

INAMRSS/CeBIL Webinar “Social Science Responses to Antimicrobial Resistance and COVID-19: New experiences to be gained and mutual lessons to be learned”

2 June 2020, 14.00-17.00

Abstracts

Professor [Lance Price](#), George Washington University’s Milken Institute School of Public Health in Washington, DC; Founding director of the Antibiotic Resistance Action Center

Title: From SARS to Superbugs: Bridging from the Current Zoonotic Pandemic to Prevent the Next

Abstract: SARS CoV 2 – the virus that causes COVID 19 – is just the most recent example of what infectious disease specialists call “zoonotic pathogens”, that is, microbes that spread from animals to humans. Some of these pathogens are old familiar foes, such as Salmonella, anthrax and plague, but as people expand into new territory, capture and consume exotic animals and change our environment, we are unbridling new enemies such as SARS and MERS. Our behaviors are also changing our old enemies and making them more dangerous. The rampant use of antibiotics in agriculture and people has led to the evolution of an onslaught of antibiotic-resistant pathogens – a.k.a., superbugs – that kill hundreds of thousands of people around the world each year and are anticipated to kill one person every three seconds by the middle of this century. Can we avoid this bleak future? We think the answer is yes! We have the science to defeat superbugs, but no pill or petri dish can solve our problems on their own – only changes in human behavior can change our dangerous trajectory. As the global community reels from the tragic loss of life, altered social interactions and economic fallout of the COVID 19 pandemic, there may be a willingness to make the relatively small changes necessary to curb the antibiotic resistance crisis that looms around us.

Professor [Francesco Ciabuschi](#), Uppsala University’s Department of Business Studies & Professor [Enrico Baraldi](#), Uppsala University’s Department of Civil and Industrial Engineering

Title: What antibiotics global supply chains’ weaknesses and risks are emphasized by the COVID-19 crisis?

Abstract: The COVID-19 crises has brought to the light risks of the current configuration of antibiotics global supply chains’ configurations. Shortages and delays in maintaining flows and stocks of antibiotics were already a recurrent problem, which COVID-19 has been aggravated. Moreover, countries were competing to obtain immediate access to both antibiotics and other essential medicines for Covid-19 patients in ICUs. The problem of access and its connection to the organization of global antibiotic supply chains is evident: it afflicts especially existing antibiotics,

and it will become even more serious in the future and for new antibiotics. Discussions have already started among policymakers about changing the configurations of supply chains, including reshoring production activities back to Europe or even assigning them public national actors. The presentation will include examples of current issues antibiotics supply chains and the Swedish antibiotic value chain.

Professor [Kevin Outtersson](#) *N. Neal Pike Scholar in Health and Disability Law, Boston University, Executive Director of CARB-X, North-American Lead of INAMRSS*

Title: How does the antibiotic tripod (access, stewardship, innovation) map onto COVID-19?

Abstract: In most drug classes, innovation is cumulative. Due to evolution under selection pressure, antimicrobial innovation can be parallel in clinical effect as opposed to cumulative, with unique negative externalities from use. Public health practices attempt to reduce patient numbers in many drug sectors, but rarely do they preferentially select against the newest, most innovative treatment. Finally, innovation here suffers from a related timing problem - unlike any other drug field, the socially optimal solution might require spacing innovation out over many decades. Put another way, drug-resistant infections present intergenerational ethical issues. The presentation will conclude with an integrated solution to all three problems.

[Susan Rogers Van Katwyk](#), *Investigator and Research Director, Global Antimicrobial Resistance, Global Strategy Lab, Mng. Director, WHO Collaborating Centre on Global Governance of Antimicrobial Resistance*

Title: Learning from *Flattening the Curve* - Getting to a unifying global target for drug resistant infections

Abstract: Much is at stake in the fight against drug resistant infections: if global efforts are not properly mobilized, we risk losing the ability to treat even the most basic of infections. Yet, despite decades of awareness among the scientific community there has been limited political and financial investment in fighting drug resistant infections. A particular challenge has been the inability to articulate a unifying global target – a clear and actionable global goal – for reducing drug resistant infections. By contrast, the COVID-19 rallying-cry to “flatten the curve” has acted as a memorable, mobilizing target, encouraging people to slow the rate of new infections and avoid overwhelming the healthcare system. Developing an equally clear and feasible target would be helpful for progress on AMR as there is currently no consensus on an analogous, politically useful, epidemiologically informed, rallying cry to increase public and political engagement in AMR containment.