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**Risk prediction modelling**

A one-day short course

**20 February, 2019**

Walford/Cox Room, Level 5, Murdoch Children's Research Institute
Royal Children’s Hospital, 50 Flemington Road, Parkville, Melbourne

**Presenters**

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| Rory Wolfe, Monash UniversityDamjan Vukcevic, University of Melbourne | **Damjan Vukcevic** |
| http://images.wikia.com/humancommunications/images/b/be/Future_prediction_1.JPG |  |
| www.vicbiostat.org.au**Course Summary**This workshop gives an introduction to topical issues in the use of prediction models in health. The use of both regression models and machine learning approaches to the process of prediction model development for individuals will be discussed and illustrated with practical computing exercises in Stata and R. The methods for model validation and evaluation of an updated model will be described including discussion of the controversial net reclassification index. Prerequisite knowledge for this workshop is a sound understanding of epidemiological and statistical concepts including multivariable regression models, and knowledge of either Stata or R.**Timetable** |  |
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| **Time** | **Topic** | **Lecturer / Demonstrator** |
| 09:00 - 10:00 | Introduction and overview | Rory Wolfe |
| 10:00 - 10:30 | Computer practical – exploratory analysis of Framingham dataset | Rory Wolfe |
| 10:30 - 10:50 | **Morning tea**  |  |
| 10:50 - 12:00 | Creating basic prediction models | Damjan Vukcevic |
| 12:00 - 12:30 | Computer practical | Damjan Vukcevic |
| 12:30 - 13:30 | **Lunch** |  |
| 13:30 - 14:30 | Validation and more advanced models | Damjan Vukcevic |
| 14:30 - 15:00 | Computer practical | Damjan Vukcevic |
| 15:00 - 15:20 | **Afternoon tea** |  |
| 15:20 - 16:30 | External validation, model implementation and updating | Rory Wolfe |
| 16:30 - 17:00 | Computer practical | Rory Wolfe |

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