

## Course

# An introduction to population-based cancer survival modelling

Porto (Portugal), 23-25 May 2012

## BERNARD RACHET, MD PhD

London School of Hygiene & Tropical Medicine

### Objectives

- Define the concept of net survival and briefly review the current approaches to estimate population-based cancer survival
- Review the multivariable excess hazard models, then focus on the flexible cumulative excess hazard model (extension of the Royston-Parmar model)
- Define the concept of population 'cure', review the estimation of 'cure' fraction and the 'cure' models
- Describe the missing data issues for population-based cancer survival analysis and introduce approaches for handling missing data (multiple imputation, inverse probability weighting, sensitivity)

### Information

**Fee:** Students (former and current) and UP staff - €150; persons external of UP - €200

**Language:** English

**Participants:** Statisticians, Mathematicians, Epidemiologists, PH Researchers/Professionals

**Prerequisites:** Familiarity with the basic general principles of survival analysis and the associated statistical theory will be assumed.

**Place:** Instituto de Saúde Pública da Universidade do Porto - Rua das Taipas, nº 135, Porto (Portugal)

#### Contact:

##### Gabinete de Pós-graduação

Instituto de Saúde Pública da Universidade do Porto

Rua das Taipas, nº 135, Porto (Portugal)

Tlf. + 351 222 061 820 (Ext. 103)

Fax + 351 222 061 821

**Online application:** The registration process is done at <http://www.epidemiologia.med.up.pt>

**Prazo de inscrição:** 16th May 2012

## PROGRAMME

### WEDNESDAY, 23 MAY

- |             |  |
|-------------|--|
| 9.30-11.00  | • Survival/net survival, relative survival, cause-specific survival, life tables, Ederer-I/Ederer-II/Hakulinen/Pohar-Perme |
|             | <i>Break</i>   |
| 11.30-13.00 | • Practical on cancer survival and life tables   |
|             | <i>Lunch</i>   |
| 14.00-15.30 | • Excess hazard, multivariable excess hazard models, Royston-Parmar model, splines, derived outputs                        |
|             | <i>Break</i>   |
| 16.00-17.30 | • Practical on excess hazard and multivariable excess hazard modelling   |

### THURSDAY, 24 MAY

- |             |  |
|-------------|--|
| 9.30-11.00  | • Cure and cure models   |
|             | <i>Break</i>   |
| 11.30-13.00 | • Practical on cure  |
|             | <i>Break</i>   |
| 14.00-15.30 | • Missing data issues, missingness mechanisms, multiple imputation |
|             | <i>Break</i>   |
| 16.00-17.30 | • Practical on multiple imputation                                 |

### FRIDAY, 25 MAY

- |             |   |
|-------------|---|
| 9.30-11.00  | • Missing data and IPW; MNAR and sensitivity analyses |
|             | <i>Break</i>  |
| 11.30-13.00 | • Real-life results                                   |