

This Zenodo deposit contains a publicly available description of the Dataset:

"PD5D midbrain single-nucleus RNA-seq hybrid selection".

Dataset Description:

This dataset contains raw FASTQ files from the midbrain single-nucleus RNA sequencing (snRNAseq) dataset with hybrid selection for the matching PMDBS samples from the PD5D cohort. The same subjects were also profiled with other omics assays including genomic DNAseq, genotyping, single-cell ATACseq, and spatial transcriptomics.

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ASAP Project: Parkinson5D: deconstructing proximal disease mechanisms across cells, space, and progression

Project Description: Here we will develop a molecular atlas of Parkinson's disease (PD) useful for mapping GWAS/familial genetics to proximal mechanisms in five dimensions: brain cells (1D), brain space (3D), and disease stage (1D). We will reveal how genetic variants modulate transcription in specific cells in specific topographic locations of midbrain and cortex during the progression of neuropathology from healthy brains to prodromal to symptomatic disease. This research will for the first time integrate whole genome sequencing, single-nucleus transcriptomics, and high-resolution spatial transcriptomics of 100 human brains with cell-specific mechanistic analyses in model systems.

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This dataset is made available to researchers via the ASAP CRN Cloud: cloud.parkinsonsroadmap.org. Instructions for how to request access can be found in the [User Manual](#).

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This Zenodo deposit was created by the ASAP CRN Cloud staff on behalf of the dataset authors. It provides a citable reference for a CRN Cloud Dataset