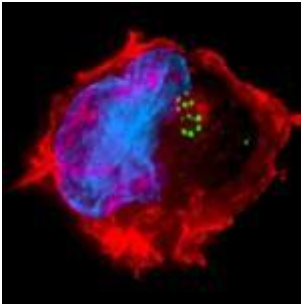


The microbes within us – the microbiological niche of the lungs



It is fast becoming evident that our lungs are not a sterile environment, but a micro-environment rich in the diverse nature of microbial species – bacteria, viruses and phages (viruses within bacteria). In a recent small review in PLoS Pathogens, Dickson and Huffnagle discuss the three ecological factors that determine the lung microbiome: a) microbial immigration into the airways; b) elimination of microbes from the airways and c) the relative reproduction rates of the lung microbial communities. Thus, any change in the microbiome due to different disease states, must be a result of disrupting any of these factors. Where do these bacteria come from? It has been shown that the bacterial species closely resemble those of the oral microbiome during health and are most dissimilar from the gut microbiome. Can this information lead the way to manipulating the lung microbiome to change the impact of dominant microbes infecting the lungs? Can this be applied to pulmonary TB?

[Dickson, R. et al. 2015. The Lung Microbiome: New Principles for Respiratory Bacteriology in Health and Disease. PLOS.](#)