



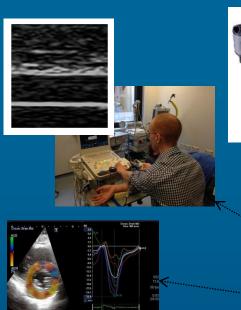


# Cardiovascular Imaging Derived Phenotypes

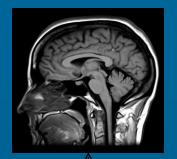
NIHR Statistics Meeting - 22<sup>nd</sup> October 2014

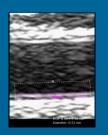
## Paul Leeson

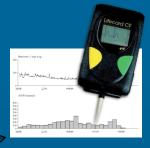
Professor of Cardiovascular Medicine, University of Oxford Clinical Director, Oxford Cardiovascular Clinical Research Facility

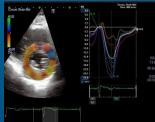


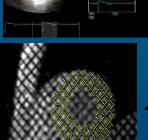














Influences their Babies Cardiovascular Phenotype

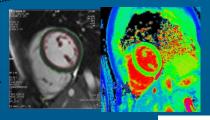


EVS The Early Vascular Study looks at cardiac and vascular function in young adults, including those born preterm and to hypertensive pregnancies.



Health Cardiovascular During Health in Later Life Pregnancy





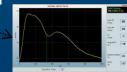






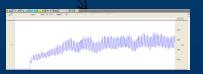


Heated Skin



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PVS
The Preeclampsia Vascular
Studies look at cardiac and
vascular function in women
5-10 years following a
pregnancy complication



### biobank\*

About | Participants | Resources | Approved research | Register & apply | Data Showcase | Scientists





- Update your contact details
- Genetic studies underway
- Find out how the resource is being used
- Access Procedures

- Activity monitor -
- Imaging study →
- Look at the Data Showcase –

#### Scientists

- Listen again: Frontiers Meeting
- NEW video: watch before applying
- UK Biobank Axiom Array
- UK Biobank Eye & Vision Consortium

#### News



1,000th participant joins UK Biobank



UK Biobank Eye & Vision Consortium launches website



New BMI thresholds suggested for ethnic minorities



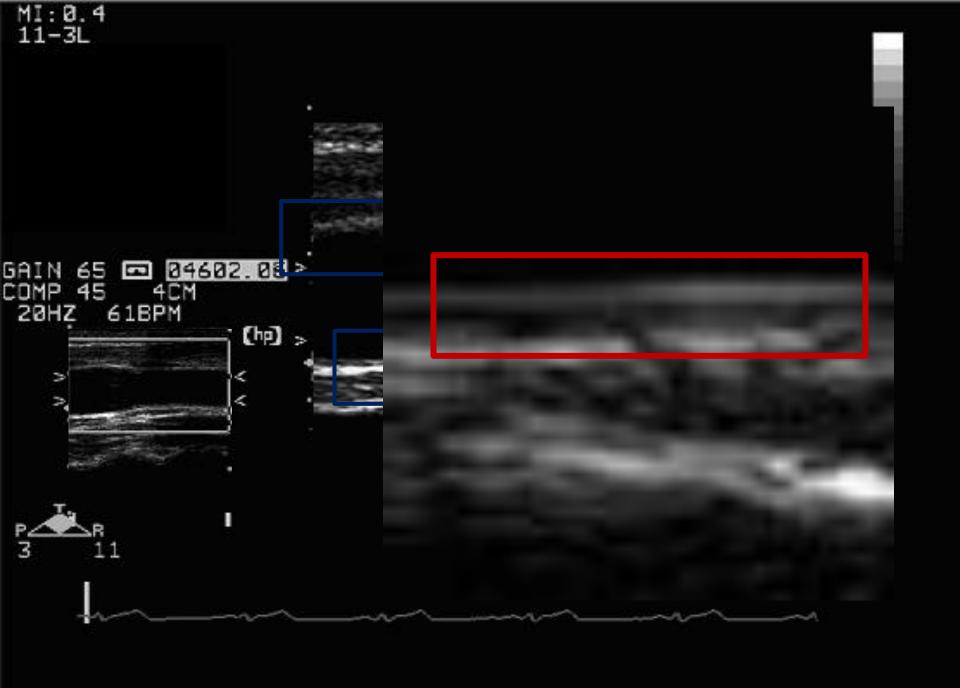
Hear from the UK Government Scientific Adviser



New approach to accelerate dementia research



Smokers and passive smokers more likely to suffer hearing loss



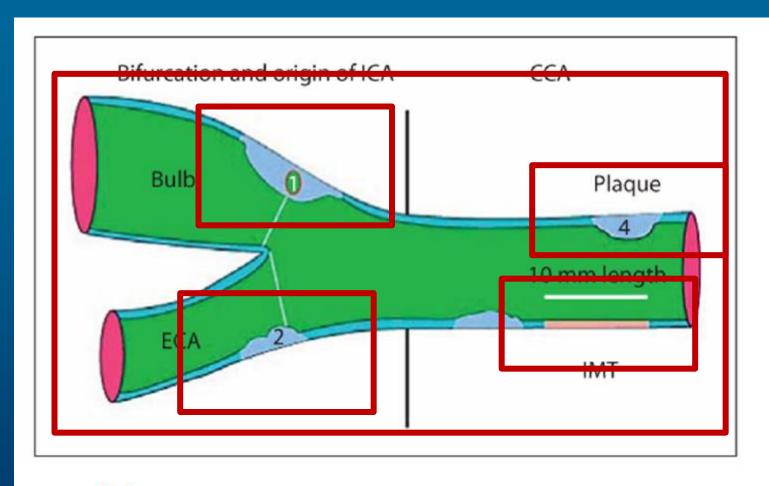
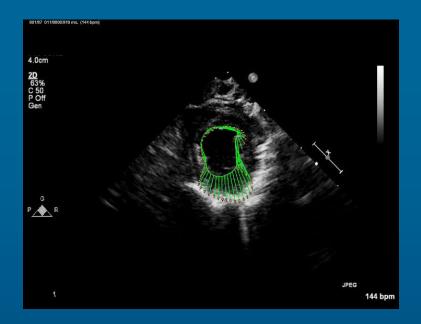


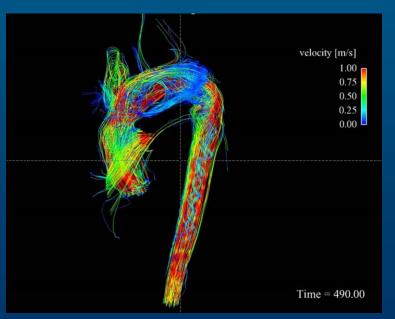
Fig. 3.

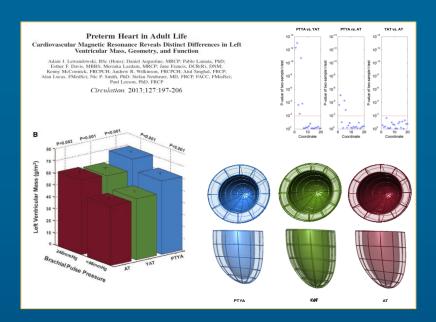
Drawn representation of carotid tree, with plaque and IMT measurement according to Mannheim consensus: (1) thickness >1.5 mm; (2) lumen encroaching >0.5 mm; (3, 4) >50% of the surrounding IMT value.

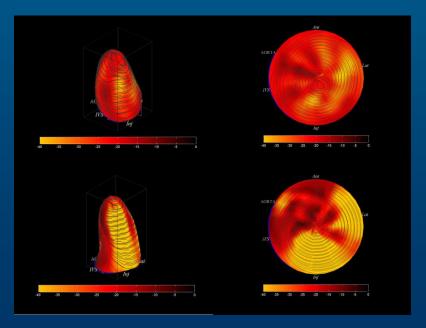




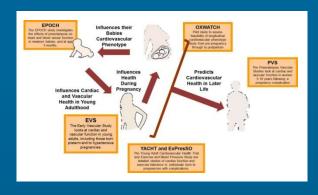








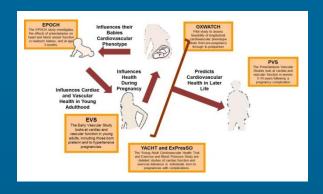
## **PVS and YACHT**



- Effect of preeclampsia on maternal (PVS) and young adult (YACHT) cardiovascular system
  - Vascular microvascular/macrovascular
  - Cardiac
  - Biochemistry

Predictors of later changes

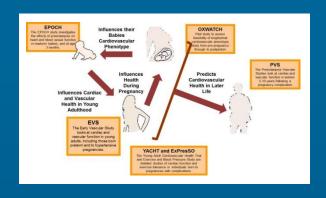
## **EPOCH**



- Effect of preeclampsia on offspring cardiovascular system
  - Vascular microvascular/macrovascular
  - Cardiac
  - Biochemistry

 Longitudinal data – antenatal, perinatal, postnatal

## Intervention



- Effect of intervention e.g. exercise on cardiovascular system
  - Vascular microvascular/macrovascular
  - Cardiac
  - Biochemistry

