

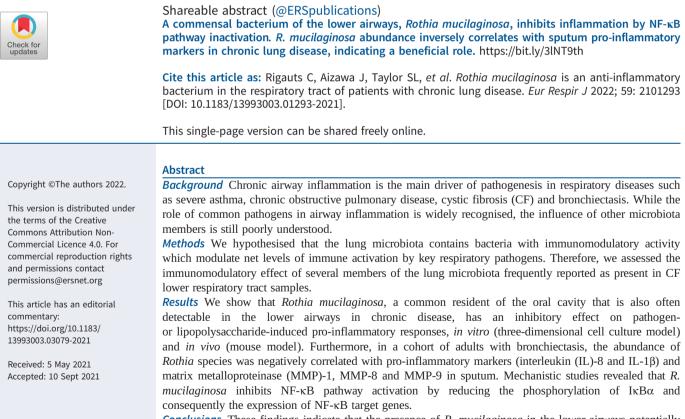


Rothia mucilaginosa is an anti-inflammatory bacterium in the respiratory tract of patients with chronic lung disease

Charlotte Rigauts¹, Juliana Aizawa², Steven L. Taylor ^{3,4}, Geraint B. Rogers ^{3,4}, Matthias Govaerts ², Paul Cos², Lisa Ostyn¹, Sarah Sims^{3,4}, Eva Vandeplassche¹, Mozes Sze^{5,6}, Yves Dondelinger^{5,6}, Lars Vereecke^{5,7}, Heleen Van Acker¹, Jodie L. Simpson⁸, Lucy Burr^{9,10}, Anne Willems¹¹, Michael M. Tunney¹², Cristina Cigana ¹³, Alessandra Bragonzi¹³, Tom Coenye ¹ and Aurélie Crabbé ¹

¹Laboratory of Pharmaceutical Microbiology, Ghent University, Ghent, Belgium. ²Laboratory of Microbiology, Parasitology and Hygiene, University of Antwerp, Wilrijk, Belgium. ³Microbiome and Host Health Programme, South Australian Health and Medical Research Institute (SAHMRI), Adelaide, Australia. ⁴The SAHMRI Microbiome Research Laboratory, College of Medicine and Public Health, Flinders University, Adelaide, Australia. ⁵VIB Center for Inflammation Research, Ghent, Belgium. ⁶Dept of Biomedical Molecular Biology, Ghent University, Ghent, Belgium. ⁷Dept of Rheumatology, Ghent University, Ghent, Belgium. ⁸Faculty of Health and Medicine, Priority Research Centre for Healthy Lungs, University of Newcastle, Callaghan, Australia. ⁹Dept of Respiratory Medicine, Mater Health Services, South Brisbane, Australia. ¹⁰Mater Research, University of Queensland, South Brisbane, Australia. ¹¹Laboratory of Microbiology, Dept of Biochemistry and Microbiology, Ghent University, Ghent, Belgium. ¹²School of Pharmacy, Queen's University Belfast, Belfast, UK. ¹³Infections and Cystic Fibrosis Unit, Division of Immunology, Transplantation and Infectious Diseases, IRCCS San Raffaele Scientific Institute, Milan, Italy.

Corresponding author: Aurélie Crabbé (aurelie.crabbe@ugent.be)



Conclusions These findings indicate that the presence of *R. mucilaginosa* in the lower airways potentially mitigates inflammation, which could in turn influence the severity and progression of chronic respiratory disorders.

