

Public Review

Title: *Developmental Biology Laboratory: Experiments in Classical and Experimental Embryology*

Author: Judy Cebra-Thomas and co-author Matthew Smith

Peer Reviewer: Julie Drawbridge

Judy Cebra-Thomas and co-author Matthew Smith have written an excellent lab manual for instructors of developmental biology courses. The manual focuses on three important model systems in developmental biology - sea urchin, chick and zebrafish. Although intended for an intermediate-level developmental biology course, many of the exercises can be easily adapted for use in introductory biology and cell biology courses. Students performing developmental biology techniques for the first time will find the clearly written protocols easy to follow. The illustrations further enhance comprehension, helping students visualize both the procedures and the developmental processes they are studying.

The most pedagogically enriching feature of the manual are the suggestions for follow-up investigations included at the end of each section. These provide instructors with opportunities to create undergraduate research experiences within the context of a lab course and encourage students to extend their learning through inquiry-based experimentation, allowing a deeper engagement with the scientific process.

The manual also provides excellent support for instructors. The appendix offers a rich list of resources, from suppliers to background readings and technical tips, making it a valuable toolkit—especially for educators who may not have prior experience working with the three featured model organisms.

In sum, the authors have given the educational community an outstanding resource for instruction in developmental biology that is both student- and instructor-friendly. The exercises illustrate key processes in cell and developmental biology using tractable and important model organisms and the protocols are clear and easy for students to grasp. Instructors will appreciate the extensive resources provided to support their instructional goals. It is a gem.

Reviewer Bio:

Julie Drawbridge received her Ph.D. from the University of Texas, Austin and did her post-doctoral work at Princeton University. She is a developmental biologist who has been teaching at all levels in the biology curriculum at Rider University for 29 years. She is grateful to have received grants from the New Jersey Commission on Cancer Research, the NIH and the NSF to support her work educating undergraduate students in the classroom and the research laboratory.