Uncover the full complexity of infectious disease

Connect your infectious disease research questions with tools that will help you find the answers you need. Explore crucial applications of our single cell and spatial technology for infectious disease research.

- **APPLICATIONS**
  - **Immune response**
    - Innate immune response to infection
    - Adaptive immune response to infection
    - Adaptive immune response to viral antigens/antigen specificity
  - **Therapeutic discovery**
    - Immune response to vaccination
    - Effects of response to repurposed immunomodulators
    - Antibody discovery
  - **Cellular mechanisms**
    - Cellular atlasing/molecular mechanisms of infection
    - Assess viral and host transcripts simultaneously
    - Functional genomics (CRISPR/Cas9)
  - **Spatial tissue profiling**
    - Spatial relationship of immune and infected cells

- **TOPIC**
  - Innate immune response to infection
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- **PRODUCTS**
  - **Single Cell Gene Expression with CRISPR**
    - Screening and Cell Surface Protein
    - Combine multiomic readouts of immune cell biology, including cell surface immunophenotype and whole transcriptome or targeted gene expression, at single cell resolution.
  - **Single Cell Immune Profiling with Paired VDJ**
    - Antigen Specificity, and Cell Surface Protein
    - Analyze the adaptive immune response to infection or vaccination, resolving the molecular pathways of immunological memory formation and antigen specificity.
  - **Single Cell ATAC**
    - Examine how chromatin accessibility impacts immune cell function and response to infection, and how this may differ across patients.
  - **Spatial Gene Expression with Immunofluorescence**
    - Examine gene expression with spatial context in intact tissues to determine the relationship between immune infiltrates and the microenvironment.

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