

Preface

If evolution is change in morphology, as morphology depends on embryonic development and development depends on developmental genes and gene networks, understanding how developmental genes evolve is the crux to understanding evolution. Strange as it may seem, this is not taken from the script of a Marx Brothers' soap opera; instead, this is the basic rationale behind *Evo-Devo*, one of the current frontiers of Life Sciences. *Evo-Devo* tries to unveil, under an all-embracing conceptual umbrella, the rules and mechanisms which evolution has brought into play over time to generate the past and present biodiversity of life forms.

When Juan Aréchaga, Editor-in-Chief of *The International Journal of Developmental Biology* threw the bait to enrol us in the edition of an *Evo-Devo* Special Issue for the journal, we were rather hesitant. After all, recent years have witnessed whole books and other journal special issues devoted to it. Shortly after, we provided him with a sketch of the provisional table of contents, including contributions from "big shots" and raising stars. The papers have been grouped under headings that deal with many of the major *Evo-Devo* questions: i) introductory papers emphasizing the history and ancestors of *Evo-Devo*; ii) papers on patterns of evolutionary change and conservation; iii) macroevolutionary processes; iv) microevolutionary processes and v) analyses of virtual and actual gene networks. We, as Special Editors, were left to write the closing paper trying to summarize the main facts and open questions.

Being the guest editors of this Special Issue has been a real privilege and a wonderful (albeit often stressful) experience. No wonder, it has not been an easy task. These are hectic times for Science and scientists. Some people declined our invitation to contribute to the issue, but were in the end substituted by specialists who left nothing to be desired. Accordingly, we wish to thank everyone who made this Special Issue possible. First, our thanks and congratulations to all of the contributors for writing stimulating, timely and in a word, excellent papers on the subject. Secondly, our grateful thanks to the team of the *Int. J. Dev. Biol.* Editorial Office for unfailing editorial help, and for patiently leaving unnoticed broken temporal promises. And finally to Juan Aréchaga for enticing us and to Antonio Garcia-Bellido for help in selecting topics and people. We would also like to apologize to some contributors for being too pushy when deadlines were unbearably overdue.

It will probably not go unnoticed that some subjects have not been included in this Special Issue. Two prominent examples are evolutionary developmental biology in plants and the origin of multicellularity. While we are fully responsible for the last, to our despair and despite repeated attempts, plant "guys" just seemed to fly away when they noticed too many animals around! However, we still feel very proud of the final outcome and hope the reviews will help *Evo-Devo* researchers and those from related and unrelated disciplines to go along the long and winding road (apologies to "The Beatles") of *Evo-Devo*.

A final word to honour the man who started it all: Charles Darwin. In one of the most thrilling contributions of this Special Issue, Simon Conway-Morris asks, concerning the Cambrian "explosion" and molecular biology: would Darwin be satisfied?, Conway-Morris answers at the end of his paper "Fascinated, certainly; but satisfied?, not yet." We believe this best defines how *Evo-Devo* researchers feel: fascinated, but not satisfied. The aim of the next generation of *Evo-Devo* fans will be, while keeping themselves fascinated, to get more satisfaction (now, our apologies to "The Rolling Stones").

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