

Monday, Sept 27, 2021
DRSC Office Hours on Drosophila Cell Technologies

1. Links to protocols and other relevant information:

Xia et al. "CRISPR-based engineering of gene knockout cells by homology-directed insertion in polyploid Drosophila S2R+ cells" *Nature Protocols*
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7961850/>

Bosch et al. "Use of the CRISPR-Cas9 system in Drosophila cultured cells to introduce fluorescent tags into endogenous genes" *Current Protocols in Mol Bio*
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7213786/>

Bosch et al. "Gene Knock-Ins in Drosophila Using Homology-Independent Insertion of Universal Donor Plasmids" *Genetics*
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6944404/>

Viswanatha et al. "Pooled CRISPR screens in Drosophila cells" *Current Protocols in Mol Bio*
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6961806/>

Viswanatha et al. "Pooled genome-wide CRISPR screening for basal and context-specific fitness gene essentiality in Drosophila cells" *eLife*
<https://elifesciences.org/articles/36333>

List of DRSC CRISPR modified cell lines (e.g., GFP fusions useful for visualizing organelles)
<https://fgr.hms.harvard.edu/crispr-modified-cell-lines>

Link to DRSC protocols for dsRNA synthesis and cell RNAi
<https://fgr.hms.harvard.edu/drsc-cell-rnai>

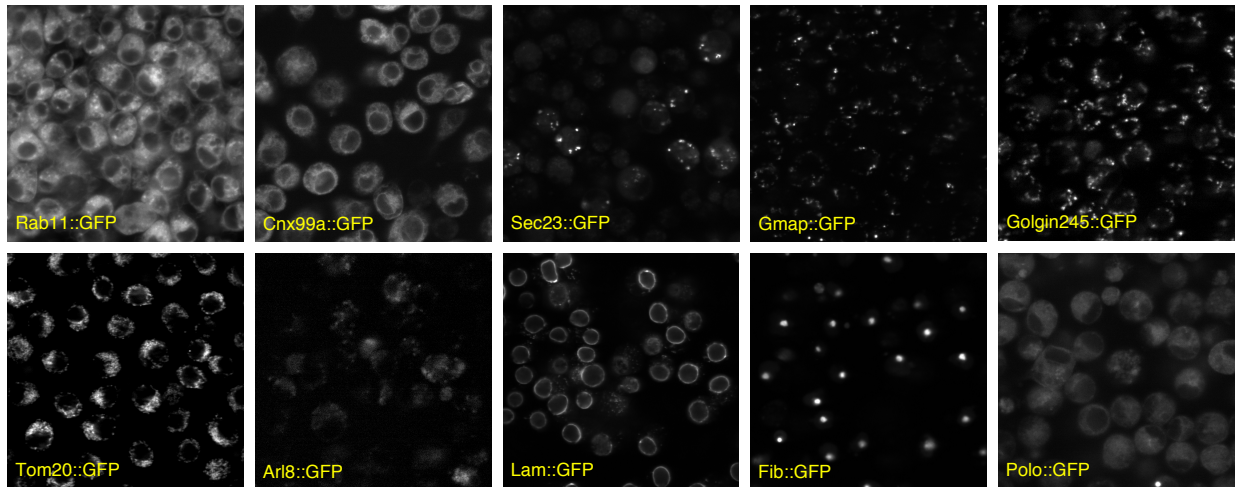
List of DRSC RNAi sub-libraries for arrayed-format screening
<https://fgr.hms.harvard.edu/drsc-focused-sub-libraries>

Drosophila Genomics Resource Center (cell repository and distribution facility)
<https://dgrc.bio.indiana.edu/Home>

Launch page for placing orders DRSC amplicons and libraries for cell RNAi
<https://fgr.hms.harvard.edu/ordering>

Contact us for one-on-one email, phone, or Zoom consultation
stephanie_mohr@hms.harvard.edu

2. Images from some of the DRSC's GFP knock-in cells (available at the DGRC):



Find these and other cell lines generated by the DRSC are available at the Drosophila Genomics Resource Center (DGRC) in Bloomington, IN, USA:

<https://dgrc.bio.indiana.edu/cells/Catalog>

<https://dgrc.bio.indiana.edu/Search?category=&query=drsc>

3. DRSC reagent distributions for cell-based arrayed format RNAi:

- PCR amplicons that can be used to generate dsRNA ("cherry-pick" service)
 - best option for one to several genes
- **Custom 96-well plate of dsRNAs** for fly cell RNAi ("custom IVT" service)
 - good for 45+ genes, 'omics follow-up, many replicates or assays
- **Focused sub-libraries** (kinases, transcription factors, etc.)
 - dsRNA in screen-ready assay plates, 384-well format
- **DRSC 2.0 genome-wide library**
 - dsRNA in screen-ready assay plates, 384-well format

Info page, focused sub-libraries:

<https://fgr.hms.harvard.edu/drsc-focused-sub-libraries>

Launch page for placing orders for DRSC amplicons and libraries

<https://fgr.hms.harvard.edu/ordering>