## One century after 1918 flu pandemic, an ultimate solution remains pending...

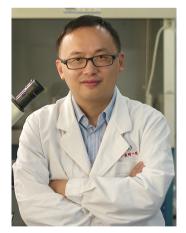
The year 2018 is the centennial anniversary of the most devastating infectious disease of defined pathogen in recorded history: the 1918 influenza pandemic. In the past 100 years, human being has been suffering from continuous threats of influenza viruses. Apart from seasonal influenza outbreaks which cause an estimated 250,000–500,000 deaths worldwide each year, pandemics pose even a greater threat because they are highly unpredictable and with high fatalities, including 1918 H1N1 "Spanish flu", 1957 H2N2, 1968 H3N2 "Hong Kong flu", 2009 H1N1 "Swine flu", and many regional outbreaks of avian influenza H5N1, H7N7, H7N9, and H5N6. Take H7N9 as an example, China has experienced five epidemic waves since 2014, the fifth wave seemed to be more geographically wider, the viral haemagglutinin (HA) has changed to be highly pathogenic in birds with human infections appeared to be more virulent. In addition to influenza virus, other airway transmitted viruses including severe acute respiratory syndrome (SARS) coronavirus, Middle East respiratory syndrome (MERS) coronavirus, and adenoviruses have also caused significant damages to human health over the past 20 years. Therefore, it is imperative to advance our knowledge in pathogenesis, transmission, and to find better diagnosis, anti-viral drugs, and new vaccines to lower the inflictions caused by respiratory viruses. It is with this aim, a series of new insights and achievements from global multi-disciplinary experts were invited to contribute to this special issue, including USA, Japan, Europe, and China. We hope that this issue will inspire and facilitate the knowledge updating and innovation in influenza research. We greatly appreciate all authors who make efforts in their busy schedules to contribute to this special issue.

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None.



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