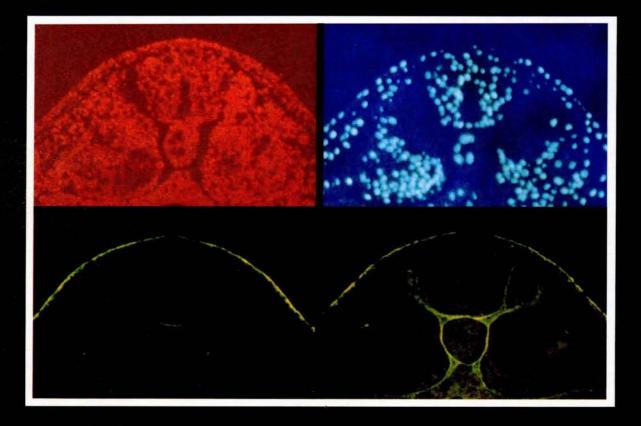
# **JEEM**

Journal of Embryology and Experimental Morphology

VOLUME 89 SUPPLEMENT November 1985

# Early Amphibian Development

# Edited by Jonathan Slack



BSDB British Society for Developmental Biology

#### THE JOURNAL OF EMBRYOLOGY AND EXPERIMENTAL MORPHOLOGY

# EARLY AMPHIBIAN DEVELOPMENT

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## JONATHAN SLACK

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1985

Papers presented at a meeting of the British Society for Developmental Biology at the University of Glasgow, U.K., on March 25th and 26th, 1985

#### THE COMPANY OF BIOLOGISTS LIMITED

CAMBRIDGE

#### Published by The Company of Biologists Limited Department of Zoology, University of Cambridge, Downing Street, Cambridge CB2 3EJ

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Filmset in Times by Filmtype Services Limited, Scarborough, North Yorkshire.

Cover photograph, Xenopus embryo viewed by phase contrast, DAPI and FITC-peanut lectin fluorescence. For further details see p. 137.

## Introduction

This volume represents the proceedings of the BSDB Symposium on 'Early Amphibian Development' held in Glasgow on March 25,26th 1985. I had felt it desirable to hold such a meeting since the level of communication between laboratories working on problems related to regional specification in the early embryo has often been rather poor. In this case then, a 'one organism' meeting was not so much a community retreating into a ghetto as a community in the process of creation.

Probably the most striking feature of the meeting was the virtually unanimous acceptance of the fact that the embryo body plan is formed as a result of a series of inductive interactions. This is striking because it comes after a long period in which induction was either ignored or regarded as an experimental artifact arising from cell sorting or selective cell death. It represents a triumph of the world view first established in the 1930s by Spemann, Mangold, Holtfreter and others. But of course the concepts and categories of a former generation which were once regarded as explanations are now regarded as problems themselves requiring solution. The new technologies of cell lineage labels, monoclonal antibodies and recombinant DNA are being turned for the first time onto the phenomena of induction competence, specification and determination.

The authors were asked to build a high 'review content' into their presentations so that the resulting volume would be useful to those working on other systems who require an up to date overview and to those contemplating entering the field, and this hope has largely been met. The discussion following each paper at the Symposium was recorded and an edited version follows the text of each paper in an attempt to give readers an idea of the flavour of the meeting.

Any mammalian embryologists in the audience must surely have been impressed by the range of experiments which are possible on large vertebrate embryos which are accessible at all developmental stages. It is probable that since we ourselves are mammals we shall always accord first place to the mammalian embryo, but I suspect that the fundamental advances in our understanding of induction will have to come from the amphibians. Once the biochemical basis is understood it could perhaps be confirmed in mammals without the need for further micromanipulative experiments.

I should like to thank Chris Wylie and Ron Laskey for assistance in devising the programme, Adam Curtis for efficient organization in Glasgow, and Sandra Colquitt for recording and transcribing the discussions.

> J. M. W. Slack May 1985