

Resource Summary Report

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Human Kidney, Urinary Tract, and Lung Cell Type Mapping Pipeline for the Human Biomolecular Atlas Program (HuBMAP)

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Protocol Information

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Group: Human BioMolecular Atlas Program (HuBMAP) Method Development Community

Summary: This document provides an overview of the protocols used by the Human Kidney, Urinary Tract, and Lung Mapping Center (KULMAP) for generation of spatially resolved multitomic cell type organ maps within HuBMAP. This involves sequencing of the transcriptomes and epigenomes of dissociated single cells in a massively parallel manner, which will then inform on a highly multiplexed RNA in situ imaging method (DART-FISH) for spatial mapping of hundreds of molecular targets in the tissue sections, at a subcellular resolution. These spatial molecular maps will serve as scaffolds for computational registration of cell types and the associated transcriptome/chromatin maps to the tissue space.

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