

# 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 / PROGRAMMA

**President of the Conference: Sandro Forconi**

Scientific Secretariat

Dipartimento di Medicina Interna, Cardiovascolare e Geriatrica

Università degli Studi di Siena

Policlinico Santa Maria alle Scotte - Viale Bracci - 53100 Siena, Italy

[www.unisi.it/eventi/13ecch](http://www.unisi.it/eventi/13ecch)



## **13<sup>th</sup> Conference of the European Society for Clinical Hemorheology**

The 13<sup>th</sup> Conference of the European Society for Clinical Hemorheology will be held in Siena from the 26<sup>th</sup> to the 29<sup>th</sup> of June 2005.

As pro-tempore President of the Society I am happy to welcome the European National Societies and Groups, the members of the Advisory Committee as well as non-European scholars in the field of hemorheology to participate to the Conference by sending proposals for topics, lectures, symposia, oral communications and posters.

This is the third time (the first was in 1985 and the second in 1995) that Siena hosts the Conference of the E.S.C.H. and, for a lucky historical coincidence, we will have this important scientific meeting again after twenty and ten years. The participants to the previous meetings know very well that this town offers a wide range of opportunities not only from a scientific point of view but also as far as hospitality is concerned. In the week following the Conference there will be the horse race denominated the "Palio". Those who will have the possibility to stay here will have the pleasure to be involved in one of the most appreciated events testifying the old glory of Siena throughout the middle ages and the renaissance.

During the Conference, a ceremony will be held for the presentation of the Fahraeus Medal, assigned according the rules stated in the Constitution of the Society in recognition of scientific excellence in the field. I am honoured to welcome such distinguished scientists in my birth city.

*Sandro Forconi*

President of the European Society for Clinical Hemorheology

## **1° Congresso Nazionale della Società Italiana di Emoreologia Clinica e Microcircolazione**

Questo è il 1° Congresso della Società Italiana di Emoreologia Clinica e Microcircolazione (S.I.E.C.M.), Società che nasce dalla fusione, auspicata da tempo, della Società Italiana di Emoreologia Clinica (S.I.E.C.) e della Società Italiana per lo Studio della Microcircolazione (S.I.S.M.). In realtà questo Congresso sarebbe stato l'11° per la S.I.E.C. e il 22° per la S.I.S.M. Dal punto di vista scientifico la fusione ha avuto una sua logica nella quasi completa integrazione tra gli argomenti di studio e di ricerca che facevano parte del bagaglio culturale delle due precedenti società e nella quasi totale sovrapposizione dell'elenco dei membri delle due Società "madri".

Il Consiglio Direttivo della Società, che è anche il Comitato Scientifico del Congresso, è attualmente formato dalla unificazione dei due precedenti consigli direttivi. Il Congresso di Siena sarà l'occasione per portare a compimento il processo elettorale così come previsto dalle norme statutarie e per dare vita al nuovo Direttivo che guiderà la Società nei prossimi anni.

Arrivederci a Siena!

*Sandro Forconi*

Presidente della S.I.E.C.M.

**EUROPEAN SOCIETY FOR CLINICAL HEMORHEOLOGY  
INTERNATIONAL ADVISORY COMMITTEE**

Sami Aydogan	Constantin Mircioiu
Bernhard Angelkort	Sylviane Muller
Nadia Antonova	Alexei Muravyov
Oguz K. Baskurt	Giuseppe Nenci
Lajos Bogar	Ernst Pilger
Michel R. Boisseau	Fausto Pinto
Gregorio Caimi	Michael Rampling
Roberto Delsignore	Walter Reinhart
Sandro Forconi	Pavel Riha
Max R. Hardeman	Carlota Saldanha
Lothar Heilmann	Bo Sandhagen
Friedrich Jung	Marisa Santaolaria
Taraneh Khodabandehlou	Holger Schmid-Schönbein
Lajos Kollar	Bruno Sebastiano Solerte
Dimitris-Dionissis Koutsouris	Jean Francois Stoltz
Franco Laghi Pasini	Kalman Toth
Helmut Landgraf	Maria Giuliana Tozzi Ciancarelli
Hans Larsson	Amparo Vayá
Claude Le Devehat	Irena Velcheva
Gordon Lowe	Jean-Luc Wautier
Joao Martins e Silva	P. Rhodri Williams
George Mchedlishvili	Sebastian Wolf

**SOCIETÀ ITALIANA DI EMOREOLOGIA CLINICA E MICROCIRCOLAZIONE  
COMITATO SCIENTIFICO**

Claudio Allegra	Romeo Martini
Giuseppe Maria Andreozzi	Pierluigi Mollo
Gregorio Caimi	Giuseppe Nenci
Roberto Cappelli	Enrico Oliva
Anita Carlizza	Lorenzo Pascazio
Michele del Guercio	Franco Pitzus
Raffaele del Guercio	Marco Rossi
Roberto Delsignore	Antonio Strano
Ettore Ferrari	Anna Rita Todini
Sandro Forconi	Maria Giuliana Tozzi Ciancarelli
Franco Laghi Pasini	Luca Trabalzini

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June 26<sup>th</sup> - 29<sup>th</sup>, 2005 - Siena, Italy

1° Congresso Nazionale della Società Italiana  
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28 Giugno 2005 - Siena

## PROGRAMME / PROGRAMMA

13th Conference of the European Society for Clinical Hemorheology				1° Congresso S.I.E.C.M.	
	AULA MAGNA	AULA 1	AULA 3 - 4 - 5 - 7	AULA 2	AULA 6
Sunday 26 "Palazzo del Rettorato"	16.00 Opening Ceremony				
	17.00-18.00 Fahraeus Medal Award Presentation Ceremony and Lecture				
	18.30 Welcome Cocktail				
Monday 27	8.00-9.00 Registration				
	9.00-10.30 Symposium S1				
	10.30-11.00 Lecture L1				
	11.00-11.30 Break				
	11.30-12.00 Lecture L2				
	12.00-12.30 Lecture L3				
	12.30-13.30 Meeting of the Advisory Committee of the E.S.C.H.				
	13.30-14.30 Lunch				
	15.00-20.00 Social Event				
Tuesday 28				8.00-8.30 Registrazione	
				8.30-9.00 Inaugurazione del Congresso	
	9.00-11.00 Symposium S2	9.00-11.00 Oral Communications Session C1	8.30-12.00 - Aula 3 International Medical Consensus Meeting	9.00-10.30 I Sessione di Comunicazioni	
	11.00-11.30 Break			10.30-11.00 Lettura L1	
	11.30-12.00 Lecture L4		12.00-13.30 - Aula 4 Poster Session 1 12.00-13.30 - Aula 5 Poster Session 2 12.00-13.30 - Aula 7 Poster Session 3	11.00-11.30 Break	
	13.30-14.30 Lunch			11.30-13.00 II Sessione di Comunicazioni	
	14.30-16.30 Symposium S3	14.30-16.30 Oral Communications Session C2		13.00-13.30 Lettura L2	
	16.30-17.00 Break			13.30-14.30 Lunch	
	17.00-19.00 Symposium S4	17.00-19.00 Oral Communication Session C3		14.30-15.30 Assemblea soci SIECM	
	20.30 Gala Dinner			15.30-16.45 Simposio	15.30 Apertura seggio elettorale
	9.00-10.30 Symposium S5	9.00-10.30 Oral Communication Session C4		16.45-17.15 Break	
	10.30-11.00 International Medical Consensus Meeting			17.15-17.45 Lettura 3	18.00 Chiusura del seggio elettorale
	11.00-11.30 Break			17.45-19.00 III Sessione di Comunicazioni	
	11.30-12.00 Lecture L5			19.00-19.15 Proclamazione dei risultati elettorali	
	12.00 Closing Ceremony			19.15 Cerimonia di chiusura	
				20.30 Cena Sociale	
Wednesday 29					

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**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 International Society of Clinical Hemorheology)

Chairpersons: H.J. Meiselman (U.S.A.), O.K. Baskurt (Turkey)

### S1.1 HEMORHEOLOGY AND HEMODYNAMICS: DOVE AND ARE?

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. Baskurt<sup>1</sup>, Ozlem Yalcin<sup>1</sup>, Firat Gungor<sup>2</sup>, Herbert J. Meiselman<sup>3</sup>

<sup>1</sup>*Department of Physiology, Akdeniz University Faculty of Medicine, Antalya, Turkey*

<sup>2</sup>*Department of Nuclear Medicine, Akdeniz University Faculty of Medicine, Antalya, Turkey*

<sup>3</sup>*Department of Physiology and Biophysics, USC Keck School of Medicine, Los Angeles, CA, USA*

### S1.3 IMPROVEMENT OF TISSUE PERFUSION, BLOOD FLOW AND LOWERING OF BLOOD PRESSURE DUE TO INCREASED BLOOD AND PLASMA VISCOSITY

Judith Martini<sup>1</sup>, Pedro Cabrales<sup>2</sup>, Adolfo Chávez Negrete<sup>3</sup>, Amy G. Tsai<sup>1,2</sup> and Marcos Intaglietta<sup>1,2</sup>

<sup>1</sup> *Department of Bioengineering University of California, San Diego, La Jolla, CA 92093, USA,* <sup>2</sup> *La Jolla Bioengineering Institute, La Jolla, CA 92037, USA,* <sup>3</sup> *Instituto 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 Nemeth<sup>1</sup>, Jens Soukup<sup>2</sup>, Matthias Menzel<sup>2</sup>, Andreas Rieger<sup>3</sup>, Istvan Furka<sup>1</sup>, Iren Miko<sup>1</sup>

<sup>1</sup>*Department of Operative Techniques and Surgical Research, Medical and Health Science Center, University of Debrecen, Debrecen, Hungary,* <sup>2</sup>*Department of Anaesthesiology and Intensive Care Medicine, Martin Luther University, Halle-Wittenberg, Germany,* <sup>3</sup>*Department of Neurosurgery, Martin Luther University, Halle-Wittenberg, Germany*

10.30-11.00

## Lecture L1 - Aula Magna

Chairperson: J.-L. Wautier (France)

### STUDIES ON BLOOD ELECTORHEOLOGICAL PROPERTIES

N. Antonova<sup>1</sup>, P. Riha<sup>2</sup>

<sup>1</sup>*Institute of Mechanics and Biomechanics, Bulgarian Academy of Sciences, 1113 Sofia, Bulgaria*

<sup>2</sup>*Institute 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: J.F. Stoltz (France)

### GLYCATED PROTEINS PROVOKE AN ENDOTHELIAL CELL DYSFUNCTION

Jean-Luc Wautier

*INTS, UFR Lariboisière Saint-Louis Paris 7, 6 rue Alexandre Cabanel 75015 Paris, France*

12.00-12.30

***Lecture L3 - Aula Magna***

Chairperson: S. Forconi (Italy)

**COMPUTERISED CARDIOGREEN PERFUSOGRAPHY - A TOOL ALLOWING TO QUANTIFY  
PERFUSION HOMOGENEITY IN PATIENTS**

Holger Schmid-Schönbein, Thomas Kirschkamp, Marcus Spellerberg and Carsten Jaeger

*Department of Physiology, RWTH Aachen, D - 52074 Aachen.*

12.30-13.30

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

13.30-14.30

***Lunch***

15.00-20.00

***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 Késmárky, Gergely Fehér, Katalin Koltai, Beáta Horváth, Kálmán Tóth

*1<sup>st</sup> 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<sup>1</sup>, Hajnalka Andrikovics<sup>2</sup>, Márta Csornai<sup>3</sup>, Zoltán Nagy<sup>4</sup>

*<sup>1</sup> Dept. Neurology-Stroke, Central Hospital, Ministry of Interieur, Budapest, Hungary, <sup>2</sup> Laboratory of Molecular Genetics, National Institute of Hematology, Budapest, Hungary, <sup>3</sup> Dept. Neurology, County Hospital, Kecskemét, Hungary, <sup>4</sup> 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 Imre<sup>1</sup>, Ágnes Kovács<sup>1</sup>, Éva Várady<sup>2</sup>, Zita Szikszai<sup>3</sup>

*<sup>1</sup>Department of 3rd Internal Medicine, Research Group of Gerontology - Medical and Health Science Center, University of Debrecen, Hungary, <sup>2</sup>Laboratory of City Medical Service - Debrecen, Hungary, <sup>3</sup>Institute of Nuclear Research of the Hungarian Academy of Sciences - Debrecen, Hungary*

### **S2.4 HEMORHEOLOGICAL PARAMETERS AND AGING**

G. Feher<sup>1</sup>, K. Koltai<sup>1</sup>, Zs. Marton<sup>1</sup>, T. Alexy<sup>1</sup>, B. Horvath<sup>1</sup>, G. Kesmarky<sup>1</sup>, E. Bartha<sup>1</sup>, L. Szapary<sup>2</sup>, I. Juricskay<sup>1</sup>, K. Toth<sup>1</sup>.

*<sup>1</sup>1st Department of Medicine, <sup>2</sup> Department of Neurology  
University of Pecs, School of Medicine*

### **S2.5 HAEMATOCRIT AND BLOOD VISCOSITY RATIO INDICATES RHEOLOGICAL OXYGEN CARRYING CAPACITY AND OPTIMAL HAEMATOCRIT OF HUMAN BLOOD**

Lajos Bogar<sup>1</sup>, Gabor Kesmarky<sup>2</sup>, Peter Kenyeres<sup>2</sup>, Livia Szelig<sup>1</sup>, Gergely Feher<sup>2</sup>, Kalman Toth<sup>2</sup>

*<sup>1</sup> Department of Anaesthesia and Intensive Care - University of Pecs, Hungary  
<sup>2</sup> 1<sup>st</sup> Department of Medicine - University of Pecs, Hungary*

### **S2.6 HEMOSTASEOLOGICAL AND RHEOLOGICAL PROPERTIES OF OVERWEIGHT AND OBESE PATIENTS**

Bernát Sándor Iván<sup>1</sup>, Sidó Zoltán<sup>1</sup>, Pongrácz Endre<sup>2</sup>

*<sup>1</sup> Central Hospital of Hungarian Ministry of Defence, 2nd Dept. of Internal Medicine-Cardiology, Budapest  
<sup>2</sup> Central Hospital of Hungarian Ministry of Home Office Dept. Neurology and Stroke, Budapest*

9.00-11.00

## **Oral Communications Session C1 - Aula 1**

RED BLOOD CELLS AGGREGATION AND DEFORMABILITY - PATHOLOGY

Chairpersons: N. Antonova (Bulgaria), A. Vayá (Spain)

### **C1.1 RHEOMETRICAL AND COMPUTATIONAL STUDIES OF BLOOD VISCOELASTICITY DURING COAGULATION**

P.R.Williams<sup>1</sup>, K. Hawkins, C. Wright, A. Evans\* and H. Simkin<sup>§</sup>.

*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 Bilito<sup>1</sup>, Mohammed Irhimeh<sup>2</sup>, Sana' Suboh<sup>3</sup>

<sup>1</sup>Zarka University College, Al-Balqa' Applied University, Zarka P.O.Box (313), Jordan

<sup>2</sup>Department of Biological Sciences, University of Jordan, Amman, Jordan

<sup>3</sup>Department of Biological Sciences, Al-Hashemia University, Zarka, Jordan

## **C1.3 EFFECTS OF MACROMOLECULES AND THEIR APHERETIC ELIMINATION ON BLOOD RHEOLOGY: RHEOSPECIFICITY OF RED BLOOD CELL (RBC) AGGREGATES DEPENDING ON THE STRENGTH OF AGGREGATING FORCES**

Kirschkamp T<sup>a, b, c</sup>, Goebel W<sup>b</sup>, Perkkiö T<sup>b</sup>, Schmid-Schönbein H<sup>b</sup>:

<sup>a</sup>IZKF BIOMAT – Interdisciplinary Center for Clinical Research, RWTH Aachen

<sup>b</sup>Department of Physiology, Aachen University of Technology

<sup>c</sup>Department of Ophthalmology, University Clinics Aachen

## **C1.4 CORRELATION OF REDUCTION OF ERYTHROCYTE DEFORMABILITY WITH DIABETIC NEPHROPATHY**

Sehyun Shin<sup>1</sup>, Yunhee Ku<sup>1</sup>, Lijuen Zhang<sup>1</sup>, Yu-kyung Kim<sup>2</sup> and Jang-Soo Suh<sup>2</sup>

<sup>1</sup>School of Mechanical Engineering, Kyungpook National University

<sup>2</sup>Dept. of Laboratory Medicine, Kyungpook National University

## **C1.5 EFFECTS OF HEROIN AND METHADONE MAINTENANCE THERAPY ON BLOOD RHEOLOGY IN HEROIN ABUSERS**

Yonko Savov<sup>1</sup>, Nadia Antonova<sup>2</sup>, Elissaveta Zvetkova<sup>1</sup>, Iskra Sainova<sup>1</sup>, Yordanka Gluhcheva<sup>1</sup>, Ivan Ivanov<sup>2</sup>

<sup>1</sup>Institute of Experimental Morphology and Anthropology – Bulgarian Academy of Sciences, 1113 Sofia, Bulgaria

<sup>2</sup>Institute 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 L4 – Aula Magna***

Chairperson: F. Jung (Germany)

#### **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:

from P1.1 to P1.7: I. Velcheva (Bulgaria), J.-F. Brun (France)

from P1.8 to P1.13: P. Capecchi (Italy), G. Mchedlishvili (Georgia)

from P1.14 to P1.20: M.G. Tozzi Ciancarelli (Italy), C. Saldanha (Portugal)

## ATHEROSCLEROSIS

### P1.1 HEMORHEOLOGICAL PARAMETERS IN CORRELATION WITH THE RISK FACTORS FOR CAROTID ATHEROSCLEROSIS

I.Velcheva<sup>1</sup>, N. Antonova<sup>2</sup>, E. Titianova<sup>3</sup>, P. Damianov<sup>1</sup>, N. Dimitrov<sup>1</sup>, I.Ivanov<sup>2</sup>

<sup>1</sup>Department of Neurology, Medical University, Sofia, Bulgaria, <sup>2</sup>Institute of Mechanics and Biomechanics, Bulgarian Academy of Sciences, Sofia, Bulgaria, <sup>3</sup>Military Medical Academy, Sofia, Bulgaria

### P1.2 POLYMORPHONUCLEAR LEUKOCYTE MEMBRANE FLUIDITY AND CYTOSOLIC Ca<sup>2+</sup> CONCENTRATION IN SUBJECTS WITH VASCULAR ATHEROSCLEROTIC DISEASE SUBDIVIDED ACCORDING TO THE EXTENT

Rosalia Lo Presti, Baldassare Canino, Caterina Carollo, Daniela Lucido, Filippo Ferrara, Adele Romano, Gregorio Caimi

Dipartimento di Medicina Interna, Malattie Cardiovascolari e Nefrourologiche - 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 Cicha<sup>1</sup>, Atilla Yilmaz<sup>1</sup>, Yoji Suzuki<sup>2</sup>, Nobuji Maeda<sup>2</sup>, Werner G. Daniel<sup>1</sup>, Margarete Goppelt-Struebe<sup>3</sup>, Christoph D. Garlich<sup>1</sup>

<sup>1</sup>Medical Clinic II, University of Erlangen-Nuremberg, Germany, <sup>2</sup>Department of Physiology, School of Medicine, Ehime University, Japan, <sup>3</sup>Medical Clinic IV, University of Erlangen-Nuremberg, Germany

### P1.4 INVOLVEMENT OF HEMORHEOLOGICAL DISORDERS IN DEVELOPMENT OF CORONARY HEART DISEASE

T. Urdulashvili<sup>1</sup>, M. Mantskava<sup>2</sup>, N. Momtselidze<sup>2</sup>, N. Narsia<sup>1</sup>, G. Mchedlishvili<sup>2</sup>

<sup>1</sup>Chair of Internal Medicine, State Medical University, Vazha-Pshavela Av. 33, 0077, Tbilisi

<sup>2</sup>Microcirculation Research Center I. Beritashvili Institute of Physiology, 14 Gotua St., 0160, Tbilisi.

## LIPIDS

### P1.5 FATTY ACID COMPOSITION IN ERYTHROCYTES OF MAMMALS WITH DIFFERENT DEGREE OF RED CELL AGGREGATION

Roberto Plasenzotti<sup>1</sup>, Ursula Windberger<sup>1</sup>, Franz Ulberth<sup>2</sup>, Wolf Osterode<sup>3</sup>

<sup>1</sup> Division for Biomedical Research, Medicine University of Vienna, <sup>2</sup> Department of Dairy Research and Bacteriology, University of Vienna, <sup>3</sup> Univ. 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. Stoeffl<sup>1</sup>, Sv. Hadjieva<sup>2</sup>, Sv. Jovtchev<sup>1</sup>, L. Trajkov<sup>1</sup>, T. Galabova<sup>1</sup>, M. Vretenarska<sup>2</sup>, I. Raichev<sup>3</sup>, I. Dikov<sup>4</sup>, L. Lambreva<sup>2</sup>, M. Penev<sup>2</sup>

<sup>1</sup> Department Physics and Biophysics- Medical University Sofia, Bulgaria, <sup>2</sup> Department Clinical Laboratory and Immunology; <sup>2</sup><sub>1</sub> Clinics for Nephrology and Transplantation, Multiprofiled Infirmary for Active Treatment "Alexandrovska"- Medical University Sofia, Bulgaria, <sup>3</sup> 1-st Neurological Clinics, State Hospital of Neurology and Psychiatry "St. Naum" 4-th km- Medical University Sofia, Bulgaria, <sup>4</sup> Department Obstetrics and Gynecology, Infirmary for Specialized Care of Obstetrics and Gynecology "Mother's home"- Medical University Sofia, Bulgaria

### P1.7 HEMORHEOLOGICAL DISTURBANCES CORRELATE WITH THE LIPID PROFILE BUT NOT WITH THE NCEP-ATPIII 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 Tucat<sup>1</sup>, Claire Nguyen Le<sup>2</sup>, Jean-Marie Pibourdin<sup>2</sup>,

<sup>1</sup> Cabinet Médical Monceau, Paris, France

<sup>2</sup> Pierre Fabre Médicament, Castres, France

### **PI.9 THE RED BLOOD CELL DEFORMABILITY ALTERATIONS UNDER DESFLURAN ANESTHESIA IN RATS**

Mükerrem Betül Yerer<sup>1</sup>, Sami Aydoğan<sup>1</sup>, Faruk Metin Çomu<sup>2</sup>, Mustafa Arslan<sup>3</sup>, Işn Güneş-Ekinci<sup>4</sup>.

<sup>1</sup> *University of Erziyes, Faculty of Medicine, Department of Physiology, Kayseri*, <sup>2</sup>*University of Kirikkale, Faculty of Medicine, Department of Physiology, Kirikkale*, <sup>3</sup>*University of Gazi, Faculty of Medicine, Department of Anesthesiology, Ankara*, <sup>4</sup>*University of Erziyes, Faculty of Medicine, Department of Anesthesiology, Kayseri, TURKEY*

### **PI.10 THE INFLUENCE OF TWO DIFFERENT HYDROXYETHYL STARCH SOLUTIONS (6% HES 130/0.4 AND 200/0.5) ON BLOOD VISCOSITY**

Michael Mark<sup>1</sup>, Thomas A. Neff<sup>2</sup>, Lukas Fischler<sup>1</sup>, Reto Stocker<sup>2</sup>, Walter H. Reinhart<sup>1</sup>

<sup>1</sup> *Department of Internal Medicine, Kantonsspital, CH-7000 Chur, Switzerland*

<sup>2</sup> *Division of Surgical Intensive Care, University Hospital, CH-8091 Zurich, Switzerland*

### **PI.11 ACUTE ADMINISTRATION OF ILOPROST IN PATIENTS WITH RAYNAUD'S PHENOMENON ASSOCIATED WITH SYSTEMIC SCLEROSIS: ELECTROPHYSIOLOGICAL AND MICROCIRCULATORY FINDINGS**

Pier Leopoldo Capecchi<sup>1</sup>, Maurizio Acampa<sup>2</sup>, Marcello Pastorelli<sup>2</sup>, Francesca Guideri<sup>1</sup>, Serena Rechichi<sup>1</sup>, Pietro Enea Lazzarini<sup>1</sup>, Federica Biagi<sup>2</sup>, Moira Servi<sup>2</sup>, Alessandro Pontani<sup>2</sup>, Franco Laghi Pasini<sup>1</sup>, Alberto Auteri<sup>2</sup>.

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## **SHOCK**

### **PI.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.*

### **PI.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**

### **PI.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, Anna Catania, Rosalia Lo Presti

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

### **PI.15 OXIDANT/ANTIOXIDANT UNBALANCE AND ENDOTHELIAL DYSFUNCTION IN ADVANCING-AGE**

Caterina Di Massimo<sup>1</sup>, Pietro Scarpelli<sup>2</sup>, Gregorio Caimi<sup>3</sup>, M.Giuliana Tozzi Ciancarelli<sup>1</sup>

<sup>1</sup> *Department of Biomedical Sciences & Technology, Area of Human Physiological Functions, University of L'Aquila, Italy*

<sup>2</sup> *Department of Vascular Surgery, G. Rummo Hospital, Benevento, Italy*

<sup>3</sup> *Department of Internal Medicine, University of Palermo, Italy*

### **PI.16 FETAL AND JUVENILE ANIMAL HEMORHEOLOGY**

U. Windberger, R. Plasenzotti, W. Weihs, A. Gollß

*Decentralized Biomedical Facilities, Core Unit for Biomedical Research, Medical University of Vienna, Austria*

<sup>§</sup>*Institute for Medical Statistic, Medical University of Vienna, Austria*

### **PI.17 MEASUREMENTS OF THE PLASMA-VISCOSITY IN THE OLDEST OLD AGE-GROUP**

Ágnes Kovács<sup>1</sup>, Éva Várady<sup>2</sup>, Zita Szikszai<sup>3</sup>, Sándor Imre<sup>1</sup>

<sup>1</sup>*Department of 3rd Internal Medicine, Research Group of Gerontology - Medical and Health Science Center, University of Debrecen, Hungary*

<sup>2</sup>*Laboratory of City Medical Service - Debrecen, Hungary*

<sup>3</sup>*Institute of Nuclear Research of the Hungarian Academy of Sciences - Debrecen, Hungary*

## **P1.18 PARTIALLY OPPOSITE 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*

## **LIPIDS 2**

## **P1.19 EFFECTS OF PHYTOSTEROLS SUPPLIED IN LOW-FAT MILK, IN THE HEMORHEOLOGICAL PARAMETERS AND PLASMA CHOLESTEROL CONCENTRATIONS IN WISTAR RATS**

Ana Santos Silva<sup>1</sup>, Carlota Saldanha<sup>1</sup>, João Martins e Silva<sup>1</sup>

*<sup>1</sup>Instituto de Biopatologia Química, Unidade de Biopatologia Vasculiar, Instituto de Medicina Molecular, Faculdade de Medicina de Lisboa, 1649-028 Lisboa, Portugal.*

## **P1.20 PHYTOSTEROLS IN MILK AS A DEPRESSOR OF PLASMA CHOLESTEROL LEVELS: EXPERIMENTAL EVIDENCE WITH HYPERCHOLESTEROLEMIC PORTUGUESE SUBJECTS**

Sonia Gonçalves Abreu<sup>1</sup>, Vasco Maria<sup>2</sup>, Ana Santos Silva<sup>1</sup>, João Martins-Silva<sup>1</sup> and Carlota Saldanha<sup>1</sup>

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## **Poster Session 2 - Aula 5**

Chairpersons:

From P2.1 to P2.7: T. Kobayashi (Japan), W. H. Reinhart (Switzerland)

From P2.8 to 2.15: I. Tanganelli (Italy), S. Muller (France)

From P2.16 to P2.20: H. Schmid-Schönbein (Germany), I. Tikhomirova (Russia)

## **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 Kobayashi<sup>1</sup>, Mashio Nakamura<sup>2</sup>, Masahito Sakuma<sup>2</sup>, Norikazu Yamada<sup>2</sup>, Masato Sakon<sup>2</sup>, Satoru Fujita<sup>2</sup>, Norimasa Seo<sup>2</sup>

*<sup>1</sup>Department of Family and Child Nursing, and Midwifery, Shinshu University School of Health Sciences, Matsumoto, Japan*

*<sup>2</sup>Editorial Committee on Japanese Guideline for Prevention of Venous Thromboembolism*

### **P2.3 THE INFLUENCE OF HEMATOCRIT ON PRIMARY HEMOSTASIS 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 Stolfo<sup>1</sup>, Saverio Dragoni<sup>1</sup>, Tommaso Gori<sup>1</sup>, Silvia Sicuro<sup>1</sup>, John D. Parker<sup>2</sup>, Sandro Forconi<sup>1</sup>

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*<sup>2</sup>Department 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*

## **P.2.6 HEMORHEOLOGICAL DISORDERS DURING ISCHEMIC BRAIN INFARCTS WITH AND WITHOUT DIABETES MELLITUS**

Nana Momtselidze, Maia Mantskava, George Mchedlishvili

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## **P.2.7 COMPARISON OF ERYTHROCYTE AGGREGABILITY CHANGES DURING THE ISCHEMIC AND HEMORRHAGIC STROKE**

Natalie Bolokadze<sup>1</sup>, Irma Lobjanidze<sup>2</sup>, Nana Momtselidze<sup>1</sup>, Roman Shakarishvili<sup>2</sup> and George Mchedlishvili<sup>1</sup>

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## **NEW TECHNOLOGIES**

### **P.2.8 DISPOSABLE EKTACYTOMETRY: LASER DIFFRACTION IN A SLIT FLOW**

Sehyun Shin<sup>1</sup>, Yunhee Ku<sup>1</sup>, YoungJoo Kim<sup>1</sup>, and Jangsoo Suh<sup>2</sup>

<sup>1</sup>*School of Mechanical Engineering, Kyungpook National University*

<sup>2</sup>*Department of Pathological Physiology, Kyungpook National University*

### **P.2.9 FRACTAL ANALYSIS OF MONOCYTES IN DIABETES**

Giorgio Bianciardi<sup>1</sup>, Italo Tanganelli<sup>2</sup>, Dorotea Totagiancaspro<sup>2</sup>, Marco Brogi<sup>1</sup>, Antonietta Carducci<sup>1</sup>, Maria Margherita De Santi<sup>1</sup>

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<sup>2</sup>*Dipartimento di Scienze Odontostomatologiche, Sezione Diabetologia - Università degli Studi di Siena, Italy.*

### **P.2.10 POLYELECTROLYTE MULTILAYER THIN FILMS USED AS NEW TOOL FOR VASCULAR TISSUE ENGINEERING.**

Cédric Boura<sup>1</sup>, Sylvaine Muller<sup>1</sup>, Halima Kerdjoudj<sup>1</sup>, Pierre Schaaf<sup>2</sup>, Jean Claude Voegel<sup>3</sup>, Jean Francois Stoltz<sup>1</sup>, Patrick Menu<sup>1</sup>

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<sup>3</sup>*INSERM U 595, Faculté de Médecine, 67085 Strasbourg, France*

### **P.2.11 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*

### **P.2.12 LOCAL HEMATOCRIT CHANGES DEPENDENT ON THE INTENSITY OF MICROCIRCULATION IN THE HUMAN SKIN**

Tinatín Kumsishvili, Manana Varazashvili, George Mchedlishvili.

*Microcirculation Research Center, I.Beritashvili Institute of Physiology, 14 Gotua St., 0160, Tbilisi, Georgia*

### **P.2.13 ERYTHROCYTE STIFFNESS IN DIABETES MELLITUS STUDIED WITH ATOMIC FORCE MICROSCOPE**

Maria Fornal<sup>1</sup>, Małgorzata Lekka<sup>2</sup>, Grażyna Pyka-Fościk<sup>2</sup>, Kateryna Lebed<sup>2</sup>, Tomasz Grodzicki<sup>1</sup>, Barbara Wizner<sup>1</sup>, Jan Styczeń<sup>2</sup>

<sup>1</sup>*Department of Internal Medicine and Gerontology, Collegium Medicum, Jagiellonian University, Sniadeckich 10, 31-351 Kraków, Poland,* <sup>2</sup>*The Henryk Niewodniczański Institute of Nuclear Physics, Polish Academy of Sciences, Radzikowskiego 152, 31-342 Kraków, Poland.*

### **P.2.14 OSCILLATING VISCOMETER - EVALUATION OF A NEW BEDSIDE TEST**

Michael Mark<sup>1</sup>, Klaus Häusler<sup>2</sup>, Jürg Dual<sup>2</sup>, Walter H. Reinhart<sup>1</sup>

<sup>1</sup>*Department of Internal Medicine, Kantonsspital, CH-7000 Chur, Switzerland*

<sup>2</sup>*Institute of Mechanical Systems, ETH Zurich, CH-8092 Zurich, Switzerland*

### **P.2.15 LASER DIFFRACTOMETRY TECHNIQUE: CLINICAL APPLICATIONS TO VASCULAR PATHOLOGIES**

Bibiana Riquelme<sup>1</sup>, Patricia Foresto<sup>1,2</sup>, Mabel D'Arrigo<sup>1,2</sup> and Juana Valverde<sup>1,2</sup>

<sup>1</sup>*Grupo de Óptica Aplicada a la Biología, Instituto de Física Rosario (CONICET-UNR). Argentina*

<sup>2</sup>*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 Bilito<sup>1</sup>, Sana' Suboh<sup>2</sup>

<sup>1</sup> Zarka University College, Al-Balqa' Applied University, Zarka P.O.Box (313), Jordan

<sup>2</sup> Department of Biological Sciences, Al-Hashemia University, Zarka, Jordan

### **P2.17 EXERCISE-INDUCED OXIDATIVE STRESS AFFECTS ERYTHROCYTES IN SEDENTARY AND TRAINED YOUNG MEN**

Günnur Koçer, Ümit K.Şentürk, Filiz Gündüz, Oktay Kuru, Murat Üyükü, Özlem Yalçın, Oğuz K.Başkurt

Department of Physiology, School of Medicine – Akdeniz University, Antalya, Turkey

## NEW TECHNOLOGIES 2

### **P2.18 EVALUATION OF A TORSIONAL-VIBRATING TECHNIQUE FOR THE HEMORHEOLOGICAL CHARACTERIZATION**

Valter Travaglini<sup>1</sup>, Iacopo Zanardi<sup>1</sup>, Letizia Boschi<sup>2</sup>, Vera Turchetti<sup>2</sup>, Sandro Forconi<sup>2</sup>

<sup>1</sup> Dipartimento Farmaco Chimico Tecnologico – Università degli Studi di Siena, Italy

<sup>2</sup> Dipartimento di Medicina Interna, Cardiovascolare e Geriatrica – Università degli Studi di Siena, Italy

### **P2.19 A NEW ANIMAL MODEL FOR THE STUDY OF THE PERFUSION HOMOGENEITY OF THE CHORIOIDEA OF ALBINO RATS**

Kirschkamp T<sup>a, b, c</sup>, Haest C<sup>b</sup>, Schmid-Schönbein H<sup>b</sup>

<sup>a</sup>IZKF BIOMAT – Interdisciplinary Center for Clinical Research, RWTH Aachen

<sup>b</sup>Department of Physiology, Aachen University of Technology

<sup>c</sup>Department of Ophthalmology, University Clinics Aachen

### **P2.20 PILOT EXPERIMENTS FOR OBJECTIVE CONTROL OF RHEOAPHERETIC TREATMENT AGE RELATED MACULAR DEGENERATION (AMD)**

Thomas Kirschkamp, P. Walter, J. Floege and H. Schmid-Schönbein

Departments of Ophthalmology, Internal Medicine and Physiology, RWTH Aachen, D 52074 Aachen

## **Poster Session 3 - Aula 7**

Chairpersons:

From P3.1 to P3.7: A. Vayá (Spain) A. Stepanov (Russian Federation)

From P3.8 to P3.14: E. Varlet-Marie (France), U. Windberger (Austria)

From P3.15 to P3.22: G. Cicco (Italy), P. Moriarty (USA)

## MISCELLANEOUS

### **P3.1 EFFECT OF HYDROXYUREA ON THE DEFORMABILITY OF THE ERYTHROCYTE MEMBRANE IN PATIENTS WITH SICKLE CELL ANAEMIA**

George Athanassiou<sup>1</sup>, Antonia Moutzouri<sup>1</sup>, George Margaritis<sup>1</sup>, Aleka Kouraki<sup>2</sup>

<sup>1</sup> Biomedical Engineering Laboratory, University of Patras, Greece 26500

<sup>2</sup> Division of Haematology, Department of Internal Medicine, University of Patras Greece

### **P3.2 BLOOD RHEOLOGY CHANGES IN EXPERIMENTAL RHEUMATOID ARTHRITIS**

Alexey Stepanov<sup>1</sup>, Alexander Spasov<sup>1</sup>, Natalia Arjkova<sup>1</sup>, Maria Samokhina<sup>1</sup>, Ludmila Naumenko<sup>1</sup>

<sup>1</sup> Pharmacology Department – Volgograd State Medical University, Russian Federation

### **P3.3 THE INFLUENCE OF SEVOFLURAN ANESTHESIA ON THE RAT RED BLOOD CELL DEFORMABILITY**

Sami Aydoğan<sup>1</sup>, Mükerrerem Betül Yerer<sup>1</sup>, Faruk Metin Çomu<sup>2</sup>, Mustafa Arslan<sup>3</sup>, Işın Güneş-Ekinci<sup>4</sup>.

<sup>1</sup>University of Erziyes, Faculty of Medicine, Department of Physiology, Kayseri, Turkey, <sup>2</sup> University of Kırıkkale, Faculty of Medicine, Department of Physiology, Kırıkkale, Turkey, <sup>3</sup>University of Gazi, Faculty of Medicine, Department of Anesthesiology, Ankara, Turkey, <sup>4</sup>University of Erziyes, Faculty of Medicine, Department of Anesthesiology, Kayseri, Turkey

### **P3.4 VIDEOCAPILLASCOPIY (VCS) EVALUATION IN DIABETIC AND HYPERTENSIVE MICROANGIOPATHY**

Marcello Pastorelli<sup>1</sup>, Fulvio Bruni<sup>1</sup>, Luca Puccetti<sup>1</sup>, Alberto Palazzuoli<sup>1</sup>, Maurizio Acampa<sup>1</sup>, Federica Biagi<sup>1</sup>, Moira Servi<sup>1</sup>, Alessandro Pontani<sup>1</sup>, Ulrike Beermann<sup>1</sup>, Fabrizio Diversi<sup>1</sup>, Anna Laura Pasqui<sup>1</sup>, Alberto Auteri<sup>1</sup>.

<sup>1</sup>*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**

María Simó<sup>1</sup>, Amparo Vayá<sup>1</sup>, Marisa Santaolaria<sup>1</sup>, José Todolí<sup>2</sup>, Justo Aznar<sup>1</sup>

<sup>1</sup>*Hemorheology and Thrombosis Unit, Department of Clinical Pathology La Fe University Hospital, Valencia, Spain*

<sup>2</sup>*Internal Medicine Service. La Fe University Hospital, Valencia, Spain*

### **P3.6 REFERENCE VALUES OF PLASMA VISCOSITY IN A SPANISH MEDITERRANEAN POPULATION**

María Simó<sup>1</sup>, Amparo Vayá<sup>1</sup>, Marisa Santaolaria<sup>1</sup>, Dolores Corella<sup>2</sup>, Justo Aznar<sup>1</sup>

<sup>1</sup>*Hemorheology and Thrombosis Unit, Department of Clinical Pathology La Fe University Hospital, Valencia, Spain*

<sup>2</sup>*Genetic and Molecular Epidemiology. Unit. School of Medicine, Valencia. Spain*

### **P3.7 DIFFERENT RBC AGGREGATING PROPERTIES OF THE Aa<sub>2</sub>Bb<sub>2</sub>g<sub>A2</sub> AND Aa<sub>2</sub>Bb<sub>2</sub>g<sub>AG</sub>' 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 Cherkasov, Kat Kon, Andre Lysov

*State Medical Academy, Oncological Hospital - 614990, Perm, Kuibusheva street, 39 Russia*

### **P3.9 THE FLUIDITY OF BLOOD IN AFRICAN ELEPHANTS (*Loxodonta africana*)**

Ursula Windberger, Roberto Plasenzotti, T. Voracek, Wolfgang Weihs

*Decentralized Biomedical Facilities, Core Unit for Biomedical Research, Medical University of Vienna, Austria*

### **P3.10 HEMORHEOLOGICAL DISORDERS DURING THE 1<sup>ST</sup> AND 2<sup>ND</sup> TYPES OF DIABETES MELLITUS IN PATIENTS WITH FOOT GANGRENES**

Maia Mantskava<sup>1</sup>, Nana Momtselidze<sup>1</sup>, Nugzar Pargalava<sup>2</sup>, George Mchedlishvili<sup>1</sup>

<sup>1</sup>*Microcirculation Research Center, I.Beritashvili Institute of Physiology, 14 Gotua St., 0160, Tbilisi, Georgia*

<sup>2</sup>*Bokhua Center of Aangiology and Vascular Surgery, 1 Chachava St., 0159, Tbilisi, Georgia*

### **P3.11 DYNAMIC HEMORHEOLOGICAL PARAMETERS IN BETA THALASSAEMIA MINOR**

Pérez, S. M<sup>1</sup>; Riquelme, B<sup>2,3</sup>; Acosta, I<sup>1</sup>; Valverde, J<sup>3</sup> and Milani, A.<sup>1</sup>

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<sup>3</sup>*Bio-Optic Applied Group, Institute of Physics Rosario (IFIR – CONICET), Rosario, Argentina*

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

Toshifumi Yokoyama<sup>1</sup>, Takanori Miki<sup>1</sup>, Kyong-Youl Lee<sup>1</sup>, Hiroshi Kitagawa<sup>2</sup>, Yoshiki Takeuchi<sup>1</sup>

<sup>1</sup>*Department of Anatomy and Neurobiology, Faculty of Medicine, Kagawa University, Japan*

<sup>2</sup>*Department 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 Ahmadizad<sup>1,2</sup>, Mahmoud Saleh El-Sayed<sup>1</sup>, Donald Peter MacLaren<sup>1</sup>

<sup>1</sup>*Research Institute for sports & exercise Sciences, Liverpool John Moores University, Liverpool, UK*

<sup>2</sup>*Sport 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

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### **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

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### **P3.16 ALTERED FIBRINOLYTIC RESPONSE IN NIGERIAN LONG DISTANT DRIVERS**

Ajayi OI<sup>1</sup>, Abegunde SO<sup>2</sup>, Ezele C<sup>2</sup>

<sup>1</sup>*Physiology Department, Faculty of Basic Medical Sciences, College of Medical Sciences, University of Benin, Benin City, Nigeria*

<sup>2</sup>*Haematology 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 IC, Ajayi OI, Famodu

*Haematology and Physiology Departments, College of Medicine. University of Benin, Benin City, Nigeria*

### **P3.18 USE OF CONFOCAL MICROSCOPY TO STUDY THE KINETICS OF LOW-DENSITY LIPOPROTEIN UPTAKE IN A HUMAN ENDOTHELIAL CELL LINE**

Mariama Traoré<sup>1</sup>, Ruijuan Sun<sup>2</sup>, Xiang Qing<sup>2</sup>, Dominique Dumas<sup>1</sup>, Sylvaine Muller<sup>1</sup>, Jean-François Stoltz<sup>1</sup>

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<sup>2</sup>*Research Institute of Clinical Medical Sciences, China-Japan Friendship Hospital, Beijing 100029, China*

### **P3.19 RELATION OF ERYTHROCYTE NITRIC OXIDE WITH HEMORHEOLOGICAL PARAMETERS**

F. A. Carvalho<sup>1</sup>, A.V. Maria<sup>2</sup>, J. Guerra<sup>3</sup>, C. Moreira<sup>4</sup>, J. Bráz Nogueira<sup>4</sup>, J. Martins-Silva<sup>1</sup>, C. Saldanha<sup>1</sup>

<sup>1</sup>*Instituto de Biopatologia Química, Unidade de Biopatologia Vascular -Instituto de Medicina Molecular, Faculdade de Medicina de Lisboa, 1649-028 Lisboa, Portugal*

<sup>2</sup>*Instituto de Medicina Preventiva, Faculdade de Medicina de Lisboa, 1649-028 Lisboa, Portugal*

<sup>3</sup>*Serviço de Nefrologia, Hospital de Santa Maria, 1649-028 Lisboa, Portugal*

<sup>4</sup>*Serviço de Medicina I, Hospital de Santa Maria, 1649-028 Lisboa, Portugal*

### **P3.20 MICROCIRCULATION AND VENOUS DISEASE HISTORY: ROLE OF SULODEXIDE**

Alessandro Apollonio

*U.O. Angiologia – Ospedale Belcolle – ASL Viterbo – Italy*

### **P3.21 IN VITRO DEFORMABILITY OF RED BLOOD CELLS FLOWING IN MICROCAPILLARIES IN A GEL MATRIX**

Giovanna Tomaiuolo<sup>1</sup>, Vincenzo Sibillo<sup>1</sup>, Luca Lanzaro<sup>1</sup>, Marino Simeone<sup>1</sup>, Stefano Guido<sup>1</sup>, Ciro Rinaldi<sup>2</sup>, Bruno Rotoli<sup>2</sup>

<sup>1</sup>*Dipartimento di Ingegneria chimica, Università degli Studi di Napoli Federico II, Italy*

<sup>2</sup>*Dipartimento di Medicina Clinica e Sperimentale - Università degli Studi di Napoli Federico II, Italy*

### **P3.22 ATHEROSCLEROSIS AND HEMORHEOLOGY: CHICKEN OR THE EGG?**

Patrick M. Moriarty

*Director, Atherosclerosis and LDL Apheresis Center, University of Kansas Medical Center*

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 Jung<sup>1,2</sup>, Christoph Mrowietz<sup>2</sup>, Steffi Keller<sup>4</sup>, Ulrich Gerk<sup>3</sup>, Jai-Wun Park<sup>3</sup>, Klaus Matschke<sup>4</sup>

<sup>1</sup>*Department for Clinical Hemostaseology and Transfusion Medicine; University of Saarland, Homburg/Saar, Germany,*

<sup>2</sup>*Institute for Heart and Circulation Research, Hoyerswerda, Germany,* <sup>3</sup>*Med. Department, Hospital Hoyerswerda, Hoyerswerda, Germany,* <sup>4</sup>*Heart Center Dresden, Technical University Dresden, Dresden, Germany*

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

Klaus Matschke<sup>1</sup>, Michael Knaut<sup>1</sup>, Sems Malte Tugtekin<sup>1</sup>, Christoph Mrowietz<sup>2</sup>, Steffi Keller<sup>1</sup>, Jai-Wun Park<sup>2</sup>, Friedrich Jung<sup>2,3</sup>

<sup>1</sup>Department of Cardiac Surgery, University of Technology Dresden, Dresden, Germany, <sup>2</sup>Institute for Heart- and Circulation Research, Hoyerswerda, Germany, <sup>3</sup>Department for Clinical Haemostasiology and Transfusion Medicine, University of Saarland, Homburg/Saar, Germany

### **S3.3 ASSOCIATION BETWEEN MYOCARDIAL OXYGEN TENSION AND HEART RATE**

Steffen Pfeiffer<sup>1</sup>, Klaus Matschke<sup>2</sup>, Christoph Mrowietz<sup>3</sup>, Thomas Geisler<sup>2</sup>, Jai-Wun Park<sup>3</sup>, Michael Knaut<sup>2</sup>, Friedrich Jung<sup>3,4</sup>

<sup>1</sup>Department of Cardiac Surgery, University of Technology Dresden, Germany, <sup>2</sup>Herzzentrum, Universität Erlangen-Nürnberg, Erlangen, Germany, <sup>3</sup>Institute for Heart and Circulation Research, Hoyerswerda, Germany, <sup>4</sup>Department of Clinical Hemostasiology and Transfusion Medicine, University of Saarland, Homburg/Saar, Germany

### **S3.4 MYOCARDIAL OXYGEN TENSION DURING FATAL RIGHT HEART FAILURE**

Ralph-Peter Franke<sup>1</sup>, Klaus Matschke<sup>2</sup>, Christoph Mrowietz<sup>3</sup>, Ulrich Gerk<sup>3</sup>, Bernhard Klosterhalfen<sup>4</sup>, Michael Knaut<sup>2</sup>, Friedrich Jung<sup>3</sup>

<sup>1</sup>Department of Biomaterials, University of Ulm, Ulm, Germany, <sup>2</sup>Department of Cardiac Surgery, University of Technology Dresden, Dresden, Germany, <sup>3</sup>Institute for Heart and Circulation Research, Hoyerswerda, Germany, <sup>4</sup>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 Waldow<sup>1</sup>, Utz Kappert<sup>1</sup>, Volker Schmidt<sup>1</sup>, Gunter Schumann<sup>1</sup>, Oliver Tiebel<sup>2</sup>, Sybille Bergmann<sup>2</sup>, Gabriele Siegert<sup>2</sup>, Michael Knaut<sup>1</sup>, Klaus Matschke<sup>1</sup>

<sup>1</sup> Department of Cardiac Surgery, University of Technology Dresden, Dresden, Germany,

<sup>2</sup> 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 $\alpha$ -FIBRINOGEN GENE**

Amparo Vayá<sup>1</sup>, Silvia Breña<sup>2</sup>, Edelmiro Réganon<sup>2</sup>, Virtudes Vila<sup>2</sup>, Vicenta Martínez-Sales<sup>2</sup>, Esther Zorio<sup>3</sup>, Dolores Corella<sup>4</sup>, Justo Aznar<sup>1</sup>

<sup>1</sup>Hemorheology and Thrombosis Unit, Department of Clinical Pathology La Fe University Hospital, Valencia, Spain,

<sup>2</sup>Research Centre, La Fe University Hospital, Valencia, Spain, <sup>3</sup>Cardiology Service, La Fe University Hospital, Valencia, Spain, <sup>4</sup>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. Bauersachs<sup>1</sup>, Georg Moessmer<sup>2</sup>, Conrad Pfafferott<sup>3</sup>

<sup>1</sup> Dept. of Vascular Medicine, Klinikum Darmstadt, 84297 Darmstadt, Germany

<sup>2</sup> Division for Clinical Chemistry, Technical University Munich, 81675 München, Germany

<sup>3</sup> 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: H.J. Meiselman (USA), A.V. Muravyov (Russia)

#### **C2.1 THE EFFECTS OF NATTOKINASE, A POTENT PRO-FIBRINOLYTIC ENZYME ON RED BLOOD CELL AGGREGATION AND WHOLE BLOOD VISCOSITY**

Eszter Pais<sup>1</sup>, Tamas Alexy<sup>1</sup>, Ralph Edward Holsworth, Jr.<sup>2</sup>, Herbert Joel Meiselman<sup>1</sup>

<sup>1</sup> Department of Physiology and Biophysics, Keck School of Medicine, University of Southern California, Los Angeles, CA, 90033, USA, <sup>2</sup> N-ZymeCeuticals Inc, Pagosa Springs, CO, 81147, USA

## **C.2.2 RED BLOOD CELL DEFORMABILITY AND AGGREGATION BEHAVIOUR IN DIFFERENT ANIMAL SPECIES**

Roberto Plasenzotti<sup>1</sup>, Birgit Stoiber<sup>1</sup>, Martin Posch<sup>2</sup>, Ursula Windberger<sup>1</sup>

<sup>1</sup> Division for Biomedical Research, Medical University of Vienna

<sup>2</sup> Institute of Medical Statistics, Medical University of Vienna, Austria

## **C.2.3 THE IMPORTANCE OF CIRCADIAN RHYTHM ALTERATIONS IN ERYTHROCYTE DEFORMABILITY**

M. Bettül Yerer<sup>1</sup>, Sami Aydoğan<sup>1</sup>

<sup>1</sup>University of Erziyes, Faculty of Medicine, Department of Physiology, 38039, Kayseri, TURKEY

## **C.2.4 THE RED BLOOD CELL SURFACE ACETYLCHOLINESTERASE SUCH AS AN HEMORHEOLOGICAL PATTERN DURING GLAUCOMA TREATMENT.**

Giuseppe Cicco<sup>1</sup>, Michele Vetrugno<sup>1-2</sup>, Massimiliano Pennetta<sup>2</sup>, Maria Teresa Rotelli<sup>1-3</sup>, Carlo Sborgia<sup>1-2</sup>, Vincenzo Memeo<sup>1-3</sup>, Luigi Nitti<sup>1</sup>.

<sup>1</sup> C.E.M.O.T. - Centro Ricerche in Emoreologia e Microcircolazione, University of Bari – Italy, <sup>2</sup> Dip. di Oftalmologia ed ORL University of Bari – Italy, <sup>3</sup> D.E.T.O. - Dip. Emergenza e Trapianti d'Organo - University of Bari - Italy.

## **C.2.5 SELECTIVE RESPONSE OF THE DEGREE OF RBC AGGREGATION TO THE ACTION OF THE CATECHOLAMINES: EFFECT OF ABO BLOOD GROUPS**

Irina Tikhomirova

Anatomy and Physiology Department, Yaroslavl State Pedagogical University, Russia

## **C.2.6 INHIBITING AND STIMULATING EFFECTS OF SOME DRUGS ON RED BLOOD CELL AGGREGATION**

Muravyov A.V.<sup>1</sup>, Yakusevich V.V.<sup>2</sup>, Choporov S.V.<sup>2</sup>, Muravyov A.A.<sup>1</sup>

<sup>1</sup> Dept. Medicine & Biology of Pedagogical University. Yaroslavl, Russia

<sup>2</sup> Medical Academy, Yaroslavl, Russia

## **C.2.7 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

## **C.2.8 IMPROVEMENT OF THE BLOOD RHEOLOGY PROPERTIES IN EXPERIMENTAL DIABETES BY MIDAZOBENZIMIDAZOLE DERIVATIVE**

Alexander Spasov<sup>1</sup>, Alexey Stepanov<sup>1</sup>, Natali Arjkova<sup>1</sup>, Maria Samokhina<sup>1</sup>, Ludmila Naumenko<sup>1</sup>, Vitalij Kotov<sup>1</sup>, Tatjana Goncharova<sup>1</sup>, Darya Malczeva<sup>1</sup>, Vera Anisimova<sup>2</sup>

<sup>1</sup> Pharmacology Department – Volgograd State Medical University, Russian Federation

<sup>2</sup> 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)

## **S.4.1 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

## **S.4.2 INFLUENCE OF LIPIDS AND OBESITY ON HEMORHEOLOGICAL PARAMETERS IN PATIENTS WITH DEEP VEIN THROMBOSIS**

Amparo Vayá<sup>1</sup>, Yolanda Mira<sup>1</sup>, Fernando Ferrando<sup>1</sup>, Cristina Falcó<sup>1</sup>, Dolores Corella<sup>2</sup>, Justo Aznar<sup>1</sup>

<sup>1</sup>Hemorheology and Thrombosis Unit, Department of Clinical Pathology, La Fe University Hospital, Valencia, Spain

<sup>2</sup>Genetic and Molecular Epidemiology Unit. School of Medicine, Valencia, Spain

#### **S4.3 INCREASED ADHESION OF ERYTHROCYTES FROM PATIENTS WITH POLYCYTHEMIA VERA IS MEDIATED BY L $\alpha$ /B-CAM**

Wautier, M-P<sup>2</sup>, Gane, P<sup>2</sup>, El Nemer<sup>2</sup>, W, Rain, J-D<sup>3</sup>, Le Van Kim, C<sup>2</sup>, Wautier, J-L<sup>1</sup>.

<sup>1</sup>INTS, <sup>2</sup>UMR 665, <sup>3</sup> Paris 7, Paris, France

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

Muravyov A.V.<sup>1</sup>, Yakusevich V.V.<sup>2</sup>, Choporov S.V.<sup>2</sup>, Muravyov A.A.<sup>1</sup>

<sup>1</sup> Dept. Medicine & Biology of Pedagogical University. Yaroslavl, Russia

<sup>2</sup> Medical Academy, Yaroslavl, Russia

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

Aleksandr Petrochenko, Andrey Kabanov, Vladislav Simonov, Artyom Borbat

Yaroslavl State Medical Academy

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

JF Brun<sup>1</sup>, I Aloulou and E Varlet-Marie

<sup>1</sup>Service 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: A.A. Melnikov (Russia), S. B. Solerte (Italy)

#### **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. Respublikanskay 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, Tbilisi, Georgia.

#### **C3.4 HEMORHEOLOGICAL RESPONSE TO PLASMAPHERESIS**

Eugene Roitman, Inna Dementeva

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 Velcheva<sup>1</sup>, Nadia Antonova<sup>2</sup> Valentina Dimitrova<sup>1</sup>, Nikolay Dimitrov<sup>1</sup>, Ivan Ivanov<sup>2</sup>

<sup>1</sup>Department of Neurology, Medical University, Sofia, Bulgaria

<sup>2</sup>Institute 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.**

Luca Puccetti<sup>1</sup>, Fulvio Bruni<sup>1</sup>, Anna Laura Pasqui<sup>1</sup>, Marcello Pastorelli<sup>1</sup>, Federica Ciani<sup>2</sup>, Michela Cercignani<sup>1</sup>, Alberto Palazzuoli<sup>1</sup>, Alberto Auteri<sup>1</sup>.

<sup>1</sup>Dipartimento di Medicina Clinica e Scienze Immunologiche, Sezione di Medicina Interna, Centro per Ricerche sull'Aterosclerosi, Università degli Studi di Siena, Italy, <sup>2</sup>Unità di Malattie Neurometaboliche, A.O. Meyer Firenze, Italy.

**C3.7 ADVANCED GLYCATION AND GLYCO-OXYDATION ALTERS BLOOD RHEOLOGY AND THE SECRETIONS OF NEUROPROTECTIVE GROWTH FACTORS AND NEUROTOXIC CYTOKINES IN ALZHEIMER'S DISEASE**

Sebastiano Bruno Solerte<sup>1</sup>, Annunziata Lapolla<sup>2</sup>, E. Locatelli<sup>1</sup>, V. Mansi<sup>1</sup>, M. Fioravanti<sup>1</sup>

<sup>1</sup>*Department of Internal Medicine and Geriatrics, University of Pavia; ASP-S.Margherita Institute of Geriatric Rehabilitation, Pavia, Italy*

<sup>2</sup>*Department of Medical Sciences and Metabolism, University of Padova, Italy*

**C3.8 ALTERED HAEMORHEOLOGICAL INDICES IN NIGERIAN GERIATRICS**

Ajayi OI<sup>1</sup>, Famodu AA<sup>1</sup>, Abegunde SO<sup>1</sup>, Ojukwu N<sup>2</sup>.

<sup>1</sup>*Physiology And Haematology Departments, University Of Benin, Benin City, Nigeria*

<sup>2</sup>*Haematology Department, Ambrose Alli University, Ekpoma, Nigeria*

20.30

*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 Shin<sup>1</sup>, Yunhee Ku<sup>1</sup>, Juhee Jang<sup>1</sup>, and Jangsoo Suh<sup>2</sup>

<sup>1</sup>*School of Mechanical Engineering, Kyungpook National University*

<sup>2</sup>*Department 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. Hardeman<sup>1</sup>, J.G.G. Dobbe<sup>2</sup>

<sup>1</sup>*Department of Physiology, Akdeniz University Faculty of Medicine, Antalya, Turkey*

<sup>2</sup>*Department 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. Baskurt<sup>1</sup>, Herbert J. Meiselman<sup>2</sup>

<sup>1</sup>*Department of Physiology, Akdeniz University Faculty of Medicine, Antalya, Turkey*

<sup>2</sup>*Department 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 Palombo<sup>1</sup>, Tiziano Morganti<sup>2</sup>, Francesca Vittone<sup>1</sup>, Giacomo Bambi<sup>2</sup>, Michaela Kozàková<sup>1</sup>, Stefano Ricci<sup>2</sup>, Carmela Morizzo<sup>1</sup>, Piero Tortoli<sup>2</sup>

*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 Liao<sup>1</sup>, Min Li<sup>2</sup>

<sup>1</sup>*Institute of Chinese Materia Medica, China Academy of Traditional Chinese Medicine, Beijing, 100700, China*

<sup>2</sup>*School 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. Gori (Italy), R. del Guercio (Italy)

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

Tommaso Gori<sup>1</sup>, Giuseppe Di Stolfo<sup>1</sup>, Silvia Sicuro<sup>1</sup>, Saverio Dragoni<sup>1</sup>, Giovanni Donati<sup>1</sup>, John D Parker<sup>2</sup>, Sandro Forconi<sup>1</sup>

<sup>1</sup>*Dipartimento di Medicina Interna, Cardiovascolare e Geriatrica, Università degli Studi di Siena, Italy*

<sup>2</sup>*Department 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, Rosalia 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, Tatiyana 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 Ahmadizad<sup>1,2</sup>, Mahmoud Saleh El-Sayed<sup>1</sup>, Donald Peter MacLaren<sup>1</sup>

<sup>1</sup>*Research Institute for sports & exercise Sciences, Liverpool John Moores University, Liverpool, UK*

<sup>2</sup>*Sport 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<sup>1</sup>, Claudio Allegra, Michel R Boisseau, Patrick H Carpentier, Sandro Forconi, Kurt Jäger, Andrew Nicolaides,

<sup>1</sup>*Place Benjamin Constant 2, 1003 Lausanne, Switzerland*

11.00-11.30

#### ***Break***

11.30-12.00

#### ***Lecture L5 - Aula Magna***

Chairperson: C. Le Dévéhat (France)

#### **CUTANEOUS microCIRCULATION IN PATIENTS WITH CORONARY ARTERY DISEASE AND ERECTILE DYSFUNCTION**

J.-W. Park<sup>1</sup>, M. Hien<sup>1</sup>, C. Mrowietz<sup>2</sup>, A. Creutziger<sup>3</sup>, H. F. Jung<sup>2</sup>

<sup>1</sup>*Cardiology Division, Hoyerswerda Hospital, Germany*, <sup>2</sup>*Institute for Heart and Circulation Research, Hoyerswerda, Germany*, <sup>3</sup>*Urological Practice, Hoyerswerda, Germany*

12.00

#### ***Closing Ceremony***

**1° Congresso Nazionale della Società Italiana  
di Emoreologia Clinica e Microcircolazione (S.I.E.C.M.)**

*28 Giugno 2005 - Siena*

**PROGRAMMA**

**Martedì 28**

*Sede "Centro Didattico del Policlinico"*

8.00-8.30

**Registrazione**

8.30-9.00

**Inaugurazione del Congresso - Aula 2**

9.00-10.30

**I Sessione di Comunicazioni - Aula 2**

**ISCHEMIA**

Moderatori: F. Laghi Pasini (Siena), R. Del Guercio (Napoli)

**C1.1 CARDIOPATIA ISCHEMICA CRONICA: PATTERN INTEGRINICO DEI LEUCOCITI  
POLIMORFONUCLEATI DOPO ATTIVAZIONE IN VITRO E DURANTE TEST ERGOMETRICO**

Gregorio Caimi, Baldassare Canino, Gabriella Amodeo, Vincenzo Calandrino, Maria Montana, Adele Romano,  
Rosalia Lo Presti

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

**C1.2 MONITORAGGIO DELLE DETERMINANTI EMOREOLOGICHE NELL'INFARTO MIocardico  
GIOVANILE**

Gregorio Caimi, Enrico Hoffmann, Maria Montana, Teresa D'Amico, Maria Flavia Casciolo, Anna Catania,  
Rosalia Lo Presti

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

**C1.3 LA SINDROME DEL DITO BLU : QUANDO È ISCHEMIA CRITICA ?**

Pierluigi Mollo - Roberta Romano - Federica Pomella

*Servizio Angiologia Medica - U. O. Cardiologia - U.T.I.C. - P. O. di Anagni - ASL Frosinone*

**C1.4 ISCHEMIA CRITICA D'ARTO NON RIVASCOLARIZZABILE - RISULTATI DELLA STIMOLAZIONE  
CORDALE SPINALE (S. C. S.)**

Pierluigi Mollo - Federica Pomella - Gianni Aceto - Roberta Romano - Carmela Luisa Barra - Giuseppe Manfrè  
- Rosario Cerreto

*Serv. Angiologia Medica - U O. Cardiologia - U.T.I.C. - P. O. di Anagni - ASL Frosinone*

**C1.5 L'ISCHEMIA E RIPERFUSIONE NON INDUCE DISFUNZIONE ENDOTELIALE A LIVELLO DEL  
MICROCIRCOLO CUTANEO: CONFRONTO IN VIVO IN UOMINI CON IL CIRCOLO ARTERIOSO DI  
CONDUTTANZA**

Giuseppe Di Stolfo, Silvia Sicuro, Saverio Dragoni, Tommaso Gori, Sandro Forconi

*Dipartimento di Medicina Interna, Cardiovascolare e Geriatria, Università degli Studi di Siena, Italy*

10.30-11.00

**Letture L1 - Aula 2**

**EMOREOLOGIA ED AFERESI**

Gregorio Caimi (Palermo)

Presiede: A. Strano (Roma)



11.00-11.30

**Intervallo**

11.30-13.00

**II Sessione di Comunicazioni - Aula 2**

**MICROCIRCOLO ED ENDOTELIO**

Moderatori: A. Carlizza (Roma), R. Cappelli (Siena)

**C.2.1 LO STUDIO DELLA FLOWMOTION CUTANEA MEDIANTE ANALISI SPETTRALE DEL SEGNALE LASER DOPPLER COME METODO DI VALUTAZIONE DEI MECCANISMI DI REGOLAZIONE LOCALE DEL MICROCIRCOLO CUTANEO**

Rossi M.

*Dipartimento di Medicina Interna, Università di Pisa*

**C.2.2 STUDIO DELLA FLOWMOTION CUTANEA IN RISPOSTA ALL'ESERCIZIO ACUTO IN SOGGETTI ALLENATI E SEDENTARI**

Rossi M., Galetta F, Franzoni F, Lertora M, Maurizio S, Carpi A, Santoro G.

*U.O. e Scuola di Specializzazione in Medicina dello Sport, Dipartimento di Medicina Interna, Università di Pisa*

**C.2.3 STRESS OSSIDATIVO E REATTIVITA' PIASTRINICA IN MENOPAUSA**

Caterina Di Massimo<sup>1</sup>, Gaspare Carta<sup>2</sup>, M.Giuliana Tozzi Ciancarelli<sup>1</sup>

<sup>1</sup>*Dipartimento di Scienze e Tecnologie Biomediche, Area di Fisiologia Umana, Università degli Studi di L'Aquila, Italy*

<sup>2</sup>*Dipartimento di Scienze Chirurgiche, Università degli Studi di L'Aquila, Italy*

**C.2.4 IL GENE eNOS INFLUENZA LA VISCOSITÀ EMATICA E LA DEFORMABILITÀ DEI GLOBULI ROSSI: RUOLO DEI POLIMORFISMI T-786C, G894T E 4a/4b DEL GENE eNOS**

Lucia Mannini<sup>1</sup>, Cinzia Fatini<sup>1</sup>, Elena Sticchi<sup>1</sup>, Emanuele Cecchi<sup>1</sup>, Isabella Ilari<sup>1</sup>, Maria Costanzo<sup>1</sup>, Emanuela Leprini<sup>2</sup>, Paolo Pagnini<sup>2</sup>, Gian Franco Gensini<sup>1</sup>, Domenico Prisco<sup>1</sup>, Rosanna Abbate<sup>1</sup>

<sup>1</sup>*Dipartimento di Area Critica Medico-Chirurgica, Centro Trombosi, Azienda Ospedaliero-Universitaria Careggi, Firenze, Italy*

<sup>2</sup>*Dipartimento di Scienze Chirurgiche Oto-Neuro-Oftalmologiche, Azienda Ospedaliero-Universitaria Careggi, Firenze, Italy*

**C.2.5 EFFETTI DEL NEBIVOLOLO SUL MICROCIRCOLO SUPERFICIALE IN PAZIENTI VACULOPATICI IPERTESI NON DIABETICI. STUDIO VIDEOCAPILLAROSCOPICO (VCS)**

Marcello Pastorelli<sup>1</sup>, Fulvio Bruni<sup>1</sup>, Luca Puccetti<sup>1</sup>, Anna Laura Pasqui<sup>1</sup>, Maurizio Acampa<sup>1</sup>, Alberto Palazzuoli<sup>1</sup>, Federica Biagi<sup>1</sup>, Moira Servi<sup>1</sup>, Alessandro Pontani<sup>1</sup>, Fabrizio Diversi<sup>1</sup>, Ulrike Beermann<sup>1</sup>, Agnese Costa<sup>1</sup>, Alberto Auteri<sup>1</sup>.

<sup>1</sup>*Dipartimento di Medicina Clinica e Scienze Immunologiche Applicate; Sezione di Medicina Interna*

**C.2.6 ALTERATA DEFORMABILITA' ERITROCITARIA ASSOCIATA AD UNA RIDOTTA RISPOSTA PIASTRINICA A FARMACI ANTIAGGREGANTI IN PAZIENTI CON SINDROMI CORONARICHE ACUTE.**

Lucia Mannini, Rossella Marcucci, Rita Paniccia, Emilia Antonucci, Cristina Giglioli, Serafina Valente, Sandra Fedì, Anna Maria Gori, Domenico Prisco, Gian Franco Gensini, Rosanna Abbate

*Dipartimento Area Critica Medico-Chirurgica, Centro Trombosi, Università degli Studi di Firenze*

13.00-13.30

**Letture L2 - Aula 2**

**MICROCIRCULATION INVOLVEMENT IN CVI**

Claudio Allegra (Roma)

Presiede: S. Forconi (Siena)

13.30-14.30

**Lunch**

14.30-15.30

*Assemblea soci SIECM - Aula 2*

15.30

*Apertura seggio elettorale - Aula 6*

15.30-16.45

*Simposio - Aula 2*

**ASPETTI MICROCIRCOLATORI NELL'INSUFFICIENZA ARTERIOSA PERIFERICA**

Moderatori: F. Pitzus (Cagliari), R. Nuti (Siena)

**S1.1 MICROEMODINAMICA NELLA ARTERIOPATIA OBLITERANTE PERIFERICA AL II STADIO**

Marco Rossi

*Dipartimento di Medicina Interna, Università di Pisa*

**S1.2 ASPETTI ENDOTELIALI ED EMOREOLOGICI NELL'ARTERIOPATIA OBLITERANTE PERIFERICA**

V. Turchetti, L. Boschi, D. Coppola, VMA. Mastronuzzi, M.C. Leoni, S. Forconi

*Dipartimento di Medicina Interna, Cardiovascolare e Geriatrica - Università degli Studi di Siena*

**S1.3 ASPETTI EMOGASANALITICI TRANSCUTANEI NELL'ISCHEMIA CRITICA**

Anita Carlizza, Claudio Allegra

*U.O.C. Angiologia, Azienda Ospedaliera S.Giovanni-Addolorata, Roma (Direttore:Prof. C. Allegra)*

**S1.4 FLOWMOTION IN CRITICAL LIMB ISCHEMIA AND IN VENOUS ULCERS**

Romeo Martini

*U.O. Angiologia - Azienda Ospedale Università di Padova*

16.45-17.15

*Intervallo*

17.15-17.45

*Lettura L3 - Aula 2*

**LA MICROCIRCOLAZIONE, DAL LABORATORIO ALLA CLINICA**

G.M. Andreozzi (Padova)

Presiede: C. Allegra (Roma)

18.00

*Chiusura del seggio elettorale - Aula 6*

17.45-19.00

*III Sessione di Comunicazioni - Aula 2*

**MICROCIRCOLO**

Moderatori: M. G. Tozzi Ciancarelli (L'Aquila), A.R. Todini (Roma)

**C3.1 STUDIO DEI MECCANISMI DELL'ATTIVITA' VASODILATATRICE DELL'INSULINA MEDIANTE ESAME DELLA FLOWMOTION CUTANEA IN RISPOSTA ALLA IONTOFORESI DI INSULINA**

Rossi M, Maurizio S, Di Stefano D.

*Dipartimento di Medicina Interna, Università di Pisa*

### **C3.2 VIDEOCAPILLAROSCOPIA COMPUTERIZZATA. STUDIO MORFOLOGICO DELLA MICROCIRCOLAZIONE : ESPERIENZE DEL C.E.M.O.T. - BARI**

Giuseppe Cicco<sup>1</sup>, Vincenzo Memeo<sup>1-2</sup>, Luigi Nitti<sup>1</sup>

<sup>1</sup> C.E.M.O.T. - Centro Ricerche in Emoreologia e Microcircolazione, Università degli Studi di Bari.

<sup>2</sup> D.E.T.O. - Dip. Emergenza e Trapianto d'Organo - Università degli Studi di Bari.

### **C3.3 LE MODIFICAZIONI DELLA UNITÀ MICROCIRCOLATORIA NELLA PATOGENESI DELL'ULCERA FLEBOSTATICA**

Pierluigi Mollo - Roberta Romano - Federica Pomella

Serv. Angiologia Med. - U.O. Cardiologia - U.T.I.C. - P. O. di Anagni - ASL Frosinone

### **C3.4 EMOREOLOGIA E FIBRILLAZIONE ATRIALE: UN MARKER NUOVO PER LE COMPLICANZE EMBOLICHE?**

Lucia Mannini, Emanuele Cecchi, Maria Costanzo, Daniela Poli, Gian Franco Gensini, Rosanna Abbate, Domenico Prisco

Dipartimento di Area Critica Medico-Chirurgica, Centro Trombosi, Azienda Ospedaliero-Universitaria Careggi, Firenze, Italy

### **C3.5 LA VISCOSITA' EMATICA CAPILLARE NELLA MICROCIRCOLAZIONE**

Alvise Cortinovis, Alda Crippa<sup>1</sup>, Maurizio Corti<sup>2</sup>

<sup>1</sup> Dipartimento di Medicina Interna e Terapia Medica. Istituto per lo studio delle Malattie vascolari e metaboliche, Università degli Studi di Pavia. Clinica Medica II, IRCCS Policlinico S. Matteo

<sup>2</sup> Dipartimento di Fisica "A. Volta", INFN Unità di ricerca di Pavia

19.00-19.15

*Proclamazione dei risultati elettorali - Aula 2*

19.15

*Cerimonia di chiusura - Aula 2*

## CONFERENCE VENUES

### **Palazzo del Rettorato - Banchi di Sotto, 55**

The building of San Vigilio, seat of the Rectorate of the University of Siena since 1816, is the result of the unification of several pre-existing constructions erected on the site of the medieval city walls.

In the XVI century the main parts of the complex were home to the Jesuit College; in the XVII century renovations began to transform the buildings into a college, leaving them quite similar to the present condition.

In the same period the adjacent church of San Vigilio acquired the Baroque form that we can admire today.

Over the following centuries a great number of artists and architects worked in this palace, such as Bernardino Mei, a famous XVII century Siennese painter.

One of the most important tasks of renovation, the Aula Magna, was carried out in 1825 by the famous Siennese neoclassicist architect Agostino Fantastici.

Inside the Rectorate two valuable paintings can be admired: one by Ambrogio Lorenzetti (1319-1348), representing the ancient Indian city of Thanah, which was taken from the church of San Francesco; the other, a lunette with a Madonna and Saints, by Martino di Bartolomeo (1389-1435).

### **Centro Didattico del Policlinico Le Scotte**

The story of Siena's hospital is steeped in tradition and history. Its historical, cultural and scientific heritage is related to the old "Spedale Santa Maria della Scala", the first mentions of which date back to 1090. Over the centuries, the old hospital, located in front of the Cathedral, gradually became unable to meet the city's needs. By 1905 an aristocratic Siennese scholar of art and history, Fabio Bargagli Petrucci, had proposed moving the hospital to a new site, but it wasn't until the early 1950's that the University of Siena really promoted the idea of building a new hospital. Since then the hospital has expanded more and more to become one of the largest and most advanced centres in central Italy.

### ***How reach the Centro Didattico del Policlinico***

#### *By bus*

no. 3-10-17-77

Every ten minutes from/to the town centre.

From visitors' entrance follow the grey line to the Centro Didattico elevator (1st floor)

#### *By car*

Follow signs to the hospital (Policlinico) and Centro Didattico del Policlinico

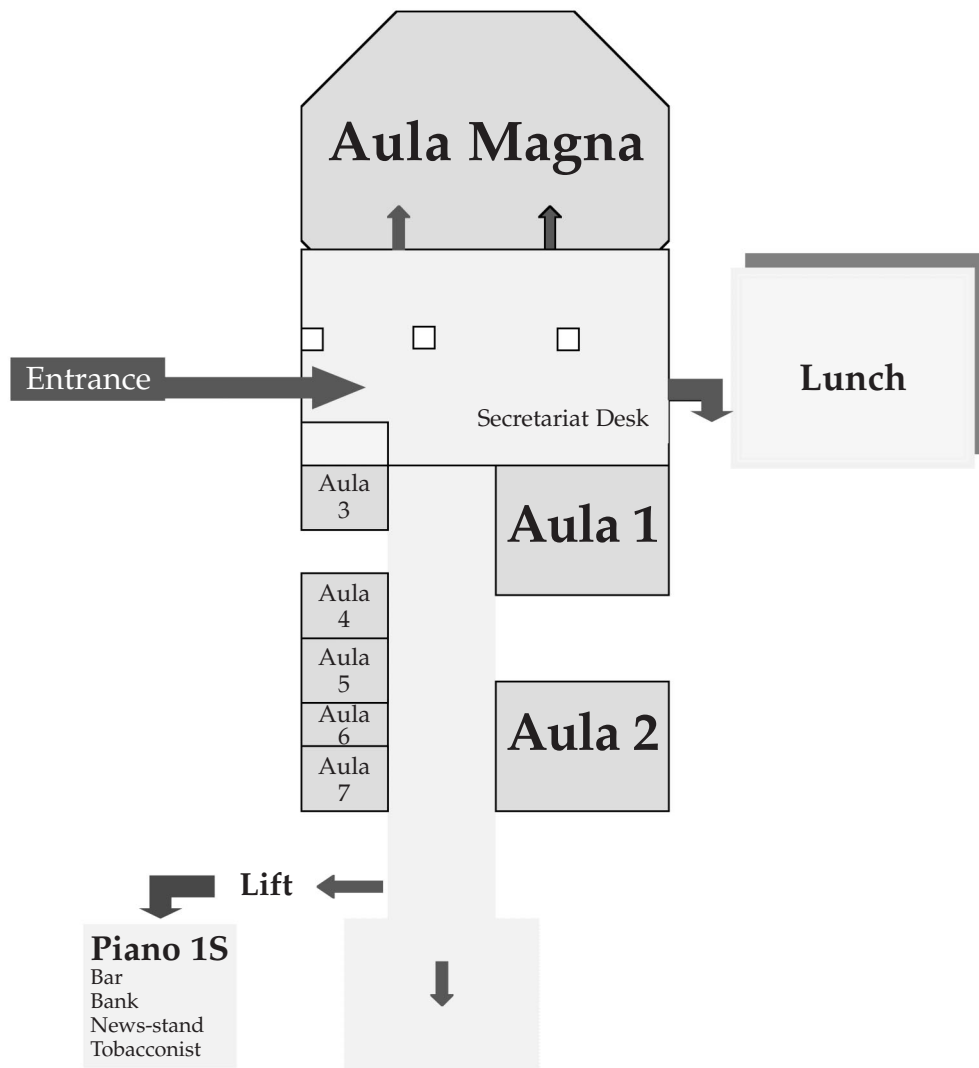
Parking

Limited number of free parking places. Pay parking available (€ 2,00 daily fare)

#### *Taxi:*

Tel. 0577-49222

# CENTRO DIDATTICO DEL POLICLINICO MAP



# GENERAL INFORMATION

## *On-site registration*

On-site registration opens on Monday 27 (8.00 am) at the Centro Didattico del Policlinico le Scotte

## *Badges*

Participants are kindly requested to wear their badges during all Conference activities and social events

## *Certificate of Attendance*

A certificate of attendance will be available on request at the Registration desk

## *Conference Language*

The official language of the 13<sup>th</sup> Conference of the E.S.C.H. will be English  
La lingua ufficiale del Congresso Nazionale della S.I.E.C.M. sarà l'italiano

## *Oral presentation*

PLENARY LECTURES will be allotted 30' for presentation and will not be followed by discussion

ORAL COMMUNICATIONS AT SYMPOSIA will be allotted 20' for presentation and discussion under the supervision of the chairpersons

ORAL COMMUNICATIONS will be allotted 15' for presentation and discussion under the supervision of the chairpersons

Only Windows® Powerpoint® presentations will be accepted; files will have to be handed to technical staff before the beginning of the session.

Slides or overhead transparencies will not be accepted.

## *Poster display*

Posters will remain attached from Monday the 27th at 9.00 am until the end of the Conference and will be presented in moderated sessions. Maximum poster size is 70cm (wide) by 100cm (high).

POSTERS will be allotted 5' for presentation and will be discussed under the supervision of the chairpersons.

## *Proceedings*

The Selected Proceedings will be published after the Conference on a Special Issue of Clinical Hemorheology and Microcirculation. Authors should prepare their manuscripts according to the "Instructions to Author(s)" available in the IOS Press web site ([http://www.iospress.nl/html/13860291\\_ita.html](http://www.iospress.nl/html/13860291_ita.html)) and submit them to the Scientific Secretary during the Conference. The suggested length for the manuscripts is: up to 10 printed pages for lectures, up to 6 pages for communications at symposia, up to 3 pages for oral communications and posters. All manuscripts will be peer reviewed. The organizers of the symposia will act as guest-editors and will submit the contributions presented during the symposia after their revision.

# INFORMAZIONI GENERALI RELATIVE AL 1° CONGRESSO DELLA S.I.E.C.M.

## *Crediti ECM*

La Commissione Nazionale per la formazione continua del Ministero della Salute ha attribuito all'evento **5 crediti ECM**

## *Convocazione Assemblea Soci S.I.E.C.M.*

L'Assemblea Ordinaria dei Soci della Società Italiana di Emoreologia Clinica e Microcircolazione avrà luogo, in prima convocazione, il giorno 28 Giugno 2005 alle ore 8.00 presso l'Aula 2 del Centro Didattico del Policlinico Santa Maria alle Scotte, Siena e, in seconda convocazione, **il giorno 28 Giugno 2005 alle ore 14.30 presso l'Aula 2** del Centro Didattico del Policlinico Santa Maria alle Scotte, Siena, con il seguente ordine del giorno:

1. Comunicazioni del Presidente
2. Elezioni del Consiglio Direttivo della Società. Nomina della Commissione Elettorale
3. Relazione finanziaria del Tesoriere
4. Varie ed eventuali

Il presente annuncio ha valore di Convocazione

Al termine dell'Assemblea dei Soci si terranno le elezioni per eleggere il Presidente ed il Consiglio Direttivo della Società. Il Seggio elettorale si aprirà alle ore 15.30 in Aula 6 e si chiuderà alle 18.00. La proclamazione dei risultati elettorali avrà luogo in Aula 2 alle ore 19.00

Si ricorda che potranno prendere parte all'Assemblea e alle elezioni per il rinnovo delle cariche sociali solo i soci in regola con il pagamento della quota associativa che potrà comunque essere versata in sede congressuale.

*Il Presidente ed il Comitato Scientifico desiderano ringraziare la Dott.ssa Andreina Mancini e Sonia Ruggeri della G.C. Congressi (G.C. Congressi s.r.l. - Via P. Borsieri 12 - 00195 Roma - tel. 06.3729466 - fax. 06.37352337) per il supporto organizzativo fornito alla Società e al Congresso.*

## **CONTACTS**

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**Sandro Forconi**

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### *SCIENTIFIC SECRETARIAT:*

**Letizia Boschi, Pier Leopoldo Capecchi, Roberto Cappelli, Carlo Fiorenzani,  
Tommaso Gori, Franco Laghi Pasini, Luca Trabalzini, Vera Turchetti**

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## SOCIAL EVENTS

### *Sunday 26*

16.00 - Opening Ceremony - Aula Magna del Rettorato

18.30 - Welcome Reception in the "Cortile del Rettorato"

### *Monday 27*

15.00 - Bus departure from the Hotel Executive and from the Hotel Jolly to Pienza and the Val d'Orcia

18.30 - Tasting of typical Tuscan dishes

### *Tuesday 28*

20.30 - Social Dinner at the "Certosa di Pontignano"

## PIENZA AND THE VAL D'ORCIA

The landscape of the Val d'Orcia is part of the agricultural hinterland of Siena, re-drawn and developed when it was integrated in the territory of the city-state in the 14th and 15th centuries to reflect an idealized model of good governance and to create an aesthetically pleasing picture. The landscape's distinctive aesthetics, flat chalk plains out of which rise almost conical hills with fortified settlements on top, inspired many artists. Their images have come to exemplify the beauty of well-managed Renaissance agricultural landscapes. The inscription covers: an agrarian and pastoral landscape reflecting innovative land management systems; towns and villages; farmhouses; and the Roman Via Francigena and its associated abbeys, inns, shrines, bridges.

In the centre of the Val d'Orcia there is Pienza: it was in this wonderful Tuscan town that Renaissance town-planning concepts were first put into practice after Pope Pius II decided, in 1459, to transform the look of his birthplace. He chose the architect Bernardo Rossellino, who applied the principles of his mentor, Leon Battista Alberti. This new vision of urban space was realized in the superb square known as Piazza Pio II and the buildings around it: the Piccolomini Palace, the Borgia Palace and the cathedral with its pure Renaissance exterior and an interior in the late Gothic style of south German churches.

## THE "CERTOSA DI PONTIGNANO"

In 1341 Bindo di Falcone, a gentleman from Siena who had become rich through trade with the Papal States, bought land and goods in the small town of Pontignano, and gave them as a donation to a Carthusian monk from Aquitaine, brother Amerigo, so he could establish a monastery dedicated to Saint Peter. The Carthusian Order, at the time, was expanding throughout Italy, and Tuscany was one of their favourite locations. Several monasteries were set up: first among these, the monastery at Maggiano built in 1314 on orders of Cardinal Riccardo Petroni, cousin of Bindo di Falcone. Later on, two Carthusian monasteries (or "Certose") were built: the one at Belriguardo, with the support of the banker Niccolò Cinughi, and the one at Pontignano. On August 8, 1343, the Bishop granted permission to Bindo di Falcone - who had already overseen the work at Maggiano as executor of the will of his cousin the Cardinal - to set up the Certosa. The plan provided for building a church, with cloisters, cells and service buildings which could "House

twelve fathers, twelve lay brothers and their servants". Despite the interesting project, the Carthusians seemed unwilling to go and live in Pontignano: Messer Bindo therefore decided to pay Pope Clement VI a rich indulgence for ten monks who - by going to live and die in the new Certosa - would have their sins forgiven. The last to be built, the Certosa of Pontignano is the only one to preserve its original atmosphere as an oasis of peace today. The other two, Maggiano and Belriguardo, were in fact put to uses which were different from the original ones. The overall architectural layout was naturally affected by work undertaken through the ages. The basic module is the traditional one of Carthusian monasteries, subdivided into three parts: the area set aside for the monks, with their cells laid out around a large cloister; the area housing the lay brothers; and, finally, the area set aside for the church, the chapter and the refectory around the cloister, the real heart of the whole complex. The church - the first building to be built - preserves certain 14th century features, such as the thick surrounding walls and the arcades. The Certosa was built in the open country, on the border between the states of Florence and Siena; it needed to mark off its own borders and to be defended against raiding mercenaries. In 1385 the state of Siena, acknowledging the importance of the settlement, had strong walls built around it. In the same year, Stefano Maconi, Saint Catherine's favourite disciple, was appointed prior of Pontignano. It was probably he who obtained the relic of the ring finger of the Saint - the chapel, later painted with frescoes by Nasini, was built to host it. The Certosa also enjoyed the protection of Gian Galeazzo Visconti due to the merits acquired by a monk from Pontignano who oversaw a large part of the building work in the Certosa of Pavia. Its walls notwithstanding, the Certosa was violated and sacked during the war between Siena and Florence. In 1449, a band of Florentines broke in, and during the famous "Congiura dei Pazzi", the monastery was set on fire. Immediately after it was again damaged: in 1554, German and Spanish militias sacked the monastery. During the late 15th Century, the building received considerable impulse from Renaissance elements. These are mainly visible in the cloister along the long side of the church: its square layout, with five spans per side and sail vaults held up by small columns with Ionian capitals show clear features of equilibrium and sobriety. Other minor work was done at the end of the 17th Century, when the rooms along the eastern side of the monastery were refurbished: the six Chapels built previously were united in the so called "Cappellone" or big chapel. In 1703, the Chapel of Saint Agnes was built: its door lies at the end of the eastern arm of the big cloister. The Carthusians who had devoted so much care to Pontignano, making it an oasis of peace, left the Certosa at the end of the 18th Century. A document dated July 16, 1785, transferred Pontignano to the monks of Camaldoli, who however were forced to leave it when the convents were suppressed under Napoleon. The parish of San Martino a Cellole was then moved to Pontignano; the buildings, except those where the parish priest lived, were purchased - together with the old monks' dwellings and some land - by the Masotti family, who sold them in 1886 to the Cecchinis, who in their turn passed them on in 1919 to the Sergardis. In 1939, the area became the property of the Certosa di Pontignano company, one of whose shareholders was professor Mario Bracci. In the same period, the future Judge of the Constitutional Court had the villa and the small middle cloister repaired at his own expense. Throughout the war period, Pontignano was a secure place of refuge for Jews and the victims of political persecution. In 1959, the complex was purchased by the University of Siena, who then turned it into a university residence. The extensive work undertaken during the Renaissance and later have not altered the harmony which was the foundation of the life of the Carthusians: the equilibrium between man, faith and nature. The Chianti countryside shows its softer aspects here; the hills accompany the traveller towards Siena, while vineyards and olives

surround the Certosa and a carefully tended countryside penetrates into it, turning into precious gardens. There is no separation between inside and outside; between the environment and its harmonious architectural structure and the works of art which enrich it. It is especially in the churches that one can find the most important evidence of this. The first church, built with a single nave and subdivided into three spans covered with sail vaults, contains a masonry wall with an opening in the middle which used to divide the space into two areas of different width: one for the monks, the other and smaller one for the lay brothers. This was largely the work of the Florentine painter Bernardino Potetti, who had also worked for the Carthusians at Calci and Florence according to the canons on painting laid down by the Counter-Reformation. Samples of his work are to be found on the walls with the Carthusian stories of Saint Bruno and Saint Peter, on the canvas and the decorations of the main altar.

Together with the choir stall by the carpenter Domenico Atticciati, the decorations create a kind of "manifest spot". The rest of the decorations were completed by Orazio Porta, Stefano Cassini and painters from Siena whose style clearly comes from that of Francesco Vanni and Alessandro Casolani. Potetti was also the author of the fresco with the "Last Supper" in the refectory (1596), and a fresco with the "Samaritan at the Well" in one of the monks' cells as well as a lunette with the "Death of Saint Bruno" over a door facing the cemetery. In the "Cappellone", next to the church, the painting on the main altar is attributed to Francesco Vanni, while the decorations and frescoes on the walls are attributed to Nicola Nasini and his son Apollonio. In the chapel to the right of the small church, the altar shows the "Lamentation of Christ dead and the Saints", a work which has recently been associated with the name of Cristofano Rustici, as further evidence of the work carried out here by artists of the Siena school..

# THE CITY OF SIENA

## *HISTORICAL NOTES*

Legend says that Siena was founded by Senio, the son of Remus, who was one of the founders of Rome. Several columns are to be found dotted around the city centre portraying at their top a she-wolf suckling twin brothers (Romulus and Remus), recalling Siena's link with this legend. Other historians claim that the city's name originates from that of an Etruscan family: Saina.

It is certain that Siena began to develop in the Middle Age and spread over three hills, later known as the "Terzi" (thirds). The city is shaped like an upside-down Y, with the old "Via Francigena", which connected Rome and Paris, running through it.

Siena had its greatest period of prosperity in the XIII-XIV centuries, when it was an independent republic and grew to become one of the European capitals of commerce and banking (the latter still being the city's most important activity).

In this period Siennese art flourished and many famous painters, such as Duccio di Boninsegna and Simone Martini, established schools of painting.

This era was also characterised by strong rivalry, especially with neighbouring Florence. One of the most memorable episodes in this struggle was the Battle of Monteperti (1260), in which the Siennese Ghibellines defeated the Florentine Guelphs.

While a monumental Cathedral was being built in 1348, Siena was hit by the plague and its population was decimated: this marked the beginning of a period of decline, culminating in 1559, when the city lost its independence and became part of the Grand Duchy of Tuscany.

The Gothic style marks the city in both its art and architecture and adds to Siena's special atmosphere, characterised by the use of typical materials such as terracotta bricks and local stone. A great expression of this unique character is the shell-shaped Piazza del Campo, where the City Council has its seat in the Palazzo Pubblico

# MAP OF SIENA





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BANCA MONTERIGGIONI - CREDITO COOPERATIVO

## EXHIBITION

A Scientific Exhibition will be arranged during the Conference.

Conference realized with the support of Banca Monte dei Paschi di Siena



