

Morphogenesis, the generation of tissue organisation in embryos, is becoming an increasingly important subject. This is partly because the techniques for investigating many morphogenetic mechanisms have only recently become available and partly because studying the genomic basis of embryogenesis requires an understanding of the developmental phenotype.

This timely book provides a comprehensive and contemporary analysis of morphogenetic processes in vertebrate and invertebrate embryos. After an introduction covering case studies and historical and technical approaches, it reviews the mechanistic roles of extracellular matrices, cell membranes and the cytoskeleton in morphogenesis. There is then a detailed discussion of how mesenchymal and epithelial cells cooperate to build a wide range of tissues; the book ends by considering the dynamical basis of the subject.

With its extensive literature review (more than 500 titles), this book will interest most developmental biologists and can also be used as an advanced textbook for postgraduate and final-year students.

The cover illustration shows an SEM micrograph of the folds of the ciliary body in the chick embryonic eye soon after their morphogenesis. These folds are each about 40 μm across and form when the ring of the retinal epithelium around the lens buckles under the influence of differential growth. The cover design is by Ken Vail.

Developmental and cell biology series 23

CAMBRIDGE
UNIVERSITY PRESS
www.cambridge.org

ISBN 0-521-43612-5



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