

INFLUENZA:

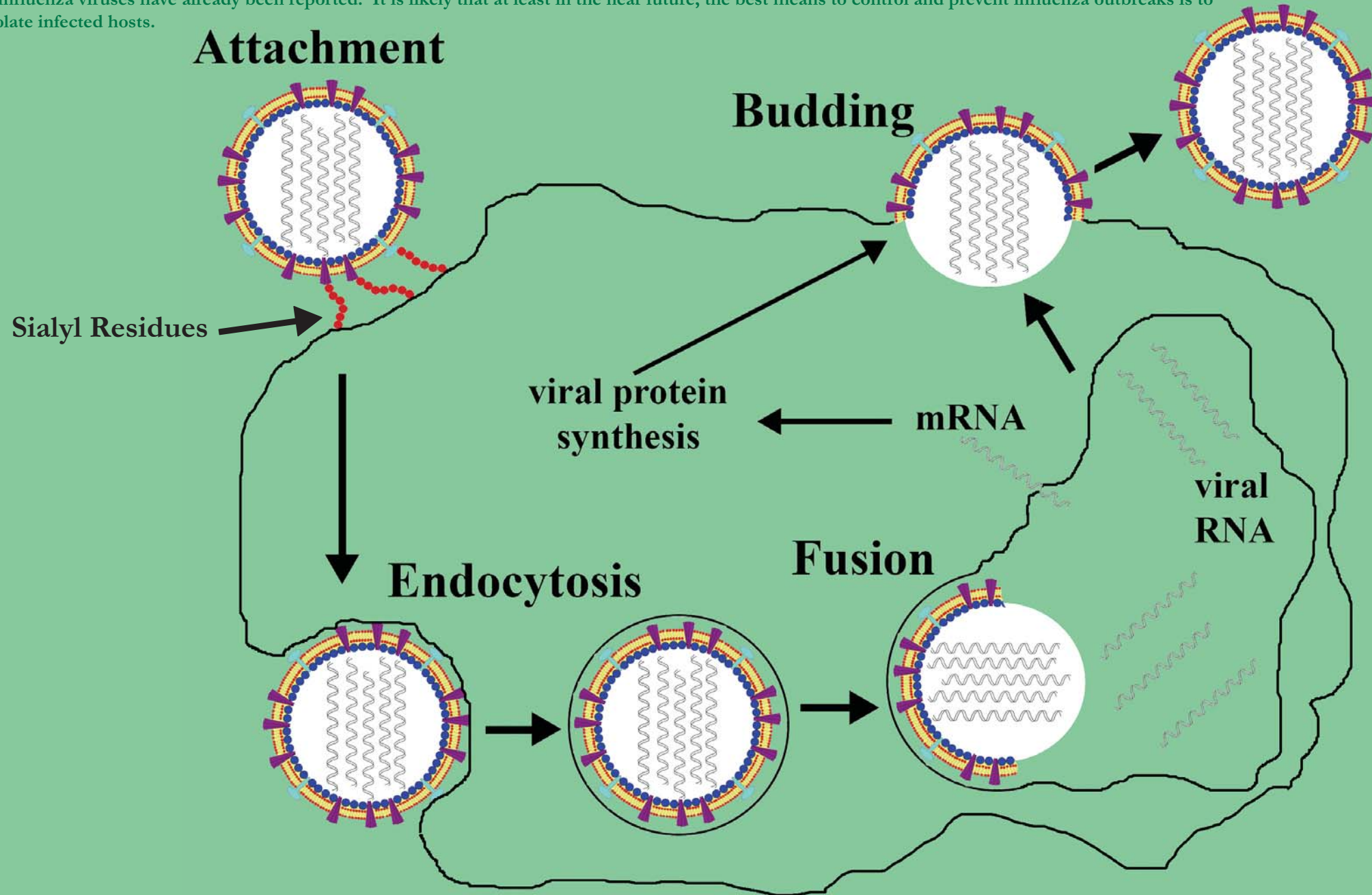
Influenza viruses are classified as A, B, and C based on antigenic differences in their nucleoprotein and matrix protein. Further subtyping is based on the antigenicity of the surface glycoproteins hemagglutinin (HA) and neuraminidase (NA). At present, fifteen HA and nine NA subtypes of influenza A have been identified. While influenza A viruses have been isolated from a variety of animals including birds, pigs, and humans, those that have circulated widely in humans remain limited to the H1, H2, and H3 subtypes of HA and the N1 and N2 subtypes of neuraminidase.

Cases of avian influenza have been documented in domestic and wild avian species such as chickens, ducks, turkeys, and seabirds for over one hundred years. Some outbreaks have resulted in the death of large numbers of infected birds, while other cases appear to be much less virulent and cause either mild or asymptomatic disease. In the last several decades, several outbreaks of highly virulent avian influenza have occurred in Asia, Australia, Europe, and the United States, and in every case, the viruses have been of the H5 or H7 subtype.

The H5N1 virus gained worldwide attention in 1997 as eighteen people in Hong Kong became infected with this virus, leading to the deaths of six. Since then, other human cases have been reported in Southeast Asia and most recently in Turkey in late 2005 and early 2006. In almost all cases, the means of transmission were determined to be bird-to-human. A disturbing feature of the cases in Turkey however, is that unlike in Southeast Asia – where outbreaks of H5N1 influenza had been detected in poultry well ahead of human cases – in Turkey there had been almost no prior warning of infection in poultry.

Currently, there is no vaccine that protects against avian flu although several are in development. The ease with which different influenza viruses can reassort in infected hosts and potentially give rise to hybrid strains makes the idea of vaccinating humans with live “attenuated” virus unappealing. Vaccines based on recombinant viral proteins may offer one avenue of protection, but the pace of the genetic observed in influenza is such that this may have limited value. Anti-viral drugs such as Tamiflu (oseltamivir) may also be of limited use as drug-resistant influenza viruses have already been reported. It is likely that at least in the near future, the best means to control and prevent influenza outbreaks is to identify and isolate infected hosts.

Attachment



H5N1 PRODUCTS:

| CATALOG # | PRODUCT NAME |
|-----------|--|
| PSI 1808 | H5N1 Antibody Detection Set |
| PSI 3425 | Anti-Hemagglutinin (IN) polyclonal antibody |
| PSI 3427 | Anti-Hemagglutinin (NT) polyclonal antibody |
| PSI 3421 | Anti-Neuraminidase (IN) polyclonal antibody |
| PSI 3423 | Anti-Neuraminidase (CT) polyclonal antibody |
| PSI 3921 | Anti-Neuraminidase (IN2) polyclonal antibody |
| PSI 3923 | Anti-Matrix polyclonal antibody |
| PSI 3927 | Anti-Polymerase polyclonal antibody |
| PSI 3425P | Hemagglutinin (IN) antigenic peptide |
| PSI 3427P | Hemagglutinin (NT) antigenic peptide |
| PSI 3421P | Neuraminidase (IN) antigenic peptide |
| PSI 3423P | Neuraminidase (CT) antigenic peptide |
| PSI 3921P | Neuraminidase (IN2) antigenic peptide |
| PSI 3923P | Matrix antigenic peptide |
| PSI 3927P | Polymerase antigenic peptide |
| PSI 3925 | Anti-Hemagglutinin (IN2) polyclonal antibody (forthcoming) |
| PM 3525 | Anti-Hemagglutinin monoclonal antibody (forthcoming) |
| PM 3521 | Anti-Neuraminidase monoclonal antibody (forthcoming) |