

The most complete resource on the techniques, equipment, principles, and practices of animal cell culture

Since publication of the previous edition of this benchmark text, numerous groundbreaking advances have occurred in stem cell research, cloning, tissue engineering, and in vitro toxicity testing. These and other developments have been incorporated into this fully revised and expanded *Fifth Edition* of *Culture of Animal Cells*. In addition, to answer the needs of the exponential increase in newcomers to cell culture, particularly in the biopharmaceutical industry, a completely new chapter on training in cell culture technology has been introduced.

The most complete resource on the techniques, equipment, principles, and practices of animal cell culture, this text offers a complete background related to growth of animal cells in culture. Beginning with laboratory design, safety, validation and bioethics, then continuing with preparation of media, primary culture and cell lines, through to characterization and authentication, contamination, specialized techniques, and troubleshooting, the coverage includes:

- An all-new section of training exercises, separated into basic, intermediate, and advanced procedures, cross-referenced to the relevant protocols
- New coverage of stem cells, bioethics, validation, cloning, cell signaling, in vitro toxicity testing, and tissue engineering
- An expanded full-color atlas section, with images of primary culture, cell lines, subculture, differentiation, cancer cells and transformation, three-dimensional culture, contamination, and specialized equipment
- Enhanced treatment of troubleshooting, with full cross-referencing to the relevant protocols and sections of text
- Fully updated references
- The clearest, most consistent presentation of step-by-step protocols available
- Numerous diagrams, photographs, tables, and charts
- Detailed and up-to-date information on reagent preparation and sourcing of materials and equipment, including a fully updated list of suppliers and other resources with Web sites

Indispensable for clinical and biopharmaceutical researchers and scientists, students, trainees, and technicians, this landmark text presents the most accessible and comprehensive introduction available to the culture and experimental manipulation of animal cells.

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