

豬環狀病毒之研究

新興傳染病組

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摘要

豬環狀病毒 (Porcine circovirus, PCV)屬於環狀病毒科，具有環形單股 DNA 病毒。豬環狀病毒現在有第一型豬環狀病毒 (Porcine circovirus type 1, PCV1)、第二型豬環狀病毒 (Porcine circovirus type 2, PCV2)及第三型豬環狀病毒 (Porcine circovirus type 3, PCV3)。其中第二型豬環狀病毒，造成養豬界嚴重的經濟損失。近年研究發現，在有些豬皮膚炎與腎病症候群 (Porcine dermatitis and nephropathy syndrome, PDNS)及繁殖障礙 (Reproductive failure, RF)病例中，利用即時聚合酶鏈鎖反應方法並未檢測到 PCV2。但藉由組織病理學配合分子生物診斷技術，則檢測到一個新型的豬環狀病毒，被命名第三型豬環狀病毒。最初是在 2015 年經由基因定序分析，在患有豬皮膚炎和腎病綜合症、繁殖障礙、心肌炎和多系統性炎症的組織中發現。該病毒屬於豬環狀病毒屬的第三個成員。

Research on Porcine Circovirus

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Abstract

Porcine circovirus (PCV) belongs to the *Circoviridae* family and is a circular single-stranded DNA virus. Porcine circoviruses currently include porcine circovirus type 1 (PCV1), porcine circovirus type 2 (PCV2) and porcine circovirus type 3 (PCV3). Among them, PCV2 has caused severe economic losses to the pig industry. Recent studies have found that in some cases of porcine dermatitis and nephropathy syndrome (PDNS) and reproductive failure (RF), PCV2 was not detected by real-time polymerase chain reaction methods. However, through histopathology and molecular biological diagnostic technology, a new type of porcine circovirus was detected, which was named as PCV3. PCV3 was first discovered in 2015 through genetic sequencing analysis in tissues suffering from PDNS, reproductive failure, myocarditis and multisystem inflammation. The virus is the third member of the genus circovirus.