

SECOND EDITION

TRANSGENIC ANIMAL TECHNOLOGY

A LABORATORY HANDBOOK

Edited by CARL A. PINKERT
University of Rochester, New York

Transgenic Animal Technologies and the ability to introduce functional genes into animals have revolutionized our ability to address complex biomedical and biological questions. This well-illustrated handbook covers the technical aspects of gene transfer—from molecular methods to whole animal considerations—for important laboratory and domestic animal species. It describes methodologies as employed by leading laboratories and is a key resource for researchers, as well as a tool for training technicians and students. This second edition incorporates updates on a variety of genetic engineering technologies ranging from microinjection and ES cell transfer to nuclear transfer in a broad range of animal modeling systems.

New Contributions to the Second Edition

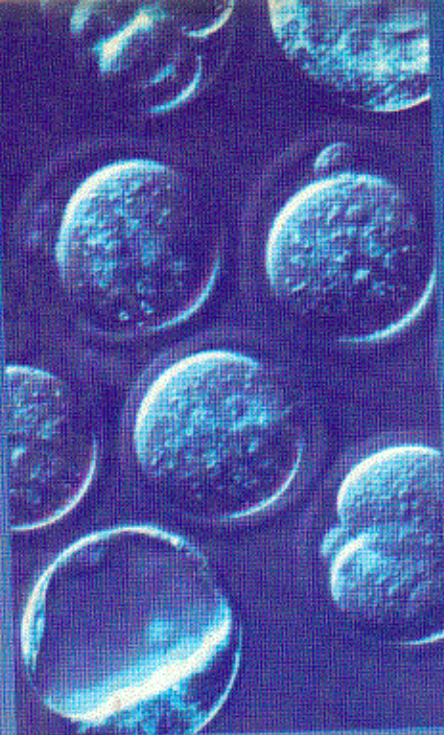
- An entire section devoted to molecular biology, analyses and enabling technologies
- Gene targeting in embryonic stem cells
- Retrovirus-mediated gene transfer
- Nuclear transfer technologies
- Production of transgenic rats, fish, and poultry
- Production of transgenic swine and ruminants by DNA microinjection
- Production of transgenic non-human primates
- Retrovirus-mediated gene transfer into oocytes



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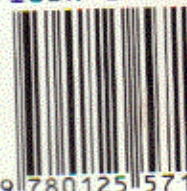


Key Features

- Contains a comprehensive collection of transgenic animal and gene transfer methods
- Teaches practical step-by-step protocols
- Covers a range of laboratory and domestic animal species
- Describes existing methods of gene transfer
- Discusses molecular analytical techniques and considerations
- Illustrated with useful tables, charts and diagrams

*The Second Edition contains
85% new content!*

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