

# SIgN Immunology Seminar



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### Fluoroquinolones in masking tuberculosis and causing bacillary resistance: what have we learnt?

*Host*  
Dr Amit Singhal  
Singapore  
Immunology  
Network, A\*Star

*Date*  
**Tuesday**  
**25 November**  
**2014**

*Time*  
2pm – 3pm

*Venue*  
SIgN Seminar  
Room  
Immunos  
Building  
Level 4  
Biopolis

The well established indications of fluoroquinolone use in tuberculosis (TB) pertain to its roles in the treatment of multidrug-resistant (MDR) disease, and in the management of drug-susceptible disease in the face of patient intolerance to first-line antituberculosis drugs. The other areas of potential usefulness of this class of drugs include shortening of the current duration of short-course chemotherapy of TB and preventing development of TB in subjects with latent infection due to MDR *Mycobacterium tuberculosis* (*Mtb*) strains.

In the past one to two decades, there has been an impressive escalation regarding the use of fluoroquinolones in the treatment of community-acquired infections, especially those of the lower respiratory tract. Such therapeutic practice can mask TB diagnosis and worsen patient outcome. The development of fluoroquinolone resistance in *Mtb* generally results from the suboptimal use of regimens based on this class of drugs in the MDR-TB settings. The use of fluoroquinolones for treatment of bacterial infections can also potentially increase the risk of acquired bacillary resistance. Great prudence must be exercised in balancing the benefit and risk regarding the use of short-course fluoroquinolone in the treatment of bacterial infection, notably of respiratory origin, on a case-by-case basis, especially in countries and geographical areas with high prevalence of TB. It is also of paramount importance to limit the duration of the fluoroquinolone course, and to avoid recurrent use of such short-course therapy. In this connection, local guidelines in treating community-acquired pneumonia, to forestall masking of TB and development of drug-resistant *Mtb* strains, would be highly beneficial.