

EDITORIAL

A MESSAGE FROM THE PRESIDENT OF THE INTERNATIONAL SOCIETY OF BIORHEOLOGY

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I am greatly honored to have been asked by Professor A. L. Copley, Editor-in-Chief of Biorheology, to write this Editorial.

The Third International Congress of Biorheology was held at The University of California, San Diego at La Jolla, U.S.A., from August 27 to September 1, 1978, with great success, owing to the excellent organization by Prof. Y. C. B. Fung and his associates. The last issue of Volume 15, 1978 of Biorheology contained many of the Proceedings of the Congress. This double issue has been dedicated to Dr. Maurice Joly as the recipient of the Poiseuille Gold Medal, the highest honor of our Society, presented to him at the Congress.

In the convocation address, Professor Copley enumerated important milestones in the history of biorheology. The first milestone dates back to 1948, when the First International Congress on Rheology was held at Scheveningen in Holland. Since then thirty years have already passed.

From a saying of Confucius the age of thirty is called self-standing. At the present stage biorheology can be regarded as a self-standing science or an independent organized science, as stated by Copley in his address. The self-standing of biorheology implies that it has been already established and not by any means that it has been completed. On the contrary, the science of biorheology is now rapidly growing and expanding its scope in various fields.

Most scientific terms have been translated into the Japanese language, using two or three Chinese letters. Mechanics, for example, is translated into two letters, RIKI-GAKU, which literally means 'force science'. However, rheology, which is defined as the science of the deformation and flow of matter, has no translation into Chinese letters and is given by five Japanese phonetic letters, RE-O-RO-ZI-I. The presumable reason is that the precise translation needs several numbers of Chinese letters. Moreover, the expression by phonetic letters may sound modern. Biorheology is a combination of biology and rheology and in translation is usually given by eight phonetic letters, BA-1-O-RE-O-RO-ZI-I. Interdisciplinary sciences often require a lengthy expression even in English.

Dr. G. W. Scott Blair surveyed the wide fields of biorheology in his book "An Introduction to Biorheology", published in 1974. There he introduced the term "electrorheology". The mechanical and electrical properties of matters are often correlated to each other. In certain materials, including biological substances, the deformation is produced under the influence of electric field and, vice versa, the electric polarization is produced under the influence of mechanical stress. The papers concerning piezoelectricity in bone and dental tissues were for the first time included in the program of the International Congress of Biorheology at La Jolla.

It has been recognized that the piezoelectric field or current, generated in bone, regulates the mechanism of the growth of bone. The understanding of the mechanisms in the shaping of living bodies is a very fascinating field of science. The morphology of organisms will be involved in the progress of biorheology.

The Fourth International Congress of Biorheology will be held in Tokyo, Japan, during the summer in 1981. It will be a great pleasure for us Japanese biorheologists to hold an International Congress of Biorheology for the first time in Japan. Early in 1978, The Japan Society of Biorheology has been formed with about three hundred members and Professor Oka was elected as the President of the Society. The Fourth International Congress of Biorheology will be sponsored by The Japan Society of Biorheology.

I have recently formed an Organizing Committee with Professor Oka as the Honorary Chairman to prepare the necessary arrangements to hold the next International Congress. I should like to extend my cordial invitation to biorheologists from all over the world to visit Japan and to participate in the Congress in 1981. I particularly hope that our scientific colleagues from Asia and Australia, who are interested in biorheology, will join the Congress and have an opportunity of international contacts.

I sincerely hope that the Fourth International Congress of Biorheology in Tokyo will be highly successful in both its scientific and social aspects and that it will become a new milestone in the history of biorheology.

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16. January 1979