The last ten years have shown a dramatic revolution in our understanding of early animal development. *From Egg to Embryo* describes the results of this revolution and explains how the body plan of an embryo emerges from the fertilized egg.

The book starts with a critical discussion of embryological concepts and provides a new reference glossary. It goes on to explain, in simple terms, the mathematics of cell states, morphogen gradients and threshold responses. The experimental evidence for the mechanism of regional specification in *Xenopus*, molluscs, annelids, ascidians as well as *Caenorhabditis*, the mouse, the chick and *Drosophila* is then discussed. Progress with *Drosophila* has been particularly impressive and the *Drosophila* chapter provides a clear guide to the subject and also includes a new table of developmentally important genes.

Throughout, the emphasis is on conceptual clarity and unity: bringing together the mathematical models, embryological experiments and molecular biology into a single, comprehensible, coherent account. The book is a critical work, designed to evaluate theories and experiments and to stimulate thought by the readers, be they undergraduates, postgraduates or research workers.

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Reviews of the first edition

One of the best and clearest explications of the bewildering terminology of embryology that I have ever come across . . . It would be difficult to find another book where, in a mere 130 pages, the central facts of early embryonic development are set forth so clearly and economically . . . Slack establishes himself as an excellent expositor and critic of biomathematical theory. *Cell*

The tone of the discussion is non-partisan as between competing theories, but thoughtful and often provocative. Many questions are posed for the reader to ponder, where other authors might peddle their own pet speculations . . . it is entertainingly written; it gives a clear and refreshing perspective on a major problem; and, above all, it stimulates thought. *Nature*

Review of the second edition

The result is invigorating and in many ways much more interesting than the first edition because it is the writing of a new convert to molecular genetics. The focus remains the same: the establishment of the basic body plan of the animal. The context is also the same in that there is a very rigorous and explicit introduction to the problem and one of the clearest expositions of the terminology and conceptual framework of embryology to be found. *Trends in Genetics*

Front cover illustration is Figure 5.10.