**鼬獾狂犬病病原性分析與口服疫苗效力評估結果**

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**摘要**

台灣自102年發現鼬獾狂犬病起，截至目前為止98%陽性病例發生於鼬獾，經分子演化分析與計算推論該病毒已經存在台灣逾幾十年，為釐清鼬獾狂犬病病毒在不同物種間的感受性，本實驗室是以進行該病毒於鼬獾、小鼠、白鼻心之病原性試驗；結果顯示鼬獾狂犬病病毒依舊以在目標宿主鼬獾之感受性最高。為了未來進行撲滅計畫，本所被委以評估WHO推薦之狂犬病口服疫苗，本試驗是以在鼬獾評估口服疫苗之安全性、效力、免疫原性，結果顯示該疫苗在鼬獾之安全性佳、無唾液排毒疑慮，並且可達歐盟或美國規範之野生動物活毒疫苗保護標準，相關成果已投稿PLOS ONE並被接受。

**Evaluation of Ferret Badger Rabies Pathogenicity and the Efficacy of an Oral Rabies Vaccine**

Tseng, Chun-Hsien

**Abstract**

Since 2013, rabies cases have been reported among Formosan ferret badgers in Taiwan and they have been shown to be the major reservoirs for Taiwanese enzootics with a 98% occurence rate in all the positive cases diagnosed. Based on previous molecular phylogenetic analyses, the virus has existed in Taiwan for several decades. To determine the pathogenicity of the ferret badger rabies virus among different animal species, we subjected ferret badgers, mice and gem-faced civets with the rabies virus for comparative analyses. The result showed that the ferret badger rabies virus still causes the highest disease susceptibility to the target host, ferret badgers. In addition, as part of the objective to eliminate ferret badger rabies from Taiwan, the Animal Health Research Institute (AHRI) was commissioned to evaluate a rabies oral vaccine recommended by the World Health Organization (WHO). The oral vaccine assessment thus tested the safety, efficacy and immunogenicity of the vaccine on ferret badgers. The results revealed that the selected oral vaccine was safe for ferret badgers, and that there was no risk of virus excretion in ferret badger saliva. Furthermore, the mortality rate of the oral vaccine were similar to the legal requirements for wild animal live vaccines against rabies in the EU and the United States. The oral vaccine study findings have been submitted to PLoS ONE and have been accepted for publication.