



行政院農業委員會

家畜衛生試驗所

ANIMAL HEALTH RESEARCH INSTITUTE, COUNCIL OF AGRICULTURE, EXECUTIVE YUAN

創新、服務、生命守護

禽類副黏液病毒

自從1899年馬丁烏斯·貝傑林克發現並命名世界上第一個病毒-菸草鑲嵌病毒(TOBACCO MOSAIC VIRUS ; TMV)之後，在全球學者一百多年來的努力下，迄今已有5000多種病毒得到鑑定，本所很高興能參與及貢獻其中。

本所禽病診斷實驗室與臺灣大學及義大利OIE參考實驗室合作發表的新型禽類副黏液病毒，今年獲國際病毒分類委員會 (INTERNATIONAL COMMITTEE ON TAXONOMY OF VIRUSES, ICTV) 確認並設立為新的病毒種 (SPECIES) 。

病毒正式名稱為「 AVIAN METAAVULAVIRUS 22 」，此項新增病毒提案的連結網址如下：

[HTTPS://TALK.ICTVONLINE.ORG/TAXONOMY/P/TAXONOMY-HISTORY?TAXNODE_ID=202009286](https://talk.ictvonline.org/taxonomy/p/taxonomy-history?taxnode_id=202009286)

謹以此項成果獻給全台各動物防疫單位及野鳥學會辛苦採樣的同仁。

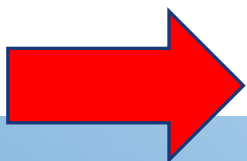


ENHANCED BY Google



Home Information Taxonomy Files Discussions Study Groups Meetings ICTV Report Login/Join

— Subfamily: <i>Avulavirinae</i>	Family: <i>Paramyxoviridae</i>	3 genera	history
— Genus: <i>Metaavulavirus</i>	Subfamily: <i>Avulavirinae</i>	11 species	history
Species: <i>Avian metaavulavirus 2</i>	Genus: <i>Metaavulavirus</i>		history
Species: <i>Avian metaavulavirus 5</i>	Genus: <i>Metaavulavirus</i>		history
Species: <i>Avian metaavulavirus 6</i>	Genus: <i>Metaavulavirus</i>		history
Species: <i>Avian metaavulavirus 7</i>	Genus: <i>Metaavulavirus</i>		history
Species: <i>Avian metaavulavirus 8</i>	Genus: <i>Metaavulavirus</i>		history
Species: <i>Avian metaavulavirus 10</i>	Genus: <i>Metaavulavirus</i>		history
Species: <i>Avian metaavulavirus 11</i>	Genus: <i>Metaavulavirus</i>		history
Species: <i>Avian metaavulavirus 14</i>	Genus: <i>Metaavulavirus</i>		history
Species: <i>Avian metaavulavirus 15</i>	Genus: <i>Metaavulavirus</i>		history
Species: <i>Avian metaavulavirus 20</i>	Genus: <i>Metaavulavirus</i>		history
Species: <i>Avian metaavulavirus 22</i>	Genus: <i>Metaavulavirus</i>		history





Contents lists available at ScienceDirect

Veterinary Microbiology

journal homepage: www.elsevier.com/locate/vetmic



Novel avian metaavulavirus isolated from birds of the family *Columbidae* in Taiwan



Yu-Pin Liu^{a,b}, Shu-Ting Kuo^a, Chwei-Jang Chiou^a, Calogero Terregino^c, Hsiang-Jung Tsai^{b,*}

^a Animal Health Research Institute, 376 Chung-Cheng Road, Tamsui District, New Taipei City, 25158, Taiwan

^b Graduate Institute of Veterinary Medicine, School of Veterinary Medicine, National Taiwan University, 1, Section 4, Roosevelt Road, Taipei, 10617, Taiwan

^c OIE/FAO and National Reference Laboratory for Newcastle Disease and Avian Influenza, Istituto Zooprofilattico Sperimentale delle Venezie, Viale dell'Università, 10-35020, Legnaro, PD, Italy

ARTICLE INFO

Keywords:

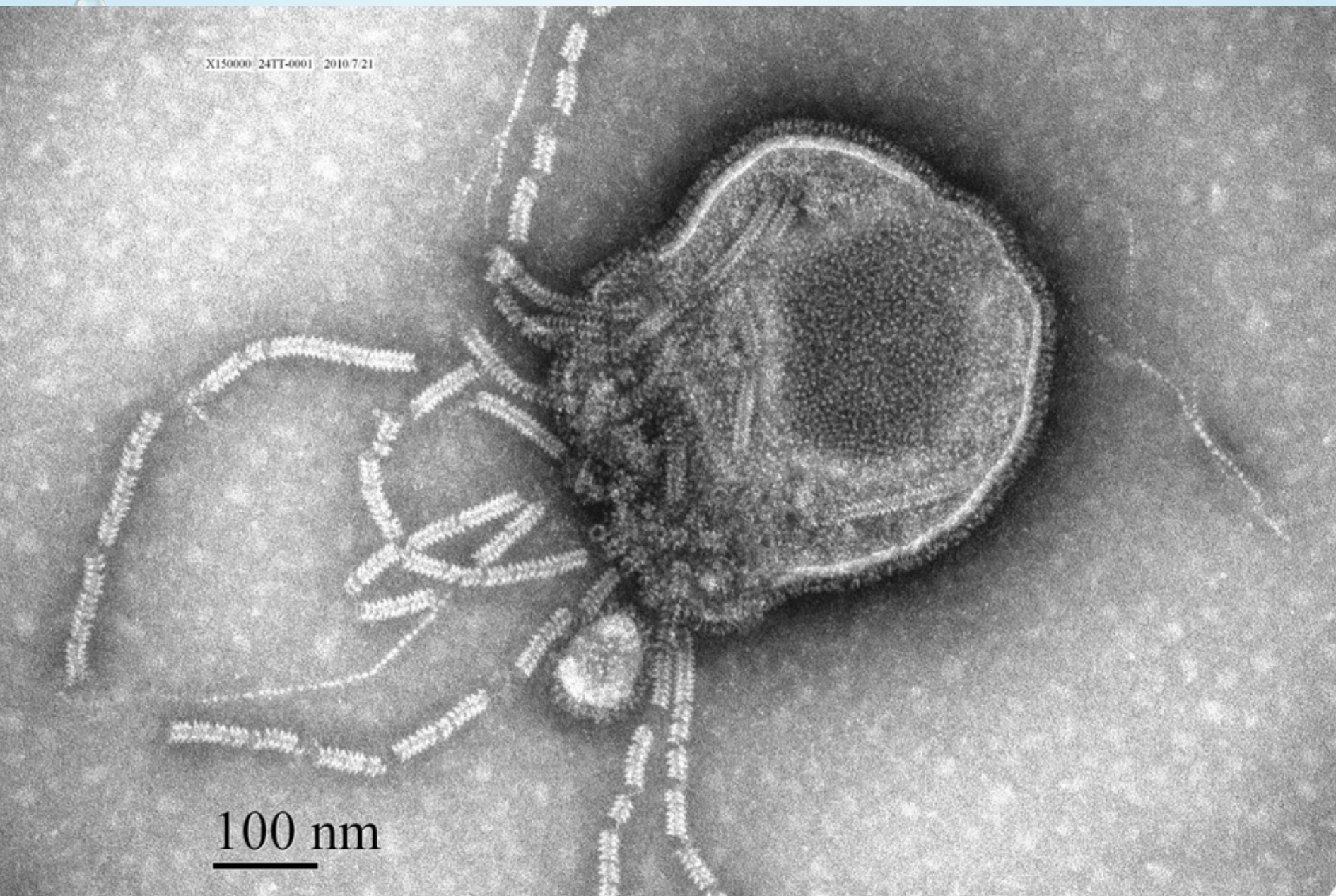
Paramyxovirus
Avulavirus
Avian metaavulavirus
Whole genome

ABSTRACT

Avian paramyxoviruses (APMV) consist of twenty known species and have been isolated from domestic and wild birds around the world. In 2009, the isolate APMV/dove/Taiwan/AHRI33/2009 was isolated from swabs of red turtle doves (*Streptopelia tranquebarica*) during active surveillance of avian influenza in resident birds in Taiwan, and it was initially identified as paramyxovirus based on electron microscopy. Hemagglutination inhibition assays indicated antigenic heterogeneity of AHRI33 with the known APMV-1, -2, -3, -4, -6, -8, and -9 species, only showing weak but measurable cross-reactivity with APMV-7. Pathogenicity ICPI test revealed that the virus was avirulent for chickens. The AHRI33 virus genome revealed a typical APMV structure consisting of six genes 3'-NP-P-M-F-HN-L-5', and the length of the genome was 16,914 nucleotides, the third longest among the members of the subfamily *Avulavirinae*. Estimates of the nucleotide sequence identities of the genome between each prototype of APMVs had shown AHRI33 to be more closely related to APMV-7 than to the others, with a sequence identity of 62.8%. Based on topology of the phylogenetic tree of RdRp genes and the branch length between the nearest node and the tip of the branch, AHRI33 met the criteria for designation as distinct species. Together, the data suggest that the isolate APMV/dove/Taiwan/AHRI33/2009 should be considered as the prototype strain of the new species *Avian metaavulavirus 21* in the genus *Metaavulavirus* in the subfamily *Avulavirinae*.

禽類副黏液病毒目前已被人們發現22型，廣泛的分佈在世界各式各樣的野鳥及家禽中，最為大家所認識的應該是1型，也就是在家禽造成疾病的新城病病毒。而我們這一株新的病毒是分離自臺灣常見的鳩鴿科鳥類，像是紅鳩、金背鳩及鴿子，這些鳥是它的自然宿主，即使是健康的鳥也可以發現它們的存在。另外很重要的是，它對於我們飼養的雞也不具有致病性。它的核酸與世界已知的病毒相似度最高僅62.8%，而且各個基因的大小及一些基因體的核酸序列都非常獨特，因而得以成立一個新的病毒種，詳細的研究結果在2019年發表於「Veterinary Microbiology」期刊，論文網址連結：

<https://www.sciencedirect.com/science/article/pii/S0378113519305528?via%3Dihub>



圖像來源：本所郭舒亭助理研究員

很高興能讓世人認識你，雖然你已經在這個世界千百年了，
你的新名字是**Avian metaavulavirus 22**，請多多指教!!!