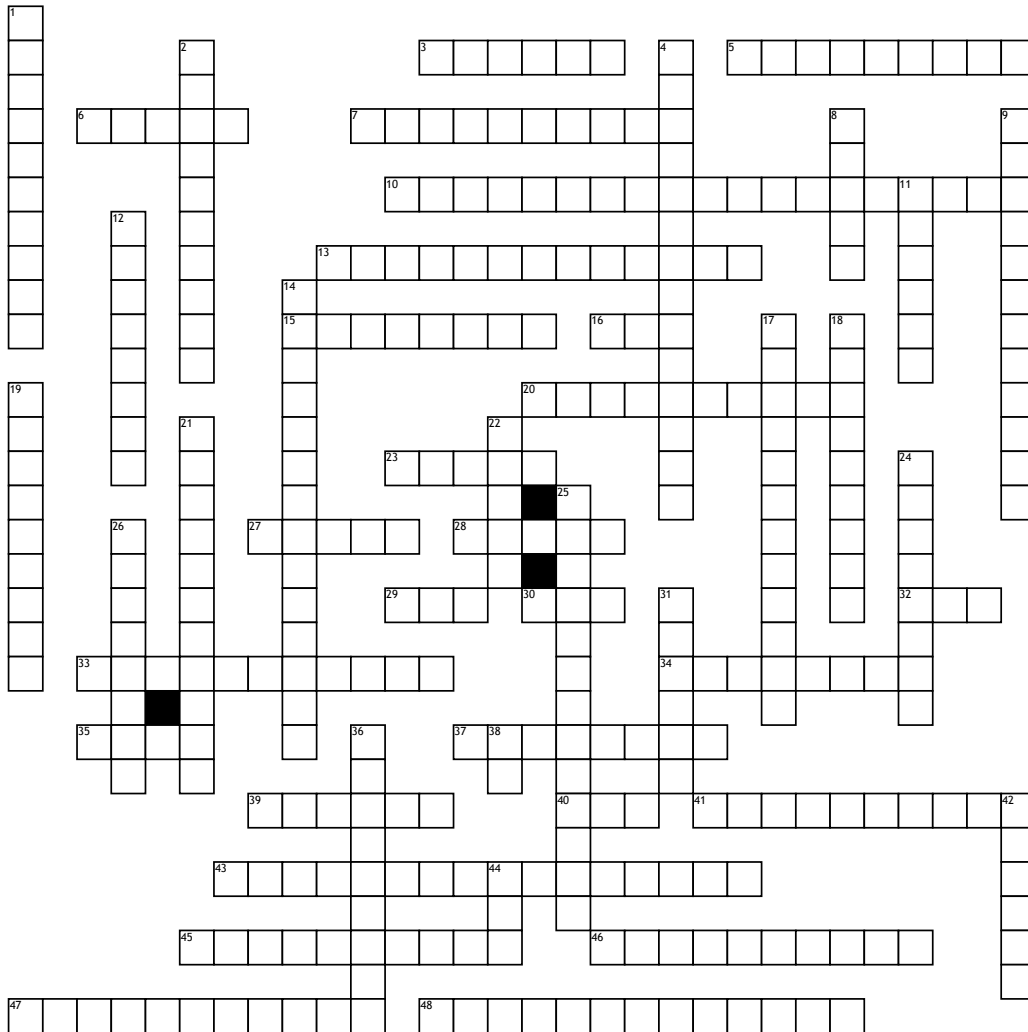


Influenza virus



Across

3. How many NA classes have been identified³
5. "Influenza" comes from the Italian language for²
6. How many types of influenza virus are there²
7. the cap-snatching mechanism enables ___ to express alternative open reading frames³
10. Complete structures of IAV, IBV and ICV have been seen through³
13. The role of the fusion protein of influenza virus is²
15. How many HA classes have been identified³
16. What types of influenza can infect vertebrates³
20. Mature HA trimers can be released from the surface of the virion by²
23. What membrane does the virion contain that is derived from the plasma membrane²
27. Typical symptoms appear days after infection and resolve within¹
28. How many regions are structural differences located in²
29. What influenza can infect humans but are rarely have symptomatic disease in humans³
30. What strain of influenza circulates in waterfowl and is associated with asymptomatic infections¹
32. What type of influenza has not been detected in humans³
33. The first step of influenza virus entry is²

34. Endocytosis is contained in the²
35. Various in vitro studies have been performed to identify the RNA species that bind and activate³
37. High mutation rates allow the evasion of¹
39. What month is influenza peak in¹
40. What strain of influenza causes serious illness in poultry¹
41. In humans, influenza viruses infect the respiratory¹
43. Influenza virus belongs to what family²
45. Several channels lead to and from the³
46. What host species do viruses have an unusual ability to adapt to¹
47. The first glimpse of the virus was from electron²
48. What kind of RNA genome is in seven or eight segments¹

Down

1. What contains a head and body domain³
2. Ranging from spheres to extremely long filaments¹
4. What pandemic killed 1 in 30 of the population in 18 months in 1918¹
8. What association of the virus particle induces endocytosis²
9. Hemagglutinin is a trimeric ___ presented in the membrane envelope of influenza virus²
11. Populations that include infants, elders, pregnant women and immunocompromised are considered¹

12. HA trimers are ___ through a transmembrane domain²
14. What step releases all segments into the nucleus where transcription happens²
17. Serious illness is due to secondary bacterial infections or ___ of cardiovascular and respiratory illness¹
18. NA inhibitors can be used for¹
19. The reason influenza occurs annually is because of the²
21. The multivalent attachment of trimeric HA triggers²
22. How many viral genome segments are released into the nucleus²
24. influenza ___ are available annually and must be updated accurately¹
25. What plays a key role in the entire entry pathway²
26. Adaptation of new IAV strains can cause a¹
31. How many subtypes does IAV have²
36. IAV, IBV, and ICV are highly transmissible respiratory¹
38. What ion channel protein is outside the membrane³
42. What layer is formed by the matrix protein²
44. In humans, what day before onset of symptoms does Viral shedding begin¹

Word Bank

ACTIVESITE
THREE
ELEVEN
ATRISK
PROTEINASE
LIPID
ANCHORED
NPMONOMERS

XRAYCRYSTALLOGRAPHY
ENDOSOME
RECOGNITION
ORTHOMYXOVIRIDAE
PANDEMIC
MEMBRANEFUSION
VERTEBRATE
ONE

STRUCTURE
IAV
M2
TIGHT
VACCINES
ALL
ICV
TWENTY

IAV
GRATINFLUENZA
HEMAGGLUTININ
NEGATIVESENSE
WINTER
PLEMORPHIC
IDV
GLYCOPROTEIN

PATHOGENS
RIGI
EIGHTEEN
TREATMENT
POLYMERASE
WEEKS
ENDOCYTOSIS
IMMUNITY

MATRIX
HEMAGGLUTININ
EXACERBATION
THREE
EPITHELIUM
MICROGRAPHS
EIGHT
INFLUENCE