Availability of a candidate reassortant vaccine virus for the novel influenza A (H1N1) vaccine development

27 May 2009

X-179A

A candidate reassortant vaccine virus (X-179A) has been developed, using classical reassortment technology, from an A/California/7/2009 (H1N1)v virus**,** by the New York Medical College, New York, USA**.**

The full characterization of this reassortant virus, including safety testing in ferrets, is currently being conducted by the WHO Collaborating Centre for Surveillance, Epidemiology and Control of Influenza in the U.S. Centers for Disease Control and Prevention (CDC), Atlanta, GA, USA. Antigenic and genetic analyses completed so far indicate that the X-179A reassortant virus meets the specifications in the recent WHO recommendation on viruses to be used in vaccine development.[1]

The haemagglutinin (HA) and neuraminidase (NA) sequences of the A/California/7/2009 (H1N1)v virus can be found on the public web site of GenBank via the following links:

HA sequence
http://www.ncbi.nlm.nih.gov/nuccore/227977171?ordinalpos=1&itool=EntrezSystem2.PEntrez.Sequence.Sequence_ResultsPanel.Sequence_RVDocSum

NA sequence
http://www.ncbi.nlm.nih.gov/nuccore/229396468?ordinalpos=1&itool=EntrezSystem2.PEntrez.Sequence.Sequence_ResultsPanel.Sequence_RVDocSum

The X-179A reassortant virus is available for distribution to manufacturers under certain biocontainment conditions.[2] Institutions, companies and other parties interested in developing vaccines to the novel variant influenza A (H1N1) virus, who wish to receive this candidate reassortant vaccine virus, should contact either the WHO Global Influenza Programme at GISN@who.int or the WHO Collaborating Centre in CDC, USA or the National Institute for Biological Standards and Control (NIBSC), UK, at the addresses below:

WHO Collaborating Centre for Surveillance, Epidemiology and Control of Influenza
Centers for Disease Control and Prevention, Influenza Branch
1600 Clifton Road, G16, Atlanta, Georgia 30333, United States of America
Atlanta, GA 30333
United States of America
Fax:+1 404 639 0080
E-mail : fluorder@cdc.gov.
http://www.cdc.gov/flu/

Division of Virology
National Institute for Biological Standards and Control
Blanche Lane, South Mimms, Potters Bar
Hertfordshire, EN6 3QG, United Kingdom
E-mail: enquiries@nibsc.hpa.org.uk or standards@nibsc.hpa.org.uk
http://www.nibsc.ac.uk/flu_site/viruses_reagents.html

The WHO Global Influenza Surveillance Network closely monitors the antigenic and genetic evolution of emerging and circulating human influenza viruses. Countries are encouraged to share with WHO both their specimens/isolates for inclusion in the WHO influenza vaccine virus selection and development process, and other activities of public health importance.

[1] http://www.who.int/csr/disease/swineflu/guidance/laboratory/en/index.html
[2] http://www.who.int/biologicals/publications/trs/areas/vaccines/influenza/en/index.html

Biocontainment requirements for handling the candidate reassortant vaccine virus

The candidate reassortant vaccine virus contains infectious materials and should be handled only in appropriate containment facilities (until completion of the above-mentioned safety tests, it is recommended to use biosafety level 2 plus [BSL-2 plus] facilities with biosafety level 3 [BSL-3] practices)[3] using fully trained and competent staff in accordance with national safety guidelines. Further guidance will be provided to recipient laboratories when the safety tests have been completed. If, as expected, attenuation is demonstrated, vaccine production may proceed at BSL-2 enhanced level, as described in WHO Technical Report Series No. 941.[4] Recipient laboratories must accept full responsibility for the use and disposal of all materials.

[3] http://www.who.int/csr/resources/publications/swineflu/LaboratoryHumanspecimensinfluenza/en/index.html
[4] http://whqlibdoc.who.int/trs/WHO_TRS_941.pdf