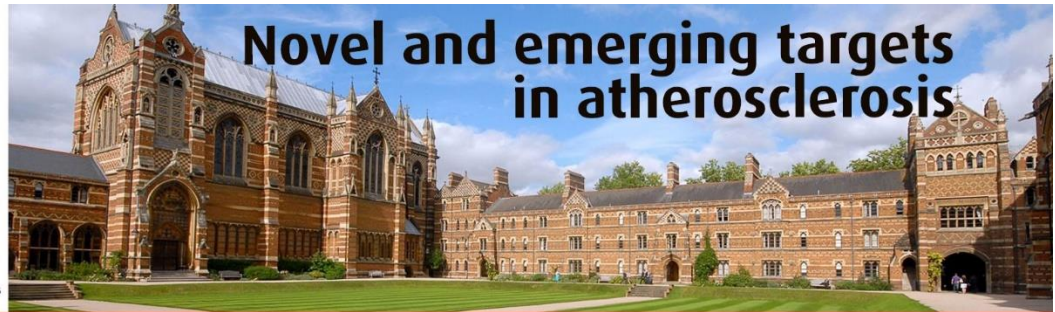




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# Novel and emerging targets in atherosclerosis

REGISTRATION OPEN Thursday 8 - Friday 9 September 2022, Keble College, Oxford, UK


## Novel and emerging targets in atherosclerosis

### FINAL PROGRAMME

*(the organisers reserve the right to change the programme)*

Organised by: [Prof Charalambos Antoniades](#) + [Dr Richard Cubbon](#)

## Day one | Thursday 8 September

08:30	Registration opens	Sloane Robinson foyer
09:30 - 10:00	Refreshments   Exhibition	Arco Rooms
10:00 - 10:10	<b>Introduction and Welcome:</b> <a href="#">Prof Charalambos Antoniades</a> , Chairman, BAS	O'Reilly Theatre
<b>SESSION 1: Current state of the art approaches in discovery science</b>		O'Reilly Theatre
	Co-chairs: <a href="#">Prof Ziad Mallat</a> (Cambridge) + <a href="#">Dr Helle Jorgensen</a> (Cambridge)	
10:10 - 10:30	<a href="#">Prof Adam Butterworth</a> , Cambridge, UK <b>Human genetic studies to identify novel targets for coronary disease</b>	
10:30 - 10:40	Discussion	
10:40 - 11:00	<a href="#">Prof Gerard Pasterkamp</a> , Utrecht, The Netherlands <b>State of the art in multi-omics discovery research in atherosclerotic disease</b>	
11:00 - 11:10	Discussion	
11:10 - 11:30	<a href="#">Dr Michael Forster</a> , Scientific Affairs Director, Olink Proteomics <b>Precision proteomics enables biomarker identification in health and disease</b>	
	Talk sponsored by:  Olink	
11:30 - 11:40	Discussion	
11:40 - 12:00	Refreshments   Exhibition	Arco Rooms
<b>SESSION 2: Novel molecular targets in lipids and inflammation</b>		O'Reilly Theatre
	Co-chairs: <a href="#">Prof Sir Rory Collins</a> (Oxford) + <a href="#">Prof Pasquale Maffia</a> (Glasgow)	
12:00 - 12:20	<a href="#">Prof Erik Stroes</a> , Amsterdam, The Netherlands <b>Lp(a) and RNA therapeutics</b>	
12:20 - 12:30	Discussion	
12:30 - 12:50	<a href="#">Prof Alberico Catapano</a> , Milano, Italy <b>Triglycerides : lessons from the omega-3 fatty acid trials</b>	
12:50 - 13:00	Discussion	

13:00-13:20	<i>Prof Nehal Mehta</i> , NIH, USA <b>Psoriasis, inflammation and oxidized LDL</b>
13:20-13:30	Discussion
13:30 – 14:15	Lunch <span style="float: right;"><i>Dining Hall</i></span>
<b>Early Career Investigator Awards</b> <span style="float: right;"><i>O'Reilly Theatre</i></span>	

Sponsored by

## Cardiovascular Research

Co-chairs: <i>Prof James Leiper</i> (Glasgow) + <i>Prof Tomasz Guzik</i> (Glasgow)		
14:15 - 15:30	14:15 – 14:25	1 <b>Single cell transcriptomics reveals an unprecedented heterogeneity of human plaque macrophages</b>  <i>Lea Dib</i> <sup>1*</sup> , L. Koneva <sup>1</sup> , A. Edsfield <sup>2,3</sup> , M. Nitulescu <sup>2</sup> , R. Choudhury <sup>4</sup> , R. Lee <sup>5</sup> , A. Handa <sup>5</sup> , I. Goncalves <sup>2,3</sup> , S. Sansom <sup>1</sup> , C. Monaco <sup>1</sup> <sup>1</sup> <i>Kennedy Institute of Rheumatology, Nuffield Department of Orthopaedics Rheumatology and Musculoskeletal Sciences</i> , <sup>2</sup> <i>Dept. of Clinical Sciences, Clinical Research Centre, Lund University, Malmö, Sweden</i> , <sup>3</sup> <i>Dept. of Cardiology, Skåne University Hospital, Lund/Malmö, Sweden</i> , <sup>4</sup> <i>Radcliffe Department of Medicine Division of Cardiovascular Medicine, Oxford University, Oxford, Oxfordshire, UK</i> , <sup>5</sup> <i>Nuffield Department of Surgical Sciences University of Oxford, UK</i>
	14:25 – 14:30	Discussion
	14:30 – 14:40	2 <b>TIMP1 as a driver of vascular smooth muscle cell proliferation in disease</b>  <i>Jordi Lambert</i> <sup>*1</sup> , Oc, S <sup>1</sup> , Häußler, D <sup>2</sup> , Finigan, A <sup>1</sup> , Figg, NL <sup>1</sup> , Krüger, A <sup>2</sup> , Jørgensen, HF <sup>1</sup> <sup>1</sup> <i>Section of Cardiorespiratory Medicine, Department of Medicine, University of Cambridge, Cambridge, UK</i> <sup>2</sup> <i>School of Medicine, Institutes of Molecular Immunology and Experimental Oncology, Technical University of Munich, Munich, DE.</i>
	14:40 – 14:45	Discussion
	14:45 – 14:55	3 <b>Genetic Variants Link Lp(a) with Coronary Inflammation, Arterial Redox State and Clinical Outcomes</b>  <i>Murray Polkinghorne</i> <sup>1*</sup> , C. Xie <sup>1</sup> , J. Chauhan <sup>1</sup> , A. Antonopoulos <sup>1</sup> , E. de Araujo <sup>1</sup> , C. Kotanidis <sup>1</sup> , I. Akoumianakis <sup>1</sup> , G. Krasopoulos <sup>2</sup> , R. Sayeed <sup>2</sup> , N. Walcot <sup>2</sup> , K. Channon <sup>1</sup> , T. Guzik <sup>3</sup> , G.D. Norata <sup>4</sup> , C. Antoniades <sup>1</sup> <sup>1</sup> <i>Division of Cardiovascular Medicine, Radcliffe Department of Medicine, University of Oxford, Oxford, United Kingdom</i> <sup>2</sup> <i>John Radcliffe Hospital, Oxford University Hospitals, Oxford, United Kingdom</i> <sup>3</sup> <i>Institute of Cardiovascular &amp; Medical Sciences, University of Glasgow, Glasgow, United Kingdom</i> <sup>4</sup> <i>Department of Excellence of Pharmacological and Biomolecular Sciences, University of Milan, Milan, Italy</i>
	14:55 – 15:00	Discussion
	15:00– 15:10	4 <b>The diagnostic potential of plaque-specific methylation patterns in cell-free DNA</b>  <i>Tim R Sakkers</i> <sup>*</sup> , <i>Laboratory of Experimental Cardiology, University Medical Center Utrecht, Heidelberglaan 100</i> <i>Ernest Diez Benavente, Laboratory of Experimental Cardiology, University Medical Center Utrecht, Heidelberglaan 100</i> <i>Michal Mokry, Laboratory of Experimental Cardiology, University Medical Center Utrecht, Heidelberglaan 100</i> <i>Gerard Pasterkamp, Laboratory of Clinical Chemistry and Haematology, University Medical Center Utrecht, Heidelberglaan 100</i> <i>Hester M. den Ruijter, Laboratory of Experimental Cardiology, University Medical Center Utrecht, Heidelberglaan 100</i>
	15:10 – 15:15	Discussion

	15:15 – 15:25	5 <b>Regulatory T-Cell Response to Low-Dose Interleukin-2 in Ischaemic Heart Disease</b>  <b>Tian X Zhao</b> <sup>1*</sup> , RS Sriranjani <sup>1</sup> , ZK Tuong <sup>2,3</sup> , Y Lu <sup>1</sup> , AP Sage <sup>1</sup> , M Nus <sup>1</sup> , David Klatzmann <sup>5</sup> , Alain Tedgui <sup>6</sup> , JHF. Rudd <sup>1</sup> , SP Hoole <sup>7</sup> , SP Bond <sup>8</sup> , MR Clatworthy <sup>2,3</sup> , J Cheriyan <sup>4,8</sup> , Z Mallat <sup>1,6</sup> (1) Division of Cardiovascular Medicine, Department of Medicine, University of Cambridge, Cambridge, UK. (2) Molecular Immunity Unit, Department of Medicine, University of Cambridge, Cambridge, UK (3) Cellular Genetics, Wellcome Sanger Institute, Hinxton, UK (4) Division of Experimental Medicine and Immunotherapeutics, University of Cambridge, Cambridge, UK (5) AP-HP, Pitié-Salpêtrière Hospital, Paris, France (6) Paris-Cardiovascular Research Center (PARCC), Inserm, Université de Paris, Paris, France (7) Department of Cardiology, Royal Papworth Hospital NHS Foundation Trust, Cambridge, UK (8) Cambridge Clinical Trials Unit, Cambridge University Hospitals NHS Foundation Trust, Cambridge, UK
	15:25 – 15:30	Discussion
15:30 – 16:00	Refreshments   Exhibition	Arco Rooms
<b>Hugh Sinclair lecture</b>		O'Reilly Theatre
	Chair: <i>Prof Charalambos Antoniades (Oxford)</i>	
16:00 - 16:50	<i>Prof Paul Ridker</i> , Harvard University, USA <b>Inflammation as a Target for Atherosclerosis: Where are we going?</b>	
17:00 - 18:00	<b>Poster Session</b>	Douglas Price Room
	<p><b>P1</b> <b>Remote acute assessment of patients with high cardiovascular risk post-acute coronary syndrome (TELE-ACS)</b> <b>Nasser S Alshahrani</b><sup>*</sup>, Adam Hartley, Amit Kaura, Mihir Kelshiker, Reza Hajhosseiny, Saud Khawaja, Henry Seligman, Nicholas Peters, Ramzi Khamis <i>National Heart and Lung Institute, Imperial College London, UK</i></p> <p><b>P2</b> <b>Effect of Inflammatory Cytokines and T cell proliferation in Hypertension</b> <b>Al-Sheikh EO</b><sup>1,2*</sup>, Nosalski, R<sup>1</sup>, Maffia, P<sup>1</sup>, Guzik TJ<sup>1</sup> <sup>1</sup><i>Institute of Cardiovascular and Medical Sciences, University of Glasgow, UK.</i> <sup>2</sup><i>Institution of Health Science, University of umm Al-Qura, SA</i></p> <p><b>P3</b> <b>Dimethylarginine dimethylaminohydrolase 2 (DDAH2) as a possible therapeutic target for inflammation in atherosclerosis</b> <b>N. Alshuwayer</b><sup>1,2*</sup>, L. Dowsett<sup>1</sup>, B. Ahmetaj<sup>3</sup>, F. Leiper<sup>1</sup>, J. Leiper<sup>1</sup> <sup>1</sup><i>Institute of Cardiovascular and Medical Sciences, College of Medical, Veterinary and Life Sciences, University of Glasgow, Glasgow, G128QQ, United Kingdom</i> <sup>2</sup><i>Department of Anatomy, College of Medicine, King Saud University, Riyadh 11451, Kingdom of Saudi Arabia</i> <sup>3</sup><i>Imperial College London, London, United Kingdom</i></p> <p><b>P4</b> <b>Synthetic proteins called Affimers as tools for evaluating LOX-1 status in patients with arterial disease</b> <b>Ahmed Al Afi</b><sup>1,2*</sup>, Barney W. R. Roper<sup>2</sup>, Darren C. Tomlinson<sup>2</sup>, Sreenivasan Ponnambalam<sup>2</sup>, Shervanthi Homer-Vanniasinkam<sup>1</sup> <sup>1</sup><i>Leeds Vascular Institute, Leeds General Infirmary, Great George Street, Leeds LS1 3EX, UK.</i><sup>2</sup><i>Endothelial Cell Biology Unit, School of Molecular and Cellular Biology, University of Leeds, Leeds LS2 9JT, UK</i></p> <p><b>P5</b> <b>Characterising the role of monocyte subsets in driving foam cell formation in cardiovascular disease</b> <b>J. Begum</b><sup>*1</sup>, M. Chimen<sup>1</sup>, D. Lezama<sup>1</sup>, A.J. Iqbal<sup>1</sup>, G. Ed Rainger<sup>1</sup> <sup>1</sup><i>Institute of Cardiovascular Sciences, College of Medical and Dental Sciences, University of Birmingham, UK</i></p>	

**P6**

**Replication of newly discovered SNPs for coronary artery disease in Europeans in a Chinese adults.**

**Derrick Bennett**, Ahmed Edris Mohamed, Kuang Lin, Sofia Massa, Iona Millwood, Robin Walters, Zhengming Chen, Robert Clarke, on behalf of the China Kadoorie Biobank  
*Clinical Trial Service Unit and Epidemiological Studies Unit, Nuffield Department of Population Health, Big Data Institute Building, Old Road Campus, Roosevelt Drive, Headington*

**P7**

**Human primary plaque cells cultures to study molecular mechanisms of sex-differences in atherosclerosis**

**Michele F. Buono**<sup>a\*</sup>, MSc; Ernest Diez Benavente<sup>a</sup>, PhD; Mark Daniels<sup>a</sup>, MSc; Daniek Kapteijn<sup>a</sup>, BSc; Gerard Pasterkamp<sup>b</sup>, MD PhD, Hester M. den Ruijter<sup>a</sup>, PhD; Michal Mokry<sup>a,b</sup>, MD PhD

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<sup>b</sup>*Central Diagnostics Laboratory, University Medical Center Utrecht, Utrecht, The Netherlands.*

**P8**

**The multi-tyrosine kinase inhibitor Sunitinib has anti-inflammatory activity in a mouse model of hypercholesterolemia**

**Laura Chaffey**<sup>\*</sup>, Amelia Bowman, Annabell Roberti, Gareth S D Purvis, Conan O'Brien, David R Greaves  
*Sir William Dunn School of Pathology, University of Oxford, South Parks Road, Oxford, OX1 3RE*

**P9**

**T2 values should be used with caution to distinguish between acute and chronic myocardial infarction**

**Chin XW**<sup>\*</sup>, Barton AK<sup>1</sup>, Dweck MR<sup>1</sup>

<sup>1</sup>*Centre for Cardiovascular Science, University of Edinburgh, Edinburgh EH16 4SB, UK*

**P10**

**Reversing Atherosclerosis by the Specific Removal of Oxidized Cholesterol with Cyclodextrin Dimers**

**DM Clemens**<sup>1\*</sup>, AM Anderson<sup>1</sup>, D Dinh<sup>1</sup>, P Bhargava<sup>1</sup>, K Sadrerafi<sup>1</sup>, M Malanga<sup>2</sup>, R Garcia-Fandiño<sup>1,3,4</sup>, A Piñeiro<sup>1,3,5</sup>, MS O'Connor<sup>1</sup>

<sup>1</sup>*Cyclarity Therapeutics, Inc., 8001 Redwood Blvd, Novato, CA 94949, USA*

<sup>2</sup>*CarboHyde Co., Berlini str., 47-49 Budapest, 1045, Hungary*

<sup>3</sup>*MD. USE Innovative Solutions S.L., Edificio Emprendia, Campus Vida, 15782 Santiago de Compostela (A Coruña), Spain*

<sup>4</sup>*Centro Singular de Investigación en Química Biolóxica e, Materials Moleculares (CIQUS), Departamento de Química Orgánica, Universidade de Santiago de Compostela, 15782 Santiago de Compostela, Spain*

<sup>5</sup>*Departamento de Física Aplicada, Facultade de Física, Universidade de Santiago de Compostela, Spain*

**P11**

**Key role of endothelial cell Jcad in voluntary exercise capacity**

**\*SAV Draycott**<sup>1,2</sup>, KE Shimell<sup>1,2</sup>, E Drydale<sup>2</sup>, J Mayer-Cowland<sup>1,2</sup>, KM Channon<sup>1,2</sup> and G Douglas<sup>1,2</sup>.

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<sup>2</sup>*Wellcome Trust Centre for Human Genetics, University of Oxford, Roosevelt Drive, Oxford, UK*

**P12**

**The Circular RNA circANRIL16-5 regulates Atherosclerosis through binding to Cell Cycle regulator TRA2B**

**A Elwazir**<sup>\*1,2</sup>, L Castelli<sup>3</sup>, P Patel<sup>1</sup>, G Hautbergue<sup>3</sup>, A Cox<sup>4</sup>, S Francis<sup>1</sup>

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<sup>4</sup>*Department of Oncology and Metabolism, University of Sheffield, Sheffield, UK.*

**P13**

**Lipoproteins act as vehicles for lipid antigen delivery and iNKT cell activation**

**S.E. Engelen\***, H.S. Schipper, C. Monaco.

*Kennedy Institute of Rheumatology, Nuffield Department of Orthopaedics, Rheumatology and Musculoskeletal Sciences, University of Oxford, Oxford, UK.*

**P14**

**Allergic inflammation induces endothelial dysfunction and oxidative stress through IL-4 dependent mechanisms**

\***Gurgone D.**<sup>1,2,3,4</sup>, Jasiewicz-Honkisz B.<sup>2</sup>, Caiazza E.<sup>3,4</sup>, Konior-Rozlachowska A.<sup>2</sup>, Szczepaniak P.<sup>2</sup>, Nosalski R.<sup>1,2</sup>, McShane L.<sup>3</sup>, Osmenda G.<sup>2</sup>, Wilk G.<sup>2</sup>, Sliwa T.<sup>2</sup>, McSharry C.<sup>3</sup>, Kurowska-Stolarska M.<sup>3</sup>, Mikolajczyk T.P.<sup>2</sup>, Niccoli G.<sup>5</sup>, D'Emmanuele di Villa Bianca R.<sup>4</sup>, Sorrentino R.<sup>4</sup>, Siedlinski M.<sup>2</sup>, Crea F.<sup>6</sup>, Grodzicki T.<sup>7</sup>, Maffia P.<sup>3,4</sup>, Guzik T.J.<sup>1,2</sup>

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**P15**

**In vivo targeting of oxidised-LDL with novel humanised Fab-nanoparticles**

**Adam Hartley**<sup>1\*</sup>, Michelle Greene<sup>2</sup>, Mikhail Caga-Anan<sup>1</sup>, Samuel Owen<sup>1</sup>, Michael Mullin<sup>3</sup>, Charis Pericleous<sup>1</sup>, Chris Scott<sup>2</sup>, Dorian Haskard<sup>1</sup>, Ramzi Khamis<sup>1</sup>

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<sup>2</sup> – *Patrick G Johnston Centre for Cancer Research, Queen's University, Belfast, UK*

<sup>3</sup> – *Protein & Cell Sciences, GlaxoSmithKline, Stevenage, United Kingdom*

**P16**

**A novel experimental model of atherosclerosis – the ex vivo pump-perfused amputated limb model**

**Adam Hartley**<sup>1\*</sup>, Samuel Owen<sup>1</sup>, Mikhail Caga-Anan<sup>1</sup>, Jonathan Afoke<sup>1</sup>, Joseph Shalhoub<sup>2</sup>, Kimberly Hassen<sup>3</sup>, Dorian Haskard<sup>1</sup>, Ramzi Khamis<sup>1</sup>

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<sup>2</sup> – *Vascular Surgery, Department of Surgery & Cancer, Imperial College London, London, UK*

<sup>3</sup> – *Hammersmith Hospital, Imperial College Healthcare NHS Trust, London, UK*

**P17**

**Investigating the shear-dependent modulation of EC-VSMC communication in in coronary artery bypass vein graft failure**

**M Jackson\***, Dr A Bond, Professor R Ascione Professor J Johnson and Professor SJ George

*Translational Health Sciences, Bristol Medical School, University of Bristol, Level 7, Queen's Building, Bristol Royal Infirmary, BS2 8HW*

**P18**

**Independent associations of lipoprotein characteristics on risk of coronary heart disease: a study of 90,000 individuals**

**D Jin\***, E Trichia, N Islam, J Besevic, S Lewington, B Lacey

*Nuffield Department of Population Health (NDPH), University of Oxford  
Big Data Institute, Old Road Campus, Oxford OX3 7LF, United Kingdom*

**P19**

**Cellular senescence promotes accumulation of vascular smooth muscle cells in de-differentiated / fibromyocytic phenotype**

**Anuradha Kaistha** PhD\*, Abel-Martin Garrido PhD, Sebnem Oc PhD, Kirsty Foote PhD, Helle Jorgensen PhD, Martin Bennett MD, PhD.  
*Section of Cardiorespiratory Medicine, University of Cambridge*

**P20**

**Macrophage subsets differentially regulate cardiac fibroblast activation – involvement of CXCL10**

**G. Kremastiotis**\*<sup>1</sup>, Y. Li<sup>2</sup>, A. W. Poole<sup>2</sup>, R. Ascione<sup>1</sup>, J. L. Johnson<sup>1</sup>, S. J. George<sup>1</sup>

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**P21**

**Role of Acute Arterial Haemodynamics on Endothelial-to-Mesenchymal Transition Activation in Long Saphenous Veins**

**Ladak S**<sup>1</sup>, McQueen L<sup>1</sup>, JoelDavid L<sup>2</sup>, Murphy G<sup>1</sup>, Zakkar M<sup>1</sup>

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<sup>2</sup> *NIHR Leicester Biomedical Research Centre (BRU2), cardiovascular theme, Glenfield Hospital, Leicester, UK*

**P22**

**Targeting the migration of CD4<sup>+</sup>CD28<sup>null</sup> T lymphocytes in acute coronary syndrome**

**D.R. Lezama**<sup>1</sup>, J. Bullenkamp<sup>2</sup>, A.A. Mansour<sup>1</sup>, A.J. Iqbal<sup>1</sup>, I.E. Dumitriu<sup>1,2</sup>.

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<sup>2</sup>. *Molecular and Clinical Sciences Research Institute, St. George's, University of London*

**P23**

**BCL-6b is a novel regulator of hiPSC-based vascular cell lineage specification**

**C Liu**\* - *Centre for Clinical Pharmacology, William Harvey Research Institute, Queen Mary University of London, London*

W Wang - *School of Engineering and Material Science, Queen Mary University of London, London*

Q Xiao - *Centre for Clinical Pharmacology, William Harvey Research Institute, Queen Mary University of London, London*

*Centre for Clinical Pharmacology, William Harvey Research Institute, Queen Mary University of London, Charterhouse Square, London, EC1M 6BQ*

**P24**

**Role of TCF7L2 in human adipose progenitor biology and genetic susceptibility to type 2 diabetes**

**Nellie Y Loh**\*<sup>1</sup>, Manu Verma<sup>1</sup>, Rugivan Sabaratnam<sup>1</sup>, Senthil K Vasan<sup>1</sup>, Andrea D van Dam<sup>1</sup>, Marijana Todorčević<sup>1</sup>, Matthew J Neville<sup>1</sup>, Enrique Toledo<sup>2</sup>, Fredrik Karpe<sup>1</sup>, Constantinos Christodoulides<sup>1</sup>

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<sup>2</sup>. *Department of Computational Biology, Novo Nordisk Research Centre Oxford, UK*

**P25**

**Deficiency in Inflammatory Chemokine Receptors Reduces Atherosclerosis and Promotes Plaque Stability**

\* **MacRitchie N.**<sup>1</sup>, Shoaran M.<sup>1</sup>, Gu S.<sup>1</sup>, Gurgone D.<sup>1</sup>, McShane L.<sup>1</sup>, Bin Khunayn A.M.A.<sup>1</sup>, Ardizzone A.<sup>1,2</sup>, Esposito E.<sup>2</sup>, Caiazzo E.<sup>1,3</sup>, Ialenti A.<sup>3</sup>, Giacca M.<sup>4</sup>, Zentilin L.<sup>5</sup>, Cole J.E.<sup>6</sup>, Ahern D.J.<sup>6</sup>, Monaco C.<sup>6</sup>, Guzik T.J.<sup>7,8</sup>, Graham G.J.<sup>1</sup>, and Maffia P.<sup>1,3</sup>

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<sup>8</sup>*Department of Internal and Agricultural Medicine, Jagiellonian University College of Medicine, Kraków, Poland*

**P26**

**Invasive assessment of microcirculation in Acute Myocardial Infarction: a comparison of the prognostic value of Coronary Flow Reserve, Index of Microcirculatory Resistance and Microvascular Resistance Reserve from the Oxford Acute Myocardial Infarction (OXAMI) Study**

**Federico Marin**, Jeremy Langrish, Andrew Lucking, Rajesh Kharbanda, Keith Channon, Adrian Banning, Giovanni Luigi De Maria, OXAMI Investigators  
*Oxford Heart Centre, Oxford, UK.*

**P27**

**Mechanical Forces pull the strings on EndMT and Atherosclerosis via an Alk5-Shc Pathway**

**V Mehta\***, KL Pang, CS Givens, Z Chen, J Huang, DT Sweet, H Jo, JS Reader, E Tzima  
*VM, KLP, JSR, ET - Cardiovascular Medicine, Radcliffe Department of Medicine, University of Oxford, Oxford, UK; Wellcome Centre for Human Genetics, University of Oxford, Oxford, UK.*  
*CSG, ZC, JH, DTS - McAllister Heart Institute, University of North Carolina at Chapel Hill, Chapel Hill, NC, USA.*  
*HJ - Coulter Department of Biomedical Engineering, Emory University and Georgia Institute of Technology, Atlanta, GA, USA.*

**P28**

**SVEP1, a novel regulator of blood pressure**

**Morris GE** <sup>\*1</sup>, Denniff MJ<sup>1</sup>, Douglas G<sup>2</sup>, Kostogrys RB<sup>3</sup>, Rainbow RD<sup>4</sup>, Samani NJ<sup>1</sup>, Webb TR<sup>1</sup>  
*1. Department of Cardiovascular Sciences, University of Leicester and National Institute for Health Research Leicester Biomedical Research Centre, Glenfield Hospital, Leicester, LE3 9QP.*  
*2. BHF Centre of Research Excellence, Division of Cardiovascular Medicine, Radcliffe Department of Medicine, John Radcliffe Hospital, University of Oxford, OX3 9DU.*  
*3. Department of Human Nutrition, Faculty of Food Technology, University of Agriculture in Krakow, Poland (R.B.K.).*  
*4. Department of Cardiovascular and Metabolic Medicine & Liverpool Centre for Cardiovascular Science, University of Liverpool, Liverpool, L69 3GE.*

**P29**

**IL10 signalling in human vascular development: human vascular cell differentiation from induced-pluripotent stem cells**

**KY Niu**<sup>1\*</sup>, SL Liu<sup>1</sup>, CX Liu<sup>1</sup>, QZ Xiao<sup>1#</sup>

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**P30**

**Immune system dysregulation and its impact on the cardiovascular system in post-COVID19 infection**

**R. Nosalski**, M. Sharma, S. Sharma, L. Mccallum, R.M. Touyz, S. Padmanabhan, T.J. Guzik  
*Institute of Cardiovascular and Medical Sciences, BHF Glasgow Cardiovascular Research Centre, University of Glasgow, Glasgow, United Kingdom*

**P31**

**Marginal Zone B cells produce 'natural' atheroprotective IgM antibodies in a T cell dependent manner**

James Harrison<sup>1</sup>, Steve Newland<sup>1</sup>, Wei Jiang<sup>1</sup>, Xiaohui Zhao<sup>1</sup>, Marc Clement<sup>1,2</sup>, Leanne Masters<sup>1</sup>, Andrej Corovic<sup>1</sup>, Xian Zhang<sup>3</sup>, Fabrizio Drago<sup>4</sup>, Marcella Ma<sup>5</sup>, Maria Ozsvar Kozma<sup>6</sup>, Froher Yasin<sup>1</sup>, Yuta Saady<sup>1</sup>, Hema Kothari<sup>4</sup>, Tian X Zhao<sup>1</sup>, Guo-Ping Shi<sup>3</sup>, Coleen A McNamara<sup>4</sup>, Christoph Binder<sup>6</sup>, Andrew P Sage<sup>1</sup>, Jason M Tarkin<sup>1</sup>, Ziad Mallat<sup>1,7</sup>, **Meritxell Nus<sup>1\*</sup>**

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### P32

#### Adipose Tissue Derived Ceramides Regulate Myocardial Redox State and Predict Cardiovascular Outcomes

**M. Polkinghorne<sup>\*1</sup>**, N. Akawi<sup>1,2</sup>, I. Badi<sup>1</sup>, A. Checa<sup>3</sup>, C. Kotanidis<sup>3</sup>, I. Akoumianakis<sup>1</sup>, A. Antonopoulos<sup>1</sup>, G. Krasopoulos<sup>4</sup>, R. Sayeed<sup>4</sup>, N. Walcot<sup>4</sup>, K. Channon<sup>1</sup>, C. Wheelock<sup>3</sup>, C. Antoniadou<sup>1</sup>

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### P33

#### Bruton's tyrosine kinase (BTK) regulates macrophage polarisation within the atherosclerotic lesion

**GSD Purvis<sup>1,2,3,\*</sup>**, S Hui<sup>1</sup>, AJ Iqbal<sup>4</sup>, G Douglas<sup>2,3</sup>, L Zeboudj<sup>1</sup>, D Ahern<sup>5</sup>, C Monaco<sup>5</sup>, KM Channon<sup>2,3</sup> and DR Greaves<sup>1</sup>

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### P34

#### IL-33 is an emerging target in hypertension and vascular dysfunction and remodelling.

**Saju.B<sup>1\*</sup>**, Nosalski. R<sup>1</sup>, Crespo. E<sup>1</sup>, Park.I<sup>2</sup>, Monaco.C<sup>2</sup>, Maffia.P<sup>1</sup>, Guzik.T. J<sup>1</sup>

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<sup>2</sup>Kennedy Institute of Rheumatology, Nuffield Department of Orthopaedics, Rheumatology and Musculoskeletal Sciences, University of Oxford, United Kingdom (C.M., I.P.)

### P35

#### Establishing gel based 3d microenvironment to investigate macrophage migratory behaviour

**Mustafa Sevim<sup>\*1,2</sup>**, Jenefa Begum<sup>1</sup>, Asif Jilani Iqbal<sup>1</sup>, Ed Rainger<sup>1</sup>

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<sup>2</sup>Marmara University School of Medicine, Physiology Department, Istanbul, Türkiye

### P36

#### The downregulation of IGFBP-6 in people with periodontitis may exacerbate the risk of atherosclerosis

**D. Shanahan<sup>1</sup>**, K. Wadey<sup>1</sup>, N.X West<sup>2</sup>, M. Davies<sup>2</sup>, J. Seong<sup>2</sup>, AH Nobbs, J.L Johnson<sup>1</sup>, S.J George<sup>1</sup>

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**P37**

**Generation of a conditional JCAD overexpressing mouse to investigate the association with coronary artery disease risk**

SAV Draycott<sup>1,2</sup>, \***KE Shimell**<sup>1,2</sup>, B Davies<sup>2</sup>, S Alghadban<sup>2</sup>, K Channon<sup>1,2</sup> and G Douglas<sup>1,2</sup>

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**P38**

**Diagnosis and prognosis of ischaemic heart disease types in the China Kadoorie Biobank (CKB) study**

**I Turnbull**<sup>1\*</sup>, R Clarke<sup>1</sup>, N Wright<sup>1</sup>, S Gilbert<sup>1,2</sup>, Q Nie<sup>1</sup>, L Wang<sup>1</sup>, Z Chen<sup>1</sup>, Y Chen<sup>1,2</sup>, on behalf the China Kadoorie Biobank Collaborative Group

<sup>1</sup>Clinical Trial Service Unit and Epidemiological Studies Unit (CTSU), <sup>2</sup>Medical Research Council Population Health Research Unit (MRC PHRU), Nuffield Department of Population Health (NDPH), University of Oxford

**P39**

**Novel independent relationship between inflammatory proteins and myocardial infarction**

**E. Valdes-Marquez**<sup>1\*</sup>, R. Clarke<sup>1</sup>, M. Hill<sup>1</sup>, H. Watkins<sup>2,3</sup>, J. C. Hopewell<sup>1</sup> on behalf of the PROCARDIS Consortium

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<sup>3</sup> Radcliffe Department of Medicine, Division of Cardiovascular Medicine, University of Oxford, Oxford, UK.

**P40**

**Auto Epicardial Adiposity Assessment For Atrial Fibrillation Risk In Severe Coronary Atherosclerosis**

**West, HW**<sup>1\*</sup>; Siddique, M<sup>1</sup>; Volpe, L<sup>1</sup>; Desai, R<sup>2</sup>; Polkinghorne, M<sup>1</sup>; Lyasheva, M<sup>1</sup>; Dangas, K<sup>1</sup>; Tomlins, P<sup>3</sup>; Mitchell, A<sup>4</sup>; Kardos, A<sup>5</sup>; Casadei, B<sup>1</sup>; Channon K<sup>1</sup>; Antoniades C<sup>1</sup>

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**P41**

**A Nrf2-OSGIN1&2-HSP70 axis mediates cigarette smoke-induced endothelial detachment - implications for plaque erosion**

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<sup>7</sup> Department of Cardiology, Bristol Heart Institute, Upper Maudlin St. Bristol BS2 8HW

**P42**

**Systolic blood pressure and risk of cardiovascular diseases: a Mendelian randomization study**

**N Wright**<sup>1\*</sup>, R Clarke<sup>1</sup>, R Walters<sup>1,2</sup>, IY Millwood<sup>1,2</sup>, S Lewington<sup>1,2</sup>, DA Bennett<sup>1,2</sup>, S Parish<sup>1,2</sup>, Z Chen<sup>1,2</sup>, on behalf of the China Kadoorie Biobank Consortium<sup>‡</sup>

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**P43**

**Technical advances in imaging guided minimally invasive post-mortem CT angiography**

**C Xie**<sup>\*,1,2</sup> T MacKinnon,<sup>3</sup> Peter Cox,<sup>3</sup> S Thomas,<sup>1,2</sup> G Galuppi,<sup>3</sup> S Kuttappan,<sup>3</sup> D Freeman,<sup>4</sup> Z Traill,<sup>3</sup> E Fryer,<sup>5</sup> I Roberts,<sup>5</sup> C Antoniades<sup>1,2</sup>

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**P44**

**Variability in vascular inflammation in response to different COVID-19 variants**

**C Xie**<sup>\*1,2</sup> C Kotanidis<sup>1,2</sup> M Siddique<sup>1,2</sup> S Thomas<sup>1,2</sup> M Polkinghorne<sup>1,2</sup>, J Chauhan<sup>1,2</sup> P Patel <sup>1,2</sup> S Lumley<sup>3</sup> R Shaw<sup>3</sup> M Andersson<sup>3</sup>, D Eyre<sup>3</sup>, K Channon<sup>1</sup>, C Antoniades<sup>1,2</sup>

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**P45**

**Defective vascular smooth muscle cell tafazzin impairs mitochondrial function and promotes atherosclerosis**

C Dong<sup>1</sup>, A Finigan<sup>1</sup>, N Figg<sup>1</sup>, M P Murphy<sup>2</sup>, M R Bennett<sup>1</sup>, **E P K Yu**<sup>\*1</sup>

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18:00 – 19:00

**Young Scientist Community Session**

Seminar Room ??



18.00 - 18.20

**Tips for writing successful grants/fellowships**

*Prof. James Leiper* (Glasgow)

18:20 – 18:30 Q&A

18.30 - 18.50

**Career talk**

*Dr. Nicola Smart* (Oxford)


18:50 – 19:00 Q&A

19:30

**Dinner**

Dining Hall

# Day two | Friday 9 September

08:00	Registration opens	Sloane Robinson foyer
08:30 - 09:00	Refreshments   Exhibition	Arco Rooms
<b>SESSION 3: Novel approaches to cardiovascular risk factor mitigation</b>		O'Reilly Theatre
	Chairpersons: <i>Prof Louise Bowman</i> (Oxford, UK) + <i>Dr Ric Cubbon</i> (Leeds)	
09:00 - 09:20	<i>Prof Signe Torekov</i> , Copenhagen, Denmark <b>GLP-1/GIP agonists: Effects on the cardiovascular system</b>	
09:20 - 09:30	Discussion	
09:30 - 09:50	<i>Dr Sarah Berry</i> , King's College London <b>Personalised approaches to target cardiometabolic disease: a view through the nutrition-lifestyle-microbiome lens</b>	
09:50 - 10:00	Discussion	
10:00 - 10:20	<i>Prof John Deanfield</i> , University College London <b>Cardiovascular Risk Calculators of the future: What should they capture and how to use them?</b>	
10:20 - 10:30	Discussion	
10:30 - 11:00	Refreshments   Exhibition	Arco Rooms
<b>Session 4: Under-represented populations in atherosclerosis research</b>		O'Reilly Theatre
	Chairpersons: <i>Prof Sheila Francis</i> (Sheffield) + <i>Prof Emanuele Di Angelantonio</i> (Cambridge)	
11:00 - 11:20	<i>Prof Iris Jaffe</i> , Tufts Medical Center, USA <b>Sex Differences in the role of the mineralocorticoid receptor in atherosclerosis</b>	
11:20 - 11:30	Discussion	
11:30 - 11:50	<i>Prof Nishi Chaturvedi</i> , UCL, UK <b>The biological basis of inter-ethnic differences in atherosclerosis</b>	
11:50 - 12:00	Discussion	
12:00 - 12:20	<i>Prof Naveed Sattar</i> , Glasgow, UK <b>Under-represented populations: implications for discovery science and clinical trials with some recent useful examples</b>	
12:20 - 12:30	Discussion	
12:30 - 12:40	Concluding remarks from the BAS Chair <i>Prof Charalambos Antoniades</i>	
12:40 - 13:30	Lunch	Arco Rooms
13:30 - 14:30	<b>Sponsored Symposium session</b> <b>Omega-3 fatty acids – basic and clinical science</b>  <i>Chair: Prof Charalambos Antoniades</i> (Oxford)  13:30 – 13:50 <b>Omega-3 fatty acids in cardiovascular disease – the underpinning basic science</b> <i>Dr R Preston Mason</i> Brigham & Women's Hospital, USA  13:50 – 14:00 Discussion  14:00 – 14:20 <b>Omega-3 fatty acids in cardiovascular disease – the clinical evidence</b> <i>Prof Derek Connolly</i> Sandwell & West Birmingham Hospitals NHS Trust  14:20 – 14:30 Discussion  Sponsored by: 	O'Reilly Theatre

14:30	Meeting close	
14:30 – 16:00	BAS Committee meeting	<i>Seminar Room 1 – Sloane Robinson Building</i>

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