

Tackling Antimicrobial Resistance: Meeting the Global Challenge of AMR

CONFERENCE PROGRAMME

9 to 10 November 2017

Large Moot Court, 2/F, Cheng Yu Tung Tower,
The University of Hong Kong

Organized By:



In Collaboration With:



CONFERENCE OVERVIEW

ON 21 SEPTEMBER 2016, the UN General Assembly (UNGA) convened a high-level meeting of Heads of States and national delegations to discuss an issue of increasing concern to national public health authorities around the world: the rise of antimicrobial resistance (AMR). As an indication of the urgency and magnitude of the problem, this was only the fourth time that a health topic had been raised for discussion by the General Assembly. A draft political declaration was issued in the wake of the meeting endorsing the Global Action Plan on Antimicrobial Resistance formulated by the World Health Organization in collaboration with the UN Food and Agriculture Organization and the World Organization for Animal Health.

The scale of the threat posed by AMR, and its current and potential toll in terms of deaths, human suffering and economic loss is immense. Current conservative estimates are that 700,000 people die from resistant infections each year. Of these, 200,000 people die from tuberculosis alone, as commonly-used antibiotics begin to lose to their efficacy because of AMR. Beyond the direct cost in human lives, it is estimated that more than 2 million infections a year are caused by resistant bacteria, which imposes an additional burden of US\$20 billion on the US health care system alone. The human cost in countries that cannot afford such extra spending on healthcare is incalculable. Inappropriate use of antibiotics in livestock farming have accelerated the pace of the development of AMR, at once reducing the efficacy of critical antibiotics and leaking residual drugs into the environment and the food chain. It is estimated that over 70% by weight of the most important antibiotics are used on animals – and mostly for purposes other than for treating sick animals. The grim projection is that by 2050, the direct toll of human lives lost to AMR could rise to 10 million with a corresponding cumulative cost to global economic output of US\$100 trillion (all data from O'Neill *et al*, *Tackling Drug-Resistant Infections Globally: Final Report and Recommendations*, 2016: The Wellcome Trust / HM Government).

Themes: This conference sets out in the **first session ('The Challenge')** to present a survey of the present global scale and impact of AMR, and the implications for the future in human, clinical and economic costs if current trends in AMR is not reversed or contained. Current international efforts in building a concerted global response towards the containment of AMR will be examined, with especially reference to efforts by international agencies such as the World Health Organization.

The conference will then address next in its **second session ('Emergent Threats – The Experience')** specific shortcomings and problem areas such as public and professional awareness; in public and environmental health (public sanitation and access to safe water); and in clinical practice in both developed and developing countries (short or inappropriate courses of antibiotics, resistant nosocomial infections in hospital settings, the problem of counterfeit antibiotics). We also look into recent developments in relevant technologies, such as in pathogen genomics.

In the **third session ('The Community Context')** the conference will address specific situations in which AMR is already a grave and urgent threat (tuberculosis, malaria, MRSA and other resistant nosocomial infections), and examine accounts of current public health responses to the challenges of AMR for these specific situations, and consider recommendations for the future management of these conditions (including the incentivization of research, the development of new antibiotics and the prioritizing of resources to public health efforts at the control of these infections). The legal and ethical implications of some public health challenges are examined. The inappropriate use of antibiotics in animal agriculture is considered, as well as on its impact on the environment and the food chain, as well as recommended responses.

In the final and **fourth session ('Making It Work')**, the conference will focus on public health and national responses recommended by expert bodies such as the WHO in its global action plan on AMR, and the O'Neill Report. How much will it take to stem the tide of AMR? What will be the corresponding financial cost of failure? What should the relative distribution of burdens and responsibilities between better-off and poorer nations, and how can communities in the latter be helped?

ABOUT CMEL

Established in 2012, The Centre for Medical Ethics and Law (CMEL) is a joint effort of two leading faculties, the Li Ka Shing Faculty of Medicine and the Faculty of Law at the University of Hong Kong. Our visions are: to become a focal point for international research excellence in the area of medical ethics and law; to co-ordinate and provide teaching and training to university students and professionals; and to promote and disseminate our expertise to the benefit of the public.

The Centre's objectives are respectively in research, teaching, knowledge exchange and training. **Research:** To produce and disseminate high-quality and cutting edge research in medical ethics and law. **Teaching:** To contribute to the interdisciplinary teaching and learning at the University by providing a forum for the discourse of medical ethics and law. **Knowledge Exchange:** To provide expert training and continuing education to the professionals of both disciplines and to help setting the ethical standard on related issues. **Training:** To promote and disseminate knowledge of medical ethics and law to the public at large and enhance the community's awareness in this regard. Aligning with the University's vision of 'Internationalisation, Innovation and Interdisciplinarity', the Centre collaborates with institutions, professional bodies and scholars in Hong Kong and internationally in order to pursue these objectives.

SPEAKERS AND PANELISTS

Guest of Honour:

Professor Sophia CHAN Siu-Chee, JP	Secretary for Food and Health, The Government of HKSAR
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Speakers and Panelists:

Ms Sabrina So-Kuen CHAN	Member of the Hong Kong High-Level Steering Committee on Antimicrobial Resistance, and Senior Executive Director of The Hong Kong Association of the Pharmaceutical Industry
Professor Dame Sally DAVIES	Chief Medical Officer, England
Ms Christy FEIG	Senior Vice President, Global Health Strategies
Professor Keiji FUKUDA	Director, School of Public Health, The University of Hong Kong
Professor Lawrence GOSTIN	University Professor, Georgetown University; Faculty Director of the O'Neill Institute for National and Global Health Law and the Founding O'Neill Chair in Global Health Law
Dr Christopher Kim Ming HUI	The University of Hong Kong; HKU Shenzhen
Associate Professor Li-Yang HSU	Programme Leader, AMR Programme, Saw Swee Hock School of Public Health, the National University of Singapore
Professor Ryuichi IDA	President, Shiga University, Japan; former Chairperson, International Bioethics Committee of UNESCO
Dr Timothy JINKS	Senior Business Analyst, Wellcome Trust
Mr Jeremy KNOX	Policy Lead, Drug-Resistant Infections, Wellcome Trust
Dr Leila LUHESHI	Associate Director, Clinical and Translational Research at Oxford Nanopore Technologies Ltd; formerly Head of Science, The PHG Foundation, Cambridge
Dr Ben MARAIS	Associate Professor, The Children's Hospital at Westmead Clinical School, Sydney
Mr Colm McGRATH	Faculty of Law, University of Cambridge
Professor SETO Wing-Hong	WHO Collaborating Centre for Infectious Disease Epidemiology and Control, School of Public Health, The University of Hong Kong

Dr Claudia TURNER	Chief Executive Officer, Angkor Hospital for Children, Consultant Pediatrician, Clinician Scientist, University of Oxford
Professor Paul TURNER	Director, Cambodia-Oxford Medical Research Unit (COMRU)
Dr Howard WONG	College of Veterinary Medicine and Life Sciences, City University of Hong Kong
Professor YING Guang-Guo	Professor in Environmental Chemistry and Toxicology, Chinese Academy of Sciences & South China Normal University
Professor YUEN Kwok-Yung	The University of Hong Kong; Member of the Hong Kong Steering Committee on Antimicrobial Resistance
Professor ZHANG Tong	Department of Civil Engineering, The University of Hong Kong

Thursday 9 November 2017

8:30 - 9:00am **Registration**

9:00 - 9:15am **Welcome Address**
Professor Sophia Chan Siu-Chee, JP
Secretary for Food and Health, The Government of HKSAR

9:15 – 9:45 am **Morning Tea**

SESSION 1:

The Challenge

9:45 - 10:15am **Keynote Presentation: “The Global Challenge of Antimicrobial Resistance”**
Professor Dame Sally DAVIES
Chief Medical Officer, England

10:15 – 10:35am **Presentation 2: “The Challenge of AMR – Hong Kong Perspectives”**
Professor YUEN Kwok-Yung
The University of Hong Kong; Member of the Hong Kong Steering Committee on Antimicrobial Resistance

10:35 – 11:00am **Morning Tea**

11:00 – 11:20 am **Presentation 3: “AMR in the Context of Agriculture and Animal Husbandry”**
Dr Howard WONG
College of Veterinary Medicine and Life Sciences, City University of Hong Kong

11:20 – 11:40 am **Presentation 4: “TBA”**
Mr Jeremy KNOX
Policy Lead, Drug-Resistant Infections, Wellcome Trust

11:40 am – 12:40 pm **Roundtable Panel Discussion AND Q&A**

12:40 – 2pm **Lunch**

SESSION 2:

Emergent Threats – The Experience

- 2:00 - 2:20pm ***Presentation 1: “Ethical Considerations for Use of Unregistered Interventions for Ebola”***
Professor Ryuichi IDA
President, Shiga University, Japan; former Chairperson, International Bioethics Committee of UNESCO
- 2:20 - 2:40pm ***Presentation 2: “Antimicrobial and Antibiotic Use: A Tale of Two Cities”***
Dr Christopher Kim Ming HUI
The University of Hong Kong; HKU Shenzhen
- 2:40 – 3:00 pm ***Presentation 3: “Antibiotics Resistance in Environment”***
Professor ZHANG Tong
Department of Civil Engineering, The University of Hong Kong
- 3:00 - 3:30pm ***Tea/Coffee***
- 3:30 – 3:50pm ***Presentation 4: “The Social and Environmental Impact - China”***
Professor YING Guang-Guo
Professor in Environmental Chemistry and Toxicology, Chinese Academy of Sciences & South China Normal University
- 3:50 – 4:10pm ***Presentation 5: “AMR in the Context of Re-emergent TB in High-Income Countries/Singapore”***
Associate Professor Li-Yang HSU
Programme Leader, AMR Programme, Saw Swee Hock School of Public Health, the National University of Singapore
- 4:10 – 5:10pm ***Roundtable Panel Discussion AND Q&A***
- 6:30pm ***Conference Dinner***
Speakers and Invited Guests

Friday 10 November 2017

9:00 - 9:15am **Registration (Day 2 Only)**

SESSION 3:

The Community Context

9:15 – 9:45am **Keynote Presentation: “Global Health Security in an Era of Explosive Pandemic Potential”**

Professor Lawrence GOSTIN

University Professor, Georgetown University; Faculty Director of the O'Neill Institute for National and Global Health Law and the Founding O'Neill Chair in Global Health Law

9:45 – 10:05am **Presentation 2: “The Global AMR Surveillance System (GLASS) of WHO and the Special Role of Diagnostic Stewardship”**

Professor SETO Wing-Hong

WHO Collaborating Centre for Infectious Disease Epidemiology and Control, School of Public Health, The University of Hong Kong

10:05 - 10:30am **Morning Tea**

10:30 – 10:50am **Presentation 3: “Transmitted MDR-TB: Evidence from the Asia-Pacific Region”**

Dr Ben MARAIS

Associate Professor, The Children's Hospital at Westmead Clinical School, Sydney

10:50 – 11:10am **Presentation 4: “Defining the burden of AMR in Cambodia – challenges and progress to date”**

Professor Paul TURNER

Director, Cambodia-Oxford Medical Research Unit (COMRU)

11:10am – 11:30pm **Presentation 5: “TBA”**

Mr Colm McGrath

Faculty of Law, University of Cambridge

11:30am – 12:30pm **Q&A Session**

12:30 - 2:00pm **Lunch**

SESSION 4:

Making it Work

2:00 - 2:30pm ***Presentation 1: “WHO/UN GA Initiatives and Efforts Towards a Coordinated and Cohesive International Response”***

Professor Keiji FUKUDA

Director, School of Public Health, The University of Hong Kong

2:30 - 3:00pm ***Presentation 2: “Pathogen Genomics into Practice”***

Dr Leila LUHESHI

Associate Director, Clinical and Translational Research at Oxford Nanopore Technologies Ltd; formerly Head of Science, The PHG Foundation, Cambridge

3:00 - 3:20pm ***Presentation 3: “TBA”***

Ms Sabrina So-Kuen CHAN

Member of the Hong Kong High-Level Steering Committee on Antimicrobial Resistance, and Senior Executive Director of The Hong Kong Association of the Pharmaceutical Industry

3:20 - 3:50pm ***Tea/Coffee***

3:50 - 4:10pm ***Presentation 4A: “Effective Strategies for Public Education and Communication”***

Ms Christy FEIG

Senior Vice President, Global Health Strategies

4:10 - 4:30pm ***Presentation 4B: “Round-up and Making it Work”***

Dr Timothy JINKS

Senior Business Analyst, Wellcome Trust

4:30 - 5:30 pm ***Roundtable Panel Discussion AND Q&A***

End of Conference