

Call for Proposals – LRTI Alternative Sample Assessment

Minimum Entry Criteria

Lower-Respiratory Tract Infections (LRTIs) are the leading cause of AMR morbidity and mortality globally¹. For LRTI focused programs, CARB-X is interested in learning more about alternative sample types to BAL (bronchoalveolar lavage), ETA (endotracheal lavage) and sputum. Sample types of interest would be less invasive and could include novel sample processing that may support expanded access to testing for LRTIs. In that regard, we are requesting proposals for units of work related to this objective.

Minimal Entry Criteria for this LRTI focused funding is as follows:

1. Proof of concept data is required:
 - a. Demonstrating detection of at least one bacterial pathogen on the alternative sample type at a clinically relevant threshold **is required**.
 - i. Supporting data does not have to include any CARB-X LRTI related priority pathogens (e.g. TB data is acceptable).
 - b. Clear articulation of experimental design (how this data was generated, reference method, etc.) **is required**.
2. Proposed workplan should include:
 - a. Performance assessment comparing reference-standard sample type (eg. BAL) to alternative sample types that expand access to testing (e.g. tongue swab, oral swab, nasopharyngeal swabs, breath, volatile organic compounds, etc.) **is required**.
 - b. At least one pathogen target related to common LRTI's globally **is required**.
 - c. An approach that can be reasonably expected to distinguish upper respiratory tract colonization from lower respiratory tract infection **is required**.
 - d. Approach to differentiation between active infections vs colonization *is preferred*.
 - e. Brief high-level vision for how this alternative approach to LRTI testing could be commercialized *is preferred*.

¹Global burden of bacterial antimicrobial resistance in 2019: a systematic analysis. Lancet 2022; 399: 629–55. [Link](#) to reference.