INFORMATION FOR CONTRIBUTORS (1996)

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Molecular Probes of the Nervous System
Volume 1 Selected Methods for Antibody and Nucleic Acid Probes

By Susan Hockfield, Yale University School of Medicine; Steve Carlson, University of Washington; Chris Evans, University of California, Los Angeles; Pat Levitt, Medical College of Pennsylvania; John Pintar, Columbia University College of Physicians & Surgeons; Laura Silberstein, San Jose State University

Over the past ten years, new techniques have transformed most branches of neuroscience. The most powerful of them have been adapted from cell and molecular biology and immunology to permit analysis of nerve cell structure and function at a level of detail never before possible. With this volume, CSHL Press introduces a new series of manuals designed specifically for neuroscientists who wish to acquire the skills of molecular analysis. A laboratory course taught each year at Cold Spring Harbor demonstrates the potential and pitfalls of antibody and nucleic acid probes as biochemical and anatomical reagents. This first volume in the series, designed for ease of use at the lab bench, is a distillation by the instructors of much of the material covered in several years of the course. As an aid to understanding the strategy and rationale of the protocols, brief supplementary explanations are included. The manual is a valuable resource for established investigators and for anyone working with nervous system tissue for the first time.

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- [ ] Autoradiography
- [ ] cDNA synthesis
- [ ] Cloning
- [ ] DNA footprinting
- [ ] DNA purification
- [ ] Electroporation
- [ ] PCR
- [ ] Prokaryotic expression
- [ ] Pulsed field electrophoresis
- [ ] RNA analysis
- [ ] RNA purification
- [ ] Software-aided sequence analysis
- [ ] Transfections

**PROTEIN CHEMISTRY**

- [ ] Amino acid analysis
- [ ] Chromatography
- [ ] Affinity
- [ ] Gas chromatography
- [ ] HPLC
- [ ] Thin layer electrophoresis
- [ ] Electrophoresis of proteins
- [ ] Glycoprotein analysis
- [ ] Peptide mapping
- [ ] Peptide synthesis
- [ ] Protein kinase assays
- [ ] Protein purification
- [ ] Protein sequencing

**IMMUNOLOGY**

- [ ] Antibody labeling
- [ ] Antibody purification
- [ ] Ascites production
- [ ] ELISA
- [ ] Flow cytometry
- [ ] Hybridoma production
- [ ] Immunohistochemistry
- [ ] Immunoprecipitation
- [ ] RIA
- [ ] Eukaryotic expression
- [ ] Western blotting

**CELL BIOLOGY**

- [ ] In situ hybridization
- [ ] Apoptosis
- [ ] In vitro transcription
- [ ] Cell proliferation
- [ ] In vitro translation
- [ ] ES cell culture
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