Johns Hopkins Engineering

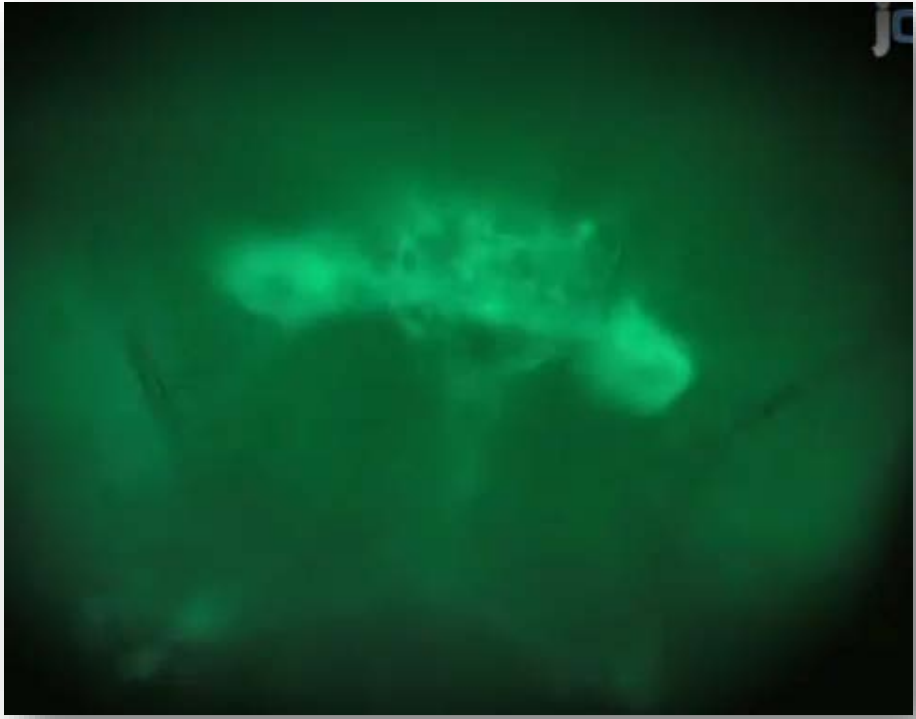
Methods in Neurobiology

Electrophysiology Recordings from Complex Samples

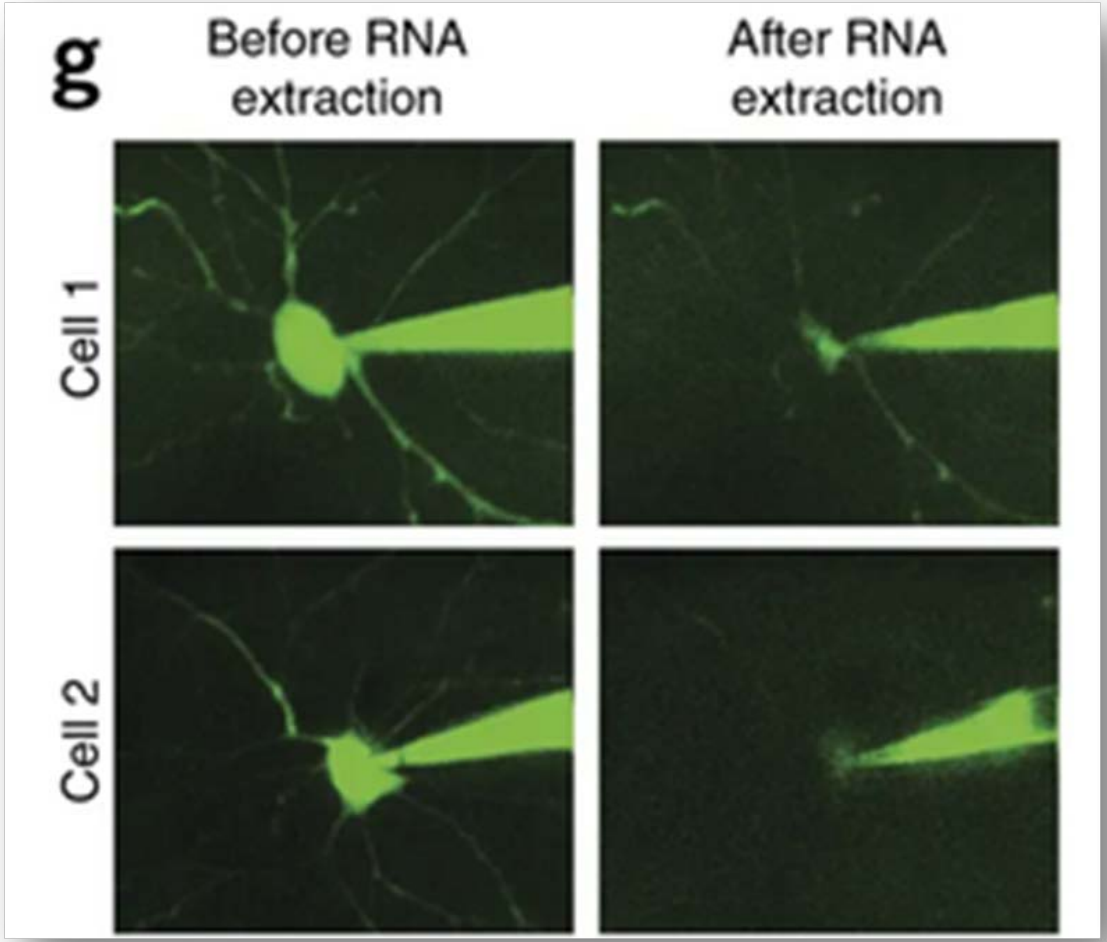
JOHNS HOPKINS
WHITING SCHOOL
of ENGINEERING

Recordings from complex samples

- Measuring activity of circuits
- Combining electrophysiology with imaging
- In situ patch-clamp for direct recording of isolated neurons in animal models

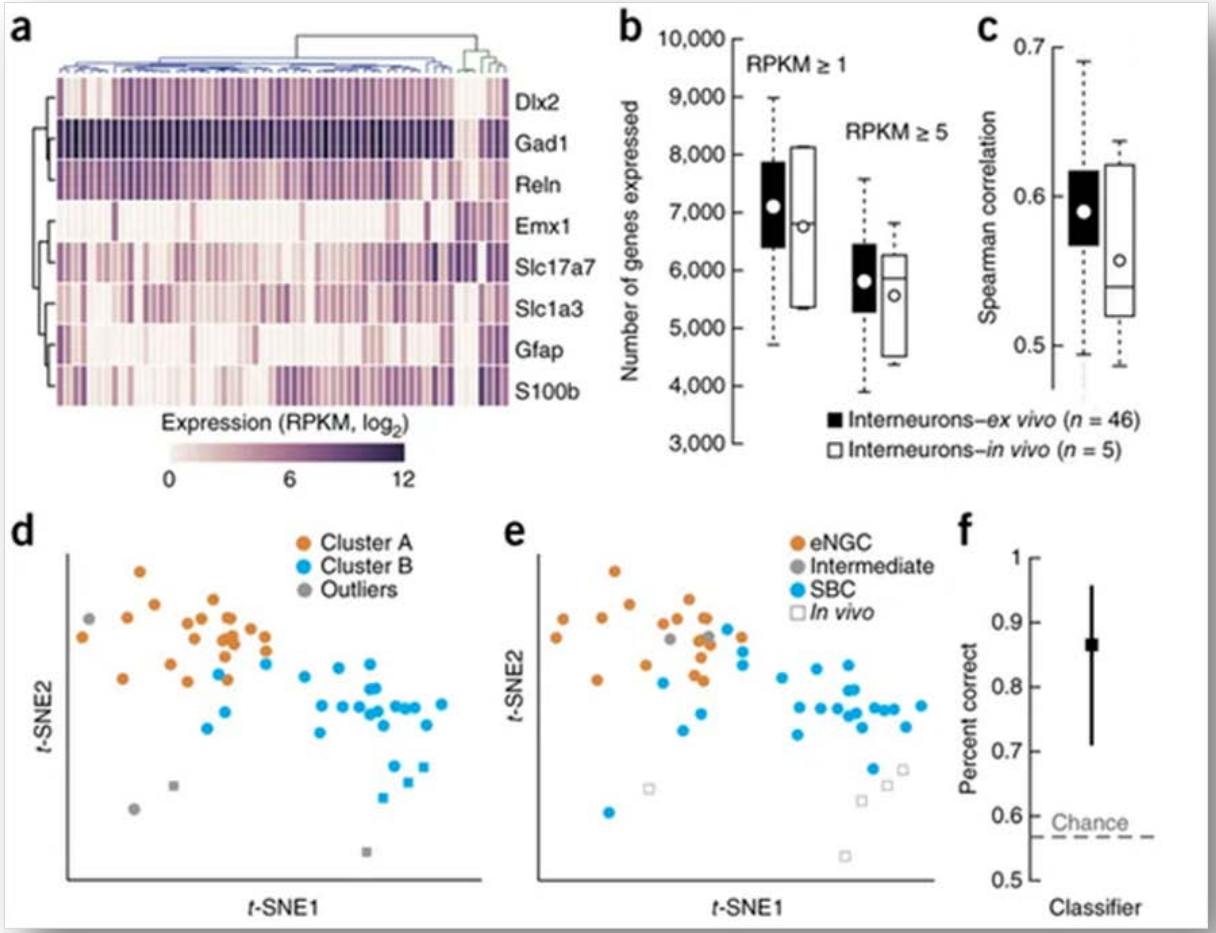


Patch-seq



Patch-seq (cont.)

- Single cell profiling
- Morphology and subpopulations
- Identification of markers
- Expression patterns



References

Slide	Reference
2	Ryglewski, S., Duch, C. Preparation of Drosophila Central Neurons for in situ Patch Clamping. 2012 J.Vis.Exp. (68), e4264.
3	Cadwell, C. R., Palasantza, A., Jiang, X., Berens, P., Deng, Q., Yilmaz, M., Reimer, J., Shen, S., Bethge, M., Tolias, K.F., Sandberg, R., Tolias, A.S. 2016 Electrophysiological, transcriptomic and morphologic profiling of single neurons using Patch-seq. Nature Biotech 34:199–203