and mutation of FPs
- The application of FPs across organisms

Green Fluorescent Protein: Properties, Applications, and Protocols, Second Edition is essential reading for researchers and graduate students in molecular and cellular biology, physiology, biochemistry, developmental biology, neuroscience, ecology, in vivo biology, and plant molecular biology.

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