

## Detection of microorganisms involved in airway infection of cystic fibrosis patients by standard culturing and molecular methods

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**The 24<sup>th</sup> annual north American cystic fibrosis conference, 2010, Baltimore, Maryland**

*Poster: Detection of microorganisms involved in airway infection of cystic fibrosis patients by standard culturing and molecular methods.*

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The lungs of chronically infected Cystic fibrosis (CF) patients have been intensively studied.

*Pseudomonas aeruginosa* is reported to be the predominant pathogen in CF (Baurnefeind et al. 1987, Koch 2002), however lately a debate of the true bacterial load has occurred. The diagnostics for CF rely mainly on culture based techniques performed on expectorated sputum samples, and most studies are centered on this sample type. Using molecular methods researchers have detected many more bacteria, especially many anaerobes in sputum and BAL samples. It is however problematic since it is possible that the samples may have been contaminated by oral flora during expectoration and BAL sampling. We have in a recent publication only detected *P. aeruginosa* by PNA FISH (Bjarnsholt 2009) in tissue samples of explanted CF lungs. To study the true bacterial load in CF patients at the Copenhagen CF Center we investigated direct sampled material from explanted lungs (n=4) of CF patients by both culturing and PCR.