



The University of Sydney

7-8 March 2006
School of Public Health
Venue TBC

Short course Bioaerosols and airborne infection in public health

A multi-disciplinary short course on the science and practice of bioaerosol generation, survival, transport and control



This two day short course will provide an opportunity to hear the latest science relating to bioaerosols and airborne infection.

At the beginning of the 20th Century the study of aerosols was at the forefront of physical science. Aerosol science contributed to the understanding of brownian motion, the charges on electrons and the nature of ionising radiation. In the 1930s this knowledge was applied to work on the bioaerosols generated by people infected with viral or bacterial illnesses. Breathing, coughing and sneezing all generate aerosols. Larger droplets fall to the ground but evaporation from droplets in a critical size range remain suspended in the air. These infective suspended particles or droplet nuclei were shown to be responsible for many of the observed characteristics of viral and bacterial infection.

The original research heralded the use of the first generation of control strategies for droplet infection in the built environment, and they included increased ventilation of buildings, air cleaning and sterilisation of the air.

Short course

Bioaerosols and airborne infection in public health

Developments in computational fluid dynamics, disease modelling and molecular biology in particular have opened the way for a revised understanding of the generation, transport and fate of bioaerosols and of the survival and infectivity of the microbes within them. These new insights will underpin control and mitigation strategies in health care settings, in the built environment and in the community.

Infectious diseases such as Legionnaires disease, and more recently SARS, the prospect of terrorist attacks by biological weapons and the recurring threat of a pandemic influenza have brought a new focus to the science and control of bioaerosols. In addition the control of infections in health care settings, in airline cabins and in schools is increasingly an issue of public health concern.

This workshop will bring together national experts in the science of bioaerosols and their controls. The scope of the workshop will be the basic physics, microbiology and physiology of aerosols and droplet infection, the epidemiology of airborne infection, measurement and modelling of aerosol transport and new control technologies and their application.

Who should attend?

Anyone interested in furthering their knowledge in the science of bioaerosols and airborne infections as it relates to health protection and the investigation of infectious problems. It will be useful for public health, environmental health and veterinarian practitioners, infectious disease specialists, hospital and public health physicians, built environment engineers and professionals, microbiologists, policy makers, scientists, academics, and students. It is also available for any adult in the general community to attend.

Topics covered:

- ❖ Generation and characteristics of bioaerosols
- ❖ Microbiology of aerosols
- ❖ Microphysics of droplets and aerosols
- ❖ Fate and transport of bioaerosols
- ❖ Bioaerosol measurement
- ❖ Epidemiology of airborne infection
- ❖ Aerosol exposure and the respiratory tract
- ❖ Bioaerosols in health care settings
- ❖ Bioaerosols in veterinarian settings
- ❖ Control technology for bioaerosols

Speakers include:

Speakers are to be confirmed and will be advised at a later date.

Seminar workshop Bioaerosols and airborne infection in public health

Objectives

The objectives of the course are:

- to provide an understanding of the nature of bioaerosols and their transport in air
- to demonstrate how knowledge in this area can be applied to the investigation of infectious disease problems in human and animal populations
- to explore settings and controls for bioaerosols
- to enable discussion on contemporary issues in this area.

Cost

Cost for the short course is \$630 inclusive of GST. An early bird discount will apply for applications received by 15 January, 2006. Cost will be \$580. A discount of 20% will be offered to groups of five or more people enrolling together from the same organization (early bird discount not applicable).

The full course fee must be paid by 22 February 2005. Cancellation after this date will incur a fee of \$100 per person for administration.

Registration fee includes morning tea, lunch and afternoon teas.

Auspice

This short course is funded by the Commonwealth Department of Health and Ageing under the National Environmental Health Strategy implementation.

Need to know more?

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The University of Sydney

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The provisional program will soon be available at <http://www.health.usyd.edu.au> and is subject to change.

**Seminar workshop
Bioaerosols and airborne infection in public health**

Registration form

Tax Invoice University of Sydney ABN 15 211 513 464

Name.....
Organisation.....
Position.....
Postal Address.....
Tel..... Fax.....
Email.....

I wish to pay by:

- Cheque (payable to School of Public Health, University of Sydney)
- Invoice to organisation above (with contact person's name)
- Credit card (Visa, Mastercard or Bankcard **only**)
Name on card:.....
Card number:.....
Expiry date

Signature:

Date: / /

Please mail/fax this form with payment to:

Ms Vicki Williams
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University of Sydney, NSW 2006

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Fax: 02 9036 6247