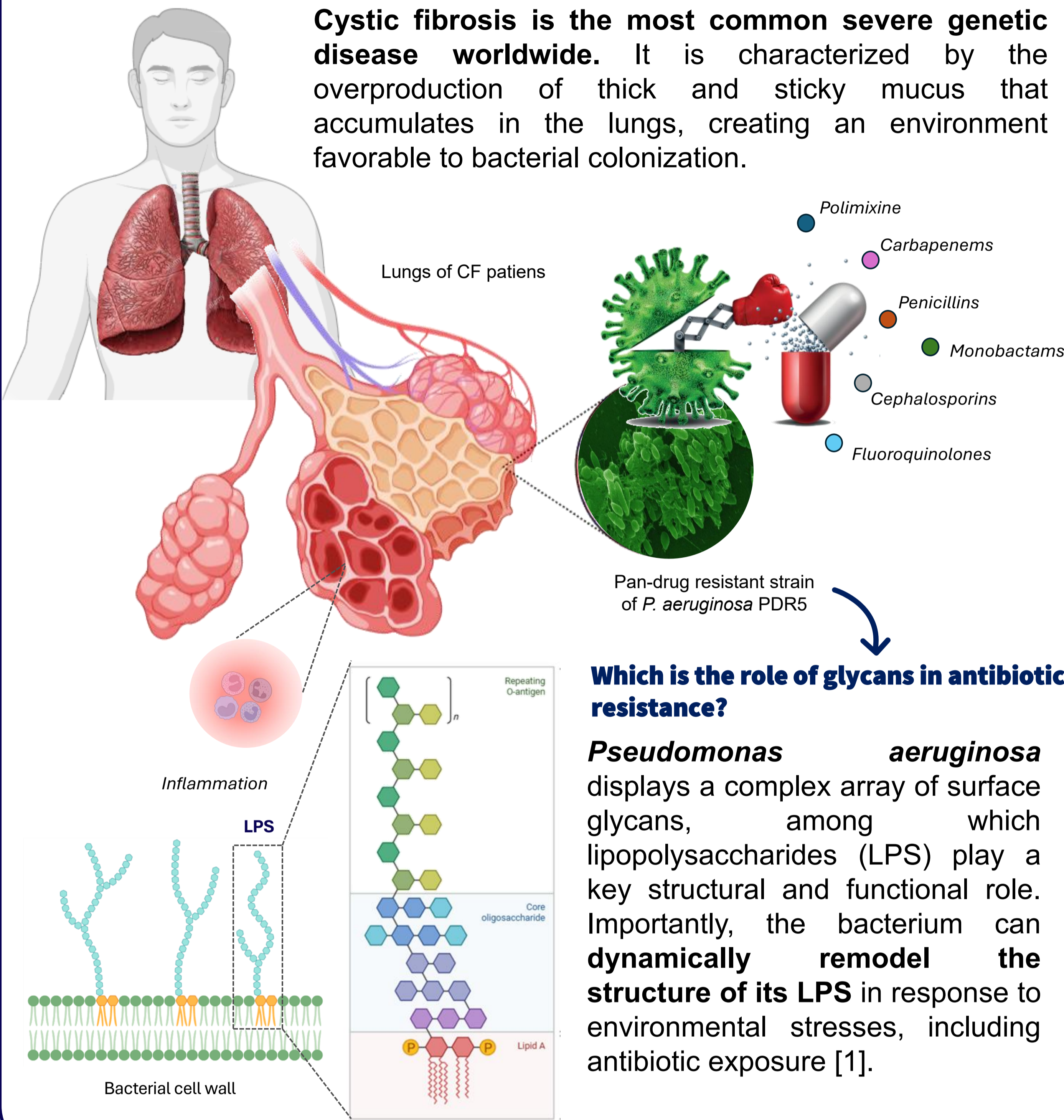


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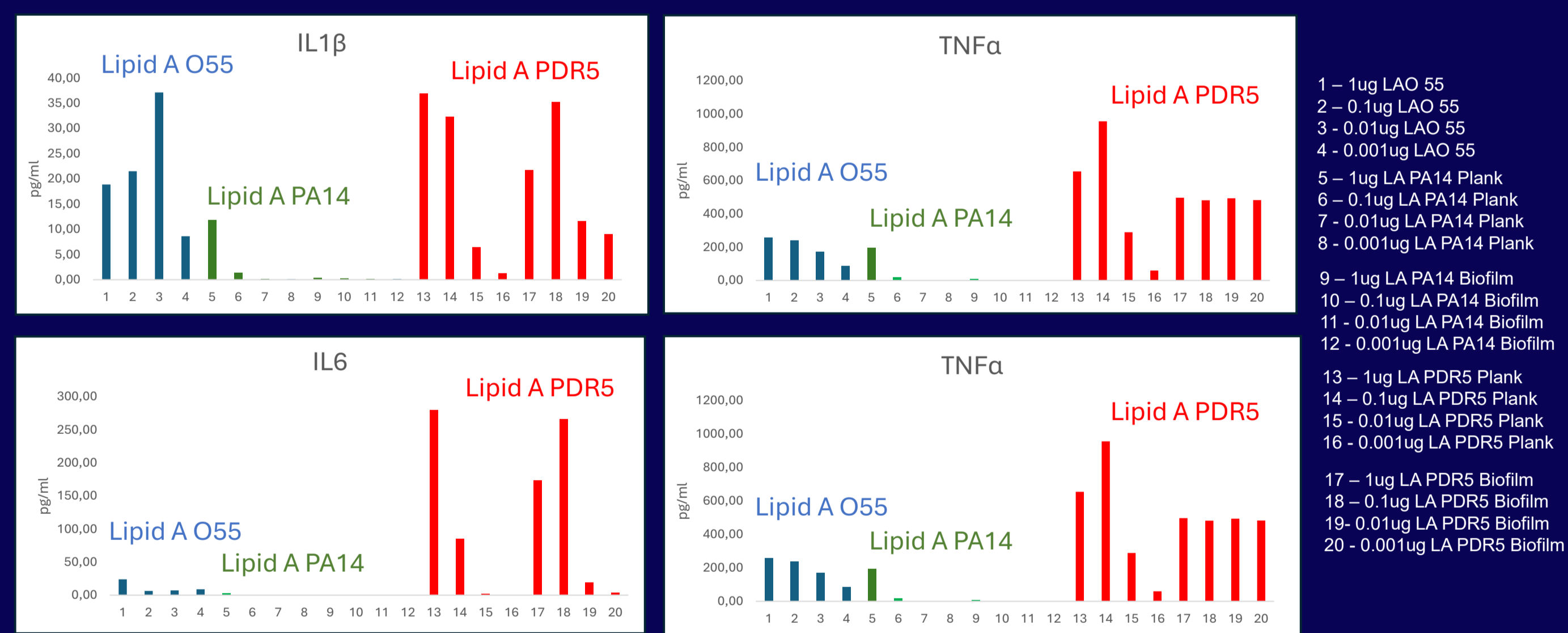
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INTRODUCTION

Cystic fibrosis is the most common severe genetic disease worldwide. It is characterized by the overproduction of thick and sticky mucus that accumulates in the lungs, creating an environment favorable to bacterial colonization.

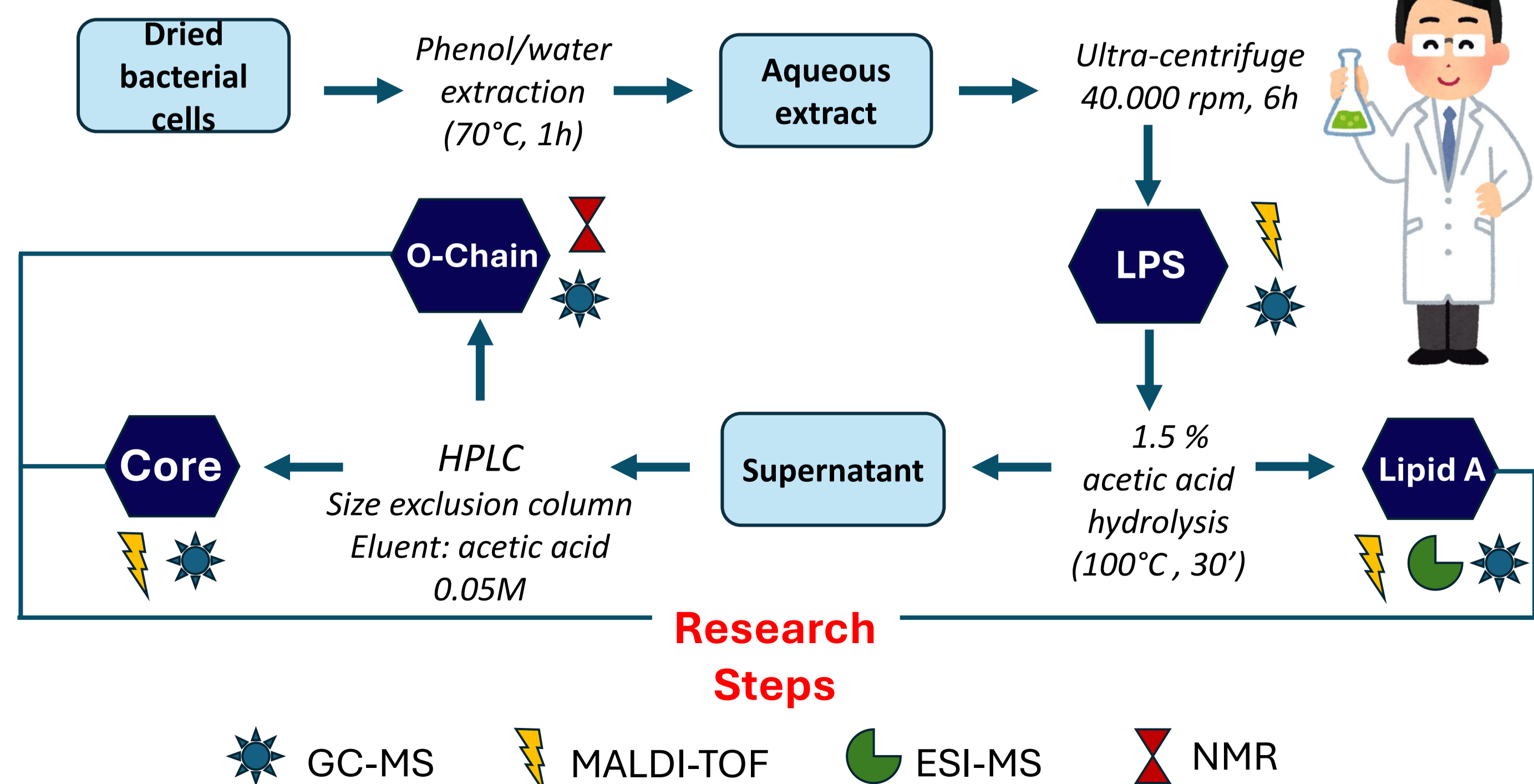


Stimulatory effect of *P. aeruginosa* lipids A (PA14/PDR5) on the proinflammatory cytokines production by differentiated human THP-1 macrophages.

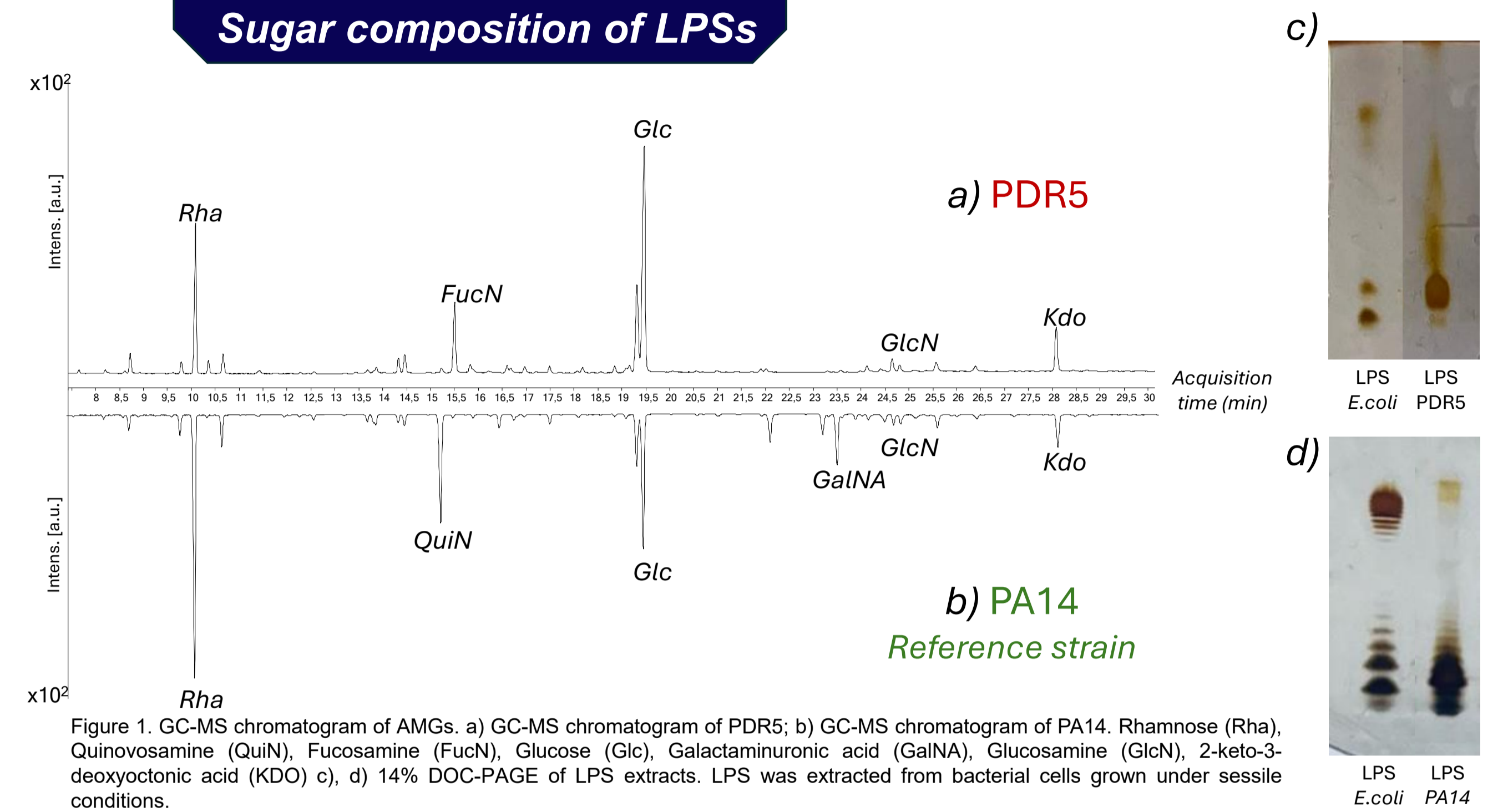


METHODS

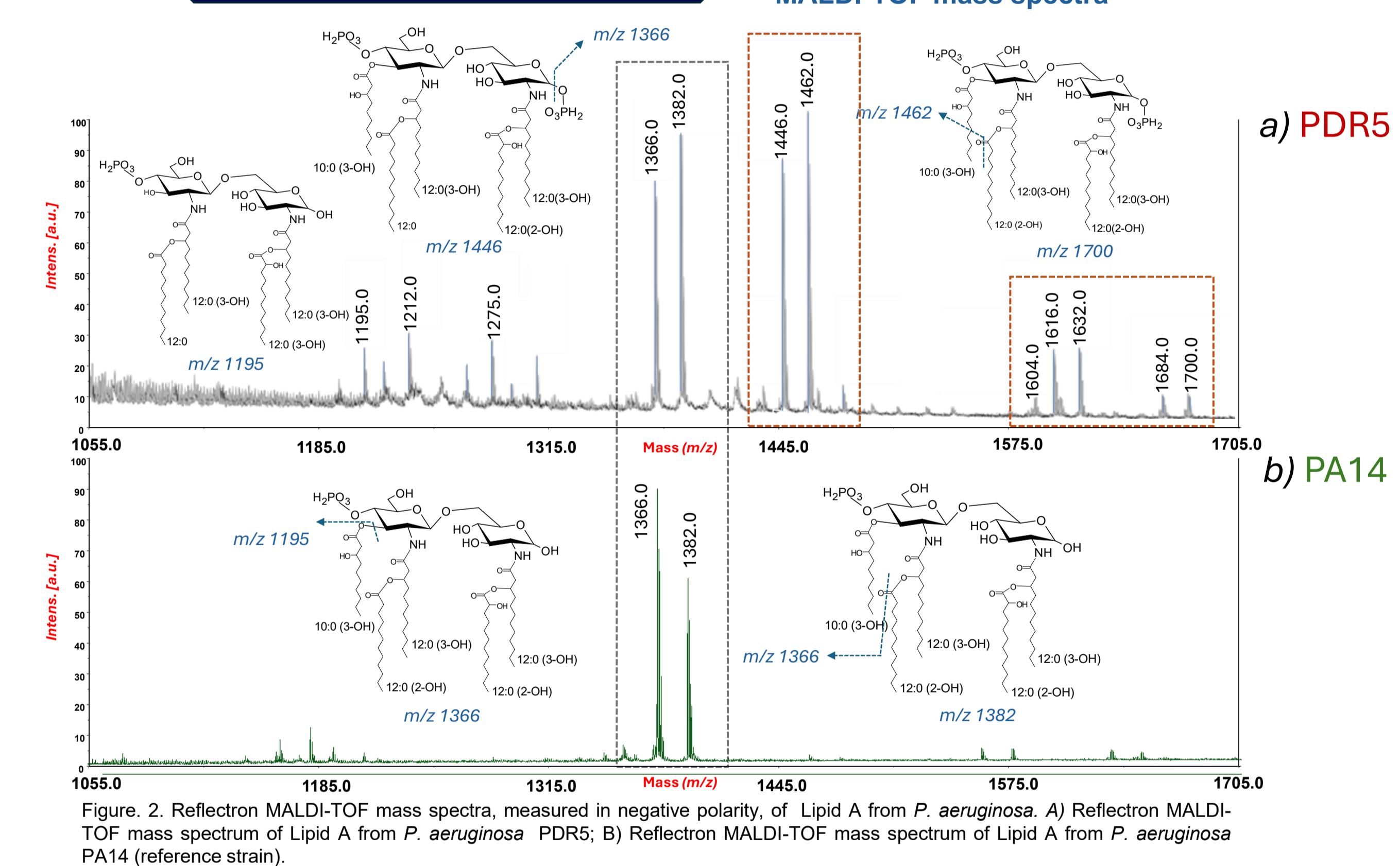
The pan-drug resistant strain PDR5 grown under sessile conditions to better mimic the environment of the lungs of CF patients was analysed. The results obtained were compared with the susceptible strain PA14.



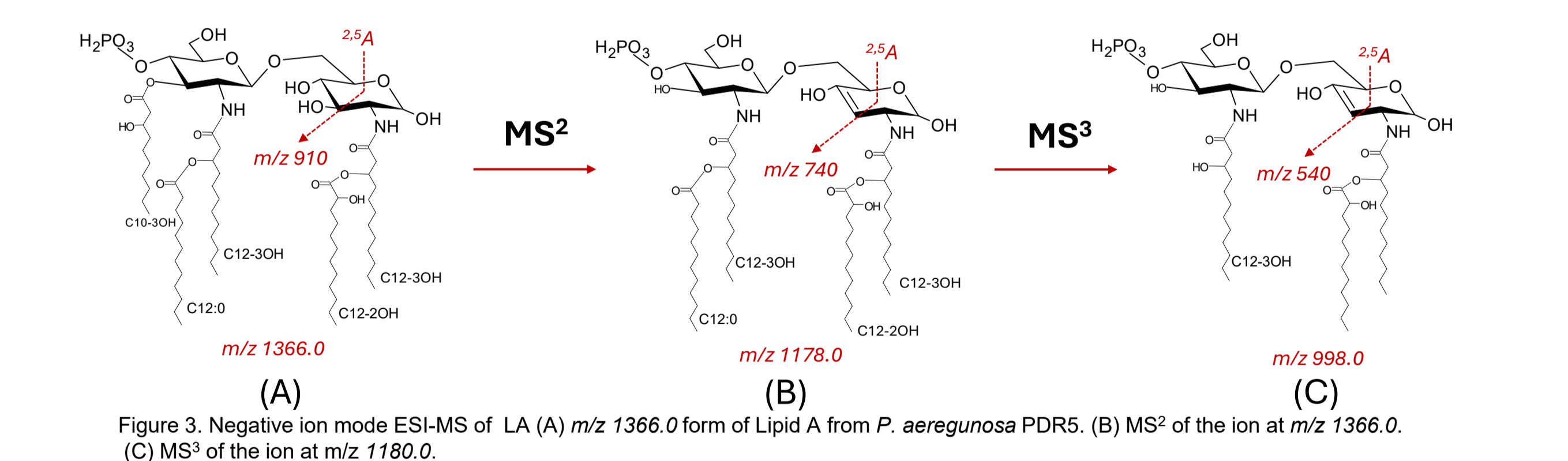
RESULTS



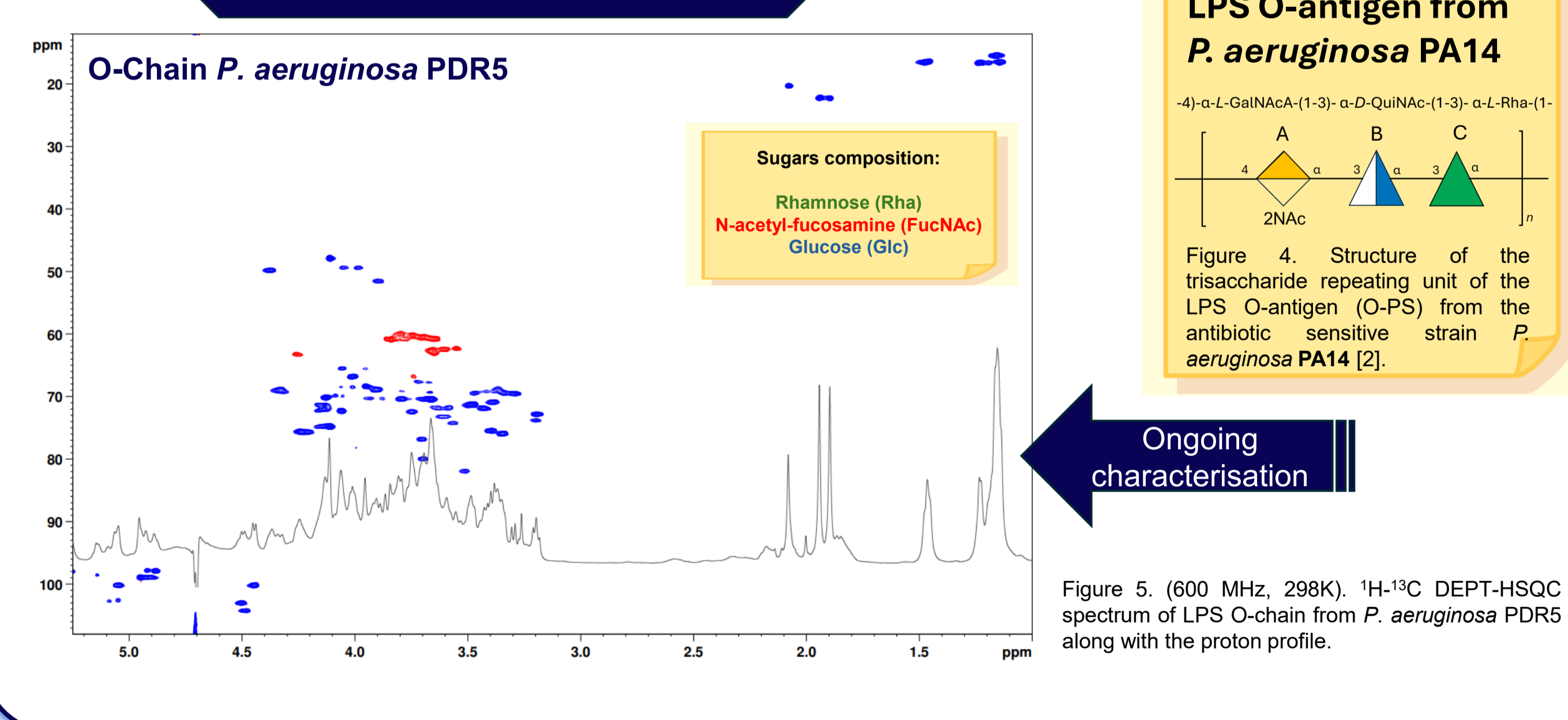
Lipid A full characterisation



Negative ion mode ESI-MS analysis



Structural analysis of the LPS O-antigen



CONCLUSION

This study characterises the LPS of *P. aeruginosa* PDR5, revealing a hyper-acetylated lipid A compared to the susceptible strain PA14, modifications that may contribute to an enhanced inflammatory response. Structural alterations were also observed in the O-antigen. Ongoing work focuses on the detailed characterisation of the O-chain and core regions, and on assessing the pro-inflammatory activity of the LPS and its potential involvement in antibiotic resistance.