

Viral Forecasting

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Current global disease control efforts focus largely on attempting to stop pandemics after they have already emerged. This fire brigade approach, which generally involves drugs, vaccines, and behavioral change, has severe limitations. Just as we discovered in the 1960s that it is better to prevent heart attacks than try to treat them, over the next 50 years we will realize that it is better to stop pandemics before they spread and that effort should increasingly be focused on viral forecasting and pandemic prevention. In this talk I discuss how novel viruses enter into the human population from animals and go on to become pandemics. I then discuss attempts by my own research group to study this process and attempt to control viruses that have only recently emerged. By creating a global network at the interface of humans and animals we are working to move viral forecasting from a theoretical possibility to a reality.