

Therapies for chronic *Pseudomonas aeruginosa* respiratory infection

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Bronchiectasis and Cystic fibrosis (CF) are common diseases in the world. CF is a congenital, recessively inherited disorder which affects one of 2,000 newborns in Caucasian. It seldom occurs in Asia. Bronchiectasis is more common in Asia populations. In spite of the inflammatory response and intensive antibiotic therapy, infections caused by *Pseudomonas aeruginosa* persist in these patients often lead to respiratory failure or death. Chronic *P. aeruginosa* lung infection is the main cause of mortality in these patients. About 80% of adults with CF and more than a half of adults with bronchiectasis were detected to have chronic *P. Aeruginosa* infection. Researchers are devoted to find new ways to fight this bug. Recently several novel therapy methods are tried in lab, in clinics, or on the way to clinics. This review will describe the novel ways for anti-pseudomonas aeruginosa in airway, which include newly systemic antibiotics, inhaled antibiotics, anti-PcrV antibody, nebulised aztreonam lysine, bronchialveolar lavage directed therapy, silver-carbene complex-loaded l-tyrosine, anti-oxidant drug NAC, defensins, cathelicidins, inflammasomes and the ways direct for preventing biofilms of the bacterium. Several new approaches are supposed to be the best candidates for fighting chronic *Pseudomonas aeruginosa* respiratory infection.

Biography

Jin Fu Xu has completed his Ph.D from Fudan University and postdoctoral studies from Harvard Medical School. He is the associate professor of Tongji University School of Medicine in Shanghai China. He has published more than 25 peer reviewed papers in reputed journals and serving as editorial board member of several journals. His interests are focus on respiratory infections and infection associated lung injury, lung fibrosis and the potential role of mesenchymal stem cells in lung diseases.

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