



The ROYAL COLLEGE *of*
OPHTHALMOLOGISTS

Day two – Research changes lives – The ABC of ophthalmic statistics

Thursday 14 March 2019

Organised and Co-Chaired by Dr Gabriela Czanner, Senior Lecturer in Statistics and Data Science, Liverpool John Moores University and Professor Jugnoo Rahi, Professor of Ophthalmic Epidemiology and Honorary Consultant Ophthalmologist NIHR Senior Investigator, GOS Institute of Child Health UCL / Great Ormond Street Hospital NHS Foundation Trust Institute of Ophthalmology UCL / NIHR Moorfields Biomedical Research Centre

This symposium is offered over two days (13 & 14 March 2019), although each day may be booked independently. For more information on Day 1 Practice changing research click [here](#).

Day one gives an overview of research and day two focuses on the use of ophthalmic statistics. The aim is to provide clinicians with an introduction to evidence based ophthalmology through:

1. an overview of research design and implementation, appropriate statistical approaches and evidence appraisal and synthesis;
2. an opportunity to embed learning by discussion of research ideas at an early stage .

Target audience: Any clinician with an interest in undertaking research or applying research evidence to improve their practice and services. There will be a discussion session each day based on prepared case studies and opportunities for participants to discuss their research with faculty members. Day 1 'Practice changing research: An overview of research design and implementation, evidence appraisal and synthesis'. Day 2 'The ABC of ophthalmic statistics: An overview of the role of statistics in ophthalmic research and use of appropriate approaches to statistical analysis.'

Programme – Day Two The ABC of ophthalmic statistics

09.30 – 10.00	Registration and Coffee
10.00 – 10.15	Framing the question and principles of study design Professor Jugnoo Rahi
10.15 – 10.45	Understanding study power and sample size calculations Professor Mario Cortina Borja, Professor of Biostatistics, GOS Institute of Child Health, UCL
10.45 – 11.15	Why and how measurement matters: why and how to collect the right data Dr Catey Bunce, Reader in Medical Statistics, Kings College London
11.15 – 11.45	Tea/ coffee
11.45 – 12.30	The ophthalmic statistics ‘bucket list’: 10 things to understand about statistical approaches Dr Gabriela Czanner
12.30 – 13.30	Lunch
13.30 – 13.55	Plugging the black hole: why missing data matter and what to do about them Professor Chris Rogers, Professor of Medical Statistics and Clinical Trials, Co-Director Clinical Trials and Evaluation Unit, University of Bristol
13.55 – 14.20	Who cares about p values: extracting meaning from statistical analysis Dr Marta Garcia-Finana, Reader in Biostatistics, University of Liverpool
14.20 – 14.45	Getting the upper hand – top tips for writing the statistical analysis section in grant and ethics applications Professor Mario Cortina Borja, Professor of Biostatistics, GOS Institute of Child Health, UCL
14.45 – 15.15	Tea/ coffee
15.15 – 16.00	Interactive discussion session (attendees and faculty) Group discussion of study designs, conduct and statistical analysis based on a selection of case studies.