

Preface

In a somehow limited view of this discipline, Embryology has been considered in the past years a prerequisite and a fundamental acquisition for a better and more dynamic understanding of gross anatomy. We are certainly not denying this idea that has a solid ground and highlights the impact of the complex differentiation processes in the definition of the final architectural morphology of a tissue/organ and the related function.

At present, however, we are convinced that this view needs to be expanded considering the central role played by Embryology in a series of new scientific fields. Innovative and quickly developing research in biomedical science and modeling find solid bases in recently acquired information related to embryo induction and differentiation. Similarly, the latest exciting scientific acquisitions in stem cell research and regenerative medicine have been supported by the elucidation of the mechanisms and molecules controlling pluripotency and driving commitment and differentiation in the early embryo.

This Brief is intended as a concise, handy overview of the main concepts related to Embryology, re-visited through the novel concepts that are applied daily in stem cell research and cell therapy oriented investigations.

Milan, Italy

Tiziana A. L. Brevini
Georgia Pennarossa

Gametogenesis, Early Embryo Development and Stem
Cell Derivation

Brevini, T.A.L.; GEORGIA, P.

2013, XI, 66 p. 48 illus., 16 illus. in color., Softcover

ISBN: 978-1-4614-5531-8