## **Dockrell Group**

## Macrophage roles in susceptibility to infection

- The basis of <u>susceptibility and resilience</u> to common infections is poorly understood.
- MACROPHAGES are the resident ALVEOLAR tissue phagocytes first responding to infections in the lung
- We study responses that influence infection outcome including:
  - Phagocytosis pathways
  - Microbicidal generation
  - Cell death paradigms
  - Pathogen sensing
  - Induction and regulation of inflammation
- Microbicidal responses are often the bottleneck defining outcome
- We aim to recalibrate these host responses to develop host-based therapy to combat antimicrobial resistance.
- We also study how impaired host responses lead to aberrant inflammatory trajectories
  e.g. in Covid-19 utilizing CL3 facilities

