THE UNIVERSITY of York

The Department of Health Sciences

# Introduction to Statistics for Vets

# 7 - 10 October, 2011 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 will focus on understanding the application to real examples.

This is the second 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.

The aim of this course is to equip participants with the basic skills and

"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 delegate, July 2010

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 BSc in mathematics, an MSc in Statistics, and a PhD 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 220 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. 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 gave a presentation to the Small Animals Medicine Society in 2011.

## **Course Programme**

Registration: Seebohm Rowntree Building, 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. Dr Catherine Hewitt, Senior Statistician, York Trials Unit.

## Venue

The course will be held in Seebohm Rowntree Building at the University of York. To find your way around campus please see www.york.ac.uk/np/maps/

#### Day 1: 7 October

- 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: 8 October

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

#### Day 3: 9 October

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

#### Day 4: 10 October

- 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

Single en-suite rooms are available on campus at a cost of £60 per night including breakfast and evening meal. Rooms are equipped with tea and coffee making facilities. To book accommodation visit http://yorkconferences.com/bed\_and\_breakfast/bed\_and\_breakfast\_search.aspx. Enter dates you require accommodation and type **VETS011** into the promotional code box.

#### **Course fees**

All course fees include lunch and a course dinner at a fine restaurant in York. Registration fees £650 before 1 September, £690 after 1 September. If you would like to register for the course please contact Carie Taylor (email carie.taylor@york.ac.uk) on (01904) 321310 or see www.york.ac.uk/healthsciences/research/trials.htm. To book use the form overleaf or book on line at https://store.york.ac.uk/ - select Short Courses, Health and Introduction to Statistics for Vets.

## REGISTRATION FORM Introduction to Statistics for Vets 7 – 10 October, 2011

Please send completed Registration Form to: Carie Taylor - Course Administrator, Department of Health Sciences, Area 1, Seebohm Rowntree Building, University of York, Heslington, York, YO10 5DD Tel: 01904 321310 Email: carie.taylor@york.ac.uk

| Mr/Mrs/Ms/Dr/Prof/other  |
|--|
| Last name First name   |
| Company/Institution  |
| Address  |
| Post code City   |
| Telephone Fax  |
| Email  |
| Special dietary requirements   |
| 1. Registration fee£650 (before 1 September)£690 (after 1 September)All course prices include lunch and course dinner  |
| 2. University Accommodation (subject to availability)  |
| Accommodation: single, en-suite @ $\pm 60.00$ (inc. Dinner, bed and breakfast, VAT) <i>Please tick in the box(es) below to indicate the nights you require accommodation</i>   |
| Friday 7 October 🗌 Saturday 8 October 🗌 Sunday 9 October   |
| 3. Car parking permits (£5 per day). You will need one for Friday and one for Monday (car parking is free at weekends)   |
| Friday 7 October 🗌 Monday 10 October 🗌   |
| TOTAL PAYMENT £  |
| <b>TERMS OF PAYMENT</b><br>CHEQUE: Please make cheques payable to "The University of York" and send, together with your registration form, to the address given above. Please tick if you have enclosed a cheque.                |
| INVOICE: If you require an invoice, please provide the full address and details of where the invoice should be sent.<br>Please tick if you require an invoice. <b>For booking terms visit www.york.ac.uk/healthsciences/cpd/</b> |

course-book-term/