SINGLE CELL & LINKED-READS



10x Genomics Chromium Genome & Single Cell RNA Sequencing



The 10x Genomics Chromium System dramatically improves the capabilities of existing sequencing technologies by using a microfluidics-based molecular barcoding solution that allows sequencing at much higher resolution and probes the transcriptional activity of individual cells in brand new ways.

To access this new method, AGRF has two services available:

Genome

- Long range genome-wide information via linkedreads
- Used for SNP calling and phasing in megabase blocks
- Resolve structural variations
- Unlock previously inaccessible regions a phased de novo assembly of genomes
- Input DNA minimum average length 50 Kb
- Validated for diploid genome sizes larger than 1.5 Gb

Single Cell 3'

- Molecular barcoding applied to mRNA from multiple singular cells
- Facilitates cell-by-cell gene expression signature from thousands in a suspension enables impressive insights into cell heterogeneity and cellular transcriptional activity
- Cells in suspensions with minimum aggregation
 and high viability
- Cell numbers within the range 500-10,000 to be captured
- Cell sizes up to 40 µm are validated
- Requires a client technician to be in attendance during the droplet generation



Our funding partners

AGRF is a not-for-profit organisation supported by the Commonwealth Government infrastructure schemes administered through Bioplatforms Australia. These schemes include NCRIS, EIF, Super Science Initiative CRIS and NCRIS 2.

NCRIS National Research Infrastructure for Australia An Australian Government Initiative



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