

P847: Readings on Noise (To be discussed in class Oct 30)

Read the two papers on noise:

1) Elowitz MB, Levine AJ, Siggia ED, Swain PS. "Stochastic gene expression in a single cell." (2002) *Science* **297**, 1183-6. PubMed PMID: 12183631.

2) Cai L, Friedman N, Xie XS. "Stochastic protein expression in individual cells at the single molecule level." (2006) *Nature* **440**, 358-62. PubMed PMID: 16541077.

Paper 1 is another landmark paper by Elowitz. It laid out the ideas of intrinsic and extrinsic noise that now have come under recent debate as to their appropriate use. The 2nd paper is some nice experimental work that measured the noise at single molecule resolution.

Come prepared to discuss each figure. Are the results sound? what are the conclusions? what questions remain unanswered?