



Book Review

Craniofacial Embryogenetics and Development

Authors: Geoffrey H. Sperber, Steven M. Sperber Publisher: PMPH-USA, Raleigh, North Carolina, USA Edition: Third edition Price: £49.95 ISBN-10: 1607952823 Pages: 276.

This book, or its forerunner *Craniofacial Embryology*, have been authoritative textbooks for dental students for more than 45 years. Much of the anatomical and morphological changes that were originally beautifully described in the book published in 1973 are still valid today. However, since that time our understanding of what controls development has changed radically. In an attempt to encompass these changes, over the years the titles and concepts of the books have changed accordingly.

Craniofacial Embryogenetics and Development is now in its 3rd edition and has the same format and chapters as the previous editions. It is divided into two broad sections: the first General Embryology and the second Craniofacial Development. Most chapters follow a similar layout with a description of normal development and thereafter is a short section on anomalies of development.

The first section deals with some introductory concepts. There are overviews of genetics, and growth and transcription factor signalling, followed by a description of early human embryogenesis, including head, face, and neck development. After this there is a chapter outlining bone development and growth. The second section covers specific anatomical sites including the facial skeleton, the palate, the salivary glands, and the teeth. The final chapter is a list of craniofacial disorders with known single gene mutations.

Compared to the previous edition, in 2010, there have not been whole sale changes. Many sections are the same as the previous edition. So, ‘What is new?’ There are a few new figures and many of the schematic figures have been converted into colour and this certainly will enhance reader understanding. Also, some sections of text have been updated and rewritten, notably the introduction to genetics, the overview of pharyngeal arch patterning, and the sections on the regulation palate fusion, growth and shape determination of the midface, and tooth morphogenesis. The final chapter has a useful list of craniofacial disorders with known single gene mutations. This table has been updated and has had OMIM (Online Mendelian Inheritance in Man) numbers added. OMIM is a constantly updated open access source of human genes and genetic phenotypes.

Craniofacial Embryogenetics and Development is one of a small number of books specifically dedicated to the complex subject of craniofacial development. It is well written and clear, and will remain a steadfast source of reference and learning for students in the future.

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