



Who's Who in One Health

Organization Name

One Health Research Group at James Cook University, Australia

<https://www.jcu.edu.au/college-of-public-health-medical-and-veterinary-sciences/public-health-and-tropical-medicine/one-health-research-group2>



Description

Infectious diseases of wildlife are becoming increasingly important as globalisation and environmental change are causing them to emerge and re-emerge. The One Health Research Group uses a multidisciplinary approach to provide holistic solutions to mitigate their impact (Skerratt et al 2009, Murray et al 2012). Our major ongoing research activity over the past 20 years has been the discovery and control of one of the major causes of global amphibian decline, chytridiomycosis (Berger et al 1998, Skerratt et al 2007, Voyles et al 2009). Other current research includes determining ways to improve the control of transmission of Hendra virus from flying foxes into horses and humans (Mendez et al 2012, Plowright et al 2015, Martin et al 2015), assessing the risk of spillover of wild dog zoonoses (Banks et al 2006) and determining the importance of disease in the conservation of species such as the endangered Proserpine rock wallaby and the vulnerable spectacled flying fox (Buettner et al 2013). Recent past work includes investigating the causes of avian influenza and Newcastle disease in waterfowl in northern Australia, both these diseases sporadically spill over into poultry (Hoque et al 2011, 2014).

Purpose

Our research group investigates the causes and control of infectious diseases in people, their domestic animals and wildlife that impacts human health, domestic animal health and biodiversity. The group provides advice on infectious disease issues to the general public, private companies, state and national governments and international bodies such as the WHO, OIE and IUCN which informs policy and management. It is a member of the James Cook University level 1 research centers, Biosecurity and Tropical Infectious Diseases in the Australian Institute of Tropical Health and Medicine and the Centre for Tropical Biodiversity and Climate Change, the Queensland Tropical Health Alliance and Wildlife Health Australia.

Scope

A focus in Australasia but projects can be elsewhere such as Asugeni et al (2015) and Massey et al (2015) in the Solomon Islands and Kolby et al (2014, 2015) in Hong Kong and Madagascar.

Based at:

James Cook University, Townsville, Queensland , Australia with staff and students at other campuses and universities within Australia such as ANU and overseas such as Massey and Cornell.

Primary Funders

The Australian Research Council, Australian Cooperative Research Centres Program, Rural Industries Research Development Corporation, Australian and overseas Governments, philanthropic conservation research funding organisations and JCU RIBG scheme.

One Health Courses being taughtResearch degrees

Most of our students are taught One Health concepts through PhD research degrees. At any one time we have between 8 and 16 PhD candidates. These graduates go onto academic or industry jobs in Australia and overseas utilizing a One Health approach.

Short Courses on Data Analysis and Interpretation: Offered by our collaborators Tropical Health Solutions. See website: http://www.tropicalhealthsolutions.com/Data_analysis
Or email Ray Muller: reinholdm@activ8.net.au

Onsite Workshop in Medical Diagnostic Parasitology: Offered by our collaborators Tropical Health Solutions. See website: http://www.tropicalhealthsolutions.com/Data_analysis or email: Rick Speare – rickspeare@gmail.com.

Other One Health Activities/Initiatives

We hold workshops, symposiums and conferences intermittently on topical issues of the day that will benefit from a One Health approach. We engage and work with key health stakeholders to ensure our research outcomes are translated into policy and management.

Organization Website

Find us at: http://www.jcu.edu.au/phtmrs/abc/JCU_107907.html

And our facebook page is: <https://www.facebook.com/onehealthresearchgroup>

Participants and Key Collaborators

The One Health Research Group has members and collaborators based throughout Australia and the rest of the World.

Primary OHRG members are:

Dr Lee Skerratt ,

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Dr Lee Berger, Emeritus Professor

lee.berger@jcu.edu.au

Rick Speare,

Dr Alexandra Roberts,

Ms Rebecca Webb,

Dr Andrea Phillott,

Dr Wayne Melrose,

Dr Kris Murray,

Dr Raina Plowright,

Dr Jamie Voyles,

Dr Kristine Smith,

Dr Marcia Santos,

Ms Laura Brannelly,

Dr Gerardo Martin,

Dr Laura Grogan,

Dr Amy Shima,

Dr Carol Esson,

Dr Ben Scheele,

Ms Alicia Maclaine,

Mr Jon Kolby,

Ms Jenny Laycock,

Dr Felicity Smout,

Dr Diana Mendez,

Dr Tori Llewelyn.

Collaborators are:

Dr Jason Mulvenna (QIMR Berghofer),

Dr Dave Hunter (NSW OEH),

Dr Annie Philips (Tasmania DPIPWE),

Mr Michael McFadden (Taronga Zoo),

Dr Stephanie Shaw , Mr Gerry Marantelli (Amphibian Research Center),

Dr Michelle Stockwell (University of Newcastle),

Dr Marcey Souza (University of Tennessee),

Drs. Tiffany Kosch, John Eimes and Bruce Waldman (Seoul National University),

Dr Adrian Wayne (WA DPaW),

Dr Carla Ewels (Monash University),

Ms Katherine Howard (WWF).

Brief History of Your Organization's One Health Involvement

The One Health Research Group was officially formed in 2010 but had been operating at JCU since at least the 1990s when Rick Speare started using public health and veterinary science methodology to solve the problem of enigmatic amphibian declines (Laurance et al 1996).

Contacts:

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Additional Information:

The One Health Research Group was officially formed in 2010 but had been operating at JCU since at least the 1990s when Rick Speare started using public health and veterinary science methodology to solve the problem of enigmatic amphibian declines (Laurance et al 1996). The One Health Research Group continues to use multidisciplinary approaches to help identify emerging diseases and provide holistic solutions to mitigate their impact (Skerratt et al 2009, Murray et al 2012).

Emerging infectious diseases and neglected tropical diseases are becoming increasingly important as globalisation and environmental change are causing them to emerge and re-emerge (Tompkins, and Skerratt 2015). Our major ongoing research activity over the past 20 years has been the discovery and control of one of the major causes of global amphibian decline, chytridiomycosis (Berger et al 1998, Skerratt et al 2007, Voyles et al 2009). Other current research includes determining ways to better control neglected tropical diseases such as soil transmitted helminths (Miller et al 2015), improving the control of transmission of Hendra virus from flying foxes into horses and humans (Mendez et al 2012, Plowright et al 2015, Martin et al 2015), considering how the medical system could better control zoonotic infectious diseases such as by consulting veterinarians (Speare et al 2015), assessing the risk of spill over of wild dog zoonoses (Banks et al 2006, Smout et al 2013) and determining the importance of wildlife as sentinels for human and domestic animal health and whether disease plays a role in the conservation of species such as northern Australian small mammals, the endangered brush-tailed bettong, Proserpine rock wallaby and snow leopard, the vulnerable spectacled flying fox and the currently secure Lumholtz tree kangaroo (Buettner et al 2013). Recent past work includes investigating the causes of avian influenza and Newcastle disease in waterfowl in northern Australia, both these diseases sporadically spill over into poultry in Australia and humans overseas (Hoque et al 2011, 2014, 2015) and assessing the vectorial risk of surra in northern Australia should it be introduced (Muzari et al. 2010a-c).