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Poster presentation

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Background

The avian poxvirus ALVAC constitutes the backbone of the recombinant HIV vaccine tested in the phase III RV144 trial in Thailand. ALVAC HIV-1 vaccine candidates have been tested in several animal models. Protection from infection was observed in chimpanzees whereby, one of two animals was protected (1); in adult animals 2 of 5 vaccinated rhesus macaques (2) and 4 of 10 of cynomolgus macaques (3) remained virus free; in neonate macaques 10 of 16 animals remained virus free following repeated oral exposure to low doses of SIVmac251 (4). Vaccination with the same vaccine reduced plasma virus in vaccinated neonates that became infected and in adult vaccinated macaques (4,5). ALVAC-based vaccines have also protected 5 of 18 vaccinated macaques from SHIVKU2 infections (6).

Methods

Differences in target cells, age, and MHC class I combined with differences in the tropism and dose of the viral challenge stock, may account for the various degree of protection observed in the different studies.

Results

The results of the challenge exposure to SIVmac251 will be available in October of 2009 and will be compared to the results of the RV144 trial.

Conclusion

Because we believe that the results of the RV144 trial in humans will help to validate animal models of AIDS, we initiated a study in macaques that mimics the RV144 in humans.The vaccinated adult macaques developed mucosal effector responses to SIVmac251 and will be challenged by the mucosal route, either with a high dose or low repeated doses of SIVmac251.