

FOREWORD

The exponential increase in our knowledge of the cellular and sub-cellular mechanisms of life, made possible by a similar rise in the “dissecting power” of current analytical tools, has rendered the more traditional fields of integrative and system physiology somewhat outdated, particularly so in the eyes of our younger colleagues who often label these disciplines “paleophysiology”. I think that this era is now giving way to a more sober approach, in which the information gained at the molecular, sub-cellular and cellular levels is integrated, or at least tentatively so, into a comprehensive view that takes into account everything from tissues, organs and systems, up to the conscious man. It is obvious that this transcends the possibilities of individual scientists; it can only be achieved if large groups from different areas cooperate and exchange methods, results, and ideas. This exchange has now become extremely fast and efficient thanks to the numerous technological tools available. Even so, the more traditional printed journals are, in my opinion, an invaluable basis whereupon to lay the foundation of Science.

Annales Kinesiologiae is a paradigmatic example of such a journal. The content of the present issue, dedicated as it is to Kinesimetrics, i.e. to the study of human motion or, more specifically, to its quantitative measurement, is an ostensive definition thereof. Indeed, it ranges from a methodological definition of the field (P. Blahus), to its application in several physiological or patho-physiological conditions (W. Zhu, M. Narici, N. Šarabon, R. Pišot, G. Biolo, I. B. Mekjavić); from specific technical tools (B. Simunič, M. Tušak), to general methodological aspects (F. Prot, K. Kovar). In this general frame, I have taken the liberty of changing the content of my presentation at the meeting which gave birth to this issue from a specific aspect of human muscular function (the bilateral deficit), to a more general discussion of the philosophical meaning of the scientific adventure, based on the history of human powered flight.

It also worth noting that the acronym of the Institute for Kinesiology Research, IKARUS, coincides perfectly well with the topics of my contribution. IKARUS is specifically dedicated to Sports and Environmental Physiology, and, under the leadership of Rado Pišot and of his excellent colleagues, it has the potential to fly not like a human powered aircraft but like a modern ultrasonic jet.

Udine, 8th June, 2010

Pietro Enrico di Prampero