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Nota di contenuto	Models for studying Organogenetic gene networks in the 21st century, James Castelli-Gair Hombría and Paola Bovolenta -- Organogenesis of the C. elegans vulva and control of cell fusion, Nathan Weinstein and Benjamin Podbilewicz -- Advances in understanding the generation and specification of unique neuronal sub-types from Drosophila neuropeptidergic neurons, Stefan Thor and Douglas W. Allan -- Fast and Furious 800. The retinal determination gene network in Drosophila, Fernando Casares and Isabel Almudi -- Genetic control of salivary gland tubulogenesis in Drosophila, Clara Sidor and Katja Röper -- Organogenesis of the Drosophila respiratory system, Rajprasad Loganathan, Yim Ling Cheng, Deborah J. Andrew -- Organogenesis of the zebrafish kidney, George Chang, Richard W. Naylor, and Alan J. Davidson -- Morphogenetic mechanisms of inner ear development, Berta Alsinaand Andrea Streit -- Vertebrate eye gene regulatory networks, Juan R. Martinez-Morales -- Vertebrate eye evolution, Juan R. Martinez-Morales and Annamaria Locascio -- Principles of early vertebrate forebrain formation, Florencia Cavodeassi, Tania Moreno-Mármol, Maria Hernandez-Bejarano and Paola Bovolenta -- Control of organoganesis by Hox genes, James Castelli-Gair Hombría, Carlos Sánchez-Higeras and Ernesto Sánchez-Herrero -- Index.
Sommario/riassunto	All animals, including humans, derive from a single cell, which

possesses all the genetic instructions needed to define how the animal will look like. However, during development, the millions of cells that derive from the zygote will only select part of this genetic information to give rise to the various organs of the body. The coordination of different cell behaviours during development results in the formation of specialized tissues and organs giving rise to highly adapted animals. This book provides an overview of how this diversification is achieved during organ formation and how it may have evolved. Conserved cellular processes are presented using examples from selected vertebrate and invertebrate species that illustrate how developmental biologists are solving the complex puzzle of organ formation. This volume is aimed to students, researchers and medical doctors alike who want to find a simple but rigorous introduction on how gene networks control organ formation.