

# Introduction to Statistics for Vets

15th - 18th July 2013, University of York



Research in veterinary medicine often makes use of and may depend upon statistical analysis. In this course we shall describe the main statistical concepts used in clinical research. The course will be presented in the context of clinical research literature and will concentrate on understanding the application to real examples.

Led by the eminent health statistician, Professor Martin Bland, the course will be presented in the context of clinical research literature and focus on understanding the application to real examples.

This is the third course for vets that the department has undertaken and builds on its well established and successful courses in human medicine, from which most of the examples are drawn.

*"It was great to be told the theory behind the analyses... I'm beginning to get a much better understanding of the different tests and when and how to apply them"*

**Quote from previous delegate**

The aim of this course is to equip participants with the basic skills and knowledge for understanding published research papers in veterinary medicine. The four day course is supported by a substantial set of practical exercises on the web.

The course will be useful and of interest to:

- Anyone whose work relates to research in veterinary medicine
- It will be assumed participants will have no or very little experience of statistical analysis

*Please note: this course is intended for those involved in veterinary medicine. However, it is based on a course in human medicine and most of the examples will be drawn from human medicine.*



Martin Bland joined the University of York as Professor of Health Statistics in 2003.

Before this he spent 27 years at St. George's Hospital Medical School, University of London, following posts at St. Thomas's Hospital Medical School and in agricultural research with ICI. He has a B.Sc. in mathematics, an M.Sc. in Statistics, and a Ph.D. in epidemiology.

He is the author of *An Introduction to Medical Statistics*, now in its third edition, and co-author of *Statistical Questions in Evidence-based Medicine*, both Oxford University Press, more than 230 refereed journal articles reporting public health and clinical research and on research methods, and, with Prof. Doug Altman, the

Statistics Notes series in the *British Medical Journal*.

He is currently working on clinical trials in wound care, hazardous alcohol use, depression, irritable bowel syndrome, and stroke prevention, among other topics. His personal research interests are in the design and analysis of studies of clinical measurement and of cluster randomised clinical trials. His involvement with veterinary research began when he was consulted by Ceva Animale, leading to further work with Ceva and presentations at conferences organised by them. He led a successful short course for vets in 2010 and in 2011 gave a presentation to the Small Animals Medicine Society and a training day for the Association of Veterinary

### **Course Programme**

Registration: Wentworth W035E, University of York. Each session will consist of a lecture and practical exercises derived mostly from clinical research and published literature. The course will not involve computing or calculations.

Course tutors: Professor Martin Bland, Professor of Health Statistics, Health Sciences.

### **Venue**

The course will be held in Wentworth W035E at the University of York. To find your way around campus please see [www.york.ac.uk/about/maps/](http://www.york.ac.uk/about/maps/)

**Day 1: 15 July**

09:30 Registration for 09:45 am start  
am: Introduction, frequencies, means and standard deviations  
pm: Estimation, standard errors and confidence intervals  
17:00 Finish

**Day 2: 16 July**

09:30 am: Significance tests  
pm: Comparing means  
17:00 Finish

**Day 3: 17 July**

09:30 am: Using data transformations  
pm: Chi-squared tests, relative risks, odds ratios  
17:00 Finish

**Day 4: 18 July**

09:30 am: Correlation and regression  
pm: Time to event and survival data  
16:00 Finish

*Material for further study will be provided using the worldwide web.*

**Accommodation**

York offers a very wide range of accommodation options from which to choose. The VisitYork website offers you a selection of quality assured bed and breakfast accommodation: [www.visityork.org/book/](http://www.visityork.org/book/).

**Course fees**

Registration fees £800 - all course fees include refreshments, a light lunch and an informal group dinner on one of the evenings and all course materials. Parking permits are also available if required (see over).

If you would like to register for the course please book on line at <https://store.york.ac.uk/> - select Short Courses, Health Sciences and Introduction to Statistics for Vets.

## **Travelling to York**

### **Rail**

There is a frequent, fast train service to York on the main East Coast Line from London King's Cross to Edinburgh. There is also a direct service between York, Leeds and Manchester Airport. The University is a short bus or taxi ride direct from the railway station.

### **Bus and coach**

There are buses (the 44 and the 4) from the city centre approximately every 10 minutes during the day, and it takes around 20 minutes to reach the campus.

### **Taxi**

A taxi from the railway station to the University will take approximately 15 minutes. There is a taxi rank just outside the station.

### **Driving and parking**

We recommend drivers approach the University from the junction of the A64 and A1079 on the east of the city, from where the University is signposted.

For satnav users, the postcode for Heslington West is YO10 5DD.

Parking permits are available and if you would like one, please contact Sally Baker on 01904 321726 or email [sally.baker@york.ac.uk](mailto:sally.baker@york.ac.uk) with details of your car make and registration number. If you do not obtain a parking permit, parking is pay and display on a daily basis.

Please note that parking is not guaranteed on campus, even with a parking permit.