

*Free Public Lecture*

# The international trade in wildlife and the emergence of pandemic diseases



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Every time a hunter traps a wild animal in the forest, it creates an interface between wildlife and people across which viruses or bacteria can pass. This effect multiplies as that animal moves along the market chain, changing hands through rural markets and often across international borders. Trade does not take place in isolation; it enables the transfer of pathogens between wild and domestic species, whose natural ecology would normally inhibit such spread of disease. It was these same processes that led to the emergence of new viral strains such as SARS that emerged from the wet markets of Guangdong where bats and small carnivores were sold. SARS resulted in over 8,000 human cases in 37 countries worldwide and the death of almost 800 people. Similar processes have contributed to the emergence of highly pathogenic avian influenza H5N1, which has spread on an intercontinental scale, impacting food security, inducing billions of dollars of economic losses through control measures and disruption to trade, as well as the deaths of 300 people. Approximately 30 million people are currently living with and almost 2 million people die each year from HIV/AIDS in what is perhaps the largest epidemic of animal origin in human history. Overall, over 70% of emerging zoonotic pathogens (i.e., pathogens from animals that affect humans) originate in wildlife populations.

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