

Preliminary results of manufacturing antibodies using ferrets immunized with a local influenza virus isolate

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To prevent influenza, rapid identification of viral types of influenza is required. Among lab animals, ferrets have a high sensitivity to human influenza viruses, and hence are often used as animal models for influenza. In this study, ferrets are used for immunological experiments with the hope to establish initial techniques including culture of influenza virus from specimens, management and breeding of laboratory ferrets, immunological blood sampling of ferrets, and pathological studies. Ferrets breeding with current laboratory equipments can easily result in cross infection with human diseases. Therefore, our proposal will also emphasize on improving current equipments related to laboratory animals.

Seven influenza viral strains were tested and the result revealed that ferret No. 1 has the highest hemagglutination titer against A/Wellington/1/2004 (2560), which was one fold higher than the selected viral strain /California/7/2004 (1280). Even though the one fold difference in titer could be neglected in serial dilution, the antigens from these two strains were very similar. In the future, strains isolated during serial evolution of this virus will be tested with the ferret serum to provide information about their evolutionary sequences. Despite the fact that ferret No. 2 has a lower hemagglutination titer, being only 640 folds against the selected virus A/California/7/2004, it is still appropriate for testing this viral type.

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