More And More Coronaviruses

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Professor Patrick CY Woo obtained his medical degree in The University of Hong Kong in 1991. He joined the Department of Microbiology of The University of Hong Kong in 1997, and became Professor of Microbiology in 2006. Professor Woo has established himself as one of the leaders in the field of emerging infectious diseases, novel viruses, bacteria and fungi and novel causes of unexplained infectious disease syndromes, as well as microbial genomics. Notable examples of novel viruses discovered in Professor Woo’s laboratory include human coronavirus HKU1, bat SARS coronavirus and other bat and avian coronaviruses. Professor Woo is currently an appointed member of the Coronavirus Taxonomy Study Group of the International Committee on Taxonomy of Viruses.

Abstract
The recent SARS epidemic has boosted global interest in the discovery of novel human and animal coronaviruses. The number of coronavirus species with complete genomes available has increased from nine in 2003 to about 30 in 2009, of which nine, including human coronavirus HKU1, bat SARS coronavirus, group 1 bat coronavirus HKU2, three groups 2c and 2d coronaviruses, and three group 3c avian coronaviruses were sequenced by our laboratory. Recently, we have also developed a comprehensive database, CoVDB (http://covdb.microbiology.hku.hk), of annotated coronavirus genes and genomes, for rapid and accurate batch sequence retrieval, the cornerstone and bottleneck for comparative gene or genome analysis. With the increasing amount of genomes available and the user-friendly database, easy comparative genome analysis and more specific blast search results can be generated for efficient downstream analysis.