



# One Health EcoHealth 2016

3-7 December 2016 • Melbourne, Australia

The 4th International One Health Congress & 6th Biennial Congress of the International Association for Ecology and Health



## One Health Approach to Infectious Diseases

29 November – 1 December 2016

Geelong, Australia



### GCEID

GEELONG CENTRE FOR EMERGING INFECTIOUS DISEASES



## Overview

The interwoven connections between human, animal and environmental health have always been recognised. The key concepts of One Health may be readily grasped, but designing, implementing and analysing multidisciplinary human-livestock-wildlife-environment projects has many challenges. Foremost of these is that inter-disciplinary studies often need to draw on a range of skill sets which might be specific to a particular problem. Through the use of a diverse set of recent infectious disease One Health examples, we aim to provide participants with the opportunity to learn the why and how of One Health in practice.

## Workshop objectives

The objective of the workshop is to provide an introduction to the design and implementation of One Health investigations with a focus on infectious diseases, and to provide the tools for analysis of One Health data. This will be done through the delivery of

- a. One Health investigations by the people who led them
- b. Tutorials on key skills required for One Health investigations
- c. Participants' experiences of doing One Health investigations

In addition, participants will be able to obtain practical advice from the workshop organisers and tutors about any One Health projects participants are planning or if they are needing assistance to analyse or write-up a project that has been completed. Note this is an optional activity.

## Ideal participants

Participants should have a strong background in either public health, animal health and/or ecohealth and wish to gain greater exposure or insight into one or more of the other sub-disciplines. No prior knowledge of One Health is required. The course is equally applicable for practitioners, disease control managers, practical researchers and students.

## Location

The workshop will take place at Geelong's University Hospital Campus in Central Geelong. Geelong is the second largest city in the state of Victoria and is well served with transport links. It is 75 km from Melbourne.

**Cost** \$1000 AUD before 1<sup>st</sup> October 2016; \$1200 AUD after 1<sup>st</sup> October 2016

## How to register

To register your attendance, please click through to our online [Registration Form](#).

Registrations close 18<sup>th</sup> November 2016.

### CONTACT US

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# A One Health Approach to Infectious Diseases

## 1 Title of the workshop

A One Health Approach to Infectious Diseases

## 2 Organisation

The workshop is being organised by the Geelong Centre for Infectious Diseases (GCEID). GCEID is a collaborative, multidisciplinary research partnership between Deakin University, Barwon Health and CSIRO's Australian Animal Health Laboratory (AAHL) based on a One Health approach to understanding and mitigating the risks posed by emerging infectious diseases.

## 3 Dates and location

### 3.1 Dates

Tuesday 29th November to Thursday 1<sup>st</sup> December

Note: The 4th One Health Congress starts with a reception in the evening of Saturday 3<sup>rd</sup> December.

### 3.2 Location

Health Education and Research Building, University Hospital, Ryrie Street, Geelong

## 4 Transport and accommodation

### 4.1 Transport

Geelong is the second largest city in the state of Victoria is well served with transport links. International participants will generally be flying into Melbourne airport, which is about 70 km from Geelong. From there you can catch a taxi for about AUD 150, or as a cheaper alternative, there is a shuttle bus, with the following timetable: <http://gull.com.au/timetable-services/>

If you are in Australia, you can fly into the Avalon Airport which is only 20km from Geelong. A shuttle service operates between Avalon and Geelong: <http://murrell.com.au/page.cfm?pageId=323> . Alternatively a taxi will cost around AUD 50.

From Melbourne, there is a train service by Vline: <https://www.vline.com.au/Timetables/Train-coach-timetables>

### 4.2 Accommodation

As the workshop will be held in the centre of Geelong, there is a range of accommodation, from 4 star hotels (around AUD 200 /night) to more modest motel accommodation (around AUD 100 / night).

<http://www.trivago.com.au/geelong-74241/hotel>

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### 5 Workshop organizers and tutors

Below are the profiles of some of the workshop organisers and tutors:

**Peter Durr** - [peter.durr@csiro.au](mailto:peter.durr@csiro.au); Veterinary Epidemiologist, AAHL. Peter is one of the cofounders for this workshop. He will be presenting on work conducted in Indonesia, focusing on HPAI H5N1. He will also help participants design a One Health Survey using software that he has developed.

**John Allen** – [john.allen@csiro.au](mailto:john.allen@csiro.au); Leader, Overseas Programs, AAHL. John will be presenting findings of a large surveillance study on pig associated zoonotic diseases in Lao PDR followed by a village based intervention study, looking at the effect of vaccination on *Taenia solium* and cystercercosis.

**Debbie Eagles** – [debbie.eagles@csiro.au](mailto:debbie.eagles@csiro.au); Research Leader, Diagnosis, Surveillance and Response Program, AAHL. Debbie will be presenting an outbreak investigation of a henipavirus disease affecting people and horses in Mindanao, the Philippines. Debbie played a key role in the investigation.

**Kerryne Graham** – [kerryne.graham@csiro.au](mailto:kerryne.graham@csiro.au); Spatial Analyst, AAHL. Kerryne has provided database and spatial analysis support for a number of animal and zoonotic disease investigations. Kerryne will be showing participants how to use freeware such as Google Earth, to analyse spatial data.

**Soren Alexandersen** – [soren.alexandersen@deakin.edu.au](mailto:soren.alexandersen@deakin.edu.au); Professor, Deakin University and Director of Geelong Centre for Emerging Infectious Diseases. Soren is a leading expert on One Health, and will bring to the workshop his multidisciplinary experience to managing infectious diseases.

**Marcel Klaassen** – [marcel.klaasen@deakin.edu.au](mailto:marcel.klaasen@deakin.edu.au) ; Director, Centre for Integrative Ecology, Deakin University. Marcel's research interests include disease ecology and modelling avian migration strategies, population dynamics and conservation strategies. He will bring these together in the workshop when he presents his work on migratory birds and the study of HPAI in poultry.

**Eugene Athan** – [eugene@barwonhealth.org.au](mailto:eugene@barwonhealth.org.au) ; Eugene is Director of Infectious Diseases, Barwon Health. Eugene is an infectious disease specialist who works with Barwon Health and lectures at Deakin University. He has expertise in epidemiology, and has published over 100 publications.

**Alastair Mah** - [a.mah@deakin.edu.au](mailto:a.mah@deakin.edu.au) ; Alastair is the Chief Medical Officer at Barwon Health, one of Australia's leading regional health services. He holds Fellowships with the Royal Australasian College of Medical Administrators (RACMA), and the Australasian College of Health Services Management (ACHSM). His specific interests include health innovation and health policy and communication.

**Kim Halpin** – [Kim.Halpin@csiro.au](mailto:Kim.Halpin@csiro.au); Veterinary Investigations Team Leader, AAHL. Kim is one of the organisers of this workshop. She has expertise with the henipaviruses, as well as the design and interpretation of molecular tests. With a Masters in Public Health, Kim brings to the workshop a one health approach.

**Axel Colling** – [axel.colling@csiro.au](mailto:axel.colling@csiro.au); Diagnostic Test Validation Leader, AAHL. Axel has been involved with the validation of diagnostic tests for infectious diseases. He has worked extensively in developing countries. At the workshop he will bring to the discussions a focus on the need and difficulties we face when diagnosing infectious diseases in new populations.

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### 6 Workshop's objectives

The objective of the workshop is to provide an introduction to the design and implementation of One Health investigations, and to provide the tools for analysis of One Health data. This will be done through the delivery of

- a. One Health investigations by the people who led them
- b. Tutorials on key skills required for One Health investigations
- c. Participants' experiences of doing One Health investigations

In addition, participants will be able to obtain practical advice from the workshop organisers and tutors regarding the development, analysis and write up of One Health projects. Note – this is an optional activity.

### 7 Background skills and knowledge

This is an entry level course and no prior knowledge of One Health is required. Indeed it may serve as a good introduction to the discipline for attendees of the 4<sup>th</sup> One Health Congress.

Participants should have a strong background in either public health, animal health and/or ecohealth and wish to gain greater exposure or insight into one or more of the other sub-disciplines. The course is equally applicable for disease control managers, practical researchers and students.

### 8 History of the workshop

The workshop has been specifically designed for the 4th One Health Congress.

### 9 Workshop specification

- **Language:** English
- **Pre or post conference:** Pre conference
- **Number of attendees:** minimum 15 – maximum 40. If less than 15 people register, the organisers reserve the right to cancel the workshop.
- **Duration of the workshop:** 3 days

### 10 Workshop content and schedule

#### 10.1 Motivation:

The interwoven connections between human, animal and environmental health have always been recognised, but it is only in the past 25 years have their importance come to the fore. This is in part due to the recognition of the role of livestock and wildlife as the principal source of new and emerging infectious diseases in humans, but also the realisation in an era of rapid global change that new

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approaches are required. Accordingly, since the One Health movement was formally launched at the inaugural congress in Melbourne in 2011, it has received increasing attention from academics, researchers and funding agencies.

Although the key concepts of One Health are readily grasped, designing, implementing and analysing multidisciplinary human- livestock-wildlife projects have many challenges. Foremost of these is that inter-disciplinary studies often need to draw on a range of skillsets which might be specific to a particular problem. Thus One Health practitioners need to develop an ethos of collaboration and true partnership far beyond that traditionally taught or required.

Through the use of a diverse set of recent One Health examples, we aim to provide participants the opportunity to learn the why and how of One Health in practice.

### 10.2 Course description

This is a practical workshop, intending to expose attendees to the practicalities of undertaking and interpreting One Health studies. The workshop is highly structured, and consists of case studies and skill development practicals.

- Case studies of One Health: Six One Health investigations, mostly undertaken in Southeast Asia and Australia by the lecturers, will be presented. The participants will have the opportunity to engage with the One Health investigators and learn from their experience. During each case study session, there will be a facilitated group practical, whereby participants will discuss examples from the participant's own experiences which are similar to or have relevance to the case study.
- Skill development practicals: These practicals are designed to reinforce some of the technical aspects of the case studies by showing or teaching participants how to do activities such as how to design an outbreak investigation questionnaire or map up data onto Google Earth. For these practicals, participants will be able to gain experience with the software being demonstrated by replicating the steps on a laptop.

### 10.3 Teaching style

The course is highly structured, with 4 sessions per day, each taking 1.5 hours (see Timetable). Sessions will alternate between Case studies and Practical.

Three teaching styles will be adopted:

1. Powerpoint presentations of the case studies introducing a major One Health theme
2. Facilitated group discussions and sharing of participants experiences relevant to each theme
3. Follow-along exercises wherein participants will be shown how to activities such as how to how to design an outbreak investigation questionnaire or map spatial data

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### 10.4 Computer/software requirements

Most of the software to be demonstrated during the practicals will be run over the internet, and guest access to the Deakin University network will be supplied to participants each morning.

Where PC software is required, an “exe” or “bat” file will be supplied on the course USB stick. Participants should ensure that they have administrative privileges and can load software onto the laptops.

Please note that there is no option to borrow laptops for the course. Participants wishing to replicate each of the steps in the follow-along tutorials must bring their own laptop.

### 10.5 Course material and handouts

PDF copies of all the material – lectures, exercises and reading material - will be provided on a USB stick provided to delegates.

## 11 Cost

AUD 1000 / person – early bird registration (until 01/10/2016)

AUD 1200 / person – standard registration (until 18/11/2016)

Please click on [Registrations](#) to register. Registrations close 18 November 2016.

This price is inclusive of course material, refreshments and lunch. However, it does not include accommodation or transport.

## 12 Social activities (optional)

Two optional no cost activities are planned before and during the workshop.

1. Monday 28<sup>th</sup> November: Tour of AAHL and Deakin University. 14:00 to 17:00.
2. Wednesday 30<sup>th</sup> November: Dinner 19.00 to 21.00 (meal only; drinks to be purchased by participants)

If there is enough interest, a bus tour of the Great Ocean Road can be organised for Friday 2nd December at an extra cost (est. AUD 100).

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### 13 Timetable

	Day 1 - Tues. 29 <sup>th</sup> Nov	Day 2 – Wed. 30 <sup>th</sup> Nov	Day 3 - Thurs. Dec 1 <sup>st</sup>	Day 4 (half-day) – Fri. Dec 2 <sup>nd</sup>	
08:30 - 09:00	Registration and Welcome				
09:00 - 10:30	Introduction to One Health: History, objectives, successes, limitations	Skill development 2 – Designing an outbreak investigation questionnaire	Skill development 4 – Exploring spatial data using freeware	One Health data analysis one-on-one bootcamp for participants who bring data and/or who need assistance with study design <sup>1</sup>	Bus-trip to the Great Ocean Road <sup>2</sup>
10:30 - 11:00	Coffee break				
11:00 - 12:30	Case study 1 - Outbreak investigations: Nipah virus in Mindanao, the Philippines  Practical: Recount experiences with outbreak investigations in your country	Case study 3 – Social drivers of emerging diseases: Poverty and HPAI H5N1 in humans in Indonesia  Practical: diseases of poverty (or affluence) in 2 or 3 of the participants countries	Case study 5 – Wildlife surveillance: migratory birds and HPAI in poultry  Practical: wildlife surveillance in 2 or 3 of the participants countries		
12:30 - 13:30	Lunch break				
13:30 - 15:00	Skill development 1 – Designing a One Health survey	Skill development 3 – Exploratory data analysis using freeware	Skill development 5 – Communicating One Health		
15:00 - 15:30	Coffee break				
15:30 - 17:00	Case study 2 – Intervention studies: Cystercercosis vaccination in Lao PDR  Practical: Recount experiences with intervention studies in your country	Case study 4 - Landscape drivers of emerging disease: Rodents borne diseases and deforestation  Practical: Possible landscape drivers of disease in 2 or 3 of the participants countries	Case study 6 – A very local One Health example – a Q fever outbreak in a goat farm in Victoria  Wrap up / workshop evaluation / building collaboration networks		

1. The intention is that there will be one-on-one sessions for people wanting assistance with planning a One Health investigation or analysing data arising from a study already finished.
2. Conditional on getting enough people interested in doing the trip.

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