

18th Annual Meeting of the European Council for Cardiovascular Research (ECCR)



Friday 24th - Sunday 26th October 2014 Poiano, Lake Garda, ITALY

PROGRAMME

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ECCR Executive Committee	U.M. Steckelings (President) G.P. Rossi (President-Elect & Secretary M. Baumann, J. De Mey, F. Jaisser, L. Paulis, C. Peiró, D. Strain, C. Aalkjae	•		
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Secretariat	Hampton Medical Conferences Ltd. Rapier House 4-6 Crane Mead Ware, SG12 9PW U.K.	Tel: Fax: Email: Web:	+ 44 (0) 1920 885163 + 44 (0) 8709 007783 eccr@hamptonmedical.com www.eccr.org www.hamptonmedical.com	

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DMT SMT **WELCOME**

Dear Colleague,

On behalf of the Executive Committee, I would like to welcome you to *The 18th Annual Meeting* of the European Council for Cardiovascular Research (ECCR) and to Lake Garda, Italy.

We should like to thank ECCR members and their colleagues who have submitted abstracts for inclusion in the programme. We are also grateful to those members who have assisted the Executive Committee in its difficult task of reviewing the abstracts and compiling the oral and poster programme. Particular emphasis is placed on the participation of young clinicians and scientists, to facilitate discussion with key opinion leaders and to promote rapid dissemination of best clinical practice. This is reflected by ECCR's collaboration with the European educational networks SMARTER and COST-ENOG, which will be actively involved in the 2014 meeting.

As will be seen from the programme, it is intended that there will be ample time for discussion. In addition, there are discussion periods for poster groups, and all posters will be displayed for the duration of the conference.

The Executive Committee wishes to thank our sponsors and supporters for their invaluable support of the Council and the Annual Scientific Meeting.

We are looking forward to another stimulating conference.

Ulilae & D

President

GENERAL INFORMATION

SECRETARIAT AND REGISTRATION DESK

The conference organisers will be pleased to assist you with any queries. The desk will be open as follows:

Friday 24th October: 10.00 - 19.15hrs Saturday 25th October: 08.00 - 19.30hrs Sunday 26th October: 08.30 - 14.00hrs

TELEPHONE CALLS FOR THE CONFERENCE DESK

Poiano Resort, Garda, Italy

Tel: +39 (0) 45 7200994 int.8853

POSTER PRESENTATIONS

Posters will be displayed for the duration of the meeting.

Poster Sessions: Sunday 26th October: 10.00 – 11.45hrs Chaired Poster Discussion

Sunday 26th October: 11.45 – 13.00hrs Poster Presentations by Group Winners

FRIDAY, 24th OCTOBER 2014

14.00-15.30		Session 1: Mineralocorticoid Receptor Chairs: Gian Paolo Rossi and Ulrike Muscha Steckelings
14.00-14.30		Invited Speaker Markus Hecker, University of Heidelberg, Germany Endothelial cell-platelet-leukocyte interaction in vascular remodeling
14.30-14.40	1.1	Monica Schütten, Maastricht University, The Netherlands Aldosterone-Renin Ratio and Renal Hemodynamics in Essential Hypertension
14.40-14.45		Discussion
14.45-14.55	1.2	Daniela Cangiano, University of Padova, Italy Detection of free-circulating DNA in patients with Aldosterone Producing Adenoma
14.55-15.00		Discussion
15.00-15.10	1.3	Nickolett Szarka, University of Pecs, Hungary Hypertension Enhances Flow-Induced Constriction of Rat Cerebral Arteries, which is lost prior to Stroke
15.10-15.15		Discussion
15.15-15.25	1.4	M. Bencze, Institute of Physiology, Academy of Sciences of the Czech Republic, Czech Republic The Role of Canonical Transient Receptor Potential Channels in Contraction of Isolated Arteries
15.25-15.30		Discussion
15.30-16.00		Refreshment Break

FRIDAY, 24th OCTOBER 2014

16.00-18.30		Session 2: Small Arteries Sponsored by the Marie Curie Training Programme on Small Arteries: SMARTER Chairs: Jo De Mey and Olga Pechanova
16.00-16.30		Invited Speaker Lydia Sorokin, University of Münster, Germany The Impact of Vascular Basement Membrane Laminins on Small Artery Physiology
16.30-17.00		Invited Speaker Ed Van Bavel, University of Amsterdam, The Netherlands Small Artery Remodeling: Interplay Between Cells, Matrix and Forces
17.00-17.10	2.1	Grith Sorensen, University of Southern Denmark, Odense, Denmark MFAP4 Promotes Vascular Smooth Muscle Migration, Proliferation and Neointima Formation
17:10- 17.15		Discussion
17.15-17.25	2.2	Concha F. García-Prieto, University CEU-San Pablo, Boadilla del Monte, Madrid Mild Short-Term Caloric Restriction Improves Endothelial Function by Up regulating Endothelial Ampk-Pi3k-Akt-Enos Pathway
17.25-17.30		Discussion
17.30-17.40	2.3	Maziah Ghazaly, University of Surrey, UK Redox Regulation of Endothelial Cell Cycle Progression and GRCR 43 Function: The Role Of NADPH Oxidase 2
17.40-17.45		Discussion
17.45-17.55	2.4	Maise Fredgart, University of Southern Denmark, Odense, Denmark Relaxing Responses to the AT ₂ Receptor Agonist Compound 21 in Porcine and Patient Pericardial Resistance Arteries Depend on the Type of Contractile Stimulus
17.55-18.00		Discussion
18:00-18:30		Invited Speaker Catherine Llorens-Cortes, College of France Aminopeptidase A inhibitors as central-acting antihypertensive agents: from target discovery to the clinical trial.
19.30		Dinner in Poiano Resort Restaurant

SATURDAY, 25th OCTOBER 2014

08.00-10.15		Session 3: Gasotransmitters Sponsored by European Co-operation in Science and Technology (COST) Network on Gasotransmitters: COST-ENOG Chairs: Concha Peiro and Ingrid Fleming
08.00-08.30		Invited Speaker Peter Brouckaert, Ghent University, Belgium The Role and Therapeutic Potential of NO in Sepsis
08.30-09.00		Invited Speaker Andreas Papapetropoulos, University of Athens, Greece H2S Actions and Interactions with NO in the Cardiovascular System
09.00-09.30		Invited Speaker Harry Van Goor, University of Groningen, The Netherlands Sulfhydration and NOx as Predictors of Mortality in Renal Transplant Patients
09.30-09.40	3.1	Ksenija Cankar, University of Ljubljana, Slovenia The Effect of Transcutaneous Carbon Dioxide Application on Cutaneous Microcirculation
09.40-09.45		Discussion
09.45-09.55	3.2	Elkahena Tarhouni, University of Angers, France Chronic increase in blood flow in rat mesenteric resistance arteries improved endothelium (NO)-mediated dilation: essential role of estrogens.
09.55-10.00		Discussion
10.00-10.10	3.3	Emily Johnson, University of Leeds, UK T-type Ca2+ channel regulation by CO: a mechanism for control of cell proliferation
10.10-10.15		Discussion
10.15-10.45		Refreshment Break

SATURDAY, 25th OCTOBER 2014

10.45-12.45		Session 4: New Drug Targets in Cardiovascular Medicine Chairs: Thomas Unger and Alun Hughes
10.45-11.15		Invited Speaker Jo De Mey, University of Southern Denmark, Odense, Denmark New Drug Targets in Cardiovascular Medicine
11.15-11.45		Invited Speaker Catherine Boileau, LVTS - Hôpital Bichat, Paris, France The PCSK9 Story
11.45-11.55	4.1	Therese Tillin, University College London, UK 24 Hour Ambulatory Central and Brachial Blood Pressure in A Group at High Risk of Cardiovascular Events
11.55-12.00		Discussion
12.00-12.10	4.2	Sofie Brouwers, Vrije University of Brussels, Belgium Selective Stimulation of Central Angiotensin II type 2 Receptors Induces Hypotensive and Sympatho-inhibitory Responses in Neurogenic Hypertension.
12.10-12.15		Discussion
12.15-12.25	4.3	Peter Toth, University of Oklahoma, USA IGF-1 Deficiency and Dysfunction of Cerebral Myogenic Autoregulation in Hypertensive Mice
12.25-12.30		Discussion
12.30-12.40	4.4	Concha Peiró, University Autonoma de Madrid, Spain The Angiotensin (1-7)/Mas Receptor Axis Protects Against Vascular Inflammation
12.40-12.45		Discussion
12.45-13.45		Lunch

SATURDAY, 25th OCTOBER 2014

13.45-14.45		Session 5 Chairs: Michael Bader and Ludovit Paulis
13.45-14.15		Invited Speaker Gian Paolo Rossi, University of Padova, Italy Biomarkers in CV Medicine
14.15-14.25	5.1	Giovanna Castoldi, University Milano-Bicocca. Monza, Italy Differential Mir-29a-3p Expression In Glomeruli And Tubules In An Experimental Model Of Angiotensin II-Dependent Hypertension: Potential Role In Renal Fibrosis.
14.25-14.30		Discussion
14.30-14.40	5.2	Marcus Baumann, Klinikum rechts der Isar, München, Germany TLR4 signaling mediates SBP increase with age- a translational investigation
14.40-14.45		Discussion
14:45-15:30		Keynote Lecture Ingrid Fleming, University of Frankfurt, Germany Chairs: Ed Van Bavel and Daniel Henrion Regulation of eNOS Activity by Phosphorylation
16.00		Optional Tour
19.30		Reception and Gala Dinner in Poiano Resort Restaurant

SUNDAY, 26th OCTOBER 2014

08.30 - 09:15		Young Investigators Competition Chairs: Mike Mulvany and Rhian Touyz
08.30-08.40	6.1	Thomas Leurgans, University of Southern Denmark, Odense, Denmark Roles of EDRFS and H_2o_2 in Responses to Bradykinin and Insulin Depend on Contractile Stimulus
08.40-08.45		Discussion
08.45-08.55	6.2	Anna Mai, University of Surrey, London NADPH Oxidase Activation and Oxidative Stress in High-Fat Diet-Induced Hypertension and Metabolic Disorders
08.55-09.00		Discussion
09.00-09.10	6.3	Francesca Gioco, University of Padova, Italy Immuno-phenotypic Characterization of Lateralized Primary Aldosteronism with Novel Monoclonal Antibodies against Human Aldosterone Synthase (CYP11B2) and 11-beta hydroxylase (CYP11B1)
09.10-09.15		Discussion
09.15-10.00		Keynote Lecture Rhian Touyz, University of Glasgow, Scotland Chairs: Christian Aalkjaer and Andreas Papapetropoulos TRPM Chanzymes — Novel Paradigms in Vascular Signaling
10.00-11.45		Chaired Poster Discussion and Refreshment Break
11.45 – 13.00		Poster Presentations by Group Winners and Presentation of prizes Chairs: Gian Paolo Rossi and Marcus Baumann
Poster Groups:		P1 Aldosterone/ Gasotransmitters/ Metabolism P2 Vasculature P3 Clinical Studies/Drug Development P4 Heart/ Brain/ Kidney P5 Renin-Angiotensin-System
13.00		Close of meeting, Lunch available and Departures

POSTER GROUP P1 - ALDOSTERONE/GASOTRANSMITTERS/ METABOLISM

John Boyle and Peter Brouckaert

- P1.1 Urotensin II Exerts A Transient Pressor Effects Via Enhanced Aldosterone Secretion

 M Menegolo, B Caroccia, L Lenzini, C Maturi, G P Rossi (Padova)
- P1.2 Angiotensin II type 1 and 2 receptors, and angiotensin-(1-7) receptor (Mas1R) are expressed in normal adrenal gland and in aldosterone producing adenoma (APA)
 - P-E Vanderriele, B Caroccia, L Lenzini, F Gioco, T M Seccia, G P Rossi (Padova)
- P1.3 17β-Estradiol Modulates the Synthesis of Aldosterone via Interaction between Gper-1 and Beta Receptors: New Evidence with the Knock-Down of Er and GPER-1 **B Caroccia**, T M Seccia, F Gioco, E Guerzoni, M Kuppusamy, G Ceolotto, G P Rossi (Padua)
- P1.5 NO-Donating Oximes Relax Corpora Cavernosa Through Mechanisms other than those Involved in Arterial Relaxation.
 - B Pauwels, C Boydens, K Decaluwé, J Van de Voorde (Ghent)
- P1.6 Matricellular Portein Microfibrillar-Associated Protein 4 in Abdominal Aortic Aneurysms **K L Kirketerp-Møller**, J Stubbe, A Schlosser, J S Lindholt, P B.L. Hansen, G-P Shi, U Holmskov, G L Sørensen (Odense; Boston)
- P1.7 The Role of G-Protein Coupled Receptor 43 in High Glucose-Induced Oxidative Stress in Human Blood Vessels.
 - M Ghazaly, M Newton, C Lee, J-M Li (Surrey)
- P1.8 The Mechanism by which Inflammation Transforms Glucose into A Deleterious Agent in Human Vascular Smooth Muscle Cells
 - **C F Sánchez-Ferrer**, C Peiró, T Romacho, V Azcutia, L Villalobos, E Fernández, J P Bolaños, S Moncada (Madrid; Salamanca; London)

POSTER GROUP P2 - VASCULATURE

Markus Hecker and Jane Stubbe

- P2.1 The Functional Role of the Putative Ca²⁺-Activated Cl⁻ Channel, TMEM16A, in the Vascular Wall. **A Bisgaard Jensen**, V Secher Dam, D. M. Boedtkjer, C Aalkjaer, V V. (Denmark)
- P2.2 Soluble Guanylate Cyclase Involved in Hypoxic Vasoconstriction and KV7 Channels in Hypoxic Vasodilatation in Porcine Coronary Microvasculature

 J A Shanmuganthan, U Simonsen, E R Hedegaard (Aarhus)
- P2.3 Thioredoxin, T-type Ca²⁺ channels, and Vascular Smooth Muscle Cell Proliferation. **E Johnson**, J Scragg, C Peers (Leeds)
- P2.4 The effect of L-arginine on Postocclusive reactive Hyperaemia **Z Melik**, K Cankar (Ljubljana)
- P2.5 Relaxant and Antioxidant Capacity of Red Wine Polyphenols on Isolated Mice Corpora Cavernosa **C Boydens**, b Pauwels, K Decaluwé, P Brouckaert, J Van de Voorde (Ghent)
- P2.6 Zyxin-Mediated Regulation of Vascular Smooth Muscle Cell Phenotype in Experimental Hypertension **S Ghosh**, B Kollar, S Suresh Babu, A Wojtowicz, C Sticht, N Gretz, M Hecker (Heidelberg; Lausanne; Mannheim)
- P2.7 Abdominal aorta aneurysm: the role of reactive oxygen species in experimental model C Tefé-Silva, P S. Prudente, K M Mata, C M, Prado, C R Fernandes, E M Floriano, S G Ramos (Ribeirão Preto)
- P2.8 Metabolic and Respiratory Acidosis Induced Relaxation Mediated by Potassium Channel Activation in Thoracic Aorta
 - **A A Albuquerque Fagundes**, A C Celotto, V K Capellini, L G Ferreira, A P Cassiano Silveira, T R de Nadai, P R Barbosa Evora (Ribeirão Preto; São)
- P2.9 The Role of Mfap4 in the Induction of Integrin Mediated Intracellular Signaling L E Hemstra, A Sclosser, U holmskov, G L Sørensen (Odense)
- P2.10 In Vitro Vascular Response Induced by Extracellular Respiratory Acidosis. Endothelium-Dependent Mechanisms.
 - **T Nadai, M Nadai**, A Celotto, A silveira, A Albuquerque, D Vento, V Augusto, A Rodrigues, P Evora (Ribeirão Preto/SP)

POSTER GROUP P3 - CLINICAL STUDIES/DRUG DEVELOPMENT

Nish Chaturvedi and U.Muscha Steckelings

- P3.1 Effect of the Angiotensin Type 2 Receptor Agonist, Compound 21, and the Angiotensin Type 2 Receptor Antagonist, PD123319, on Proliferation of Murine Primary Aortic Vascular Smooth Muscle Cells

 L Hollensberg, U M Steckelings, J Stubbe (Odense)
- P3.2 Antihypertensive Effectiveness of Candesartan Encapsulated in Liposomal Carriers Containing Cationic Derivatives of Polyisoprenoid Alcohols
 - **O Gawrys**, I Baranowska, K Gawarecka, T Chojnacki, E Swiezewska, M Masnyk, M Chmielewski, E Kompanowska-Jezierska (Warsaw)
- P3.3 Effects of Chymostatin, A Chymase Inhibitor, Alone or Combined with Captopril, A Classical ACE Inhibitor on Systemic and Renal Haemodynamics, and Renal Excretion in Spontaneously Hypertensive Rats **E Kompanowska-Jezierska**, M M Roszkowska-Chojecka, A Walkowska (Warsaw)
- P3.4 Effects of Chronic Blockade of Chymostatin-Sensitive Enzymes on Blood Pressure and Renal Haemodynamics in Spontaneously Hypertensive Rats (SHR).

 B Badzyńska, I Baranowska, M Roszkowska-Chojecka, E Kompanowska-Jezierska (Warsaw)
- P3.5 Galectin-3 Predicts Long Term Cardiovascular Death in High-Risk Coronary Artery Disease Patients **G Maiolino**, G Rossitto, L Pedon, M Cesari, A C Frigo, M Azzolini, M Plebani, G P Rossi (Padova; Cittadella)
- P3.6 Leptin, Adiponectin and A-FABP in the Pericardial Fluid of Cardiovascular Disease Patients

 J De Mey, P Søndergaard Jensen, M Bloksgaard, M Lyck Hansen, E Song, A Xu, Y Wang, A Irmukhamedov,

 L Melholt Rasmussen, J De Mey (Odense; Hong Kong)
- P3.7 Effect of Olmesartan Medoxomil on p63RhoGEF and RhoA/Rho Kinase Activity in Hypertensive Patients.

 V Ravarotto, E Pagnin, G Maiolino, G P Rossi, L A Calò (Padova)
- P3.8 Assessment of Physical Function in Older Adults: A Self-paced 6-minute Step Test Versus 6-minute Walk Test.
 - S Jones, T Tillin, A D Hughes, N Chaturdevi (London)
- P3.9 Assessment of Central Aortic Pressure and its Association to All Cause Mortality Critically Depends on Wave Form Calibration.
 - S Wassertheurer, M Baumann (Vienna; Munich)
- P3.10 The Role Of Carotid Intima-Media Thickness (CIMT) in The Prevention of Cardiovascular Disease

 A Al-bahrani, P Rajdall, N Chloe, D Turner, K Ayush, S Heydari (Newport; Portsmouth)

POSTER GROUP P4 - HEART/BRAIN/KIDNEY

Hans Ibsen and Peter Toth

- P4.1 Disturbance of Adherens Junction and Gap Junction Protein Expression Associated With Extracellular Matrix Remodeling Contribute to the Transition from Experimental Compensated Cardiac Hypertrophy to Decompensation.
 - **C M Prado**, S Ramos, H C Salgado, R Fazan Jr., E M Florian, C A Silva, V Blefari, F Prado, D O Dos Santos, A Fernandes, T R F Pizzo (Ribeirao Preto, Araras)
- P4.2 Morphological Study of Duchenne's Cardiomyopathy in A Canine Model

 L Malvestio, I Martins, C Prado, C Tefé-Silva, E Floriano, S Ramos, J Engrácia de Moraes (Sao Paulo)
- P4.3 The Effect of Cannabidiol on Ischemia/Reperfusion-Induced Ventricular Arrhythmias, the Role of Adenosine A1 Receptors.
 - E Gonca, F Darici (Zonguldak)
- P4.4 The Effect of Melatonin and Compound 21 on Doxorubicin-Induced Toxicity in Rats.

 R Rajkovicova, K Arendasova, J Hrenak, K Repova, A Brata, K Krajcirovicova, F Simko, L Paulis (Bratislava)
- P4.5 Contractile Proteins in the Progression of Cardiac Hypertrophy to Heart Failure

 C Tefé-Silva, C Prado, V Blefari, E Floriano, D Santos, F Prado, C Silva, H Salgado, S Ramos (Ribeirão Preto)
- P4.7 Familial Hemiplegic Migraine Type 2 (FHM2) Associated Mutation in the A2 Isoform of Na,K-Atpase Leads to Elevated Contractility and Vasodilatation of Mice Cerebral Arteries

 L Hangaard, K Lykke-Hartmann, Z Xie, V Matchkov, C Aalkjaer (Aarhus)
- P4.8 Increased Metalloproteinase (MMP)2 and MMP9 Activity in Conditions of Albuminuria Despite Well-Controlled Hypertension
 - **H Pulido-Olmo**, L Agudo, C García-Prieto, B Somoza, I Aranguez, J Segura, R Kreutz, M Fernández-Alfonso, L Ruilope, G Ruiz-Hurtado (Madrid; Berlin)
- P4.9 Cardiac remodelling and myocardial (dys)function in animal model of heart failure: influence of testosterone
 - L Paulis, R Rajkovicova, G Gubo, K Arendasova, A Barta, K Repova, D Kratka, F Simko, P Celec (Bratislava)

POSTER GROUP P5 - RENIN-ANGIOTENSIN-SYSTEM

Carmine Savoia and Markos Poglitsch

- P5.1 Genetic deletion of ACE2 Induces Hepatic Steatosis in Mice

 V Nunes-Souza, N Alenina, F Qadri, J Penninger, R Santos, M Bader, R Luiza (Berlin; Maceió, Alagos; Belo Horizonte; Vienna)
- P5.2 Neuroprotective Role of the Angiotensin Type 2 Receptor in Neuromyelitis Optica C Hermansen, R Khorooshi, U M Steckelings, T Owens (Odense)
- P5.3 ACE2 Independent Pathways of Angiotensin 1-7 Formation in the Murine Kidney

 O Domenig, A Manzel, J Stegbauer, S B Gurley, M Antlanger, J Kovarik, M Saemann, R Linker, M Poglitsch (Vienna; Erlangen; Dusseldorf; Durham; Vienna)
- P5.4 Chronic Non-ACE Angiotensin Conversion Blockade with Chymostatin: Effects on Blood Pressure, Metabolic Parameters and Renal Perfusion in Conscious Spontaneously Hypertensive Rats (SHR) **Iwona Baranowska**, Bożena Bądzyńska, Olga Gawryś, Krzysztof H. Olszyński, Bartosz Kossowski, Jarosław Orzeł, Piotr Bogorodzki, Elżbieta Kompanowska-Jezierska
- P5.5 Evidence for Functional Angiotensin II Receptors in the Human Parathyroid Gland Modulating the Tonic Release of PTH

 G P Rossi, V Sanga, G Maiolino, T M Seccia, L Lenzini, P E Vanderriele, L Calo' (Padova)
- P5.6 Ex vivo Equilibrium Analysis of the Renin-Angiotensin-System: Clinical Implications for Diagnosis and Treatment of Hypertension

 O Domenig, C Schwager, D Van Oyen, M Poglitsch (Vienna)
- P5.7 Hypertension and Cardiovascular Remodelling in Rats Exposed to Continuous Light: Protection by ACE-Inhibition and Melatonin

 F Simko, O Pechanova, K Repova Bednarova, K Krajcirovicova, P Celec, N Kamodyova, Š Zorad, J Kucharska, A Gvozdjakova, M Adamcova, L Paulis (Slovak Republic and Czech Republic)

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