

Foreword

12th European Conference on Clinical Hemorheology, Sofia, Bulgaria, June 22–26, 2003
Eurosummer School on Biorheology, Varna, Bulgaria, June 29–30, 2003

The 12th European Conference on Clinical Hemorheology has been held in Sofia, June 22–26, 2003 in the National Palace of Culture – Sofia Congress Center (<http://www.12ECCH.primasoft.bg>). The Conference has been organized by the European Society of Clinical Hemorheology – a federation of National Societies with a local organizer – the Bulgarian Society of Biorheology. The Conference has been supported by the Ministry of education and science of Bulgaria, Bulgarian Academy of Sciences, Union of Bulgarian Scientists, Prima Soft Ltd. The pharmaceutical companies Sopharma Pharmaceuticals, UCB Pharma, Gedeon Richter AD, Pfizer, Novartis, Boehringer Ingelheim, Slovakofarma and Schering have presented their diagnostic and therapeutic products with hemorheological influence at the exhibition, running parallel to the Conference.

About 70 active participants from different branches of medicine, biology, pharmacology, physics, mechanics and chemistry from Belarus, Belgium, Bulgaria, Czech Republic, France, Germany, Georgia, Great Britain, Hungary, Israel, Italy, Nigeria, Poland, Romania, Russia, South Korea, Spain, Turkey and USA have presented nine plenary lectures, sixty seven communications and forty four posters during the 12th European Conference on Clinical Hemorheology in Sofia.

The plenary lectures have been devoted to the molecular mechanisms in blood rheology, cell adhesion, mechanotransduction in endothelial cells and cell mechanics as to the endothelium dysfunction, physical factors, modulating leukocyte recruitment to endothelium in health and disease, erythrocyte adhesion to endothelium, leukocytes, platelets, mediated by specialised molecules as well as to the effects of shear stress on endothelial signaling transduction and gene expression in health and disease. The problems of the microrheological properties of blood and cell-specific factors, that influence erythrocyte aggregation, rheological actions of deformation and aggregation *in vivo* have been treated in the plenary lectures. The problems of hemorheology and vascular control mechanisms, local and generalized hemorheological disorders in the microcirculatory bed as well as polymer drag reducing phenomena in blood circulation have been of special interest. The plenary lectures have been delivered by M. Ramling and G. Nash from Great Britain, J.-F. Stoltz and J.-L. Wautier from France, H. Schmid-Schönbein from Germany, Shu Chien from USA, G. Mchedlishvili from Georgia and O. Baskurt from Turkey. The Fahraeus medal Award has been awarded to Professor Sandro Forconi from Siena, Italy – the President of the European Society of Clinical Hemorheology and an outstanding leading scientist in the field of clinical hemorheology. The special Fahraeus Award plenary lecture: “From blood hyperviscosity to endothelium dysfunction: a return trip”, illustrating the continuing course of 30 years in studying the flow properties of blood, delivered by Professor Forconi was the highlight of the meeting. The eleventh symposia, organized during the Conference, have been devoted to the clinical relevance and predictive value of hemorheological variables, hemorheological aspects of cerebral ischemia, vascular ischemia and microcirculation, hemorheological alterations in ischemic vascular diseases, hemorheology and clinical microcirculation, hemorheology and microvascular diseases, cell adhesion and the response of endothelial cells to shear rates. Nutrition and exercise as major determinants of blood rheology, methods in

hemorheology and cell mechanics and clinical and applied hemorheology and hemostasis were other symposia topics. A round table discussion on hemorheology and transplantation has been organized by G. Cicco and V. Memeo from Bari, Italy. The French group of clinical hemorheology, the German society of microcirculation and hemorheology, the Italian Society of clinical hemorheology, the Hungarian Society of hemorheology and the Bulgarian Society of biorheology have been very active in the organization of the symposia. The Conference had been held with the active participation of everyone of the participants and a comprehensive discussion of the actual problems and the recent achievements in the field of the clinical hemorheology.

Organizing meetings of the Council and the Advisory Board of the European Society of the Clinical Hemorheology and of the Editorial Board of the Journal of Clinical Hemorheology and Microcirculation at the presence of all the participants in the Conference have been held. After a wide discussion it has been decided that the next European conference on clinical hemorheology will be held in Siena, Italy in 2005.

A satellite meeting – the Euro Summer School on Biorheology has been held from 29 to 30 June 2003 in the International Home of Scientists “F. Joliot-Curie” in Varna. The intention of the organizers was to get closer the scientists and discussion of more general problems in biorheology to the clinical hemorheology investigations and to organize further regularly European meetings on biorheology. G. Mchedlishvili from Georgia, P. Riha from the Czech Academy of Sciences, V. Vorobyev from the Institute of Physiology to the Russian Academy of Sciences in St. Petersburg, M. Boynard from the University Paris 5 and J.-F. Brun from Montpellier, France and Ya. Ivanov from the Bulgarian Academy of Sciences have delivered lectures devoted to the basic factors determining the hemorheology in the microcirculation, cell adhesion in the vascular system, biorheological aspects of the single-molecule approaches to the chromatin structure and dynamics, ultrasound contribution to the study of mechanical and flow properties of blood and to the rheology of intelligent polymer gells for biomedical application. The program includes also communications and poster presentations from different fields of biorheology. Emmanuelle Varlet-Marie from France, Ifedayo Ajayi from Nigeria, Olga Shakirova from Perm, Russia and M. Betul Yerer from Turkey have been awarded with the awards for the best work of young scientists (students, post-graduate students and young scientists aged under 35).

Excursions to the Rila Monastery and to the old capital Veliko Tarnovo have been organized for the participants in the Conference. The organization of the 12th European Conference on Clinical Hemorheology has been estimated as successful by the participant and by the organizers.

The organizers thank all the participants and the institutions with which cooperation the Conference & School have been organized and realized.

October 20th, 2003
Sofia

Nadia Antonova
President of the 12th European Conference on Clinical Hemorheology
Sandro Forconi
President of the European Society of Clinical Hemorheology