13th Conference of the European Society for Clinical Hemorheology (E.S.C.H.)
June 26th - 29th, 2005 - Siena, Italy

1° Congresso Nazionale della Società Italiana di Emoreologia Clinica e Microcircolazione (S.I.E.C.M.)
28 Giugno 2005 - Siena

PROGRAMME
13th Conference of the European Society for Clinical Hemorheology (E.S.C.H.)
June 26th - 29th, 2005 - Siena, Italy

PROGRAMME

Sunday 26
Venue “Palazzo del Rettorato” – Aula Magna Storica

16.00
Opening Ceremony

17.00-18.00
Fahraeus Medal Award Presentation Ceremony and Lecture – Aula Magna

Fahraeus Lecture
HEMORHEOLOGY AND VASCULAR DISEASES: RED CELLS SHOULD RUB UP TO THE WALL, LEUCOCYTES SHOULD COPE WITH IT
Michel René Boisseau

18.30
Welcome Cocktail

Monday 27
Venue “Centro Didattico del Policlinico”

8.00-9.00
Registration

9.00-10.30
Symposium S1 – Aula Magna
HEMORHEOLOGY AND HEMODYNAMICS

10.30-11.00
Lecture L1 – Aula Magna
STUDIES ON BLOOD ELECTORHEOLOGICAL PROPERTIES
N. Antonova

11.00-11.30
Break

11.30-12.00
Lecture L2 – Aula Magna
GLYCATED PROTEINS PROVOKE AN ENDOTHELIAL CELL DYSFUNCTION
Jean-Luc Wautier

12.00-13.30
Meeting of the Advisory Committee of the European Society for Clinical Hemorheology (E.S.C.H.) – Aula Magna

13.30-14.30
Lunch

14.30-19.30
Social Event

Tuesday 28
Venue “Centro Didattico del Policlinico”
9.00-11.00
Symposium S2 – Aula Magna
HEMORHEOLOGY IN CLINICAL MEDICINE - FROM GENETIC BACKGROUND TO CLINICAL SIGNIFICANCE

9.00-11.00
Oral Communications Session C1 – Aula 1
RED BLOOD CELLS AGGREGATION AND DEFORMABILITY - PATHOLOGY

8.30-12.00
International Medical Consensus Meeting – Aula 3
THE USE OF VENOUS ACTIVE DRUGS IN THE MANAGEMENT OF CHRONIC VENOUS DISEASE
Private session – invited persons only

11.00-11.30
Break

11.30-12.00
Lecture L3 – Aula Magna
ISCHEMIA AND ISCHEMIC PRECONDITIONING: THE ENDOTHELIAL POINT OF VIEW
Tommaso Gori

12.00-13.30
Poster Session 1 - Aula 4
ATHEROSCLEROSIS
LIPIDS
NEW DRUGS AND NEW EFFECTS
SHOCK
THE AGE FACTOR

Poster Session 2 - Aula 5
AGGREGATION, COAGULATION AND HEMOSTASIS
ISCHEMIA
NEW TECHNOLOGIES
OXIDATIVE STRESS

Poster Session 3 - Aula 7
MISCELLANEOUS

13.30-14.30
Lunch

14.30-16.30
Symposium S3 – Aula Magna
MYOCARDIAL MICROCIRCULATION

14.30-16.30
Oral Communications Session C2 – Aula 1
RED BLOOD CELLS DEFORMABILITY AND AGGREGATION – PHYSIOLOGY AND PHARMACOLOGY

16.30-17.00
Break

17.00-19.00
Symposium S4 – Aula Magna
HEMORHEOLOGICAL ASPECTS IN HUMAN DISEASES

17.00-19.00
Oral Communication Session C3 – Aula 1
HEMORHEOLOGY - PHYSIOLOGY AND PATHOLOGY
20.00
Gala Dinner

Wednesday 29
Venue “Centro Didattico del Policlinico”

9.00-10.30
Symposium S5 – Aula Magna
Hemorheological Measurements and Technology

9.00-10.30
Oral Communication Session C4 – Aula 1
Atherosclerosis, Ischemia and Ischemic Preconditioning

10.30-11.00
International Medical Consensus Meeting – Aula Magna
The Use of Venous Active Drugs in the Management of Chronic Venous Disease

11.00-11.30
Break

11.30-12.00
Lecture L4 – Aula Magna
Cutaneous Microcirculation in Patients with Coronary Artery Disease and Erectile Dysfunction
J.-W. Park

12.00
Closing Ceremony
13th Conference of the European Society for Clinical Hemorheology (E.S.C.H.)
June 26th - 29th, 2005 - Siena, Italy

PROGRAMME

Sunday 26

Venue “Palazzo del Rettorato”

16.00
Opening Ceremony

17.00-18.00
Fahraeus Medal Award Presentation Ceremony and Lecture
Chairperson: S. Forconi, President of the E.S.C.H.

17.00
“Laudatio”
Sandro Forconi, Sofia 2003 Fahraeus Award winner

17.15
Presentation of the Fahraeus Medal Award

17.30
Fahraeus Lecture
Michel René Boisseau
Pharmacology Department, University of Bordeaux 2, Bordeaux, France
HEMORHEOLOGY AND VASCULAR DISEASES: RED CELLS SHOULD RUB UP TO THE WALL, LEUCOCYTES SHOULD COPE WITH IT

18.00
End of the Ceremony

18.30
Welcome Cocktail
Monday 27

Venue “Centro Didattico del Policlinico”

8.00-9.00
Registration

9.00-10.30
Symposium S1 – Aula Magna
HEMORHEOLOGY AND HEMODYNAMICS
(organized together with the Internation Society of Clinical Hemorheology)
Chairpersons: H.J. Meiselman (U.S.A.), O.K. Baskurt (Turkey)

S1.1 HEMORHEOLOGY AND HEMODYNAMICS: DOVE ANDARE?
Herbert J. Meiselman
Department of Physiology and Biophysics, Keck School of Medicine, 1333 San Pablo Avenue, MMR 626, Los Angeles, CA 90033 USA

S1.2 HEMORHEOLOGICAL PARAMETERS AS DETERMINANTS OF MYOCARDIAL TISSUE HEMATOCRIT VALUES
Oguz K. Baskurt1, Ozlem Yalcin1, Firat Gungor2, Herbert J. Meiselman1
1Department of Physiology, Akdeniz University Faculty of Medicine, Antalya, Turkey
2Department of Nuclear Medicine, Akdeniz University Faculty of Medicine, Antalya, Turkey

S1.3 IMPROVEMENT OF TISSUE PERFUSION, BLOOD FLOW AND LOWERING OF BLOOD PRESSURE DUE TO INCREASED BLOOD AND PLASMA VISCOSITY
Judith Martini1, Pedro Cabrales2, Adolfo Chávez Negrete1, Amy G.Tsai1,2 and Marcos Intaglietta1,2
1Department of Bioengineering University of California, San Diego, La Jolla, CA 92093, USA, 2La Jolla Bioengineering Institute, La Jolla, CA 92037, USA, 3Instituto Mexicano del Seguro Social, Centro Médico Siglo XXI, 06725 México DF, México.

S1.4 CEREBRAL HYPER- AND HYPOPERFUSION AND ITS LOCAL AND SYSTEMIC HEMORHEOLOGICAL EFFECTS IN A PORCINE MODEL
Norbert Nemeth1, Jens Soukup2, Matthias Menzel2, Andreas Rieger1, Istvan Furka1, Iren Miko1
1Department of Operative Techniques and Surgical Research, Medical and Health Science Center, University of Debrecen, Debrecen, Hungary,
2Department of Anaesthesiology and Intensive Care Medicine, Martin Luther University, Halle-Wittenberg, Germany, 3Department of Neurosurgery, Martin Luther University, Halle-Wittenberg, Germany

10.30-11.00
Lecture L1 – Aula Magna
Chairperson: J.F. Stoltz
STUDIES ON BLOOD ELECTRORHEOLOGICAL PROPERTIES
N. Antonova2, P. Riha1
1Institute of Mechanics and Biomechanics, Bulgarian Academy of Sciences, 1113 Sofia, Bulgaria
2Institute of Hydrodynamics, Academy of Sciences of the Czech Republic, 166 12 Prague, Czech Republic

11.00-11.30
Break

11.30-12.00
Lecture L2 – Aula Magna
Chairperson: A. Vaya
GLYCATED PROTEINS PROVOKE AN ENDOTHELIAL CELL DYSFUNCTION
Jean-Luc Wautier
INTS, UFR Lariboisière Saint-Louis Paris 7, 6 rue Alexandre Cabanel 75015 Paris, France

12.00-13.30
Meeting of the Advisory Committee of the European Society for Clinical Hemorheology (E.S.C.H.) – Aula Magna

13.30-14.30
Lunch

14.30-19.30
Social Event
Tuesday 28

Venue “Centro Didattico del Policlinico”

9.00-11.00
Symposium S2 – Aula Magna

HEMORHEOLOGY IN CLINICAL MEDICINE - FROM GENETIC BACKGROUND TO CLINICAL SIGNIFICANCE
(organized together with the Hungarian Society of Hemorheology)
Chairpersons: K. Toth (Hungary), L. Bogar (Hungary)

S2.1 VISCOSITY, HEMOSTASIS AND INFLAMMATION IN Atherosclerotic Heart Diseases
Gábor Kesmarky, Gergely Fehér, Katalin Koltai, Beáta Horváth, Kálmán Toth
1st Department of Medicine, University of Pécs, Hungary

S2.2 CONTRIBUTION OF THE -455G/A POLYMORPHISM AT THE BETA FIBRINOGEN GENE AND LEIDEN MUTATION TO HEMORHEOLOGICAL PARAMETERS IN ISCHEMIC STROKE PATIENTS
Endre Pongrácz 1, Hajnalka Andrikovics 2, Marta Csornay 3, Zoltán Nagy 4
1 Dept. Neurology-Stroke, Central Hospital, Ministry of Interior, Budapest, Hungary, 2 Laboratory of Molecular Genetics, National Institute of Hematology, Budapest, Hungary, 3 Dept. Neurology, County Hospital, Kecskemé, Hungary, 4 National Stroke Center, Department of Vascular Neurology, Semmelweis University, Budapest, Hungary

S2.3 STUDY ON THE HEMORHEOLOGICAL PARAMETERS OF OLDEST OLD RESIDENTS IN THE EAST-HUNGARIAN CITY, DEBRECEN
Sándor Imre1, Ágnes Kovács1, Éva Várady2, Zita Szikszaí1
1Department of 3rd Internal Medicine, Research Group of Gerontology - Medical and Health Science Center, University of Debrecen, Hungary, 2Laboratory of City Medical Service - Debrecen, Hungary

S2.4 HEMORHEOLOGICAL PARAMETERS AND AGING
G. Fehér1, K. Koltai1, Zs. Marton1, T. Alexy1, B. Horváth1, G. Kesmarky2, E. Bartha2, L. Szapary 3, I. Juricskay1, K. Toth1
11st Department of Medicine, 2Department of Neurology
University of Pécs, School of Medicine

S2.5 HAEMATOCRIT AND BLOOD VISCOSITY RATIO INDICATES RHEOLOGICAL OXYGEN CARRYING CAPACITY AND OPTIMAL HAEMATOCRIT OF HUMAN BLOOD
Lajos Bogár1, Gabor Kesmarky3, Peter Kenyeres2, Lívia Szelig1, Gergely Fehér2, Kalman Toth2
1Department of Anaesthesia and Intensive Care - University of Pécs, Hungary, 2Laboratory of City Medical Service - Debrecen, Hungary

9.00-11.00
Oral Communications Session C1 – Aula 1

RED BLOOD CELLS AGGREGATION AND DEFORMABILITY - PATHOLOGY
Chairpersons: T.B.A.

C1.1 RHEOMETRICAL AND COMPUTATIONAL STUDIES OF BLOOD VISCOSITY DURING COAGULATION
P.R. Williams1, K. Hawkins, C. Wright, A. Evans* and H. Simkin†
School of Engineering.
*Medical School, University of Wales Swansea, Singleton Park, Swansea, SA2 8PP, UK.
†NHS Trust Morriston, Swansea

C1.2 THE LOSS OF ERYTHROCYTE DEFORMABILITY UNDER OXIDATIVE STRESS IS CAUSED BY PROTEIN DEGRADATION RATHER THAN BY LIPID PEROXIDATION
Yousif Bilto1, Mohammed Irhimeh2, Sana’ Suboh3
1Zarka University College, Al-Balqa’ Applied University, Zarka P.O.Box (313), Jordan
2Department of Biological Sciences, University of Jordan, Amman, Jordan
3Department of Biological Sciences, Al-Hashemia University, Zarka, Jordan

C1.3 EFFECT OF ESPA-LIPON ON MICROHEOLOGICAL PROPERTIES OF RED BLOOD CELLS IN DIABETIC PATIENTS
Aleksandr Petrochenko, Andrey Kabanov, Vladislav Simonov, Artyom Borbat
Yaroslavl State Medical Academy, Russia

C1.4 CORRELATION OF REDUCTION OF ERYTHROCYTE DEFORMABILITY WITH DIABETIC NEPHROPATHY
Sehyun Shin1, Yunhee Ku1, Lijuen Zhang1, Yu-kyung Kim2 and Jang-Soo Suh2
1School of Mechanical Engineering, Kyungpook National University
2Dept. of Laboratory Medicine, Kyungpook National University
C1.5 EFFECTS OF HEROIN AND METHADONE MAINTENANCE THERAPY ON BLOOD RHEOLOGY IN HEROIN ABUSERS
Yonko Savov1, Nadia Antonova1, Elissaveta Zvetkova1, Iskra Sainova1, Yordanka Gluhcheva1, Ivan Ivanov2
1Institute of Experimental Morphology and Anthropology – Bulgarian Academy of Sciences, 1113 Sofia, Bulgaria
2Institute of Mechanics and Biomechanics – Bulgarian Academy of Sciences, 1113 Sofia, Bulgaria

C1.6 RHEOLOGICAL PROPERTIES OF BLOOD AND PARAMETERS OF PLATELETS AGGREGATION IN ARTERIAL
HYPERTENSION
Elena Konstantinova, Lilia Ivanova, Tatiyana Tolstaya, Elena Mironova
Belarussian Centre “Cardiology”, Minsk, Belarus

8.30-12.00
International Medical Consensus Meeting – Aula 3
THE USE OF VENOUS ACTIVE DRUGS IN THE MANAGEMENT OF CHRONIC VENOUS DISEASE
Private session – invited persons only

11.00-11.30
Break

11.30-12.00
Lecture L3 – Aula Magna
Chairperson: F. Jung
ISCHEMIA AND ISCHEMIC PRECONDITIONING: THE ENDOTHELIAL POINT OF VIEW
Tommaso Gori, Sandro Forconi
Dipartimento di Medicina Interna, Cardiovascolare e Geriatrica, Università degli Studi di Siena, Italy

12.00-13.30
Poster Session P1 - Aula 4
Chairpersons: T.B.A.
ATHEROSCLEROSIS

P1.1 HEMORHEOLOGICAL PARAMETERS IN CORRELATION WITH THE RISK FACTORS FOR CAROTID
ATHEROSCLEROSIS
I.Velcheva1, N. Antonova2, E. Titianova3, P. Damianov1, N. Dimitrov1, I.Ivanov2
1Department of Neurology, Medical University, Sofia, Bulgaria, 2Institute of Mechanics and Biomechanics, Bulgarian Academy of Sciences, Sofia, Bulgaria, 3Military Medical Academy, Sofia, Bulgaria

P1.2 POLYMORPHONUCLEAR LEUKOCYTE MEMBRANE FLUIDITY AND CYTOSOLIC Ca2+ CONCENTRATION IN
SUBJECTS WITH VASCULAR ATHEROSCLEROTIC DISEASE SUBDIVIDED ACCORDING TO THE EXTENT
Rosalia Lo Presti, Baldassare Canino, Caterina Cardillo, Daniela Lucido, Filippo Ferrara, Adele Romano, Gregorio Caimi
Dipartimento di Medicina Interna, Malattie Cardiovascolari e Nefrologiche - Università degli Studi di Palermo, Italy

P1.3 CONNECTIVE TISSUE GROWTH FACTOR IS RELEASED FROM PLATELETS UNDER HIGH SHEAR STRESS AND IS
DIFFERENTIALLY EXPRESSED IN ENDOTHELIUM ALONG ATHEROSCLEROTIC PLAQUES
Iwona Cicha1, Attila Yilmaz1, Yoji Suzuki2, Nobuji Maeda2, Werner G. Daniel1, Margarete Goppelt-Streube1, Christoph D. Garlisch1
1Medical Clinic II, University of Erlangen-Nuremberg, Germany, 2Department of Physiology, School of Medicine, Ehime University, Japan, 3Medical Clinic IV, University of Erlangen-Nuremberg, Germany

P1.4 INVOLVEMENT OF HEMORHEOLOGICAL DISORDERS IN DEVELOPMENT OF CORONARY HEART DISEASE
T. Urdulashvili1, M. Mantskava2, N. Momtselidze2, N. Narsia1, G. Mchedlishvili2
1Chair of Internal Medicine, State Medical University, Vazha-Pshavela Av. 33, 0077, Tbilisi
2Microcirculation Research Center I. Beritashvili Institute of Physiology, I4 Gotua St., 0160, Tbilisi.

LIPIDS

P1.5 FATTY ACID COMPOSITION IN ERYTHROCYTES OF MAMMALS WITH DIFFERENT DEGREE OF RED CELL
AGGREGATION
Roberto Plasenzotti1, Ursula Windberger1, Franz Ulberth2, Wolf Osterode3
1Division for Biomedical Research, Medicine University of Vienna, 2Department of Dairy Research and Bacteriology, University of Vienna, 3Univ. Clinic for Internal Medicine IV, Department for Clinical Occupational Medicine, University of Vienna

P1.6 RELATIONSHIP OF HEMORHEOLOGICAL ALTERATION TO LIPID PROFILE DURING NORMAL PREGNANCY AND PRE-ECLAMPSIA
S. Stoeff1, Sv. Hadjiova1, Sv. Jovchev1, L. Trajkov1, T. Galabova1, M. Vretenarska2, I. Raichev3, I. Dikov4, L. Lambrev4, M. Pernev4
1Department of Physics and Biophysics - Medical University Sofia, Bulgaria, 2Department Clinical Laboratory and Immunology, 3Clinics for Nephrology and Transplantation, Multiprofiled Infirmary for Active Treatment “Alexandrovska” - Medical University Sofia, Bulgaria, 41-st Neurological Clinics, State Hospital of Neurology and Psychiatry “St. Naum” 4-th km - Medical University Sofia, Bulgaria, 5Department Obstetrics and Gynaecology, Infirmary for Specialized Care of Obstetrics and Gynaecology “Mother’s home” - Medical University Sofia, Bulgaria
P1.7 HEMORHEOLOGICAL DISTURBANCES CORRELATE WITH THE LIPID PROFILE BUT NOT WITH THE NCEP-ATP III SCORE OF THE METABOLIC SYNDROME.
I Aloulou, E Varlet-Marie and J-F Brun
Service Central de Physiologie Clinique, Centre d’Exploration et de Réadaptation des Anomalies du Métabolisme Musculaire (CERAMM), CHU Lapeyronie 34295 Montpellier-cédex 5, France

NEW DRUGS AND NEW EFFECTS

P1.8 EVALUATION OF CIRKAN® IN ACUTE HAEMORRHoidal CRISIS: A DOUBLE-BLIND, RANDOMIZED AND PLACEBO-CONTROLLED STUDY
Gilbert Tucat1, Claire Nguyen Le2, Jean-Marie Pibourdin2.
1 Cabinet Médical Monceau, Paris, France
2 Pierre Fabre Médicament, Castres, France

P1.9 THE RED BLOOD CELL DEFORMABILITY ALTERATIONS UNDER DESFLURAN ANESTHESIA IN RATS
Mükerrer Betül Yerer1, Sami Aydoğan1, Faruk Metin Comur2, Mustafa Arslan2, Işık Günes-Ekinci3.
1 University of Erciyes, Faculty of Medicine, Department of Physiology, Kayseri, 2University of Kirikkale, Faculty of Medicine, Department of Physiology, Kirikkale, 3University of Gazi, Faculty of Medicine, Department of Anesthesiology, Ankara, 4University of Erciyes, Faculty of Medicine, Department of Anesthesiology, Kayseri, TÜRKİYE

P1.10 THE INFLUENCE OF TWO DIFFERENT HYDROXYETHYL STARCH SOLUTIONS (6% HES 130/0.4 AND 200/0.5) ON BLOOD VISCOSITY
Michael Mark1, Thomas A. Neff2, Lukas Fischler1, Reto Stocker2, Walter H. Reinhardt1.
1 Department of Internal Medicine, Kantonsspital, CH-7000 Chur, Switzerland
2 Division of Surgical Intensive Care, University Hospital, CH-8091 Zurich, Switzerland

P1.11 ACUTE ADMINISTRATION OF ILOPROST IN PATIENTS WITH RAYNAUD’S PHENOMENON ASSOCIATED WITH SYSTEMIC SCLEROSIS: ELECTROPHYSIOLOGICAL AND MICROCIRCULATORY FINDINGS
Pier Leopoldo Capecchi1, Maurizio Acampa2, Marcello Pastorelli2, Francesca Guideri1, Serena Recchici1, Pietro Enea Lazzerini1, Federica Biagi3, Moira Servi2, Alessandro Pontani2, Franco Laghi Pasini1, Alberto Auteri2.
Dipartimento di Medicina Clinica e Scienze Immunologiche, 1Sezione di Immunologia Clinica, 2Sezione di Medicina Interna- Università degli Studi di Siena, Italy

SHOCK

P1.12 COMPARISON OF BLOOD RHEOLOGICAL CHANGES IN THE MICROCIRCULATION DURING THE HEMORRHAGIC AND TRAUMATIC SHOCKS IN RATS
Jemal Tatarishvili, Tea Sordia, George Mchedlishvili
Microcirculation Research Center, I.Beritashvili Institute of Physiology, 14 Gotua St., 016, Tbilisi, Georgia.

P1.13 HEMORHEOLOGICAL AND MICROCIRCULATORY DISORDERS DURING SEPTIC SHOCK IN RATS EXPERIMENTS
Tea Sordia, Jemal Tatarishvili, George Mchedlishvili
Microcirculation Research Center, I.Beritashvili Institute of Physiology, 14 Gotua St., 0160, Tbilisi, Georgia

THE AGE FACTOR

P1.14 PERSISTENCE OF THE ALTERED POLYMORPHONUCLEAR LEUKOCYTE RHEOLOGICAL AND METABOLIC VARIABLES AFTER 12 MONTHS IN JUVENILE MYOCARDIAL INFARCTION
Gregorio Caimi, Enrico Hoffmann, Egle Incalcaterra, Baldassare Canino, Maria Montana, Rosalia Lo Presti
Dipartimento di Medicina Interna, Malattie Cardiovascolari e Nefrologiche - Università degli Studi di Palermo, Italy

P1.15 OXIDANT/ANTIOXIDANT UNBALANCE AND ENDOTHELIAL DYSFUNCTION IN ADVANCING-AGE
Caterina Di Massimo1, Pietro Scarpelli2, Gregorio Caimi3, Maria Giuliana Tozzi Ciancarelli4.
1 Department of Biomedical Sciences & Technology, Area of Physiological Functions, University of L’Aquila, Italy
2 Department of Vascular Surgery, G. Rummo Hospital, Benevento, Italy
3 Department of Internal Medicine, University of Palermo, Italy
4 Institute of Nuclear Research of the Hungarian Academy of Sciences - Debrecen, Hungary

P1.16 FETAL AND JUVENILE ANIMAL HEMORHEOLOGY
U. Windberger, R. Plasenzotti, W. Weihs, A. Goll5
Decentralized Biomedical Facilities, Core Unit for Biomedical Research, Medical University of Vienna, Austria

P1.17 MEASUREMENTS OF THE PLASMA-VISCOSITY IN THE OLDEST OLD AGE-GROUP
Ágnes Kovács1, Éva Várady2, Zita Szikszai1, Sándor Imre4.
1 Department of 3rd Internal Medicine, Research Group of Gerontology - Medical and Health Science Center, University of Debrecen, Hungary
2 Laboratory of City Medical Service - Debrecen, Hungary
3 Institute of Nuclear Research of the Hungarian Academy of Sciences - Debrecen, Hungary

P1.18 PARTIALLY OPPOSITIVE HEMORHEOLOGICAL EFFECTS OF AGING AND TRAINING AT MIDDLE AGE.
J Manetta, I Aloulou, E Varlet-Marie and J-F Brun.
Service Central de Physiologie Clinique, Centre d’Exploration et de Réadaptation des Anomalies du Métabolisme Musculaire (CERAMM), CHU Lapeyronie 34295 Montpellier-cédex 5, France
AGGREGATION, COAGULATION AND HEMOSTASIS

P2.1 ADRENERGIC AGGREGATION OF ERYTHROCYTES
Roitman Eugene, Dementjeva Inna, Morozov Yury
Russian Research Centre of Surgery RAMS, Moscow, Russia

P2.2 INCIDENCE OF PULMONARY THROMBOEMBOLISM (PTE) AND NEW GUIDELINES FOR PTE PROPHYLAXIS IN JAPAN
Takao Kobayashi1, Maschio Nakamura2, Masahito Sakuma3, Norikazu Yamada3, Masato Sakon1, Satoru Fujita2, Norimasa Seo2
1Department of Family and Child Nursing, and Midifeyger, Shinsha University School of Health Sciences, Matsumoto, Japan
2Editorial Committee on Japanese Guideline for Prevention of Venous Thromboembolism

P2.3 THE INFLUENCE OF HEMATOCRIT ON PRIMARY HEMOSTAXIS UNDER HIGH SHEAR CONDITIONS IN VITRO
Marco Eugster, Walter H. Reinhart
Department of Internal Medicine, Kantonsspital, CH-7000 Chur, Switzerland

ISCHEMIA

P2.4 FOLIC ACID DOES NOT PROTECT ENDOTHELIAL FUNCTION FROM ISCHEMIA AND REPERFUSION. A HUMAN IN VIVO STUDY.
Giuseppe Di Stolfo1, Saverio Dragoni1, Tommaso Gori1, Silvia Sicuro1, John D. Parker2, Sandro Forconi1
1Dipartimento di Medicina Interna, Cardiovascolare e Geriatrica, Università degli Studi di Siena, Italy
2Department of Cardiology, Mount Sinai Hospital, Toronto, Canada

P2.5 POSTCONDITIONING DOES NOT LIMIT ENDOTHELIAL DYSFUNCTION INDUCED BY ISCHEMIA AND REPERFUSION IN HUMANS.
Tommaso Gori, Saverio Dragoni, Giuseppe Di Stolfo, Silvia Sicuro, Sandro Forconi
Dipartimento di Medicina Interna Cardiovascolare e Geriatrica, Università degli Studi di Siena, Italy

P2.6 HEMORHEOLOGICAL DISORDERS DURING ISCHEMIC BRAIN INFARCTS WITH AND WITHOUT DIABETES MELLITUS
Nana Momtselidze, Maia Matskava, George Mchedlishvili
Microcirculation Research Center, I.Beritashvili Institute of Physiology, 14 Gotua St., 0160, Tbilisi, Georgia

NEW TECHNOLOGIES

P2.8 DISPOSABLE EKTACYTOMETRY: LASER DIFFRACTION IN A SLIT FLOW
Sehyun Shin1, Yunhee K1, Younglou Kim1, and Jangsoo Suh2
1School of Mechanical Engineering, Kyungpook National University
2Department of Pathological Physiology, Kyungpook National University

P2.9 FRACTAL ANALYSIS OF MONOCYTES IN DIABETES
Giorgio Bianciardi1, Italo Tanganelli2, Dorotea Totagiancaspro2, Marco Brogi1, Antonietta Carducci1, Maria Margherita De Santi3
1 Dipartimento di Patologia Umana ed Oncologia, Sezione di Anatomia e Istologia Patologica - Università degli Studi di Siena, Italy
2 Dipartimento di Scienze Odontostomatologiche, Sezione Diabetologia - Università degli Studi di Siena, Italy.

P2.10 POLYELECTROLYTE MULTILAYER THIN FILMS USED AS NEW TOOL FOR VASCULAR TISSUE ENGINEERING.
Cédric Boura1, Sylvaine Muller1, Halima Kerdjoudj1, Pierre Schaaf2, Jean Claude Voegel3, Jean Francois Stoltz1, Patrick Menu2
1Mécanique et Ingénierie Cellulaire et Tissulaire, LEMTA-UMR CNRS 7563, Faculté de Médecine, 54505 Vandœuvre-lès-Nancy, France.
2Institut Charles Sadron (CNRS-ULP), UPR 22 CNRS, 67083 Strasbourg, France
3INSERM U 595, Faculté de Médecine, 67085 Strasbourg, France

P2.11 HEMORHEOLOGICAL DISORDERS IN BRAIN CAPILLARIES (EXPERIMENTAL STUDIES)
Manana Varazashvili, George Mchedlishvili
Microcirculation Research Center, I.Beritashvili Institute of Physiology, 14 Gotua St., 0160, Tbilisi, Georgia

P2.12 LOCAL HEMATOCRIT CHANGES DEPENDENT ON THE INTENSITY OF MICROCIRCULATION IN THE HUMAN SKIN
Tatin Kumsishvili, Manana Varazashvili, George Mchedlishvili.
Microcirculation Research Center, I.Beritashvili Institute of Physiology, 14 Gotua St., 0160, Tbilisi, Georgia

P2.13 ERYTHROCYTE STIFFNESS IN DIABETES MELLITUS STUDIED WITH ATOMIC FORCE MICROSCOPE
Maria Formal1, Malgorzata Lekka2, Grazyna Pyka-Łośkic3, Kateryna Lebed3, Tomasz Grodzicki3, Barbara Wizner1, Jan Styczko1

1, 2, 3 Warsaw University of Life Sciences - SGGW, Warsaw, Poland.
P2.14 OSCILLATING VISCOMETER - EVALUATION OF A NEW BEDSIDE TEST
Michael Mark1, Klaus Häusler2, Jürg Dual1, Walter H. Reinhart1
1 Department of Internal Medicine, Kantonsspital, CH-7000 Chur, Switzerland
2 Institute of Mechanical Systems, ETH Zurich, CH-8092 Zurich, Switzerland

P2.15 LASER DIFRACTOMETRY TECHNIQUE: CLINICAL APPLICATIONS TO VASCULAR PATHTHOLOGIES
Bibiana Riquelme1, Patricia Foresto1,2, Mabel D'Arrigo1,2 and Juana Valverde1,2
1 Grupo de Óptica Aplicada a la Biología, Instituto de Física Rosario (CONICET-UNR). Argentina
2 Departamento de Bioquímica Clínica- Universidad Nacional de Rosario. Argentina.

OXIDATIVE STRESS

P2.16 STRUCTURE-ACTIVITY RELATIONSHIPS FOR THE PROTECTIVE EFFECTS OF SELECTED FLAVONOIDS AGAINST LIPID PEROXIDATION, PROTEIN DEGRADATION AND DEFORMABILITY LOSS OF OXIDATIVELY STRESSED ERYTHROCYTES
Yousif Bilto1, Sana' Suboh2
1 Zarka University College, Al-Balqa' Applied University, Zarka P.O.Box (313), Jordan
2 Department of Biological Sciences, Al-Husseinia University, Zarka, Jordan

P2.17 EXERCISE-INDUCED OXIDATIVE STRESS AFFECTS ERYTHROCYTES IN SEDENTARY AND TRAINED YOUNG MEN
Gününur Koçer, Ümit K. Şentürk, Filiz Gündüz, Oktay Kuru, Murat Üyüklü, Özlem Yağçın, Oğuz K. Başkurt
Department of Physiology, School of Medicine – Akdeniz University, Antalya, Turkey

Poster Session 3 - Aula 7
Chairpersons: T.B.A.

MISCELLANEOUS

P3.1 EFFECT OF HYDROXYUREA ON THE DEFORMABILITY OF THE ERYTHROCYTE MEMBRANE IN PATIENTS WITH SICKLE CELL ANAEMIA
George Athanassiou1, Antonia Moutzouri1, George Margaritis1, Aleka Kourakli2
1 Biomedical Engineering Laboratory, University of Patras, Greece 26500
2 Division of Haematology, Department of Internal Medicine, University of Patras Greece

P3.2 BLOOD RHEOLOGY CHANGES IN EXPERIMENTAL RHEUMATOID ARTHRITIS
Alexey Stepanov1, Alexander Spasov1, Natalia Arjkova1, Maria Samokhina1, Ludmila Naumenko1
1 Pharmacology Department – Volgograd State Medical University, Russian Federation

P3.3 THE INFLUENCE OF SEVOFLURAN ANESTHESIA ON THE RAT RED BLOOD CELL DEFORMABILITY
Sami Aydın1, Süpermet Conu1, Mustafa Arslan1, İlşan Güneş-Ekin1
1 University of Erzurum, Faculty of Medicine, Department of Physiology, Kayseri, Turkey
2 University of Kırklareli, Faculty of Medicine, Department of Physiology, Kırklareli, Turkey
3 University of Gazi, Faculty of Medicine, Department of Anesthesiology, Ankara, Turkey
4 University of Erzurum, Faculty of Medicine, Department of Anesthesiology, Kayseri, Turkey

P3.4 VIDEOPAILCAPILLASCOPY (VCS) EVALUATION IN DIABETIC AND HYPERTENSIVE MICROANGIOPATHY
Marcello Pastorelli1, Fulvio Bruni1, Luca Puccetti1, Alberto Palazzuoli1, Maurizio Acampa1, Federica Biagi1, Moira Servi1, Alessandro Pontani1, Ulrike Beerme1, Fabrizio Diversi1, Anna Laura Pasqui1, Alberto Auteri1
1 Dipartimento di Medicina Clinica e Scienze Immunologiche, Sezione di Medicina Interna, Università degli Studi di Siena, Italy

P3.5 RED BLOOD CELL DEFORMABILITY IN IRON DEFICIENCY ANAEMIA
Amparo Vaya1, María Simó1, Marisa Santaoalario1, José Todolí1, Justo Aznar1
1 Hemorheology and Thrombosis Unit, Department of Clinical Pathology La Fe University Hospital, Valencia, Spain
2 Internal Medicine Service. La Fe University Hospital, Valencia, Spain

P3.6 REFERENCE VALUES OF PLASMA VISCOSITY IN A SPANISH MEDITERRANEAN POPULATION
Amparo Vaya1, Marisa Santaoalario1, María Simó1, Dolores Corella2, Justo Aznar2
1 Hemorheology and Thrombosis Unit, Department of Clinical Pathology La Fe University Hospital, Valencia, Spain
2 Genetic and Molecular Epidemiology, Unit. School of Medicine, Valencia, Spain

P3.7 DIFFERENT RBC AGGREGATION PROPERTIES OF THE A⁺⁺B⁺⁺ γ⁺⁺ AND A⁺⁺B⁺⁺ γ⁺⁺' SUBPOPULATIONS OF HUMAN FIBRINOGEN
Malgorzata Musielak, Jerzy Koscielak
Department of Biochemistry, Institute of Haematology and Blood Transfusion, Warsaw, Poland

P3.8 THE DIAGNOSIS OF TRANSCAPILLARY FLOW DISTURBANCES IN THE LUNGS OF LUNG CANCER
Julia Startseva, Natali Sulimova, Vladimir Cherkassov, Kat Kon, Andre Lysov
State Medical Academy, Oncological Hospital - 614990, Perm, Kuibisheva street, 39 Russia

P3.9 THE FLUIDITY OF BLOOD IN AFRICAN ELEPHANTS (Loxodonta africana)
Ursula Windberger, Roberto Plasenzotti, T. Voracek, Wolfgang Weihrs
P3.10 HEMORHEOLOGICAL DISORDERS DURING THE 1ST AND 2ND TYPES OF DIABETES MELLITUS IN PATIENTS WITH FOOT GANGRENES

Maia Mantskava1, Nana Momtselidze2, Nugzar Pargalava2, George Mchedlishvili3
1Microcirculation Research Center, I.Rerisultanov Institute of Physiology, 14 Gotua St., 0160, Tbilisi, Georgia
2Bokhua Center of Angiology and Vascular Surgery, 1 Chavchavadze St., 0159, Tbilisi, Georgia

P3.11 DYNAMIC HEMORHEOLOGICAL PARAMETERS IN BETA THALASSAEMIA MINOR

Pérez, S. M1; Riquelme, B2; Acosta, P; Valverde, J and Milani, A3
1Hematology, Faculty of Biochemistry and Pharmacy, Universidad Nacional de Rosario, Argentine
2Physics, Faculty of Biochemistry and Pharmacy, Universidad Nacional de Rosario, Argentine
3Bio-Optic Applied Group, Institute of Physics Rosario (IFIR – CONICET), Rosario, Argentine

P3.12 MIGRATION MECHANISM OF ERYTHROBLASTIC ISLAND IN RAT BONE MARROW

Toshifumi Yokoyama1, Takanori Miki1, Kyong-Youl Lee1, Hiroshi Kitagawa2, Yoshiki Takeuchi1
1Department of Anatomy and Neurobiology, Faculty of Medicine, Kagawa University, Japan
2Department of Life Science, Graduate School of Science and Technology, Kobe University, Japan

P3.13 EFFECTS OF WATER INTAKE ON THE RESPONSES OF HAEMORHEOLOGICAL VARIABLES TO RESISTANCE EXERCISE

Sajad Ahmadizad1,2, Mahmoud Saleh El-Sayed1, Donald Peter MacLaren1
1Research Institute for sports & exercise Sciences, Liverpool John Moores University, Liverpool, UK
2Sport Science Research Centre, Ministry of Sciences, Tehran, Iran

P3.14 IS PLASMA VISCOSITY A PREDICTOR OF OVERTRAINING IN ATHLETES?

E Varlet-Marie and J.F. Brun
Service Central de Physiologie Clinique, Centre d’Exploration et de Réadaptation des Anomalies du Métabolisme Musculaire (CERAMM), CHU Lapeyronie 34295 Montpellier- cédex 5, France

P3.15 DETERMINANTS OF THE HEMORHEOLOGIC EFFECTS OF LOW INTENSITY ENDURANCE TRAINING IN SEDENTARY PATIENTS SUFFERING FROM THE METABOLIC SYNDROME.

I Aloulou, J-F Brun, and E Varlet-Marie
Service Central de Physiologie Clinique, Centre d’Exploration et de Réadaptation des Anomalies du Métabolisme Musculaire (CERAMM), CHU Lapeyronie 34295 Montpellier- cédex 5, France

P3.16 ALTERED FIBRINOLYTIC RESPONSE IN NIGERIAN LONG DISTANT DRIVERS

Ajayi O1, Abegunde SO2, Ezele C2
1Physiology Department, Faculty of Basic Medical Sciences, College of Medical Sciences, University of Benin, Benin City, Nigeria
2Haematology Department, Faculty of Basic Medical Sciences, College of Medical Sciences, University of Benin, Benin City, Nigeria

P3.17 HAEMORHEOLOGICAL ALTERATIONS IN NIGERIAN PULMONARY TUBERCULOSIS PATIENTS (PTB)

Onyemairo JC, Ajayi O, Famodu
Haematology and Physiology Departments, College of Medicine, University of Benin, Benin City, Nigeria

13.30-14.30
Lunch

14.30-16.30
Symposium S3 – Aula Magna
MYOCARDIAL MICROCIRCULATION
(organized together with the German Society of Clinical Hemorheology)
Chairpersons: F. Jung (Germany), K. Matschke (Germany)

S3.1 THE INFLUENCE OF VARIOUS RADIOGRAPHIC CONTRAST MEDIA ON MYOCARDIAL OXYGEN TENSION

Friedrich Jung1,2, Christoph Mrowietz2, Steffi Keller3, Ulrich Gerk3, Jai-Wun Park3, Klaus Matschke4
1Department for Clinical Hemostaseology and Transfusion Medicine; University of Saarland, Homburg/Saar, Germany, 2Institute for Heart and Circulation Research, Hoegerswerda, Germany, 3Med. Department, Hospital Hoegerswerda, Hoegerswerda, Germany, 4Heart Center Dresden, Technical University Dresden, Dresden, Germany

S3.2 INFLUENCE OF EXTRA CORPOREAL CIRCULATION ON MYOCARDIAL OXYGEN TENSION: RESULTS OF AN ANIMAL MODEL

Klaus Matschke1, Michael Knaut1, Semsmalte Tugtekin1, Christoph Mrowietz2, Steffi Keller3, Jai-Wun Park3, Friedrich Jung2,3
1Department of Cardiac Surgery, University of Technology Dresden, Dresden, Germany, 2Institute for Heart- and Circulation Research, Hoegerswerda, Germany, 3Department for Clinical Haemostasiology and Transfusion Medicine, University of Saarland, Homburg/Saar, Germany

S3.3 ASSOCIATION BETWEEN MYOCARDIAL OXYGEN TENSION AND HEART RATE

Steffen Pleiße1, Klaus Matschke2, Christoph Mrowietz2, Thomas Geisler3, Jai-Wun Park3, Michael Knaut4, Friedrich Jung2,3
1Department of Cardiac Surgery, University of Technology Dresden, Dresden, Germany, 2Heartzentrum, Universität Erlangen-Nürnberg, g. Erlangen, Germany, 3Institute for Heart and Circulation Research, Hoegerswerda, Germany, 4Department of Clinical Haemostasiology and Transfusion Medicine, University of Saarland, Homburg/Saar, Germany
S3.4 MYOCARDIAL OXYGEN TENSION DURING FATAL RIGHT HEART FAILURE
Ralph-Peter Franke1, Klaus Matschke2, Christoph Mrowietz3, Michael Knaut2, Friedrich Jung3
1 Department of Biomaterials, University of Ulm, Ulm, Germany, 2 Department of Cardiac Surgery, University of Technology Dresden, Dresden, Germany, 3 Institute for Heart and Circulation Research, Hoyerswerda, Germany, 4 Institute of Pathology, Technical University Aachen, Aachen, Germany

S3.5 CHANGES IN PLATELET SURFACE-MARKER EXPRESSION DURING HEART SURGERY - COMPARISON OF TWO DIFFERENT HEART-LUNG-MACHINE SYSTEMS
Thomas Waldow1, Utz Kappert1, Volker Schmidt1, Gunter Schumann1, Oliver Tiebel2, Sybille Bergmann2, Gabriele Siegert1, Michael Knaut1, Klaus Matschke1
1 Department of Cardiac Surgery, University of Technology Dresden, Dresden, Germany, 2 Institute for Laboratory Diagnostics, Technical University of Dresden, University Hospital, Dresden, Germany

S3.6 RED BLOOD CELL AGGREGATION IN SURVIVORS OF ACUTE MYOCARDIAL INFARCTION. INFLUENCE OF PLASMA, ERYTHROCYTE FACTORS AND –455G/A POLYMORPHISM OF THE β-FIBRINOGEN GENE
Amparo Vayá1, Silvia Brea2, Edelmiro Réganon2, Virtudes Vila1, Vicenta Martinez-Sales2, Esther Zorio1, Dolores Corella1, Justo Aznar1
1 Hemorheology and Thrombosis Unit, Department of Clinical Pathology La Fe University Hospital, Valencia, Spain, 2 Research Centre, La Fe University Hospital, Valencia, Spain, 3 Cardiovascular Service. La Fe University Hospital, Valencia, Spain, 4 Genetic and Molecular Epidemiology Unit. School of Medicine, University of Valencia, Spain

S3.7 LEUKOCYTE RHEOLOGY IN STABLE AND UNSTABLE CORONARY ARTERY DISEASE
Rupert M. Bauersachs1, Georg Moessmer2, Conrad Pfafferott3
1 Dept. of Vascular Medicine, Klinikum Darmstadt, 84297 Darmstadt, Germany, 2 Division for Clinical Chemistry, Technical University Munich, 81675 München, Germany, 3 I. Medical Department, Klinikum Ingolstadt, 85049 Ingolstadt, Germany

14.30-16.30
Oral Communications Session C2 - Aula 1
RED BLOOD CELLS DEFORMABILITY AND AGGREGATION – PHYSIOLOGY AND PHARMACOLOGY
Chairpersons: T.B.A.

C2.1 THE EFFECTS OF NATTOKINASE, A POTENT PRO-FIBRINOlytic ENZYME ON RED BLOOD CELL AGGREGATION AND WHOLE BLOOD VISCOSITY
Eszter Pais1, Tamás Alexy1, Ralph Edward Holsworth, Jr.2, Herbert Joel Meiselman1
1 Department of Physiology and Biophysics, Keck School of Medicine, University of Southern California, Los Angeles, CA, 90033, USA, 2 N-ZymeCeuticals Inc, Pagosa Springs, CO, 81147, USA

C2.2 RED BLOOD CELL AGGREGATION AND AGGREGATION BEHAVIOUR IN DIFFERENT ANIMAL SPECIES
Roberto Plasenzotti1, Birgit Stoiber1, Martin Poschi1, Ursula Windberger1
1 Division for Biomedical Research, Medical University of Vienna
2 Institute of Medical Statistics, Medical University of Vienna, Austria

C2.3 THE IMPORTANCE OF CIRCADIAN RHYTHM ALTERATIONS IN ERYTHROCYTE DEFORMABILITY
M. Betül Yerer1, Sami Aydogan1
1 University of Erzurum, Faculty of Medicine, Department of Physiology, 38039, Kayseri, TURKEY

C2.4 THE RED BLOOD CELL SURFACE ACETYLCHOLINESTERASE SUCH AS AN HEMORHEOLOGICAL PATTERN DURING GLAUCOMA TREATMENT.
Giuseppe Cicco1, Michele Vetrugno1-2, Massimiliano Pennetta2, Maria Teresa Rotelli2-3, Carlo Sborgia2-3, Vincenzo Memeo2-3, Luigi Nitti1-2
1 C.E.M.O.T. - Centro Ricerche in Emoreologia e Microcirculazione, University of Bari – Italy, 2 Dip. di Oftalmologia ed ORL University of Bari – Italy, 3 D.E.T.O. - Dip. Emergenza e Trapianti d’Organo - University of Bari - Italy.

C2.5 SELECTIVE RESPONSE OF THE DEGREE OF RBC AGGREGATION TO THE ACTION OF THE CATECHOLAMINES: EFFECT OF ABO BLOOD GROUPS
Irina Tkikhomirova
Anatomy and Physiology Department, Yaroslavl State Pedagogical University, Russia

C2.6 INHIBITING AND STIMULATING EFFECTS OF SOME DRUGS ON RED BLOOD CELL AGGREGATION
Muravyov A.V.1, Yakuschevich V.V.1, Choporov S.V.2, Muravyov A.A.1
1 Dept. Medicine & Biology of Pedagogical University, Yaroslavl, Russia, 2 Medical Academy, Yaroslavl, Russia

C2.7 EXERCISE, RED CELLS AND BLOOD DOPING; A CONCLUSIVE ROLE FOR LORCA?
Max R. Hardeman
Laboratory for Clinical Hemorheology, Department of Physiology, Academic Medical Center, University of Amsterdam, 1105 AZ Amsterdam, the Netherlands

C2.8 IMPROVEMENT OF THE BLOOD RHEOLOGY PROPERTIES IN EXPERIMENTAL DIABETES BY MIDAZOBENZIMIDAZOLE DERIVATIVE
Alexander Spasov1, Alexey Stepanov1, Natali Arjkoa1, Maria Samokhina1, Ludmila Naumenko1, Vitalij Kotov1, Tatjana Goncharova1, Darya Malceva1, Vera Anismova2
1 Pharmacology Department – Volgograd State Medical University, Russian Federation, 2 Rostov-on-Don University, Russian Federation
16.30-17.00

Break

17.00-19.00

**Symposium S4 – Aula Magna**

**HEMORHEOLOGICAL ASPECTS IN HUMAN DISEASES**

(organized together with the “Groupe Français d’Hémorhéologie Clinique”)

Chairpersons: C. Le Dévéhat (France), M. R. Boisseau (France)

**S4.1 POLYMORPHONUCLEAR LEUKOCYTE INTEGRIN PROFILE IN DIABETES MELLITUS AT BASELINE AND AFTER IN VITRO ACTIVATION**

Gregorio Caimi, Rosalia Lo Presti.

Dipartimento di Medicina Interna, Malattie Cardiovascolari e Nefrourologiche - Università degli Studi di Palermo, Italy

**S4.2 INFLUENCE OF LIPIDS AND OBESITY ON HEMORHEOLOGICAL PARAMETERS IN PATIENTS WITH DEEP VEIN THROMBOSIS**

Amparo Vayá¹, Yolanda Mira², Fernando Ferrando², Cristina Falcó², Dolores Corella³, Justo Aznar⁴

¹Hemorheology and Thrombosis Unit, Department of Clinical Pathology, La Fe University Hospital, Valencia, Spain
²Genetic and Molecular Epidemiology Unit. School of Medicine, Valencia, Spain

**S4.3 INCREASED ADHESION OF ERYTHROCYTES FROM PATIENTS WITH POLYCYTHEMIA VERA IS MEDIATED BY Lu/B-CAM**

Wautier, M-P², Gane, P², El Nemer², W, Rain, J-D³, Le Van Kim, C², Wautier, J-L².

¹INTS, ²UMR 665, ³ Paris 7, Paris, France

**S4.4 RED BLOOD CELL AGGREGATION AS AN INDEX OF METABOLIC BALANCE**

Muravyov A.V.¹, Yakusevich V.V.², Chueporov S.V.², Muravyov A.A.²

¹Dept. Medicine & Biology of Pedagogical University, Yaroslavl, Russia
²Medical Academy, Yaroslavl, Russia

**S4.5 EFFECT OF ESPA-LIPON ON MICRORHEOLOGICAL PROPERTIES OF RED BLOOD CELLS IN DIABETIC PATIENTS**

Aleksandr Petrochenko, Andrey Kabanov, Vladislav Simonov, Artjom Bobbat

Yaroslavl State Medical Academy

**S4.6 THE HEMORHEOLOGICAL ASPECTS OF THE METABOLIC SYNDROME ARE A COMBINATION OF SEPARATE EFFECTS OF INSULIN RESISTANCE, HYPERINSULINEMIA AND ADIPOSY**

JF Brun¹, I Aloulou and E Varlet-Marie

¹Service Central de Physiologie Clinique, Centre d’Exploration et de Réadaptation des Anomalies du Métabolisme Musculaire (CERAMM), CHU Lapeyronie 34295 Montpellier-cédex 5, France

17.00-19.00

**Oral Communication Session C3 – Aula 1**

**HEMORHEOLOGY - PHYSIOLOGY AND PATHOLOGY**

Chairpersons: T.B.A.

**C3.1 NATURAL ANTICOAGULANTS ARE POSITIVELY CORRELATED TO PLASMA VISCOSITY IN ATHLETES**

Andrey A. Melnikov, Alexander D. Vikulov, Svetlana V. Bagrakova, Andrey A. Baranov

State Pedagogical University, Respublikareskiy 108, Yaroslavl, 150000, Russia

**C3.2 POLYMORPHONUCLEAR LEUKOCYTE INTEGRIN PROFILE IN VASCULAR ATHEROSCLEROTIC DISEASE WITH AND WITHOUT TYPE 2 DIABETES MELLITUS**

Rosalia Lo Presti, Baldassare Canino, Caterina Carollo, Maria Montana, Eleonora Ferrera, Filippo Ferrara, Gregorio Caimi

Dipartimento di Medicina Interna, Malattie Cardiovascolari e Nefrourologiche - Università degli Studi di Palermo, Italy

**C3.3 ABOUT THE MECHANISM PRODUCING REVERSIBLE HEMORHEOLOGICAL DISORDERS IN THE BLOOD CAPILLARIES**

George Mchedlishvili

I.Beritashvili Institute of Physiology, Microcirculation Research Center, Thilisi, Georgia.

**C3.4 HEMORHEOLOGICAL RESPONSE TO PLASMAPHERESIS**

Roitman Eugene, Dementeva Inna.

Express-Diagnostic Laboratory, Russian Research Centre of Surgery RAMS, Moscow, Russia

**C3.5 EFFECT OF PLASMA LIPIDS ON BLOOD VISCOSITY IN PATIENTS WITH CEREBROVASCULAR DISEASE**

Irena Velcheva¹, Nadia Antonova², Valentina Dimitrova², Nikolay Dimitrov², Ivan Ivanov²

¹Department of Neurology, Medical University, Sofia, Bulgaria
²Institute of Mechanics and Biomechanics, Bulgarian Academy of Sciences, Sofia, Bulgaria

**C3.6 MODIFIED ANTIPLATELET ACTIVITY OF ATORVASTATIN IN HYPERCHOLESTEROLEMIC CARRIERS OF LECTIN-LIKE OXIDIZED LOW-DENSITY LIPOPROTEIN RECEPTOR-1 (LOX-1) 3’UTR/T POLYMORPHISM.**
C3.7 Advanced Glycation and Glyco-oxidation alters blood rheology and the secretions of neuroprotective growth factors and neurotoxic cytokines in Alzheimer’s disease
Sebastiano Bruno Solerte1, Annunziata Lapolla2, E. Locatelli1, V. Mansi1, M. Fioravanti1
1Department of Internal Medicine and Geriatrics, University of Pavia; ASP-S. Margherita Institute of Geriatric Rehabilitation, Pavia, Italy
2Department of Medical Sciences and Metabolism, University of Padova, Italy

C3.8 Altered Haemorheological Indices in Nigerian Geriatrics
Ajayi OI1, Famodu AA1, Abegunde SO1, Ojukwu N2.
1Physiology and Haematology Departments, University of Benin, Benin City, Nigeria
2Haematology Department, Ambrose Alli University, Ekpoma, Nigeria

20.00
Gala Dinner
Wednesday 29

Venue “Centro Didattico del Policlinico”

9.00-10.30

**Symposium S5 – Aula Magna**

**HEMORHEOLOGICAL MEASUREMENTS AND TECHNOLOGY**

Chairpersons: Max R. Hardeman (Amsterdam, the Netherlands), Sehyun Shin (Daegu, Korea)

**S5.1 DISPOSABLE RBC AGGREGOMETER WITH VIBRATION-INDUCED DISAGGREGATION MECHANISM**

Sehyun Shin1, Yunhee Ku1, Juhee Jang1, and Jangsoo Suh2

1School of Mechanical Engineering, Kyungpook National University
2Department of Laboratory Medicine, Kyungpook National University

**S5.2 DEFORMABILITY DISTRIBUTION OF RED CELLS AND THEIR ORIENTATION IN SHEAR FLOW FIELD MEASURED WITH THE AUTOMATED RHEOSCOPE AND CELL ANALYZER (ARCA) EQUIPPED WITH LINKAM CSS**

M.R. Hardeman1, J.G.G. Dobbe2

1Department of Physiology, 2Department of Medical Technological Development
Academic Medical Center, University of Amsterdam, 1105 AZ, Amsterdam, the Netherlands.

**S5.3 GUIDELINES FOR THE STANDARDIZATION IN HEMORHEOLOGICAL STUDIES**

Oguz K. Baskurt1, Herbert J. Meiselman2

1Department of Physiology, Akdeniz University Faculty of Medicine, Antalya, Turkey
2Department of Physiology and Biophysics, USC Keck School of Medicine, Los Angeles, CA, USA

**S5.4 A MULTIGATE DOPPLER SYSTEM FOR INTEGRATED EVALUATION OF BLOOD FLOW VELOCITY PROFILE AND WALL DISTENSION IN HUMAN LARGE ARTERIES**

Carlo Palombo1, Tiziano Morganti2, Francesca Vittone1, Giacomo Bambi2, Michaela Kožáková2, Stefano Ricci2, Carmela Morizzo1, Piero Tortoli2

Dipartimento di Medicina Interna, Università degli Studi di Pisa, Italy
Dipartimento di Elettronica e Telecomunicazioni - Università degli Studi di Firenze, Italy

**S5.5 BIOMECHANOPHARMACOLOGY—THE NEW APPROACH FOR STUDYING DRUG ACTION ON INTERVENTION IN ENDOTHELIAL CELL FUNCTIONS**

Fulong Liao1, Min Li2

1Institute of Chinese Materia Medica, China Academy of Traditional Chinese Medicine, Beijing, 100700, China
2School of Chinese Medicine, Hong Kong Baptist University, Hong Kong

Panel Discussion regarding the Guidelines.

9.00-10.30

**Oral Communication Session C4 – Aula 1**

**ATHEROSCLEROSIS, ISCHEMIA AND ISCHEMIC PRECONDITIONING**

Chairpersons: T.B.A.

**C4.1 cGMP PROTECTS THE ENDOTHELIUM IN THE SETTING OF ISCHEMIA AND REPERFUSION.**

Tommaso Gori1, Giuseppe Di Stolfo1, Silvia Sicuro1, Savero Dragoni1, Giovanni Donati1, John D Parker2, Sandro Forconi2

1Dipartimento di Medicina Interna, Cardiovascolare e Geriatrica, Università degli Studi di Siena, Italy
2Department of Cardiology, Mount Sinai Hospital, Toronto, Canada

**C4.2 EFFECTS OF NO PRECONDITIONING ON THE CYTOKINE-INDUCED SURFACE EXPRESSION OF CELL ADHESION PROTEINS IN HUMAN ENDOTHELIAL CELLS**

Thomas Waldow, Wolfgang Witt, Elvis Weber, Michael Knaut, Klaus Matschke
Department of Cardiac Surgery, University of Technology Dresden, Dresden, Germany

**C4.3 PLATELET AND POLYMORPHONUCLEAR LEUKOCYTE ACTIVATION MARKERS IN JUVENILE MYOCARDIAL INFARCTION**

Gregorio Caimi, Enrico Hoffmann, Egle Incalcaterra, Marco Caruso, Maria Montana, Rosalía Lo Presti
Dipartimento di Medicina Interna, Malattie Cardiovascolari e Nefrourologiche - Università degli Studi di Palermo, Italy

**C4.4 CHANGES OF THE MICROCIRCULATION STATE AND THE HEMORHEOLOGY PARAMETERS IN ACUTE CORONARY SYNDROME**

Elena Konstantinova, Natalia Tsapaeva, Tatjana Tolstaya, Svetlana Zolotukhina, Elena Mironova, Lilia Ivanova
Belarussian Centre “Cardiology”, Minsk, Belarus

**C4.5 RESPONSES OF PLATELET ACTIVATION AND FUNCTION TO A SINGLE BOUT OF RESISTANCE EXERCISE**

Sajad Ahmadizadeh1,2, Mahmoud Saleh El-Sayed1, Donald Peter MacLaren1
1Research Institute for sports & exercise Sciences, Liverpool John Moores University, Liverpool, UK
2Sport Science Research Centre, Ministry of Sciences, Tehran, Iran
C4.6 NON-HEMODILUTING DEXTRANE IN CRITICAL LIMB ISCHEMIA: MICROCIRCULATION AND HEMORRHEOLOGY
Giovanni Ragozzino, Raffaele del Guercio, Luca del Guercio
Department of Vascular Surgery and Angiology, University Federico II, Naples, ITALY

10.30-11.00
International Medical Consensus Meeting – Aula Magna
Chairpersons: M.R. Boisseau, C.Allegra
VENO-ACTIVE DRUGS IN THE MANAGEMENT OF CHRONIC VENOUS DISEASE. AN INTERNATIONAL CLINICAL CONSENSUS
Albert A Ramelet ¹, Claudio Allegra, Michel R Boisseau, Patrick H Carpentier, Sandro Forconi, Kurt Jäger, Andrew Nicolaides,
¹ Place Benjamin Constant 2, 1003 Lausanne, Switzerland

11.00-11.30
Break

11.30-12.00
Lecture L4 – Aula Magna
Chairperson: S. Forconi
CUTANEOUS microCIRCULATION IN PATIENTS WITH CORONARY ARTERY DISEASE AND ERECTILE DYSFUNCTION
J.-W. Park¹, M. Hien¹, C. Mrowietz², A. Creutziger³, H. F. Jung²
¹ Cardiology Division, Hoyerswerda Hospital, Germany, ² Institute for Heart and Circulation Research, Hoyerswerda, Germany, ³ Urological Practice, Hoyerswerda, Germany

12.00
Closing Ceremony