



BROAD
INSTITUTE



STANLEY CENTER
FOR PSYCHIATRIC RESEARCH

AT BROAD INSTITUTE



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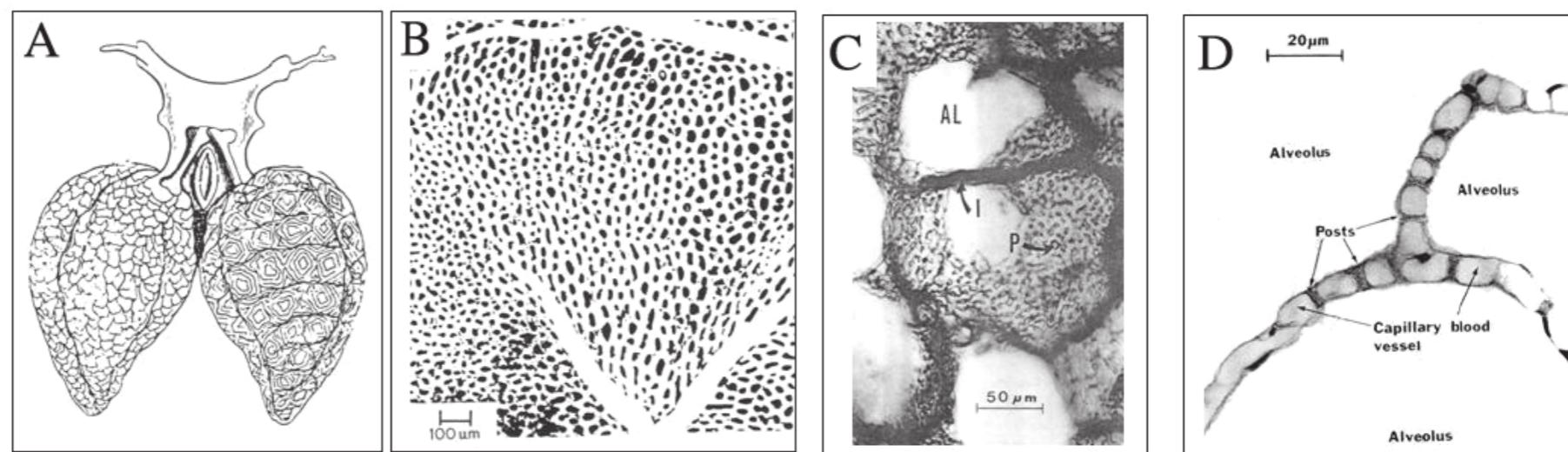
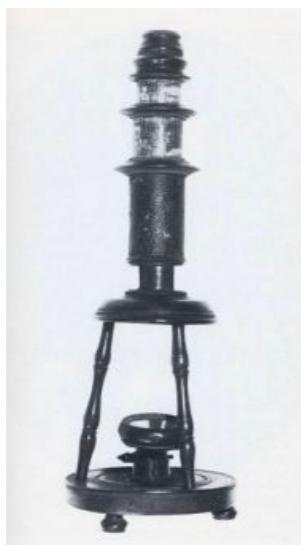


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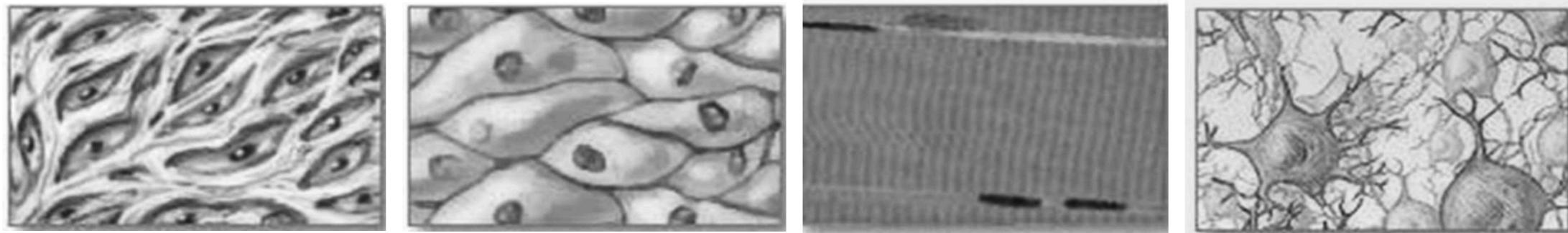


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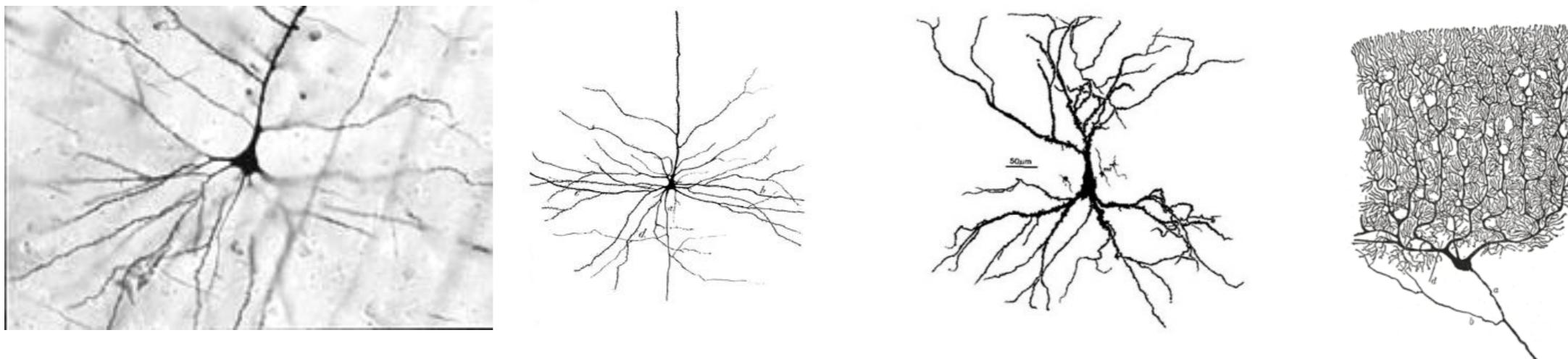
17th century



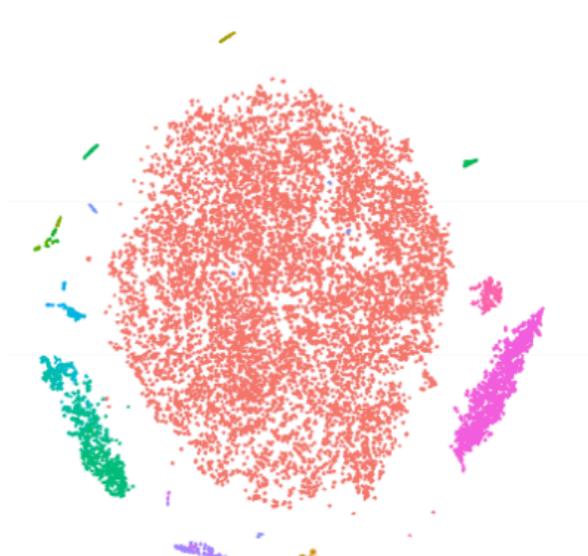
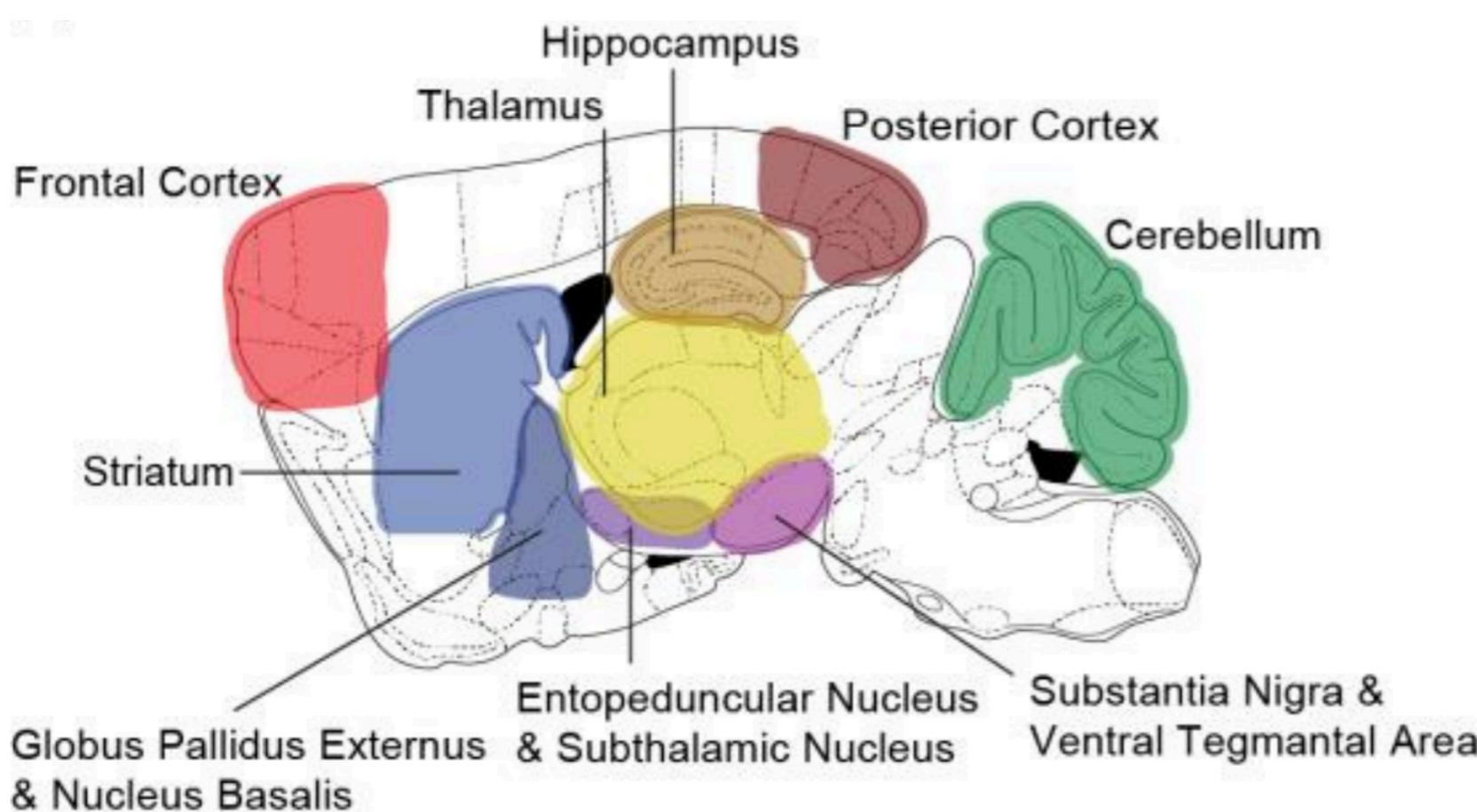
19th century



1906 Nobel Prize Neuron Doctrine



single-cell RNA-seq

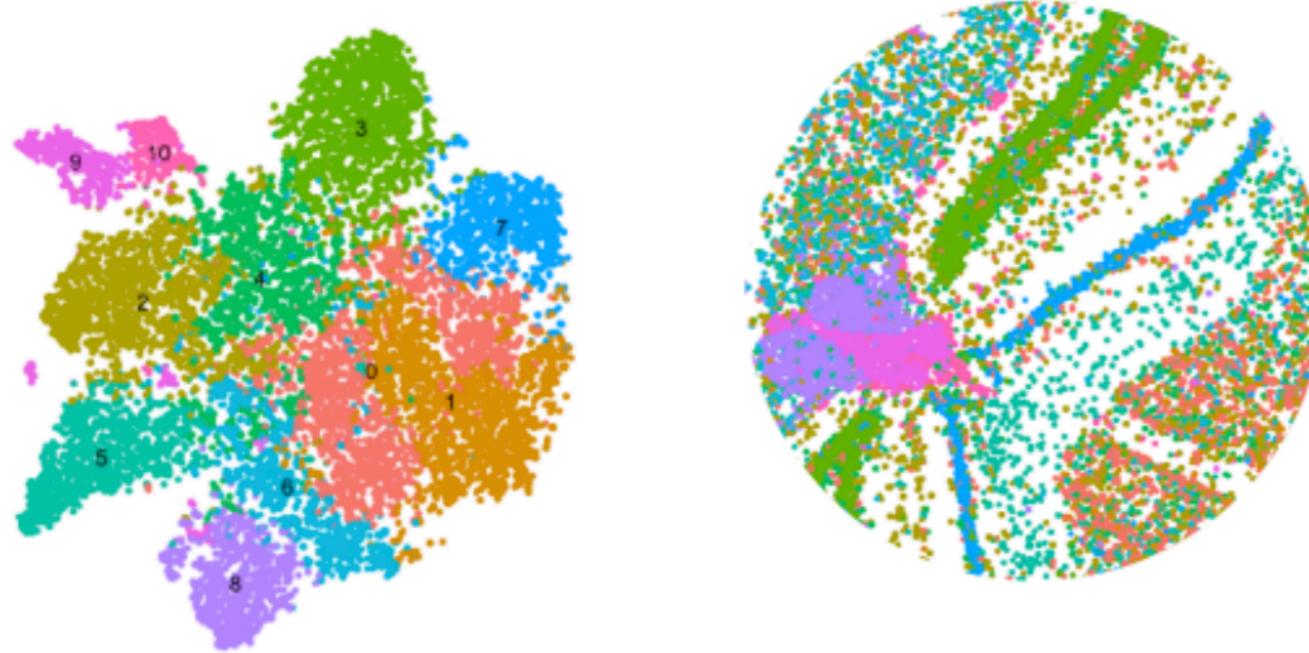
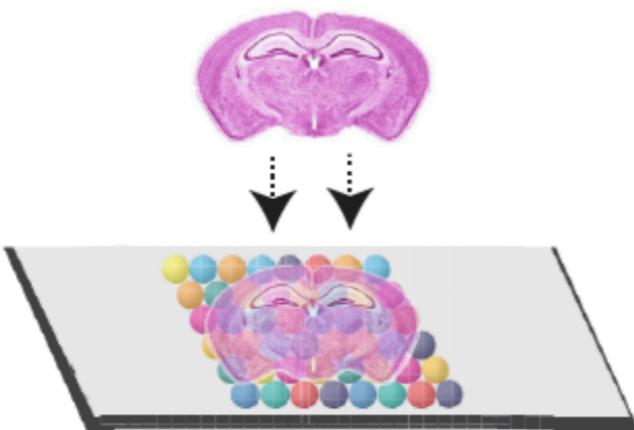


- ~1M cells
- 20K genes
- Sparse
- Clustering

◆ 0610010F05Rik ◆ 0610030E20Rik ◆ 1110004E09Rik ◆ 1110019D14Rik ◆ 1110037F02Rik ◆ 1110046J04Rik ◆ 1110059G10

P60CBRep1P1_GACTCTACACCC	1	0	3	0	0	0	0
P60CBRep1P1_TATTATATCTAA	1	1	0	0	0	0	2
P60CBRep1P1_GCGTCGCCAGTT	0	0	2	0	1	0	2
P60CBRep1P1_CTATCGATTCN	0	0	1	1	1	0	1
P60CBRep1P1_GTACCTGAGCCT	0	0	3	0	0	1	0

Slide-seq



- **Spatial data**
- **Almost single-cell resolution**
- **1 experiment:**
 - **40K spots**
 - **20K genes**
- **Even sparser**
- **Clustering**

barcode	0610005C13Rik	0610007P14Rik	0610009B22Rik	0610009E02Rik	0610009L18Rik	0610009O20Rik	0610010F05Rik
0	CTCACCCCTGTTGC	0	0	0	0	1	0
1	CGCATTTCACCGC	0	2	0	0	0	0
2	ACCTTTAGTGGT	0	0	0	0	0	0
3	CTCGCATGTCTCA	0	3	0	0	0	0
4	TGATTGTCCTCGT	0	0	0	0	0	0

Transfer Learning

