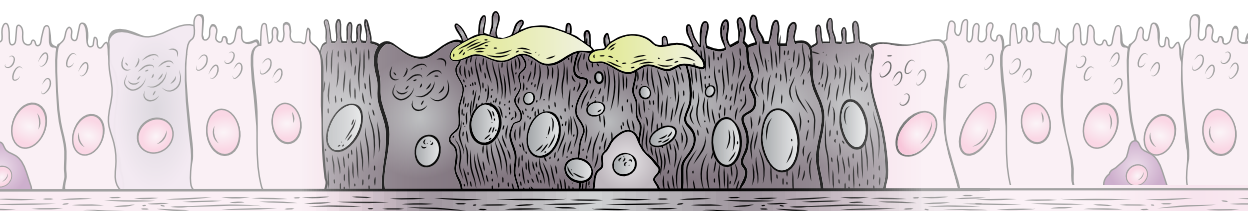


PATIENTS WITH COPD CARRY A HEAVY BURDEN^{1,2}

**Many patients continue to exacerbate despite inhaled
triple therapy^{1,2}**

**IL-33 is a cytokine at the top of the inflammatory
cascade that can contribute to inflammation and
mucus dysfunction in COPD³⁻¹¹**



**UPON EPITHELIAL DAMAGE, IL-33 IS RELEASED
and directly activates a variety of downstream cell types,
including eosinophils and neutrophils,^{3,8-11}**



AND INITIATES TYPES 1, 2, & 3 INFLAMMATION^{3,8-11}

MANY PATIENTS LIVING WITH COPD REMAIN BURDENED WITH EXACERBATIONS^{8,12}



IL-33 is associated with an increased risk of exacerbations.⁴
IL-33 can drive:

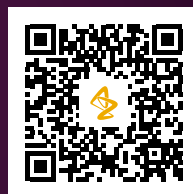


Neutrophilic and eosinophilic inflammation, which impacts the majority of patients^{9,13-19}



Mucus dysfunction, which can increase airflow obstruction^{3,20-22}

COULD IL-33 REVEAL NEW WAYS OF THINKING ABOUT COPD?



OX=oxidized; RED=reduced.

References: 1. Global Initiative for Chronic Obstructive Lung Disease. Global Strategy for Prevention, Diagnosis and Management of COPD: 2026 Report. Accessed July 20, 2026. <https://goldcopd.org/2026-gold-report-and-pocket-guide/> 2. Nordon C, et al. *Int J Chron Obstruct Pulmon Dis*. 2025;20:1851-1864. doi:10.2147/COPD.S513573 3. Strickson S, et al. *Eur Respir J*. 2023;62(3):2202210. doi:10.1183/13993003.02210-2022 4. Joo H, et al. *BMC Pulm Med*. 2021;21(1):86. doi:10.1186/s12890-021-01423-8 5. Xia J, et al. *Am J Physiol Lung Cell Mol Physiol*. 2015;308(7):L619-L627. doi:10.1152/ajplung.00305.2014 6. Urban MH, et al. *J Clin Med*. 2021;11(1):56. doi:10.3390/jcm11010056 7. Wu L, et al. *Respir Med*. 2011;105(3):329-336. doi:10.1016/j.rmed.2010.11.001 8. Rabe KF, et al. *Am J Respir Crit Care Med*. 2023;208(4):395-405. doi:10.1164/rccm.202303-0455CI 9. Calderon AA, et al. *Eur Respir Rev*. 2023;32(167):220144. doi:10.1183/16000617.0144-2022 10. Kearley J, et al. *Immunity*. 2015;42(3):566-579. doi:10.1016/j.immuni.2015.02.011 11. Liew FY, et al. *Nat Rev Immunol*. 2016;16(11):676-689. doi:10.1038/nri.2016.95 12. Celli BR, et al. *Chest*. 2025;167(5):1346-1355. doi:10.1016/j.chest.2024.09.049 13. Hiemstra PS, Heijink IH. *Eur Respir J*. 2023;62(3):2301301. doi:10.1183/13993003.01301-2023 14. Gabryelska A, et al. *Front Immunol*. 2019;10:692. doi:10.3389/fimmu.2019.00692 15. Angelis N, et al. *J Thorac Dis*. 2014;6(Suppl 1):S167-S172. doi:10.3978/j.issn.2072-1439.2014.03.07 16. Baraldo S, et al. *Respiration*. 2012;84(2):89-97. doi:10.1159/000341382 17. Varricchi G, et al. *Eur J Intern Med*. 2024;125:28-31. doi:10.1016/j.ejim.2024.05.011 18. Plichta J, et al. *Front Immunol*. 2023;14:1207641. doi:10.3389/fimmu.2023.1207641 19. Abdo M, et al. *Eur Respir J*. 2024;64(3):2400347. doi:10.1183/13993003.00347-2024 20. Jin KN, et al. *Arch Bronconeumol*. 2025;61(3):138-146. doi:10.1016/j.arbres.2024.07.017 21. Mettler SK, et al. *N Engl J Med*. 2025;392(19):1973-1975. doi:10.1056/NEJMc2502456 22. Mettler SK, et al. *Chest*. 2024;166(5):1010-1019. doi:10.1016/j.chest.2023.11.033

Learn more at

[UnderstandingIL33.com](https://www.astrazeneca.com/understanding-il33)