

Project 6: #stereoseq

- **The team:**

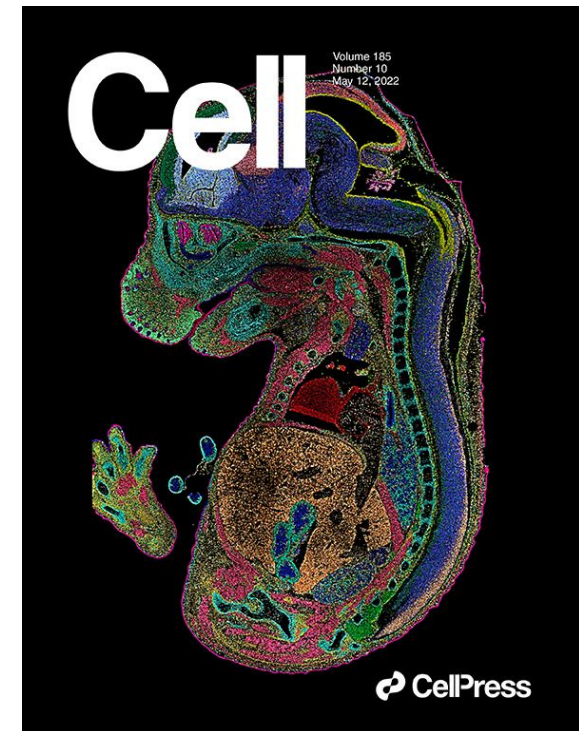
- Ian Dirk Fichtner
- Shashwat Sahay
- Lotte Pollaris

- **Goal: Explore STEREO-SEQ**

- New promising spatial technology [Chen et al. 2021] [Xia et al. 2022]
- Transcriptome-wide, sub-cellular spatially resolved data

- **Mid-hackathon status**

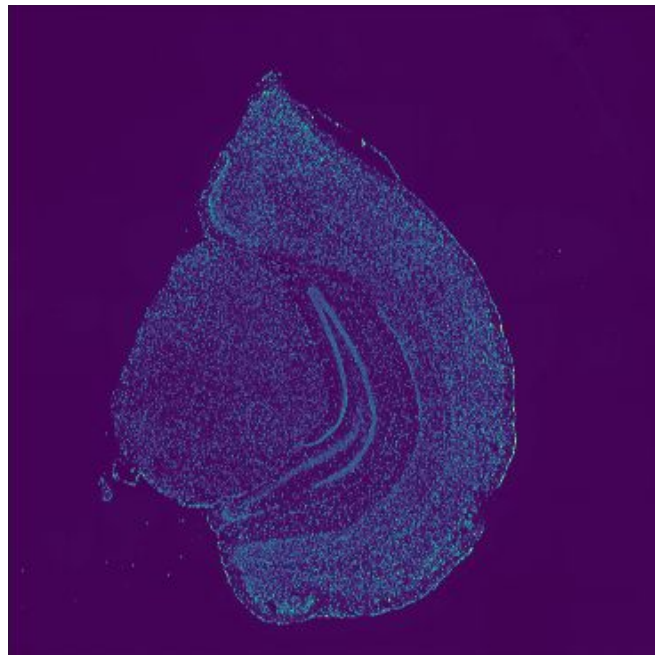
- Curated some datasets
- Define data structures
- Troubleshooting



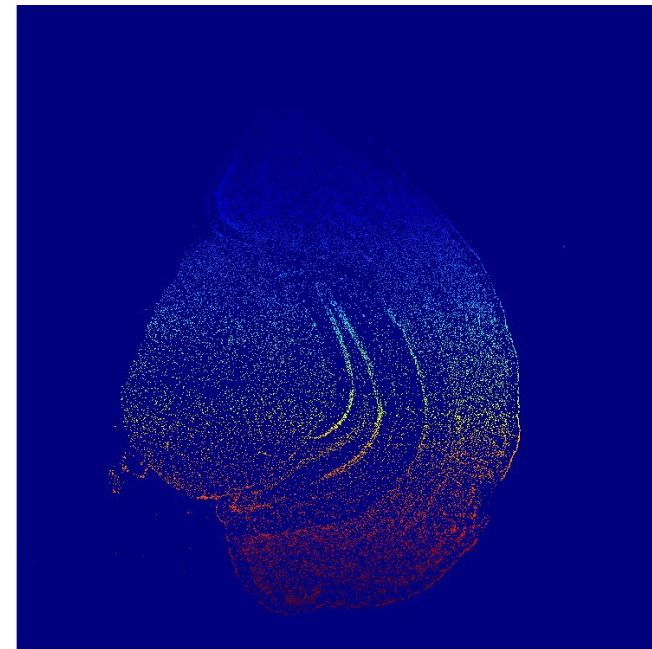
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- **Results**

8119736 cells x **22413** transcripts

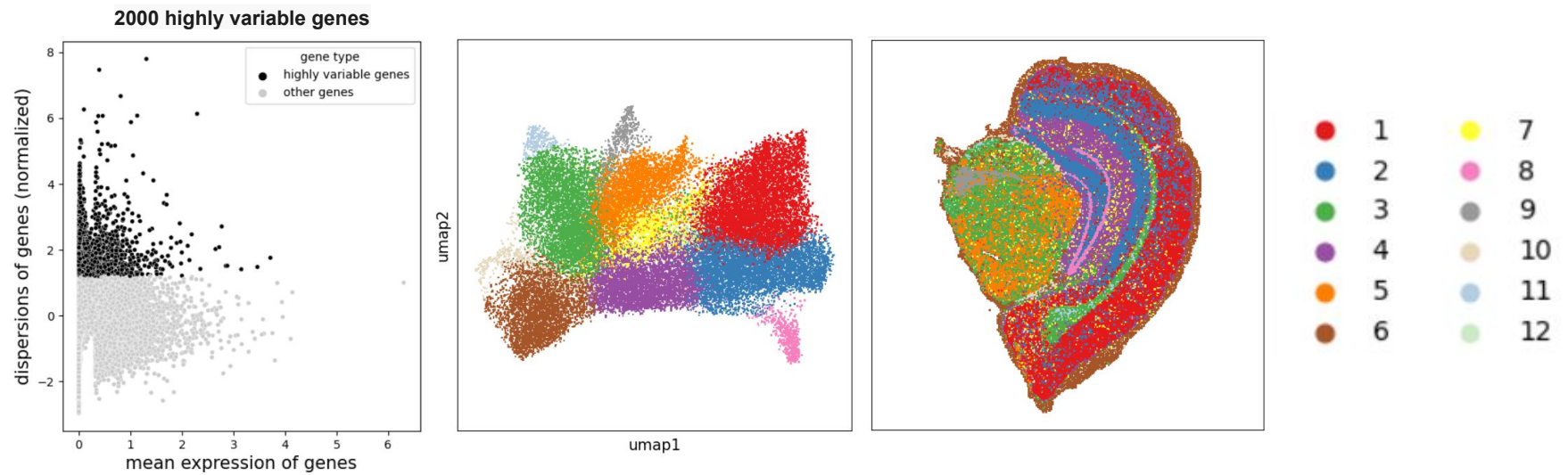


Segmented Watershed



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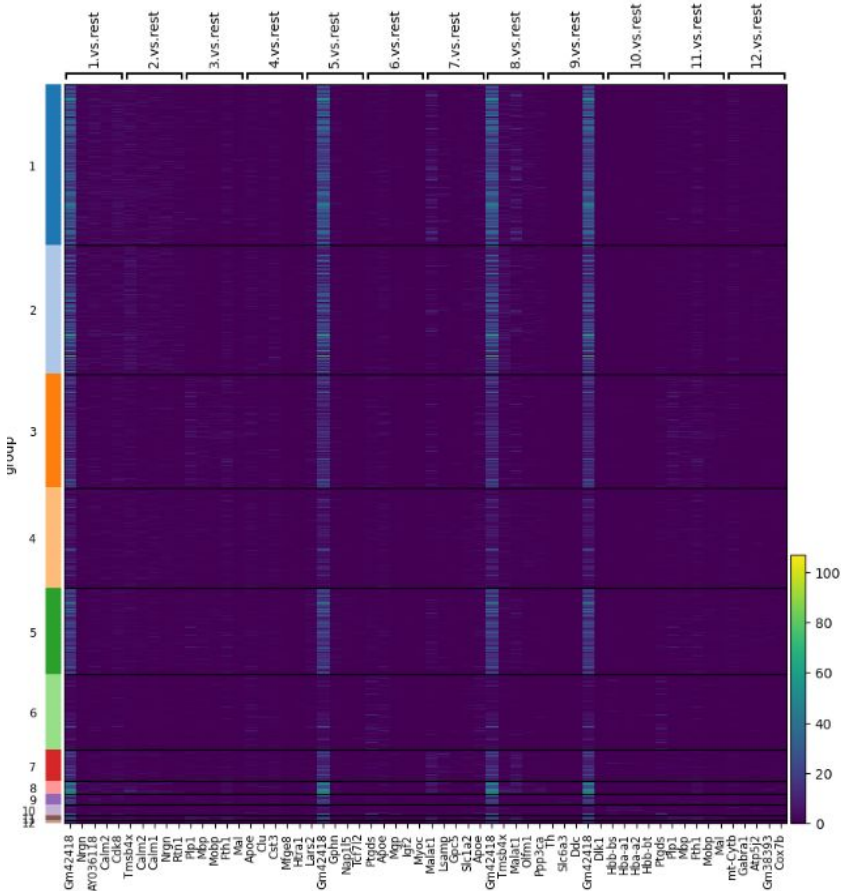
- Results



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● Results



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- **Outlook**

- Set the groundwork for further downstream analysis
- More segmentation methods
- Allows for integration into TXsim pipeline
- Evaluation of data quality

- **Challenges**

- Segmentation methods are limited due to DAPI staining
- Identification of cell boundaries with highly variable genes for segmentation is computationally challenging