

Developmental Biology in Hispania

(Spain & Portugal)

Editors

Juan Aréchaga and Isabel Palmeirim

Presidents of the Spanish and Portuguese Societies of Developmental Biology

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*Hispania tota sibi restituta est**

HISPANIA, a toponym of more than two thousands years, has a Phoenician origin (*i-shphan-im*). Although there is not yet common agreement among linguists about its meaning, *Land of Rabbits* or *Land of Metals* are possible interpretations. *Iberia*, on the other hand, has a Greek root, but is only used for geographic or ethnic reasons. It is very curious that the Romans, victorious over the Carthaginians and controllers of the Iberian Peninsula for more than six centuries, preserved the word Hispania to define the whole territory which includes nowadays Spain and Portugal and its inhabitants (*Hispani*), unlike other Latin European provinces which bore barbarian names (*Galliae*, *Britannia*, *Germania*, etc). Hispanic provinces were among the most civilized dominions of the Roman Empire. In fact, three great emperors (Trajanus, Hadrianus and Theodosius I) were born in Hispania and for centuries, many Hispanics participated in the Roman army, political administration, Senate, etc. Moreover, important Latin writers and philosophers (Seneca, Lucanus, Quintilianus, Martialis, etc.) belonged to Hispano-Roman families. The Germanic invasion by the Visigoths and their posterior identification with the values of the Roman tradition, gave to Hispania its own personality as a unified and independent nation for the first time, particularly from 589 A.D. (Third Council of Toledo). However, although the Muslim invasion in 711 A.D. maintained the unity of the conquered land, it also changed its name for *al-Andalus*, according to the platonic myth of Atlantis. During the following centuries, the Hispanic Christian Kingdoms, not only fought against the Moors, but also tried to look after the unity of the country, under the old common name of Hispania, through successive marriages between royal families. In this regard, several royal princesses crossed the frontier between Spain and Portugal up to eleven times and King Manuel I of Portugal (1469-1521) married successively three Spanish princesses with the same purpose in mind! Perhaps it is now time, each in our own way, to contribute to restoring the focus on our essential unity, so succinctly expressed in 1492 by the Spanish linguist Antonio de Nebrija (1444-1522) cited above.

* *Hispania is restored in its entirety into itself*

Editorial

Science in Hispania: Spain and Portugal on the main route again

If we identify Science and Scientific Research with what has been called *Modern Western European Science*, it is evident that the Kingdoms of the Iberian Peninsula were not involved significantly in its inception and spread (Basalla, 1967). This might appear to be paradoxical, since the huge Hispanic Empire (which included Portugal and its ultramarine possessions from 1580 to 1668), although already declining during the second half of the XVII Century, was still at the time the major power in the world. But, there were several reasons for this decline, many of them being causes which had been operating for centuries before they became visible.

The first of these reasons was the tremendous extension of an Empire in which *the sun never set*, at a time during which communications were extremely difficult. Second, it was a titanic task to colonize and develop the new territories of the Hispanic Crown. In this regard, it must not be forgotten that the first modern Universities of America and Asia were founded by the Spaniards. Third, the constant need to defend the new territories against the continuous raids of the French and British, who were traditional Hispanic adversaries and on top of this, promoters of the sad secession of Portugal. The fourth important reason has been identified as the forbidding of relations with foreign Universities (Kennedy, 1989), as a consequence of Protestant religious reforms, which involved, by reaction, isolation from the scientific movement which was irradiating from its source in the different Italian city-states, to the countries of Northern Europe (i.e. Britain, The Netherlands, France, Germany and the Scandinavian Countries). This may seem rather astonishing, not only because Hispanic possessions in the Italian peninsula were still quite extensive (more than half of the territory, including Milan, Naples, Sicily and Sardinia), but also because the Iberian peninsula had been one of the major sites of the scientific and technological advances which led to Hispanic supremacy in the world during the XVI Century (Cañizares-Esguerra, 2004, 2006; López-Piñero, 1979; Paweletz, 2002).

The other big wave of scientific progress in the Western world, during the XIX and the first half of the XX Centuries, found Spain and Portugal also out of the big advances, as a tragic consequence of the unlucky French Revolution and the posterior Napoleonic *völkerwanderung*. Both countries were materially devastated by it and the 1807-14 war ended with Portugal as a British colony and a later rigid protectorate during almost a century. Moreover, the tumbledown independence of the Hispanic-American territories and chronic social division within our countries, sowed additional seeds of successive riots and civil confrontation. Spain alone suffered four civil wars during the XIX and XX Centuries and multiple changes of political systems, with monarchies of distinct dynasties (Bourbons-Savoy-Bourbons), two republics and several dictatorships. On many occasions, its brother country Portugal was a mirror image: Miguelism and Carlism, liberal-absolutist clashes, socialist/communist revolutions, anarchist attempts, military uprisings, etc.

Portuguese and Spaniards share an identical historical and racial Hispanic background (Iberian-Roman-Visigothic) and a common character forged through the long fight against Moslems and through the immense colonization labor in their American, Asian and African territories. Today, we appear to be ready for a splendid and unitary European future which involves summing efforts and dreams. In this regard, the progressive reforms instituted after the Second World War, which were very effective in our countries during the last quarter of the XX Century, incorporated us definitively into a more normalized scientific progress. Nowadays, we cannot find gaping differences in Science with the rest of the more developed nations of the Western world.

The academic and professional level of research shown in this Special Issue of *The International Journal of Developmental Biology*, in a very particular area of the Life Sciences, together with the growing international prestige of the *Int. J. Dev. Biol.* itself as a journal, are good witnesses to this ongoing development. Nevertheless, to select the best representatives of contemporary Spanish and Portuguese developmental biology, including in addition, as many specialties as possible and exhibiting an equilibrated territorial representation, was a difficult, if not, impossible task. As one of the Editors, I am not entirely happy with the selection offered in this issue, because several important labs and representative scientists have not been included due to space limitation. However, we have tried to do our best and, in this regard, I want to deeply acknowledge the earlier contribution to this Issue of María Carmo-Fonseca, one the most important contemporary Portuguese biomedical scientists, for her help and dedication to selecting and inviting representative Portuguese laboratories. An upsetting albeit unavoidable delay in the publication of this long-awaited Special Issue has been another source of concern and dissatisfaction. I am sincerely indebted to all authors for their patience and understanding, and trust that the final result will in some way compensate for this protracted wait.

Juan Aréchaga , Editor-in-Chief
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