






**Joint BAS / BSCR meeting at the BCS annual conference**  
**New Frontiers in Cardiovascular Research**  
**Monday 5 – Tuesday 6 June 2023**

Organised jointly by:   BSCR  
The British Society for Cardiovascular Research

Hosted by:  British Cardiovascular Society

Supported by:  British Heart Foundation

# Joint Society Programme

## Monday 5 June

<b>10:00 – 11:30</b>			
<b>Basic &amp; Translational Science session 1</b>			
<b>Multimomics approaches to understand the complexity of cardiovascular disease</b>			
Session co-chaired by: <a href="#">Prof Nicola Smart</a> , University of Oxford & <a href="#">Dr Mairi Brittan</a> , University of Edinburgh			
<b>Charter 2/3</b>			
10:00	10:15	<b>Spatial and temporal transcriptome profiling of human cardiogenesis in the first trimester</b>	<b>Dr Enikő Lázár</b> KTH Royal Institute of Technology / Science for Life Laboratory (Stockholm SWEDEN)
10:15	10:20	Discussion	
10:20	10:35	<b>Transcriptional control of endothelial cell differentiation in the developing human heart</b>	<b>Dr Ian McCracken</b> University of Oxford (UK)
10:35	10:40	Discussion	
10:40	10:55	<b>Single-cell and spatial transcriptomics state-of-Heart</b>	<b>Dr Michela Noseda</b> Imperial College London (UK)
10:55	11:00	Discussion	
11:00	11:15	<b>Proteomics to resolve the extracellular matrix of the cardiovascular system</b>	<b>Prof Manuel Mayr</b> King's College London (UK)
11:15	11:20	Discussion	

11:00	11:30	Break	Education Hall
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<b>11:30 – 12:30</b>			
<b>Spotlight on BHF Fellows</b>			
Session co-chaired by: <a href="#">Dr Sonya Babu-Narayan</a> and <a href="#">Prof James Leiper</a> , Associate Medical Directors, BHF			
<b>Charter 2/3</b>			

11:30	11:40	<b>Neuropeptide-Y: a mechanistic biomarker and therapeutic target in acute myocardial infarction and chronic heart failure</b>	<b>Prof Neil Herring</b> University of Oxford (UK)
11:40	11:45	Discussion	
11:45	11:55	<b>Towards understanding the myosin-based control of the physiological cardiac cycle</b>	<b>Dr Elisabetta Brunello</b> King's College London (UK)
11:55	12:00	Discussion	
12:00	12:10	<b>The OpenEP Network for the Investigation of Atrial Fibrillation Clinical Outcomes</b>	<b>Dr Steven Williams</b> University of Edinburgh / King's College London (UK)
12:10	12:15	Discussion	
12:15	12:25	<b>Anti-oxidised low density lipoprotein antibodies for the in vivo molecular targeting of experimental atherosclerosis, and for the serological identification of high-risk atherosclerosis in patients</b>	<b>Dr Ramzi Khamis</b> Imperial College London (UK)
12:25	12:30	Discussion	

12:30	13:45	Lunch break	Education Hall
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<b>12:30 – 13:45</b> <b>Hot topic session</b> Session co-chaired by: <a href="#">Prof Carolyn Carr</a> and <a href="#">Prof Nicola Smart</a> , University of Oxford Hot Topics Zone 3, Education Hall			
12:30	12:40	<b>100 years strong: Myography's enduring significance in science</b>	<b>Dr Danila Gurgone</b> University of Glasgow (UK)
12:40	12:45	Discussion	
12:45	12:55	<b>Sex, drugs and arrhythmias: Elucidating the antiarrhythmic effect of the cGMP pathway</b>	<b>Dr Olivia Johnstone</b> University of Manchester (UK)
12:55	13:00	Discussion	
13:00	13:10	<b>A transient, cell-free modified mRNA cardiac regenerative therapeutic</b>	<b>Dr Catherine Wilson</b> University of Cambridge (UK)
13:10	13:15	Discussion	
13:15	13:25	<b>The Role of BACE1 in Angiogenesis</b>	<b>Miss Eva Maya Clavane</b> University of Leeds (UK)
13:25	13:30	Discussion	
13:30	13:40	<b>Role of mitochondria and oxidative stress in driving carotid body overactivation in heart failure</b>	<b>Dr Agnieszka Swiderska</b> University of Manchester (UK)
13:40	13:45	Discussion	

<b>13:45 – 15:15</b>			
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**Basic & Translational Science session 2****Connecting cardiovascular and brain pathophysiology**

Session co-chaired by:

Prof Sheila Francis, University of Sheffield, Prof Tomasz Guzik, University of Edinburgh &amp; Prof Pasquale Maffia, University of Glasgow.

**Charter 2/3**

13:45	14:00	<b>Neuroimmune cardiovascular interfaces regulate atherosclerosis via adventitia-brain-circuits</b>	<b>Dr Sarajo Mohanta</b> Ludwig Maximilians University (Munich, GERMANY)
14:00	14:05	<i>Discussion</i>	
14:05	14:20	<b>Genetic analyses identify brain structures related to cognitive impairment associated with elevated blood pressure</b>	<b>Dr Mateusz Siedlinski</b> Jagiellonian University (Kraków, POLAND)
14:20	14:25	<i>Discussion</i>	
14:25	14:40	<b>Experimental neurovascular models to study the heart-brain axis</b>	<b>Dr Jason Berwick</b> University of Sheffield (UK)
14:40	14:45	<i>Discussion</i>	
14:45	15:00	<b>Control of the heart by the vagus nerve and exercise</b>	<b>Prof Alexander Gourine</b> University College London (UK)
15:00	15:05	<i>Discussion</i>	

15:15	16:00	Break	Education Hall
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**15:45 – 17:00****BAS/BSCR Oral abstract session****Best of the Best**

Session chaired by: Dr Richard Cubbon, University of Leeds

Judges: Dr Sophie Saxton, University of Manchester, Prof Pasquale Maffia, University of Glasgow

**Education Hall**

15:45	15:55	BS1 POLYCYSTIN-1 SUPPRESSES APOPTOTIC SIGNALLING IN ENDOTHELIAL CELLS AND PROTECTS FROM ATHEROSCLEROSIS	<b>Dr Serbanovic-Canic</b> University of Sheffield (UK)
15:55	16:00	<i>Discussion</i>	
16:00	16:10	BS2 FLOW-REGULATED EPAS <sub>1</sub> LIMITS ATHEROSCLEROSIS VIA METABOLIC CONTROL OF ENDOTHELIAL PROLIFERATION	<b>Dr Siyu Tian</b> Queen Mary University London (UK)
16:10	16:15	<i>Discussion</i>	
16:15	16:25	BS3 PROTEOMICS OF HUMAN HEART FAILURE: EFFECTS OF MUTATIONS, MEDICATIONS AND COMORBIDITIES	<b>Dr Javier Barallobre Barreiro</b> King's College London (UK)

16:25	16:30	Discussion	
16:30	16:40	BS4 SERCA <sub>2</sub> A PROTEIN LEVELS ARE UNALTERED IN HUMAN HEART FAILURE	<a href="#">Miss Isabella Ragone</a> King's College London (UK)
16:40	16:45	Discussion	
16:45	16:55	BS5 SENESCENT CARDIOMYOCYTES CONTRIBUTE TO CARDIAC DYSFUNCTION FOLLOWING MYOCARDIAL INFARCTION	<a href="#">Dr Rachael Redgrave</a> Newcastle University (UK)
16:55	17:00	Discussion	

<b>17:45 – 18:30</b> <b>Basic &amp; Translational Science</b> <b>John French lecture</b> Session chaired by: <a href="#">Prof Charalambos Antoniades</a> , University of Oxford <b>Charter 2/3</b>			
17:45	18:30	<b>Can the 'omics revolution transform our approach to cardiac repair and regeneration after MI?</b>	<a href="#">Dr Mairi Brittan</a> University of Edinburgh (UK)

18:30	20:00	<b>BHF drinks reception and update</b> (open to all delegates)	Lobby outside Charter 2/3
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<b>BAS / BSCR Society dinner</b> Dukes, 18-25 Castle Street, Manchester M3 4LZ			
19:30	20:00	Arrival and welcome drink	
20:00	22:00	Dinner  Presentation of the BAS/BSCR Best of the Best Oral abstract session	

## Tuesday 6 June

<b>09:00 – 10:30</b> <b>Basic &amp; Translational Science 3</b> <b>Mechanotransduction in the cardiovascular system</b> Session co-chaired by: <a href="#">Prof Sanjay Sinha</a> and <a href="#">Dr Deeti Shetty</a> , University of Cambridge <b>Charter 2/3</b>			
09:00	09:15	<b>Titin isoform mechanics and mechanosignalling in the heart</b>	<a href="#">Prof Michael Gotthardt</a> Max Delbrück Center

			(Berlin,GERMANY)
09:15	09:20	Discussion	
09:20	09:35	<b>Mechanosensitive signalling in vessels</b>	<b>Prof Ellie Tzima</b> University of Oxford (UK)
09:35	09:40	Discussion	
09:40	09:55	<b>Vascular smooth muscle cell stiffness sensing: From the cell membrane to nuclear proteins</b>	<b>Dr Derek Warren</b> University of East Anglia (Norwich, UK)
09:55	10:00	Discussion	
10:00	10:15	<b>Cardiomyocyte mechanosensing downstream of cell- matrix contacts</b>	<b>Dr Thomas Iskratsch</b> Queen Mary University of London (UK)
10:15	10:20	Discussion	

10:30	11:30	Break	Education Hall
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<b>11:30 – 12:30</b> <b>BHF Session</b> <b>Innovations with data</b> Session co-chaired by: <a href="#">Prof Sir Nilesh Samani</a> + <a href="#">Prof Cathie Sudlow</a> <b>Charter 2/3</b>			
11:30	11:45	<b>Data driven innovation in CVD</b>	<a href="#">Prof Nick Mills</a> (Edinburgh)
11:45	11:50	Discussion	
11:50	12:05	<b>Harnessing artificial intelligence in cardiovascular imaging</b>	<a href="#">Prof Steffen Petersen</a> (QMUL BartsHeart)
12:05	12:10	Discussion	
12:10	12:25	<b>Exploiting large scale electronic healthcare data and enriched cohorts</b>	<a href="#">Prof Reecha Sofat</a> (Liverpool)
12:25	12:30	Discussion	

12:30	14:00	Lunch break	Education Hall
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<b>12:30 – 14:00</b> <b>BCS/BHF/BAS/BSCR Young Investigators Award Competition</b> Session co-chaired by: <a href="#">Prof Sir Nilesh Samani</a> and <a href="#">Prof Andre Ng</a> Session judges: <a href="#">Prof Pier Lambiase</a> , <a href="#">Prof Charalambos Antoniades</a> , <a href="#">Prof Charlotte Manisty</a> , <a href="#">Prof Mike Marber</a> , <a href="#">Prof David Newby</a> , <a href="#">Prof Sanjay Sinha</a> <b>Charter 2/3</b>			
12:30	12:42	UNDERSTANDING THE ROLE OF CARDIAC FIBROSIS IN THE DEVELOPMENT AND TREATMENT OF HEART FAILURE USING MOLECULAR IMAGING PROBES AND NOVEL THERAPEUTICS	<a href="#">Dr Konstantina Amoiradaki</a> King's College London (UK)
12:42	12:48	Discussion	

12:48	13:00	GENETICALLY-PROXIED LOW DENSITY LIPOPROTEIN CHOLESTEROL LOWERING VIA PCSK9-INHIBITOR DRUG TARGETS AND RISK OF CONGENITAL MALFORMATIONS	<a href="#">Dr Maddalena Ardissino</a> Imperial College London (UK)
13:00	13:06	Discussion	
13:06	13:18	MYOCARDIAL STRESS PERFUSION AND ENERGETICS IMPROVES IN PATIENTS WITH TYPE 2 DIABETES AFTER TREATMENT WITH A GLUCAGON LIKE PEPTIDE-1 RECEPTOR AGONIST (LIRAGLUTIDE)- A RANDOMISED, SINGLE CENTRE, OPEN LABEL, CROSS-OVER DRUG TRIAL	<a href="#">Dr Amrit Chowdhary</a> University of Leeds (UK)
13:18	13:24	Discussion	
13:24	13:36	INVESTIGATION OF THE EFFECTS OF DIETARY NITRATE ON VASCULAR FUNCTION, PLATELET REACTIVITY AND RESTENOSIS IN PATIENTS WITH STABLE ANGINA (NITRATE-OCT STUDY)	<a href="#">Dr Krishnaraj Rathod</a> Queen Mary University of London (UK)
13:36	13:42	Discussion	
13:42	13:54	EXPLORING THE PROGNOSTIC SIGNIFICANCE AND IMPORTANT PHENOTYPIC AND GENOTYPIC ASSOCIATIONS OF NEURAL NETWORK-DERIVED ELECTROCARDIOGRAPHIC FEATURES	<a href="#">Dr Arunashis Sau</a> Imperial College London (UK)
13:54	14:00	Discussion	

15:00	16:15	Break	Education Hall
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<b>14:00 – 16:30</b> <b>Basic Science</b> <b>Moderated Poster session</b>  <b>Poster judges:</b> BSCR: <a href="#">Iskratsch, Li, Watson, Aksentijevic</a> BAS: <a href="#">Meakin, Smart, Maffia, Tarkin, Derek Warren</a> <b>Education Hall</b>			
16:00	16:15	Comfort break	
16:15	16:30	Announcement of and presentation to poster prize winners	
BS06 DEFINING THE MIRNOME OF VASCULAR SMOOTH MUSCLE CELLS FROM PATIENTS WITH TYPE 2 DIABETES Miss Alisah Hussain - University of Bradford  BS07 COMPARING PHENOTYPIC CHARACTERISTICS OF PRIMARY HUMAN SMOOTH MUSCLE CELLS ISOLATED FROM DISTINCT MICROVASCULAR AND MACROVASCULAR BEDS Miss Alisah Hussain - University of Bradford  BS08 HIGH SENSITIVITY C-REACTIVE PROTEIN AT BASELINE PREDICTS CARDIOVASCULAR OUTCOMES AT 20-YEAR FOLLOW-UP IN THE ASCOT LEGACY STUDY Dr Adam Hartley - Imperial College London  BS09 ANTIBODIES AGAINST OXIDISED LOW-DENSITY LIPOPROTEIN AND VALVE CALCIFICATION IN THE SCOT-HEART TRIAL Dr Adam Hartley - Imperial College London			

BS10

BREAKING THE LIMITATIONS OF ONE-DIMENSIONAL ISOMETRIC ASSAYS: A NOVEL TECHNIQUE FOR GENERATING CARDIAC WORK-LOOPS ON ADULT CARDIOMYOCYTES TO ENHANCE OUR UNDERSTANDING OF HEART FAILURE AND MYOCARDIAL RECOVERY

Dr Patrick Tran - University Hospitals Coventry & Warwickshire

BS11

CHANGES IN MYOCYTE ARCHITECTURE, CONTRACTILE FUNCTION AND ENERGETICS IN PATIENTS WITH HEART FAILURE BEFORE AND AFTER VENTRICULAR ASSIST DEVICE IMPLANTATION AS A SIGN OF MYOCARDIAL RECOVERY: A SYSTEMATIC REVIEW AND META-ANALYSIS

Dr Patrick Tran - University Hospitals Coventry & Warwickshire

BS12

A NOVEL PHYSICS-BASED ARTIFICIAL INTELLIGENCE TECHNIQUE RAPIDLY RECONSTRUCTS THE 3D VELOCITY, SHEAR STRESS AND PRESSURE FIELDS IN CORONARY ARTERIES

Professor Rob Krams - Queen Mary University London

BS13 ULTRA-HIGHLY FLEXIBLE, ACCURATE, HIGH THROUGHPUT PLATFORM FOR PERSONALISED DRUG SCREENING STUDIES

Professor Rob Krams - Queen Mary University London

BS14

A FULLY AUTOMATED VULNERABLE PLAQUE CLASSIFIER FOR OCT USING CO-REGISTERED HISTOLOGICAL IMAGES AND TRANSFER LEARNING

Professor Rob Krams - Queen Mary University London

BS15

ULTRA-HIGHLY FLEXIBLE, ACCURATE, HIGH THROUGHPUT PLATFORM FOR KNOCK-IN STUDIES

Professor Rob Krams - Queen Mary University London

BS16

BLOOD VESSEL ORGANOID DERIVED FROM DIABETIC PATIENTS REVEALED IMPAIRED FUNCTION BASED ON A SUBPOPULATION OF ENDOTHELIAL CELLS

Dr. Hojjat Naderi-Meshkin - Queen's University Belfast

BS17

OXIDATION OF PROTEIN KINASE A REGULATORY SUBUNIT PKAR1 $\alpha$  ALPHA REGULATES VASODILATION AND BLOOD PRESSURE LOWERING

Dr Olena Rudyk - King's College London

BS18

LOSS OF FULL-LENGTH MYLK<sub>3</sub> CAUSES DILATED CARDIOMYOPATHY VIA A MYL<sub>2</sub>-INDEPENDENT MECHANISM

Dr Jack Williams - Queen Mary University Of London

BS19

MICRO-RNAS AS BIOMARKERS FOR FIBROSIS IN ASYMPTOMATIC AORTIC STENOSIS

Mrs Jemima Osekafore Adewuyi - University of Leicester

BS20

MACROPHAGE-SPECIFIC DELETION OF NEUROFILIN-2 INHIBITS INFLAMMATORY SIGNALLING AND ATTENUATES ATHEROSCLEROTIC PLAQUE DEVELOPMENT IN APOE-DEFICIENT MICE

Dr Caroline Pellet-Many - Royal Veterinary College

BS21

METABOLIC HETEROGENEITY BETWEEN ENDOTHELIAL CELLS FROM DIFFERENT VASCULAR BEDS

Mr Corey McAleese - University of Glasgow

BS22

EVIDENCE FOR A NOVEL SMOOTH MUSCLE CELL TRANSDIFFERENTIATION PATHWAY THAT UNDERPINS FORMATION OF THE FIBROUS CAP IN ATHEROSCLEROSIS

Mr James Taylor - University of Cambridge

BS23

THE ADIPOCYTE CALCIUM-SENSING RECEPTOR IS IMPORTANT IN FEMALE VISCERAL AND PERIVASCULAR ADIPOSE FUNCTION

Dr Laura Dowsett - University of Glasgow

BS24  
MICROTUBULE-ASSOCIATED PROTEIN 1S (MAP1S) REGULATES CARDIOMYOCYTE VIABILITY THROUGH MODULATION OF AUTOPHAGY AND APOPTOSIS  
Mrs Pia Morales - FBMH, University of Manchester

BS25  
ABERRANT MECHANO-TRANSDUCTION IN IPSC-DERIVED VASCULAR SMOOTH MUSCLE CELLS MODELLING AORTIC ANEURYSM IN MARFAN SYNDROME  
Dr Deeti Shetty - Cambridge Stem Cell Institute

BS26  
RESTORING DILATION IN HUMAN INTERNAL MAMMARY ARTERIES FROM HYPERTENSIVE CORONARY ARTERY BYPASS GRAFT PATIENTS, USING LIPOSOME-DELIVERED CYP1B1 INHIBITOR, TETRAMETHOXYSTILBENE  
Dr Azziza Zaabalawi - Manchester Metropolitan University

BS27  
PIM KINASE: A NOVEL REGULATOR OF THROMBOXANE A<sub>2</sub> RECEPTOR SIGNALLING AND PLATELET FUNCTION  
Dr Sophie Nock - Manchester Metropolitan University

BS28  
KETOHEXOKINASE INHIBITION PROTECTS AGAINST SUCROSE-INDUCED ENDOTHELIAL DYSFUNCTION AND INSULIN RESISTANCE  
Dr Hema Viswambharan - LICAMM, University of Leeds

BS29  
ENDOTHELIAL TWIST1 ENHANCES FEATURES OF ATHEROSCLEROTIC PLAQUE STABILITY  
Dr Blanca Tardajos-Ayllon - Queen Mary University London

BS30  
A SCAFFOLD FOR HEART REPAIR: USING HUMAN EMBRYONIC STEM CELL DERIVED (HESC) EPICARDIAL EXTRACELLULAR MATRIX TO ENHANCE HESC-CARDIOMYOCYTE FUNCTION  
Dr Jonathan Lee - Wellcome MRC Cambridge Stem Cell Institute, University of Cambridge

BS31  
THE SENESCENCE-ASSOCIATED SECRETORY PHENOTYPE AS A BIOMARKER FOR AGE-RELATED MYOCARDIAL REMODELLING AND CARDIOVASCULAR DISEASE  
Miss Laura Booth - Translational and Clinical Research Institute, Newcastle University, Newcastle upon Tyne, UK

BS32  
SNHG18 CONTROLS VASCULAR SMOOTH MUSCLE CELL PHENOTYPIC MODULATION AND NEOINTIMAL HYPERPLASIA  
Mr Kaiyuan Niu - Queen Mary University of London

BS33  
CANDESARTAN PREVENTS CISPLATIN-INDUCED VASCULAR TOXICITY BY ATTENUATING OXIDATIVE STRESS, INFLAMMATION, AND NECROPTOSIS AND UPREGULATING NRF2/HO-1 SIGNALING IN RAT AORTA  
Dr Ayman Mahmoud - Manchester Metropolitan University

BS34  
SD-208 REVERTS HYPERTROPHIC CARDIOMYOPATHY MYOFIBROBLASTS INTO FIBROBLASTS AND AFFECTS SMALL EXTRACELLULAR VESICLE SECRETION  
Miss Georgie Thompson - University of Surrey

BS35  
SINGLE-NUCLEUS SEQUENCING OF DOXORUBICIN-TREATED MOUSE HEARTS REVEALS DISEASE PROGRESSION OF CARDIOMYOCYTES  
Ms Yue Qin - Imperial College London

BS36  
THE ROLE OF BACE1 IN CEREBROVASCULAR DISEASE  
Miss Hannah Taylor - University of Leeds

BS37  
THE ROLE OF CTA RADIOTRANSCRIPTOMIC PHENOTYPING IN UNDERSTANDING THE VASCULAR EFFECTS OF LP(A) IN ADVANCED ATHEROSCLEROSIS  
Dr Cheng Xie - University of Oxford

BS38  
SIRT1: A NOVEL REGULATOR OF INTEGRIN  $\alpha$ IIb $\beta$ 3 AND ACTIN CYTOSKELETON DYNAMICS IN PLATELETS



Miss Maria Blanco - Manchester Metropolitan University

BS39

TARGETING BACE<sub>1</sub> TO IMPROVE ANGIOGENESIS IN TYPE 2 DIABETES

Miss Eva Clavane - University of Leeds

BS40

CHARACTERISING VARIATIONS IN THE COMPOSITION OF NATIVE EXTRACELLULAR MATRIX IN A MODEL OF ARTERIAL THROMBOSIS

Ms Amelia Drysdale - Manchester Metropolitan University

BS41

MONOCYTE RESPONSE AFTER ELECTIVE PERCUTANEOUS CORONARY INTERVENTION

Dr Ioannis Merinopoulos - University of East Anglia, Norfolk & Norwich University Hospital

BS42

UNDERSTANDING THE ADAPTIVE IMMUNE RESPONSE IN HEART FAILURE POST-MYOCARDIAL INFARCTION

Dr Adam Lokman - Institute of Developmental and Regenerative Medicine, University of Oxford

BS43

A NEW COLLAGEN III-SPECIFIC MRI IMAGING PROBE TO ASSESS CARDIAC FIBROSIS

Miss Nadia Chaher - Kings College London

BS44

UNDERSTANDING THE ROLE OF CARDIAC FIBROSIS IN THE DEVELOPMENT AND TREATMENT OF HEART FAILURE USING MOLECULAR IMAGING PROBES AND NOVEL THERAPEUTICS

Miss Konstantina Amoiradaki - King's College London

BS45

TRANSCRIPTION FACTORS MYC AND USF<sub>1</sub> DRIVE CHRONIC MACROPHAGE DYSFUNCTION IN AGEING

Miss Charlotte Moss - University of Sheffield

BS46

CALCIUM SIGNALLING MODULATES VSMC RESPONSE TO MATRIX STIFFNESS IN AGEING AND DISEASE

Mr Finn Wostear - School of Pharmacy, University of East Anglia

BS47

A COMPARATIVE GENOMICS APPROACH REVEALS THE INTERPLAY BETWEEN EPIGENOMIC ENHANCER CONSERVATION AND COMMON GENETIC VARIATION IN THE HEART

Dr Stephanie Frost - Queen Mary University of London

BS48

INVESTIGATING THE EFFECT A TITIN TRUNCATING VARIANT HAS ON ATRIAL FIBRILLATION

Mr Max Cumberland - University of Birmingham

BS49

CARDIAC MESENCHYMAL STROMAL CELL SECRETOME PROTECTS HUMAN CARDIOMYOCYTES FROM IN VITRO ISCHAEMIA-REPERFUSION INJURY

Ms Zuzanna Jablonska - Imperial College London

BS50

EXTRACELLULAR VESICLES INITIATE HYDROXYAPATITE FORMATION WHICH PRECEDES VASCULAR SMOOTH MUSCLE CELL OSTEOGENIC DIFFERENTIATION

Dr Meredith Whitehead - King's College London

BS51

HDACS AND VASCULAR SMOOTH MUSCLE CELL RESPONSE TO MATRIX STIFFNESS

Miss Reesha Solanki - University of East Anglia

BS52

RNA BINDING PROTEIN MULTIPLE SPLICING (RBPMS) DRIVES A CONTRACTILE SPLICING NETWORK IN HUMAN EMBRYONIC STEM CELL DERIVED VASCULAR SMOOTH MUSCLE CELLS

Dr Aishwarya Jacob - University of Cambridge

BS53

THE PMCA<sub>4</sub> CALCIUM TRANSPORTER AND ENDOTHELIAL INFLAMMATION

Dr Kinza Khan - The University of Wolverhampton

BS54  
ELUCIDATING THE ULTRASTRUCTURE OF TRANSVERSE TUBULES AND THE SARCOPLASMIC RETICULUM IN HEALTHY AND HEART FAILURE SHEEP ATRIAL CELLS  
Mr Loay Eleyan - University of Manchester

BS55  
INHIBITION OF RHO KINASE<sub>2</sub> IS ASSOCIATED WITH VASORELAXATION BUT NOT REDUCTION IN MYOCARDIAL CONTRACTILITY  
Dr Lucie Pearce - University College London

BS56  
AN EPIGENOMIC INVESTIGATION OF ATRIAL FIBRILLATION IN A PAIRED LEFT AND RIGHT ATRIAL COHORT  
Mr Adrian Rodriguez - Queen Mary University of London

BS57  
ASSESSING PROTEOGLYCANS AND PROTEOGLYCANASES AS BIOMARKERS FOR THORACIC AORTIC ANEURYSMS  
Miss Marsioleda Kemberi - Barts and The London medical school

BS58  
IDENTIFYING OLDER DONOR HEARTS SUITABLE FOR TRANSPLANTATION: THE USE OF SENESENCE AS A MARKER OF BIOLOGICAL AGE  
Dr Maria Camacho Encina - Bioscience Institute, Vascular Biology and Medicine Theme, Newcastle University, UK

BS59  
MECHANISMS UNDERLYING ATRIAL DYSFUNCTION IN HEART FAILURE: ROLE OF THE MITOCHONDRIAL PERMEABILITY TRANSITION PORE  
Dr Shiraz Khan - Manchester Foundation Trust (MFT)

BS60 CHARACTERISATION OF CHEMOKINE RECEPTORS IN CD<sub>4</sub>+CD<sub>28</sub>NULL T LYMPHOCYTES FROM PATIENTS WITH ACUTE CORONARY SYNDROME  
Miss Danielle Lezama - University of Birmingham

BS61  
PIM KINASE IS A NOVEL REGULATOR OF ENDOTHELIUM-DRIVEN THROMBOSIS  
Miss Eima Karim - Manchester Metropolitan University

BS62  
CARDIAC ORGANIDS. A MODEL TO INVESTIGATE THE EFFECT OF DIABETES ON CARDIAC DEVELOPMENT AND FUNCTION  
Dr Magdalini Eleftheriadou - Queen's University Belfast

BS63  
CARDIOMYOCYTE-SPECIFIC DELETION OF PMCA<sub>1</sub> EXACERBATES CARDIAC INFLAMMATORY RESPONSE  
Mr Alex Chelu - University of Manchester

BS64  
INHIBITION OF PHLPP PHOSPHATASES REDUCES VASCULAR SMOOTH MUSCLE CELL CALCIFICATION  
Dr Samantha Borland - University of Manchester

BS65  
PLASMA MEMBRANE CALCIUM ATPase<sub>4</sub> REGULATES PRO-INFLAMMATORY SIGNALLING IN THE PATHOPHYSIOLOGY OF PULMONARY ARTERY ENDOTHELIAL CELLS  
Mr Ezra Leander David - University of Wolverhampton

BS66  
LINEAGE-SPECIFIC PHENOTYPIC ABNORMALITIES IN IPSC-DERIVED SMOOTH MUSCLE CELLS FROM TYPE 1 LOEYS-DIETZ SYNDROME  
Mr Franklin Lo - University of Cambridge

BS67  
BCL-6B IS A NOVEL REGULATOR OF HIPSC-BASED VASCULAR CELL LINEAGE SPECIFICATION  
Mr Chenxin Liu - Queen Mary University of London

BS68  
RAPID QUANTIFICATION OF DIFFUSE CARDIAC FIBROSIS USING MICROCT IN MICE  
Miss Emily Lupton - University College London

BS69

CHARACTERISATION OF IN VIVO AND IN VITRO MODELS FOR EPIGENOMIC INVESTIGATIONS OF CARDIAC HYPERTROPHY

Dr Diego Fernández-Aroca - Queen Mary University of London

BS70

DEVELOPMENT OF AN IN VITRO MODEL OF ISCHEMIC STROKE AND REPERFUSION INJURY

Dr Xenia Sawkulycz - Univeristy Birmingham

BS71

REVEALING A ROADMAP FOR REGENERATIVE EPICARDIUM BY COMPARING SINGLE-CELL RNA SEQUENCING OF ADULT AND FETAL HEARTS

Dr Vincent Knight-Schrijver - University of Cambridge

BS72

ACCURACY OF MACHINE LEARNING TECHNIQUES TO PREDICT STRESS ECHOCARDIOGRAPHY RESULTS USING CLINICAL VARIABLES

Dr Ugochukwu Ihekwaba - Milton Keynes University Hospital NHS Trust, Translational Cardiovascular Research Group

BS73

T CELL RESPONSES DRIVING INFLAMMATORY MECHANISMS IN PAEDIATRIC CONGENITAL HEART DISEASE GRAFT REJECTION

Dr Francesca Bartoli-Leonard - University of Bristol

BS74

ASSESSMENT OF FLUID STATUS IN PORCINE MODELS OF HEART FAILURE AND PULMONARY HYPERTENSION

Dr Hamza Zafar - University of Sheffield

BS75

INVESTIGATING THE THERAPEUTIC POTENTIAL OF RECOMBINANT BMP<sub>10</sub> IN A MOUSE MODEL OF HEREDITARY HAEMORRHAGIC TELANGIECTASIA

Miss Karolina Kostrzynska - University of Cambridge

BS76

A PHYLOGENETIC MODELLING APPROACH TO IDENTIFY EVOLUTIONARY SHIFTS IN TISSUE-SPECIFIC ENHANCERS - APPLICATION TO THE MOLE-RAT CLADE

Dr Diego Villar - Queen Mary University of London

BS77

USING OVERSET MESHING AND BLENDED WEAK-STRONG COUPLING RESULTS IN ACCURATE AND EFFICIENT MODELS OF A POSITIVE-DISPLACEMENT ARTIFICIAL HEART

Mr Joseph Bornoff - University of Bath

BS78

BIOINFORMATICAL ANALYSIS OF PROMOTOR INTERACTING REGIONS RELATED TO CARDIOVASCULAR HEALTH AND DISEASE

Dr Sanjay Goorwappa - University of Manchester

BS79

INVESTIGATION OF THE CONTRIBUTION OF NON-CANONICAL INFLAMMASOME ACTIVATION TO LPS-INDUCED FOAM CELL FORMATION IN MACROPHAGES

Ms Kenechukwu Umerah - Anglia Ruskin University

BS80

MACROPHAGE ATP8B<sub>1</sub> IS UPREGULATED WITH AGE

Ms Martha Clements - University of Sheffield

BS81

DESIGN OF THE BLOOD FLOW PATH FOR THE NEOVAD: AN IMPLANTABLE VENTRICULAR ASSIST DEVICE FOR INFANTS

Dr Katharine Fraser - University of Bath

BS82

PYROPTOSIS MAY NOT CONTRIBUTE TO ANTHRACYCLINE DOXORUBICIN AND ITS METABOLITE DOXORUBICINOL CYTOTOXICITY IN CORONARY ARTERY ENDOTHELIAL CELLS

Dr Handi Salim Hatter - Cardiovascular Institute, UCL

BS83

CHARACTERISING THE ROLE OF PLATELETS IN THE HOST IMMUNE RESPONSE TO INVASIVE FUNGAL INFECTIONS

Ms Amelia Drysdale - Manchester Metropolitan University

BS84

VESSEL-ON-A-CHIP FOR DRUG-INDUCED VASCULAR INJURY EVALUATION

Dr Bruno Rodino-Janeiro - BFlow

BS85

A CLINICIAN-LED UNDERSTANDING OF THE IMPLEMENTATION OF DIGITAL TECHNOLOGIES WITHIN HEART DISEASE

DIAGNOSIS: A QUALITATIVE INVESTIGATION

Ms Kamilla Abdullayev - University of Sussex

BS86

ANALYSIS OF ENDOGENOUS CARDIOTONIC STEROIDS IN PLASMA OF CHRONIC KIDNEY DISEASE PATIENTS AND

HEALTHY CONTROLS USING LIQUID CHROMATOGRAPHY -MASS SPECTROMETRY

Daniyah Alamrani – University of Birmingham

BS87

CHARACTERISATION OF 2D MONOLAYER CO-CULTURES USING INDUCED PLURIPOTENT STEM CELL DERIVED

CARDIOMYOCYTE AND CARDIAC FIBROBLASTS

Ms Caitlin Hall – University of Birmingham

### BCS reception

Presentation of the BCS/BHF/BAS/BSCR Young Investigators Award