

# 赴日本參加 2011 年第十五屆國際病毒年會心得報告與 不同基因型豬瘟病毒 E2 糖蛋白之抗原性分析研究

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## 摘要

國際病毒年會 (International Congress of Virology) 為國際微生物學會 (International Union of Microbiological Societies; IUMS) 每三年舉辦一次的國際重要學術會議，本次第十五屆年會在日本札幌舉辦，共計有來自 65 國，超過 4,800 位學者專家與會。本屆國際病毒年會共接受上千篇以上來自世界各國不同病毒領域之專家學者的學術論文發表，並安排多場專題演講與邀請多位諾貝爾獎得主發表演講，與會發表之研究論文均具有創新性與實用性，對獸醫疫病研究有重大參考價值。本次出席第十五屆國際病毒會議之目的，除可自各國病毒專家的學術報告獲取有關動物疾病與人畜共通疾病病毒及疾病防治的最新資訊，亦可與世界各國的專家學者互動交流，並促進國際間學術合作，對提升我國動物疾病研究與疫苗研發等領域的學術研究水準，助益良多。

豬瘟為豬隻的高度傳染性疾病，由於豬瘟病毒 E2 糖蛋白為主要誘發豬隻產生中和抗體之結構蛋白，因此本實驗針對不同基因型豬瘟病毒 E2 糖蛋白之抗原性作分析研究，藉由桿狀病毒表現系統表達不同基因型豬瘟病毒 E2 糖蛋白之各抗原區域，並分析表現蛋白與單株抗體之作用，以找出特異性之抗原決定位。先前研究指出 E2 糖蛋白之 D、A 抗原區與 E2 糖蛋白 C 端為抗原性保留區，本實驗結果顯示上述區域在不同病毒株間具抗原性差異存在。

# **Attending the XV International Congress of Virology in Japan/ Analysis of antigenicity among various subgroups of E2 glycoprotein of CSFV**

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## **Abstract**

International Congress of Virology is a prestigious international congress held by International Union of Microbiological Societies (IUMS) every three years. The XV IUMS congress, held in Sapporo, Japan, had 4800 scientists from 65 countries around the globe to participate in. The XV IUMS included 341 oral presentations and 834 posters together with special keynote lectures and Nobel lectures. Through attending IUMS provides an opportunity to dig deeper into research and open new perspectives for the veterinary field and increases the opportunity to cooperate with other countries, help us to deeper understand the conditions of current viral pathogens and help us to understand the current information about viral diseases epidemic situation in the world. The information will be crucial for the government to establish the prevention and control policy and to develop the immunoprotective vaccine to increase the production efficiency and competition ability of swine industry.

Classical swine fever (CSF) is a highly contagious disease of pigs. Envelope glycoprotein E2 of classical swine fever virus (CSFV) is the major antigen that induces neutralizing antibodies in infected pigs. Antigenicity among various subgroups of E2 glycoprotein of CSFV was analyzed by expression of several truncated E2 proteins of various CSFV strains using baculovirus system and tested for their reactions to a panel of monoclonal antibodies (mAbs) against CSFV. Our study displayed the differences in antigenicity of E2 between various strains of CSFV by their variable reaction patterns between expressed proteins and mAbs. Previous studies revealed that the D/A domains and the C-terminal region were conserved among various CSFVs. However, our results demonstrated that the D/A domains and the C-terminal region were also responsible for antigenic specificity.