### THE CAMBRIDGE STATISTICS DISCUSSION GROUP

## Thursday 28th April 2016 7:15 for 7:45

Amgen Ltd, Cambridge Science Park, Milton Road, Cambridge CB4 0WG

# Risk prediction for primary prevention of cardiovascular diseases

### Lisa Pennells

Department of Public Health and Primary Care

**Abstract:** In this talk I will give a general overview of the approaches used in risk prediction when screening for the primary prevention of cardiovascular diseases, and discuss some of statistical challenges surrounding the derivation and assessment of the models used. In particular I will discuss the combination of data from multiple studies, the use of different timescales for the models and for the risk predictions themselves, and the use of competing risk models.

**Speaker:** After completing a BSc in Physiology at Leeds University and having a few intervening years of adventure I decided to refocus my career and completed an MSc in Medical Statistics at Lancaster University. This led me directly into a post as a statistician with the Cardiovascular Epidemiology Unit (CEU) in the Dept of Public Health and Primary Care at Cambridge which I began in 2005. My initial role here was to develop methods to assess the ability of risk factors and models to predict future risk of CVD using individual participant time-to-event data from multiple cohorts, and this topic became the focus of my PhD studies which I completed in 2011. Since then I have continued to work in the CEU, applying and extending these methods in a variety of settings as well as running analyses in other areas of cardiovascular research.

Directions: Head north on Milton Road. Two traffic lights before the A14 turn left into the Science Park (clearly signposted). Turn left at the roundabout. The meeting takes place at Amgen in the restaurant in building 214 (the ground floor of the middle building on the attached map which is also at <a href="http://imaging.mrc-cbu.cam.ac.uk/statswiki/csdg/amgen">http://imaging.mrc-cbu.cam.ac.uk/statswiki/csdg/amgen</a>). Parking is available on site. There will be no admittance after 7-45pm. Arrivals after 7-45pm can gain admittance by contacting the secretary on 07761769436. If anyone would like complementary transport to the talk venue from Central Cambridge please inform the secretary in advance of the meeting.

#### **Provisional Next Meetings:**

11th October - Katrina Gore (Pfizer Neusentis).

21st November – Nick Galwey (GlaxoSmithKline) on 'Use of historical information to supplement a future study: opportunity and difficulty'.

2nd February 2017 - David Excell (Featurespace) on 'What can gambling machine data tell us about betting behaviour?'. 7th March - Patricia Fara (Clare College) on 'A lab of one's own: science & suffrage in the First World War'.

**Supper:** Some members eat regularly in the University Centre before each meeting at **5-45pm**. Feel free to join them. **Subscriptions:** of 1 pound are now due for attending the 2015-2016 session.

**Secretary:** Peter Watson, MRC Cognition and Brain Sciences Unit, 15 Chaucer Road, Cambridge CB2 7EF; telephone 01223 355294 Extension 801; E-mail <a href="mailto:peter.watson@mrc-cbu.cam.ac.uk">peter.watson@mrc-cbu.cam.ac.uk</a>

Slides and .mp3 files of old talks: http://www.mrc-cbu.cam.ac.uk/people/peter.watson/csdg.html