Analyzing RNA splicing in single cell and spatial transcriptomics data with the SpliZ

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What is RNA splicing?

- **Alternative splicing**: a process by which different RNAs (isoforms) are created from the same gene

Splicing detection in single cells

Single cell studies currently use gene expression levels to investigate cell types. Are there cell-specific splicing patterns as well?

Goal: Quantify alternative splicing in scRNA-seq data

Application to spatial transcriptomics

Application of the SpliZ to visium data from the mouse brain reveals spatial localization of splice isoforms distinct from gene expression localization.

Acknowledgements

The SpliZ software is available here: [https://github.com/salzmanlab/SpliZ](https://github.com/salzmanlab/SpliZ)


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