

## Oral Presentations

### YI 1.1 Aortic Impedance and Total Arterial Compliance from Regional Pulse Wave Velocities

Ms Vasiliki Bikia<sup>1</sup>, Mr Georgios Rovas<sup>1</sup>, Ms Stamatia Pagoulatou<sup>1</sup>, Prof. Nikolaos Stergiopoulos<sup>1</sup>  
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### YI 1.2 Ideal cardiovascular health score declines from adolescence to emerging adulthood

Dr Chloe Park<sup>1</sup>, Dr Siana Jones<sup>1</sup>, Miss Suzanne Williams<sup>1</sup>, Mrs Alicja Rapala<sup>1</sup>, Ms Hannah Taylor<sup>1</sup>, Dr Laura Howe<sup>2</sup>, Dr Abigail Fraser<sup>2</sup>, Professor Nish Chaturvedi<sup>1</sup>, Professor Alun Hughes<sup>1</sup>  
<sup>1</sup>*University College London, London, United Kingdom*, <sup>2</sup>*University of Bristol, Bristol, United Kingdom*

### YI 1.3 Retinal microvascular calibers and incident depressive symptoms: The Multi-Ethnic Study of Atherosclerosis

Ms April C. E. van Gennip<sup>1</sup>, Ms Sanaz Sedeghat<sup>2</sup>, Ms Mercedes R. Carnethon<sup>2</sup>, Ms Norrina B. Allen<sup>2</sup>, Ms Barbara E. K. Klein<sup>3</sup>, Ms Mary Frances Cotch<sup>4</sup>, Ms Diana A. Chirinos<sup>2</sup>, Mr Coen D. A. Stehouwer<sup>1</sup>, Mr Thomas T. van Sloten<sup>1</sup>

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### YI 1.4 Increases in Circulating Trimethylamine-N-oxide Contribute to the Development of Age-Related Aortic Stiffness in Humans and Mice

Abigail G Casso<sup>1</sup>, Rachel A Gioscia-Ryan<sup>1</sup>, Zachary J Sapinsley<sup>1</sup>, Nicholas S VanDongen<sup>1</sup>, Amy E Bazzoni<sup>1</sup>, Andrew P Neilson<sup>2</sup>, Melanie C Zigler<sup>1</sup>, Kevin P Davy<sup>3</sup>, Douglas R Seals<sup>1</sup>, Vienna E Brunt<sup>1</sup>

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### YI 1.5 Ten years of ageing in the middle-aged does not increase input impedance or wave reflection - insights from the Asklepios Study.

Daimé Campos Arias<sup>1</sup>, Marc L. De Buyzere<sup>2</sup>, Julio A. Chirinos<sup>3,4</sup>, Ernst R. Rietzschel<sup>2,5</sup>, Patrick Segers<sup>1</sup>  
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### YI 1.6 Flow mediated slowing of pulse wave velocity as a measure of endothelial function

Anju Sharma<sup>1</sup>, Dinu.S. Chandran<sup>1</sup>, Ashok Jaryal<sup>1</sup>, Kishore K Deepak<sup>1</sup>  
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### YI 1.7 Transmural quantification of murine vascular smooth muscle cell density distribution from 3D microscopy images

Phd Koen W.F. van der Laan<sup>1,2</sup>, PhD Koen D. Reesink<sup>1,2</sup>, PhD, MD Myrthe M. van der Bruggen<sup>1,2</sup>, PhD Armand M.G. Jaminon<sup>1,3</sup>, PhD Remco T.A. Megens<sup>1,2,4</sup>, PhD Leon J. Schurgers<sup>1,3</sup>, Phd, MD Tammo Delhaas<sup>1,2</sup>, PhD Bart Spronck<sup>1,2,5</sup>

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### YI 1.8 A computational model-based study on the effect of abdominal aortic aneurysm on pulse wave morphology

Mr. Tianqi Wang<sup>1,2</sup>, Dr. Jordi Alastruey<sup>1</sup>, Dr. Fuyou Liang<sup>2</sup>

<sup>1</sup>*Department of Biomedical Engineering, King's College London, United Kingdom*, <sup>2</sup>*School of Naval Architecture, Ocean and Civil Engineering, Shanghai Jiao Tong University, Shanghai, China*

### **YI 2.1 Pulse wave velocity estimation from the radial pulse waveform using Gaussian process regression: A machine learning based study**

Ms Weiwei Jin<sup>1</sup>, Dr Phil Chowienczyk<sup>2</sup>, Dr Jordi Alastruey<sup>1,3</sup>

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### **YI 2.2 Spontaneous cardiovascular ageing of C57Bl6 mice results in the development of aortic stiffness prior to peripheral blood pressure alterations.**

Miss Sofie De Moudt<sup>1</sup>, Miss Jhana O. Hendrickx<sup>1</sup>, Miss Dorien G. De Munck<sup>1</sup>, Dr. Arthur J. Leloup<sup>1</sup>, Prof. Wim Martinet<sup>1</sup>, Prof. Guido R.Y. De Meyer<sup>1</sup>, Dr Paul Franssen<sup>1</sup>

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### **YI 2.3 Methylglyoxal, 3-deoxyglucosone, and glyoxal – precursors of advanced glycation endproducts – are not independently associated with indices of carotid stiffness: The Maastricht Study**

MD Myrthe van der Bruggen<sup>1,2</sup>, PhD Marleen M.J. van Greevenbroek<sup>1,3</sup>, PhD Koen D. Reesink<sup>1,2</sup>, PhD, MD Coen D.A. Stehouwer<sup>1,3</sup>, PhD, MD Tammo Delhaas<sup>1,2</sup>, PhD Bart Spronck<sup>1,2,4</sup>, PhD Casper G. Schalkwijk<sup>1,3</sup>

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### **YI 2.4 Neural baroreflex sensitivity and long-term effect of antihypertensive agents--a pharmacological substudy of the Paris Prospective Study III**

Nicolas Danchin<sup>5</sup>, Catherine Guibout<sup>3,4</sup>, Xavier Jouven<sup>3,4</sup>, Marie-Cécile Perier<sup>3,4</sup>, Frederique Thomas<sup>5</sup>, Dr Catherine Fortier<sup>1</sup>, Dr Jean-Philippe Empana<sup>3,4</sup>, Dr Hakim Khettab<sup>2</sup>, Dr Rosa-Maria Bruno<sup>1,2</sup>, Dr Pierre Boutouyrie<sup>1,2</sup>

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### **YI 2.5 Direct measurement of stiffness index $\beta$ of superficial arteries without blood pressure estimation**

Mr. Rahul Manoj<sup>1</sup>, Dr. P M Nabeel<sup>2</sup>, Mr. Kiran V Raj<sup>1</sup>, Dr. Jayaraj Joseph<sup>1,2</sup>, Dr. Mohanasankar Sivaprakasam<sup>1,2</sup>

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### **YI 2.6 Comparison of cardiovascular disease primary prevention guidelines between Australia, England and the United States.**

Dr Niamh Chapman<sup>1</sup>, Dr Monique Breslin<sup>1</sup>, Dr Sarah Lay-Flurrie<sup>2</sup>, Dr Zhen Zhou<sup>1</sup>, Prof. James Sharman<sup>1</sup>, Prof. Mark Nelson<sup>1</sup>, Prof Richard McManus<sup>2</sup>

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## Poster Presentations

### P.01 Where does the reflected wave observed in the ascending aorta come from?

Miss Shima Abdullateef<sup>1</sup>, Professor Ashraf W Khir<sup>1</sup>

<sup>1</sup>Department of Mechanical and Aerospace Engineering, Brunel University London, Uxbridge, United Kingdom

### P.02 Differential 'mediators' of low-flow 'mediated' constriction in healthy vs patients of ischemic heart disease

Dr Smriti Badhwar<sup>1</sup>, Dr. Dinu Chandran<sup>1</sup>, Prof Ashok Jaryal<sup>1</sup>, Prof Rajiv Narang<sup>1</sup>, Prof Chetan Patel<sup>1</sup>, Prof Kishore Kumar Deepak<sup>1</sup>

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### P.03 Local Pulse Wave Velocity Estimation using a Double Gaussian Propagation Model

M.Sc. Fabian Beutel<sup>1,2</sup>, Ph.D. Chris Van Hoof<sup>1,3</sup>, Ph.D. Evelien Hermeling<sup>2</sup>

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### P.04 A transfer-function-free technique for the non-invasive estimation of central arterial pressure

Mr Alessandro Giudici<sup>1</sup>, Ioana Cretu<sup>1</sup>, Madalina Negoita<sup>1</sup>, Professor Ian B Wilkinson<sup>2</sup>, Professor Ashraf W Khir<sup>1</sup>

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### P.05 Development and validation of a novel centroid method for estimating effective reflection time

Avinash Kondiboyina<sup>1,2</sup>, Joseph J Smolich<sup>1,2</sup>, Michael MH Cheung<sup>1,2,3</sup>, Jonathan P Mynard<sup>1,2,3</sup>

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### P.06 Comparison of Manual vs. Automated Haemodynamic Monitoring Systems in the Cardiac Catheterization Laboratory

Mr. AbdulRehman Alanezi<sup>1</sup>, Dr. Fayaz Mohammad Khan<sup>1</sup>, Mr. Taher Alotaibi<sup>1</sup>, Mr. Bandar Alhaddadi<sup>1</sup>, Mr. Fahad Alanazi<sup>1</sup>, Mr. Mohammad Alqahtani<sup>1</sup>, Mr. Jaber Alsheri<sup>1</sup>, Mr. Ali Masrahi<sup>1</sup>, Mr. Faisal Aljumah<sup>1</sup>, Ms. Hanan AlShamamry<sup>1</sup>, Mr. Ziyad Alwasel<sup>1</sup>, Dr. Mohammad Balghith<sup>1</sup>, Dr. Kamal Ayoub<sup>1</sup>, Dr. Ali Al Ghamdi<sup>1</sup>, Dr. Azra Mahmud<sup>1</sup>

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### P.07 The Progression of Left Ventricular Ejection Time in Simulated Microgravity

Dipl. Ing. BSc Stefan Orter<sup>1,2</sup>, MSc Stefan Möstl<sup>3</sup>, Dr. Martin Bachler<sup>1</sup>, Dr. Med. Fabian Hoffmann<sup>3</sup>, Dr. Christopher C. Mayer<sup>1</sup>, Ao.Univ.Prof. Dipl.Ing. Dr.techn. Eugenijus Kaniusas<sup>2</sup>, MSc Michaela Reisinger<sup>1</sup>, Dr. Siegfried Wassertheurer<sup>1</sup>, Prof. Dr. Med. Jens Tank<sup>3</sup>, Dr. Bernhard Hametner<sup>1</sup>

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### P.08 Biomechanical Characterization of Ascending Thoracic Aortic Aneurysms in Humans: A Continuum Approach to in vivo Deformations

MSc Shaiv Parikh<sup>1,2</sup>, PhD Bart Spronck<sup>1,2,3</sup>, BSc Gijs Debeij<sup>1,4</sup>, MSc Berta Ganizada<sup>1,4</sup>, MD Mitch Ramaekers<sup>1,5,6</sup>, PhD Simon Schalla<sup>1,5,6</sup>, PhD Ehsan Natour<sup>1,4</sup>, PhD Jos Maessen<sup>1,4</sup>, PhD Tammo Delhaas<sup>1,2</sup>, PhD Wouter Huberts<sup>1,2</sup>, PhD Elham Bidar<sup>1,4</sup>, PhD Koen Reesink<sup>1,2</sup>

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**P.09 Differential Low Flow Mediated Constriction (LFMC) responses in radial and brachial arteries of healthy humans are attributed to occlusion induced flow changes.**

Ms Sakshi Sen<sup>1</sup>, Dr Dinu Chandran<sup>1</sup>, Dr Ashok Jaryal<sup>1</sup>, Dr Kishore Kumar Deepak<sup>1</sup>

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**P.10 Distal arterial occlusion at different grades of supra-systolic pressures differentially modulates flow velocity and shear rates in radial Artery**

Miss Anchal Singh<sup>1</sup>, Dr. Smriti Badhwar<sup>2</sup>, Dr. Dinu Chandran<sup>2</sup>, Prof Ashok Jaryal<sup>2</sup>, Prof Kishore Kumar Deepak<sup>2</sup>

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**P.12 Investigating the role of glycemic markers in pulse pressure amplification in young adults: The African-PREDICT study**

Dr Yolandi Breet<sup>1,2</sup>, Dr Leandi Lammertyn<sup>1,2</sup>, Prof Wayne Smith<sup>1,2</sup>

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**P.13 Pulse wave velocity trajectories during COVID-19 epidemic: effect of lockdown on cardiovascular health**

Dr Rosa Maria Bruno<sup>1</sup>, Prof. Jean-Louis Pepin<sup>2</sup>, Rui-Yi Yang<sup>3</sup>, Vincent Vercaemer<sup>3</sup>, Paul Jouhaud<sup>3</sup>, Pierre Escorrou<sup>3</sup>, Pierre Boutouyrie<sup>3</sup>

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**P.14 Transcranial colour duplex reveals haemodynamically significant venous flow alterations following resection of arteriovenous malformation of the brain**

Ms Kathryn Busch<sup>1</sup>, A/Prof Andrew Davidson<sup>1</sup>, Dr Mark Butlin<sup>1</sup>, Prof Alberto Avolio<sup>1</sup>, Prof Hosen Kiat<sup>1</sup>

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**P.15 Isolated systolic hypertension and central blood pressure: Implications from the National Nutrition and Health Survey in Taiwan**

Dr. Shao-Yuan Chuang<sup>1</sup>, Dr. Hsing-Yi Chang<sup>1</sup>, Dr. Hao-Min Cheng<sup>2</sup>, Dr. Wen-Harn Pan<sup>3</sup>, Dr. Chen-Huan Chen<sup>4</sup>

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**P.16 Expanding on the observed correlation between the ambulatory arterial stiffness index and the lower limit of cerebral autoregulation during cardiac surgery**

Dr. Benjamin Gavish<sup>1</sup>, Professor Allan Gottschalk<sup>2</sup>, Professor Charles W Hogue<sup>3</sup>, Assoc. Professor Jochen Steppan<sup>2</sup>

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**P.17 Reduced isometric contractility and isobaric compliance of the ex vivo thoracic aorta of hypertensive APP23+/- overexpressing mice due to serum corticosterone levels**

Miss Jhana O. Hendrickx<sup>1</sup>, Miss Sofie De Moudt<sup>1</sup>, Dr. Debby Van Dam<sup>2,3</sup>, Prof. Dr. Guido R. Y. De Meyer<sup>1</sup>, Dr. Paul Franssen<sup>1</sup>

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**P.18 Carotid Stiffness Parameters and Cerebral Blood Flow Pulsatility in Young Healthy Individuals across Races**

Dr. Jie Liu<sup>1</sup>, Michelle E. Favre<sup>1</sup>, Stephanie G. Iring<sup>1</sup>, Allan Knox<sup>2</sup>, Jorge M. Serrador<sup>1</sup>

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### **P.19 Intradialytic changes in cerebral blood flow and regional changes in arterial stiffness**

Miss Mathilde Paré<sup>1,2,3,4</sup>, PhD Hasan Obeid<sup>1,2,5,6</sup>, MSc Lawrence Labrecque<sup>3,4</sup>, MSc Audrey Drapeau<sup>3,4</sup>, PhD Karine Marquis<sup>1,2</sup>, PhD Patrice Brassard<sup>3,4</sup>, Dr./MD Mohsen Agharazii<sup>1,2</sup>

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### **P.20 Evolving Structure-Function Correlates during Aortic Maturation and Aging**

PhD Cristina Cavinato<sup>1</sup>, PhD Jay D Humphrey<sup>1</sup>

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### **P.21 Albuminuria intensifies the relationship between urinary sodium excretion and central pulse pressure: the Wakuya study**

Dr. Kaname Tagawa<sup>1</sup>, Dr. Yusuke Tsuru<sup>2</sup>, Dr. Katsumi Yokoi<sup>2</sup>, Dr. Takanori Aonuma<sup>3</sup>, Prof. Junichiro Hashimoto<sup>1</sup>

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### **P.22 Mortality in 98 Type 1 Diabetes Mellitus (T1DM) and Type 2 Diabetes Mellitus (T2DM) Individuals presenting to a Specialist Podiatry Clinic: Foot Ulcer Location is an Independent Risk Determinant**

Ms Heather Schofield<sup>1</sup>, Dr Samantha Haycocks<sup>1</sup>, Dr Adam Robinson<sup>1</sup>, Professor Simon G Anderson<sup>2</sup>, Dr Adrian Heald<sup>1</sup>

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### **P.23 Relationship between aortic stiffness, aortic, and carotid impedance with vascular aging in community-based healthy people.**

Mr. Chao-feng Liao<sup>1</sup>, Mr. Shao-Yuan CHUANG<sup>2</sup>, Mr. Hao-Min CHENG<sup>3</sup>, Mr. Chen-Huan CHEN<sup>3</sup>

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### **P.24 Factors associated with premature vascular aging in patients with arterial hypertension.**

I.V. Inna Melekhina<sup>1</sup>, E.G. Elizaveta Georgievna Medvedeva<sup>1</sup>, S.V. Svetlana Ivanova<sup>1</sup>, E.N. Elena Yushchuk<sup>1</sup>, E.Yu. Ekaterina Trush<sup>1</sup>

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### **P.25 Radial-Digital pulse wave velocity: a non-invasive method for assessing stiffness of peripheral small arteries**

Dr Hasan Obeid<sup>1,2,3,4</sup>, Mr Charles-Antoine GARNEAU<sup>1</sup>, Dr Catherine FORTIER<sup>1,2,3,4</sup>, Ms Mathilde PARE<sup>1</sup>, Pr Pierre BOUTOUYRIE<sup>3,4</sup>, Pr Mohsen AGHARAZII<sup>1,2</sup>

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### **P.26 Liver Transglutaminase 2 Level Comparison Among Different Dietary Interventions**

Miss Elif Oztemiz<sup>1</sup>, Associate Prof Soner Dogan<sup>1</sup>, Assistant Prof Bilge Guvenc Tuna<sup>1</sup>

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### **P.27 Mechanisms of NADPH oxidase participation in the regulation of diaphragm Artery contractile responses**

Dr. Anna Borzykh<sup>1</sup>, Dr. Ilya Kuzmin<sup>2</sup>, Dr. Olga Vinogradova<sup>1,2</sup>, Dr. Olga Tarasova<sup>1,2</sup>

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### **P.28 Comparison of regional vs local arterial parameters using new US technology**

Md Phd Pedro Forcada<sup>1</sup>, MD NG Kendy<sup>2</sup>, MD Ricardo Garcia<sup>1</sup>, MD Romina Maur<sup>1</sup>, MD Jose Florio<sup>1</sup>, MD Horacio Almada<sup>1</sup>

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### **P.29 Involvement of cannabinoid receptors in regulation of MMPs, cell proliferation and apoptosis in vascular smooth muscle cells**

Mrs Bettina Greiner<sup>1,2</sup>, Mrs Manuela Sommerfeld<sup>1,2</sup>, Prof. Ulrich Kintscher<sup>1,2</sup>, Prof. Kai Kappert<sup>1,2,3</sup>, Dr. Elena Kaschina<sup>1,2</sup>

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### **P.30 Angiotensin II Infusion Leads to Aortic Dissection in LRP8 Deficient Mice**

PhD Jeremy Lagrange<sup>1,2</sup>, PhD Stefanie Finger<sup>2</sup>, PhD Sabine Kossmann<sup>2,3,4</sup>, PhD Venkata Garlapati<sup>2</sup>, MD, PhD Wolfram Ruf<sup>2,5</sup>, MD Philip Wenzel<sup>2,3</sup>

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### **P.31 Von Willebrand Factor Induces Vascular Smooth Muscle Cell Proliferation and Migration Through Low Density Lipoprotein-Related Receptor Protein 4 And $\alpha\beta 3$ Integrin**

Cécile V. Denis<sup>3</sup>, Patrick Lacolley<sup>1</sup>, PhD Jeremy Lagrange<sup>1</sup>, Peter J. Lenting<sup>3</sup>, Jean-Baptiste Michel<sup>2</sup>, Alexandre Raoul<sup>1</sup>, Véronique Regnault<sup>1</sup>

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### **P.32 Non-invasive measures of arteriosclerosis across childhood and adolescence: Insights into the natural history of disease**

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### **P.33 Changes in blood pressure, pulse wave velocity and augmentation index induced by postural changes and exercise**

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### **P.34 Preeclampsia leads to the delayed development of sympathetic control of the cardiovascular system in the offspring**

Ms Ekaterina Selivanova<sup>1</sup>, Dr Anastasia Shvetsova<sup>1</sup>, Dr Victoria Potekhina<sup>1</sup>, Dr Dina Gaynullina<sup>1</sup>, Dr Anna Borzykh<sup>2</sup>, Dr Oxana Kiryukhina<sup>3</sup>, Dr Vladislav Kuzmin<sup>1</sup>, Dr Olga Tarasova<sup>1</sup>

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### **P.35 TASK-1 channels play an anticontractile role in rat septal coronary Artery under pharmacological blockade of endothelium**

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### **P.36 Carotid Artery correlates with aorta reactivity to sympathetic stimulation in healthy individuals and patients with abdominal aortic aneurysm**

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### **P.37 An assessment of potential sources of error that may arise in the measurement of carotid-femoral pulse wave velocity**

Mr James Cox<sup>1</sup>, Dr Isabella Tan<sup>1</sup>, Professor Alberto Avolio<sup>1</sup>, Dr Mark Butlin<sup>1</sup>

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### **P.38 Comparison of arterial hemodynamics in early vascular aging (EVA), average vascular aging (AVA) and healthy vascular aging (HVA)**

Chen-hua Lin<sup>1</sup>, Hao-Min Cheng<sup>1,2,3</sup>, Yu-Ting Ko<sup>3</sup>, Li-Ning Peng<sup>4</sup>, Liang-Kung Chen<sup>4</sup>, Chen-Huan Chen<sup>1,2,3</sup>

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### **P.39 The role of advanced glycation end products in vascular ageing. Which parameter is the most suitable as biomarker?**

Professor Otto Mayer<sup>1</sup>, Dr. Július Gelžinský<sup>1</sup>, Professor Jitka Seidlerová<sup>1</sup>, Professor Jan Filipovský<sup>1</sup>

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### **P.40 Ambulatory Measurement of Carotid Stiffness with a Novel Accelerometric System**

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### **P.41 Measurement of pressure-dependent intra-beat changes in carotid pulse wave velocity using image-free fast ultrasound**

Mr. Kiran V Raj<sup>1</sup>, Dr P M Nabeel<sup>2</sup>, Dr Jayaraj Joseph<sup>1,2</sup>, Dr Dinu Chandran<sup>3</sup>, Dr Mohanasankar Sivaprakasam<sup>1,2</sup>

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### **P.42 The effects of chemotherapy on arterial stiffness in patients with Hodgkin lymphoma**

Constantinos Anagnostopoulos<sup>2</sup>, Stavroula Giannouli<sup>3</sup>, Nikolaos Ioakimidis<sup>1</sup>, Paulos Kafouris<sup>4</sup>, Iosif Koutagiar<sup>1</sup>, Anastasia Sioni<sup>5</sup>, Doctor Eirini Solomou<sup>1</sup>, Dimitrios Terentes-Printzios<sup>1</sup>, Dimitrios Tousoulis<sup>1</sup>, Charalampos Vlachopoulos<sup>1</sup>

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### **P.43 The association between early vascular aging and cyclothymic affective temperament**

Dr. Milan Vecsey-Nagy<sup>1</sup>, Dr. Bálint Szilveszter<sup>1</sup>, Dr. Márton Kolossváry<sup>1</sup>, Dr. Xénia Gonda<sup>2,3,4</sup>, Dr. Zoltán Rihmer<sup>3</sup>, Dr. Béla Merkely<sup>1</sup>, Dr. Pál Maurovich-Horvat<sup>1,5</sup>, Dr. János Nemcsik<sup>6,7</sup>

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#### **P.44 Application of an algorithm developed for measuring gastrointestinal motility to the assessment of arterial mechanical properties.**

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#### **P.45 Characterization of the microcirculatory response to gravity-induced changes using thermal imaging**

Mrs. Noam Moyal<sup>1</sup>, Mrs. Noa Darchi<sup>1</sup>, Dr. Oshrit Hoffer<sup>2</sup>, Dr. Neta Rabin<sup>3</sup>, Dr. Benjamin Gavish<sup>4</sup>, Dr. Moshe Halak<sup>5</sup>, Dr. Zehava Ovadia-Blechman<sup>1</sup>

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#### **P.46 Assessment of intraplaque hemorrhage by photoacoustics imaging (PAI): first in-vivo human validation study**

Dr Rosa Maria Bruno<sup>1</sup>, Yuki Imaizumi<sup>2</sup>, Hasan Obeid, Michael Jaeger<sup>3</sup>, Pierre Julia<sup>1</sup>, Patrick Bruneval<sup>1</sup>, David Calvet<sup>2</sup>

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#### **P.47 Feasibility evaluation of imaging-free ultrasound technology to measure diameters of brachial and radial arteries for assessment of endothelial function**

Dr Dinu Chandran<sup>1</sup>, Dr Jayaraj Joseph<sup>2,3</sup>, Ms Sakshi Sen<sup>1</sup>, Mr Kiran Raj<sup>3</sup>, Mr. P M Nabeel<sup>2</sup>, Dr Kishore Kumar Deepak<sup>1</sup>

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#### **P.48 Ultrasound-based velocity and acceleration of the carotid atheromatous plaque in asymptomatic patients with moderate and severe stenosis**

Dr Kalliopi Dalakleidi<sup>1</sup>, Spyretta Golemati<sup>2</sup>, Aimilia Gastouniotti<sup>3</sup>, Christos Liapis<sup>4</sup>, Konstantina Nikita<sup>1</sup>

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#### **P.49 Aortic root longitudinal strain by speckle-tracking echocardiography: comparison with cardiac magnetic resonance and predictive value in Marfan syndrome patients**

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#### **P.50 Radial Artery phenotyping in fibromuscular dysplasia through ultra-high frequency ultrasound: a radiomic approach**

Miss Federica Poli<sup>1</sup>, Miss Rosa Maria Bruno<sup>1,2</sup>, Mr Francesco Faita<sup>3</sup>, Mr Hakim Khettab<sup>2</sup>, Mr Michel Azizi<sup>4</sup>, Mr Saverio Vitali<sup>5</sup>, Mr Mirco Cosottini<sup>1,5</sup>, Mr Davide Caramella<sup>1,5</sup>, Mr Lorenzo Ghiadoni<sup>1</sup>, Mr Stefano Taddei<sup>1,5</sup>, Mr Pierre Boutouyrie<sup>6</sup>, Mr Alexandre Persu<sup>7</sup>, Mr Xavier Jeunemaitre<sup>4</sup>, Mr Aurélien Lorthioir<sup>6</sup>

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**P.52 POSTER WITHDRAWN BY AUTHOR**



**P.53 Ascending aorta diameter and pulse wave velocity are increased and local hemodynamic is disrupted in patients with blunt traumatic thoracic aortic injury treated by TEVAR.**

Dr. Andrea Guala<sup>1</sup>, Dr. Daniel Gil Sala<sup>2</sup>, Aroa Ruiz-Muñoz<sup>1</sup>, Dr. Marvin Garcia-Reyes<sup>2</sup>, Dr. Lydia Dux-Santoy<sup>1</sup>, Dr. Gisela Teixido-Tura<sup>1</sup>, Dr. Cristina Tello<sup>2</sup>, Dr. Filipa Valente<sup>1</sup>, Dr. Angela Lopez-Sainz<sup>1</sup>, Dr. Laura Galian<sup>1</sup>, Dr. Laura Gutierrez<sup>1</sup>, Prof. Kevin Johnson<sup>3</sup>, Prof. Oliver Wieben<sup>3</sup>, Dr. Ignacio Ferreira<sup>1</sup>, Dr. Arturo Evangelista<sup>1</sup>, Dr. Sergi Bellmunt-Montoya<sup>2</sup>, Dr. Jose Rodriguez-Palomares<sup>1</sup>

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**P.54 Biomarkers and haemodynamic Predictors of Left Atrial Strain in Early Hypertension**

Ms. Maryam Bukhamseen<sup>1</sup>, Ms. Nada Al-Saileek<sup>1</sup>, Dr. Ahmed Al-Saileek<sup>1</sup>, Dr. Mohammad Ghormalla Ghamdi<sup>1</sup>, Mr. Tahlil Wasame<sup>1</sup>, Dr. Ahmed Omran<sup>1</sup>, Dr. Azra Mahmud<sup>1</sup>

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**P.55 Dietary nitrate prevents progression of carotid subclinical atherosclerosis through BP-independent mechanisms in patients with or at risk of type 2 diabetes mellitus: results from the double-blind, randomized-controlled, factorial Vasera trial**

Dr Franca Morselli<sup>1</sup>, Dr Luca Faconti<sup>1</sup>, Dr Charlotte E Mills<sup>2,3</sup>, Dr Steve Morant<sup>4</sup>, Prof PhilipJ Chowienczyk<sup>1</sup>, Prof Alessandro Cavarape<sup>5</sup>, Prof J Kennedy Cruickshank<sup>2</sup>, Dr Andrew J Webb<sup>1</sup>

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**P.56 Differences in vascular effects between one session of moderate-intensity continuous physical exercise and high-intensity interval physical exercise in individuals with high blood pressure**

Msc Sara Rodrigues<sup>1</sup>, B.Sc Renata G S Verardino<sup>1</sup>, Md Marcel J A Costa<sup>1</sup>, B.Sc Ana Luíse Duenhas-Berger<sup>1</sup>, PhD Valéria Costa-Hong<sup>1</sup>, Md PhD Luiz A Bortolotto<sup>1</sup>

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**P.57 Acetylsalicylic acid reduces passive aortic wall stiffness and cardiac remodelling in a mouse model of advanced atherosclerosis**

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**P.58 Genetic Background Dictates Aortic Fibrosis in Hypertensive Mice**

Dr. Bart Spronck<sup>1,2</sup>, Dr. Marcos Latorre<sup>1</sup>, Dr. Sameet Mehta<sup>3</sup>, Dr. Alexander W. Caulk<sup>1</sup>, Dr. Abhay B. Ramachandra<sup>1</sup>, Dr. Sae-Il Murtada<sup>1</sup>, Ms. Alexia Rojas<sup>1</sup>, Dr. Chang-Sun He<sup>4</sup>, Dr. Bo Jiang<sup>4</sup>, Dr. Mo Wang<sup>4</sup>, Dr. Matthew R. Bersi<sup>5</sup>, Prof. George Tellides<sup>4,6</sup>, Prof. Jay D. Humphrey<sup>1,6</sup>

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**P.59 POSTER WITHDRAWN BY AUTHOR**

**P.60 Improvement in muscular strength within one year is associated with increased arterial stiffness in young male soccer players**

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### **P.61 Impact of kidney transplantation on arterial reservoir-wave analysis**

Miss Nadège Côté<sup>1,2</sup>, Miss Emy Philibert<sup>1,2</sup>, Miss Mathilde Paré<sup>1,2</sup>, Dr Rémi Goupil<sup>3</sup>, PhD Catherine Fortier<sup>1,2,4</sup>, PhD Martin G. Schultz<sup>5</sup>, PhD James E. Sharman<sup>5</sup>, Dr Mohsen Agharazii<sup>1,2</sup>

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### **P.62 Assessment of isoflavone and ethanolic extract of Inonotus obliquus on experimentally induced diabetes.**

Mr Kingsley Duru<sup>1</sup>, Dr Cara Hildreth<sup>1</sup>, Prof Alberto P. Avolio<sup>1</sup>, Prof Jacqueline K. Phillips<sup>1</sup>, Dr Mark Butlin<sup>1</sup>

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### **P.63 Sarcopenia and atherosclerotic occlusive disease: how much we know and what we need to know about this association?**

Joana Ferreira<sup>1,2,3</sup>, Alexandre Carneiro<sup>4</sup>, Pedro Cunha<sup>2,3,5,6</sup>, Armando Mansilha<sup>7,8</sup>, Isabel Vila<sup>2,3,5,6</sup>, Cristina Cunha<sup>2,3,5,6</sup>, Cristina Silva<sup>2,3,5,6</sup>, Adhemar Longatto-Filho<sup>2,6,9,10,11</sup>, Maria Correia-Neves<sup>2,9</sup>, Gustavo Soutinho<sup>12</sup>, Luís Meira-Machado<sup>13</sup>, Amílcar Mesquita<sup>1</sup>, Jorge Cotter<sup>2,3,5,6</sup>

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### **P.64 Active vitamin D treatment does not improve arterial stiffness and markers of cardio-renal risk in patients with type 2 diabetes and stage 3 chronic kidney disease: a randomised controlled trial.**

Dr Nikolaos Fountoulakis<sup>1</sup>, Dr Salma Ayis, Dr Anastasios Mangelis, Dr Angeliki Panagiotou, Dr Maria Flaquer, Mr Stanimir Stoilov, Dr Giuseppe Maltese, Professor GianCarlo Viberti, Dr Stephen Thomas, Professor Luigi Gnudi, Dr Janaka Karalliedde

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### **P.65 Increased biomarkers of endothelial dysfunction and thrombotic microenvironment in patients with autoimmune rheumatic disorders free from cardiovascular comorbidities**

Dr Eleni Gavriilaki<sup>1</sup>, Dr Panagiota Anyfanti<sup>1</sup>, Professor Stella Douma<sup>1</sup>, Professor Eugenia Gkaliagkousi<sup>1</sup>

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### **P.66 Radial Artery systolic-diastolic pulse transit time after kidney transplantation**

Miss Emy Philibert<sup>1,2</sup>, PhD Hasan Obeid<sup>1,2,4,5</sup>, Miss Mathilde Paré<sup>1,2</sup>, Miss Nadège Côté<sup>1,2</sup>, PhD Catherine Fortier<sup>1,2,4,5</sup>, Dr Rémi Goupil<sup>3</sup>, Dr Mohsen Agharazii<sup>1,2</sup>

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### **P.67 The effects of chemotherapy on arterial inflammation assessed by 18FDG PET-CT in patients with Lymphoma**

Constantinos Anagnostopoulos<sup>2</sup>, Stavroula Giannouli<sup>3</sup>, Nikolaos Ioakimidis<sup>1</sup>, Paulos Kafouris<sup>4</sup>, Iosif Koutagiari<sup>1</sup>, Anastasia Sioni<sup>5</sup>, Doctor Eirini Solomou<sup>1</sup>, Dimitrios Terentes-Printzios<sup>1</sup>, Dimitrios Tousoulis<sup>1</sup>, Charalampos Vlachopoulos<sup>1</sup>

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**P.68 WaveGraft – a novel endovascular device concept for restoring the natural arterial cushioning effect**

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