

**Acceptance speech for ATS Education Award (Medical Science)
Kamolchanok Claire Chewapreecha**



Award presented by Mr Richard Fudge
Business Development Director of OCS

I am so pleased to be selected as a winner of the Anglo-Thai Society Educational Award in Medical Science Category. The Society has a long reputation on promoting good relations between the UK and Thailand. It provides a generous support on education for Thai students in UK; many have been highly successful in their studies and helped developed Thailand in many ways. Their achievements are very inspirational and it is humbling to be a small part of this legacy.

I read Natural Sciences at the University of Cambridge before commencing a PhD at the Wellcome Trust Sanger Institute with Professors Julian Parkhill and Stephen Bentley. My project centred on the use of genome sequences to understand the evolution of a bacterial pathogen, *Streptococcus pneumoniae*, which causes 1.6 million deaths worldwide each year. Despite high casualties, treatments have become more difficult as the pathogen rapidly develops antibiotic resistance.

My PhD research is titled "**Evolution of *Streptococcus pneumoniae* in carriage**" and employed a collection of over 3,000 pneumococcal isolates from a rural community in Thailand. The analyses highlighted recombination, a process by which the bacteria exchange their genetic contents, as the key mechanism that allows rapid adaptation of the species; the consequences including the development of antibiotic resistance. This finding was published earlier this year (Chewapreecha *et al.* Nature Genetics 2014), and voiced the concern over rapid spread of antibiotic resistance in Thailand and Southeast Asia.

This work and many others would not be possible without strong supports from colleagues and friends in UK and Thailand. I would like to share the esteem of this award with whom I have worked with, with whom committed to improving public health in Thailand, UK and around the world.

Thank you so much.