EDITORIAL

Palermo-2010 conference on biogerontology

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We, as the guest editors, are pleased to introduce this special issue of Biogerontology, which is the outcome from the 7th European Congress of Biogerontology, held from 14th to 17th October, 2010 in Palermo, Italy. The thematic aim of the Palermo-conference was to get an overview of the present state of research in the development of effective therapies to postpone or treat human ageing, focusing on predictive medicine and prevention of age-related diseases, immunosenescence, longevity, model systems, ageing and wellness, and vaccination in the elderly.

Understanding the determinants of ageing in humans in relation to the living environment and the individual life history was the additional goal of this conference. Furthermore, how variations in the genetic traits, in the inflammatory history and in the personal diet affect individual health and the ageing of the population were the questions addressed. Another important aspect concerning ageing is the "demographic transition", which implies a progressive increase in human life expectancy resulting in significantly increased number of the very old and the centenarians. In this respect, centenarians represent a good model to investigate biological traits of ageing and longevity, which allow some individuals to live longer and disease-free with respect to others. As a matter of fact, centenarians embody the best genetic, biologic, cultural, socio-economic and stochastic traits blended together allowing a successful ageing. They represent a selected population who escaped chronic age-related disease as Alzheimer's disease, cardiovascular disease, diabetes and cancer.

The Palermo-2010 conference was attended by 100 participants representing 20 countries. There were 60 oral presentations and 45 poster presentations with ample discussions and interactions. This special issue is a collection of selected articles based on the presentations in the conference, which have been peer-reviewed in accordance with the general procedure followed in *Biogerontology*.

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