



## Book Review

# Gilbert and Barresi Book Review

G. H. Sperber, MSc, PhD, FICD, FRSSaf<sup>1\*</sup>

### About the Authors

<sup>1</sup> Faculty of Medicine & Dentistry, University of Alberta, Edmonton, AB, T6G 1C9, Canada  
Tel: 1-780-492-5194 Fax: 1-780-492-7536

### \*Corresponding Author:

Geoffrey H. Sperber  
[gsperber@ualberta.ca](mailto:gsperber@ualberta.ca)

### Citation and Copyrights

**Citation:** Sperber GH (2016) 'Gilbert and Barresi Book Review', *ScholReps* 1(2).

**Copyright:** © 2016 Sperber GH. This is an open access article distributed under the terms of the Creative Commons Attribution 4.0, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited

### Publication Details

**Received:** Aug 03, 2016

**Accepted:** Aug 08, 2016

**Published:** Aug 19, 2016

**Funding:** None.

**Subject Section:** Developmental Biology

**Conflict of interest:** The authors have read the journal's policy and have the following conflicts:

Corresponding author G. H. Sperber is editor of Scholars Report for Reproductive Biology, Human Genetics, and Embryology Section. This does not alter the authors' adherence to all the Scholars Report policies on sharing data and materials.

### Review:

Developmental Biology . 11th Edition. Sunderland, Mass. Sinauer Associates Inc. 2016.

By Gilbert, Scott F. and Barresi Michael JF.

Pages xx + 810 +G20 (Glossary)+ Index 65; 695 Illustrations.

Casebound ISBN 978-1-60535-470-5. Price: \$155.95

Looseleaf ISBN 978-1-60535-604-4. Price \$99.95

Weighing in at 6 lbs, this hefty print copy tome is a magnum opus in every sense of the words. The striking cover image of a confocal micrograph of a whole-mount 11.5 day-old mouse embryo depicting the developing peripheral nervous system is an enticement to explore the internal intricacies of development. The 11th edition of this classic work succeeds its 10th edition of 2013 by a mere three years, epitomizing the rapid rate of recent discoveries and revelations in developmental biology.

Included with this book is "DevBio Laboratory: Vade Mecum" an interactive online guide to developmental biology by Mary Tyler and Ronald Kozlowski that requires computer access by a one-time unique code registration accorded to each individual book. This limits access to only the original registrant. New registration codes can be purchased online for \$29.71 USD, assuring the royalty payments to the publisher.

The availability of the book in several different formats as an eBook on VitalSource, Redshelf and Bryte Wave offered either as a 180 day rental or a permanent subscription, or as a Looseleaf textbook makes this work as accessible as different modes of communication allow. A companion free- of- charge website to the book ([www.labs.devbio.com](http://www.labs.devbio.com)) significantly enhances the resources available with 18 video tutorials, 121 Web topics, 52 videos of live developmental processes and question and answer interviews with 74 experts. Flash cards introducing new terms are available, as well as the most extensive bibliography of all the literature cited in the textbook, with most linked to their PubMed references. It is suggested that an added online self –test quiz would be an invaluable resource for revision purposes. For instructors, Power Points of developing chicks in whole -mount and serial sections, labelled and unlabeled versions for quizzes and exams are provided. The work successfully integrates digital technology with conventional print, and is a cornucopia of revelations of biological development.

The 26 chapters are divided into seven divisions, covering patterns and processes, reproductive mechanisms, early development in various species ranging from *Drosophila* to Humans, detailed ecto-, meso- and endodermal formulations, postembryonic development, terminating in developmental considerations of disease, environment and evolution.

The wide range of systems and organs covered is impressive, requiring assessment of its contents by no less than 37 acknowledged expert developmental biologists drawn from around the world, who were invited to review and contribute to the text.

The updated currency of the contents is emphasized by extensive coverage of stem cells, sex determination and gametogenesis, and the new techniques of gene editing by CRISPR.

In the best pedagogical manner, each chapter begins with an intriguing question and figure, followed by a "punchline", guiding one to the major principles exemplified in the chapter.

The format of the writing is unconventional and sometimes "chatty", with interspersions of figures, diagrams and insertions of "scientists speak" indicators, making the experience an almost live lecture. The numerous figures scattered throughout the text are superb, with each chapter terminating with a "Snapshot Summary": and a "Further Reading" list and references to [www.LABS.DEVBIO.COM](http://www.LABS.DEVBIO.COM). The extensive up-to-date references are as recent as articles published in 2015. However, be aware that some of the Web topics and "Scientists speak" sites were still "under development" and not available online at the time of this review.

For whom is this compendium of biological sciences recommended? It certainly is geared to postgraduate students that require a background of biology to fully comprehend its contents. I cannot but help wondering what Gregor Mendel and Charles Darwin would have given (their eye teeth?) to have had this information available 150 years ago!

What a rich resource this is for those willing to delve into the intricacies of developmental processes, of which this scholarly compilation is a "tour de force" and a "sine qua non" of biological development.