

Have the Chinese created a new destructive flu virus?

16 May 2013 | Analysis | By BioSpectrum Bureau



As part of a new research, China's Harbin Veterinary Research Institute under the leadership of Dr Chen Hualan has created 127 viral hybrids of H5N1 and H1N1. Out of these hybrids, five of them are airborne and are capable of being passed onto guinea pigs. There is a fear of this new deadly virus leaking out from the lab and causing a pandemic that could kill 500 million people.

Evidently, the global scientific community is irked at this and has lashed out at the research team calling their work an 'appalling irresponsibility'. The research that was recently released online explained how these scientists took one gene from the human influenza virus and put it into the bird flu. As a result producing a contagious and dangerous strain of H5N1 bird flu. Whether this new strain could be lethal for humans is still not known, but the researchers have defended their work claiming that the study could help prevent potentially pandemic scenarios.

â€œThe studies demonstrated that H5N1 viruses have the potential to acquire mammalian transmissibility by re-assortment with the human influenza viruses. This tells us that high attention should be paid to monitor the emergence of such mammalian-transmissible virus in nature to prevent a possible pandemic caused by H5N1 virus,â€• said Professor Chen Hualan, director, China's National Avian Influenza Reference Laboratory at Harbin Veterinary Research Institute.

A total of 970 samples were collected from live poultry markets and farms located in Shanghai and Anhui provinces. These samples were collected from drinking water, contaminated soil, tracheal swabs, feces and cloacal. The 20 samples that tested positive for the presence of H7N9 influenza virus were all from live poultry markets in Shanghai. The team then created 127 reassortant viruses that all had H5N1's HA gene.

Owing to growing biosecurity concerns, researchers worldwide had in January 2012 instituted a self-imposed ban on creating mutant strains of H5N1 bird flu that can pass between people. This moratorium was lifted earlier this year. The scientific community is still debating whether the Chinese have created a dangerous virus in a bid to save the world from one that has already killed 35 and infected 130 people.

Defending the research, eminent virologist and professor of microbiology and immunology at the College of Physicians and Surgeons of Columbia University, Vincent Racaniello, said on his blog that the experiments were quite well designed. He explained, "I firmly believe that laboratory-constructed viruses do not have what it takes to be a human pathogen. I believe that scientists are quite responsible when it comes to safe handling of pathogens. If we worry about every type of transmission experiment involving influenza H5N1 virus, we will never make progress in understanding why this virus does not transmit among humans." More from his analysis can be read at www.virology.ws.

Have Chinese scientists done the right thing by fusing human and avian flu strains to create new killer viruses? Let us know what you think in the comments section below.