

PolyU discovers a new superbug - hyper-resistant and hypervirulent *Klebsiella pneumoniae*

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This study is recently published in the prestigious academic journal *The Lancet Infectious Diseases*.



Singapore – The Partner State Key Laboratory of Chirosciences at the Department of Applied Biology and Chemical Technology (ABCT) of The Hong Kong Polytechnic University (PolyU) discovered a newly emerged superbug, hyper-resistant and hypervirulent *Klebsiella pneumoniae*, which may cause untreatable and fatal infections in relatively healthy individuals and will pose enormous threat to human health.

Prof. Chen Sheng, Professor of ABCT, collaborating with Prof. Rong Zhang from the Second Affiliated Hospital of Zhejiang University, conducted an investigation into a fatal outbreak of pneumonia in the Second Affiliated Hospital of Zhejiang University in China in February 2016. The causative agent of patients was found to be a carbapenem-resistant *K. pneumoniae* (CRKP) strain, a type of previously-defined superbug. Furthermore, these CRKP strains are also hypervirulent and belong to ST11 type of CRKP, the most prevalent and transmissible CRKP strains in Asia. As these strains simultaneously exhibit the features of hyper-resistance, hypervirulence and high transmissibility, they can be considered a real superbug known as **ST11 CR-HvKP (ST11 carbapenem-resistant hypervirulent *K. pneumoniae*)**.

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