

mEpiWorks

International Working Group for Molecular Epidemiology
www.epi-interactive.com/mepiworks

Workshop

"Molecular Epidemiology – a first introduction"

March 3 - 5, 2014
Bern, Switzerland

Workshop Facilitators:

Prof Ruth Zadoks, [University of Glasgow](http://www.glasgow.ac.uk), UK
Dr Petra Muellner, [Epi-interactive](http://www.epi-interactive.com), New Zealand

Why this course?

The availability and application of molecular tools has increased exponentially; these tools provide critical information for the understanding of infectious disease dynamics at host and population level. When applied correctly, molecular approaches provide unique avenues for advancing the field of applied epidemiology. This workshop is intended for anyone interested in increasing their knowledge base for the application, analysis and interpretation of epidemiological studies that use molecular tools. The workshop is designed to introduce participants to the molecular epidemiology of pathogens, present guidelines for the conduct of molecular epidemiological studies, and introduce various analytical techniques specific to the output of molecular tools.

Who is this course for?

Everyone with an interest in epidemiological and laboratory concepts underpinning the use of molecular epidemiology, and interested in learning how molecular tools can complement studies of infectious disease.

Existing experience with epidemiological or molecular methods would be beneficial but is not essential. Note that this is not a course on genomics or phylogenetics, although aspects of those methodologies will be introduced in the context of molecular epidemiology.

[Please click here](#) to read a review of a similar course recently taught by the workshop facilitators.

Course details

The course will run from 9am – 5pm on the first two days. The official programme will stop at 12.30pm on the third day but participants are invited to stay for an open session in the afternoon. During this final session participants get the opportunity to present their own work and discuss it with the group.

We will teach using an interactive combination of presentations, exercises and group discussions. Course language is English.

Program

Day 1

The first day of this workshop will be focused on the basics. We will look at the basic principles of molecular epidemiology, review the basic concepts of molecular biology, and describe different typing approaches. Decision criteria for identifying a suitable typing approach for a problem are presented. We will also discuss techniques for the analysis of molecular data.

Day 2

On the second day we will present and discuss databases for molecular data, highlight the importance of adhering to epidemiological principles and discuss the first steps in the analysis of molecular data. We will work through an outbreak investigation example to understand the value of molecular techniques in an applied context.

Day 3

The last day will show the application of molecular-based surveillance and provide an overview of advanced analytical approaches including source attribution. The workshop will close in the afternoon with an open session where participants have the opportunity to discuss examples from their own work to provide a direct link between theory and praxis.

A final course schedule will be provided to the participants after registration as we aim to tailor the workshop to the background and experience of our participants.

What do I need to bring along?

Participants will need to bring their own laptop.

Venue

[VPH Institute](#), University of Bern, Switzerland.
Details to be confirmed



Registration

Registration fee:

Early bird (before 31 December 2013)
Euro 850 (regular) / Euro 750 (full-time student)
All registrations after 31 December: Euro 950

The registration fee includes admission, course material, lunch and refreshment breaks.

Registration can be done via email to info@epi-interactive.com.

Deadline for registration is February 1, 2014. Registration is limited to 25 participants and will be accepted on a first come, first served basis.

Minimum number of participants is 15. Please register early to secure your place.

Contact

Dr Petra Muellner: petra@epi-interactive.com