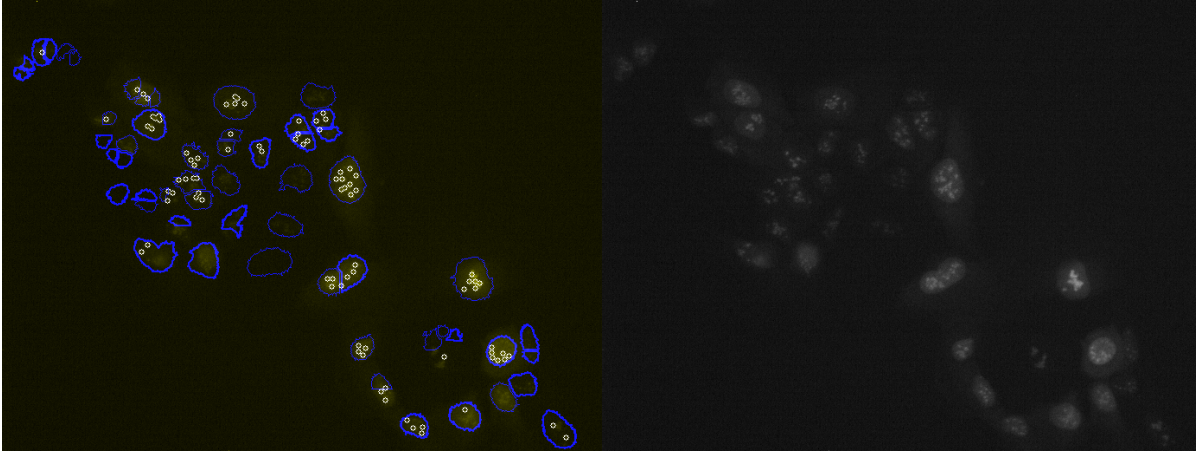
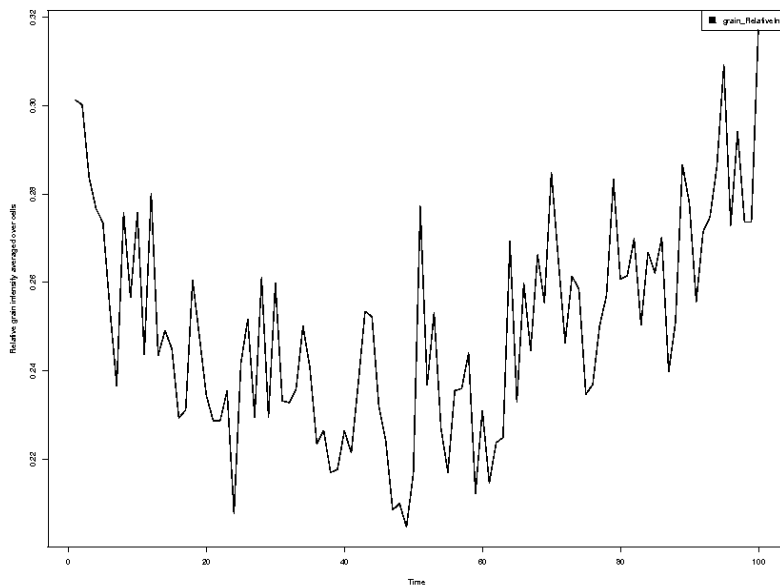


Cellgrain Download Page

Cellgrain is a pipeline script for Anduril analysis framework, that segments a live cell video from DAPI channel, and searches for granular objects in a second, signal channel. The method is used in the publication 'Henna M. Moore, Bayoan Bai, François-Michel Boisvert, Leena Latonen, Ville Rantanen, Jeremy C. Simpson, Rainer Pepperkok, Angus I. Lamond and Marikki Laiho "Quantitative proteomics and dynamic imaging of the nucleolus reveals distinct responses to UV and ionizing radiation", MCP Molecular & Cellular Proteomics, July 21, 2011.' The pipeline produces several plots describing the data.



Example image with segmentation.



Example plot of granular intensities over time.

Cellgrain workflow

- Requires:
 - [Anduril](#) (and it's requirements)
 - [Image Analysis bundle](#)
 - [Mathworks Matlab 2007a or newer](#)
 - The [Cellgrain scripts](#)

Installation of Anduril and requirements

Currently, the easiest method to run analysis with the framework, is to get:

1. A Working [Ubuntu](#) installation (e.g. Maverick)
2. Install Matlab
3. Add the following repositories to your Ubuntu 3rd party sources:

```
deb [http://cran.at.r-project.org/bin/linux/ubuntu] maverick/  
deb [http://csbl.fimm.fi/anduril/linux/] binary/  
deb [http://archive.canonical.com/] maverick partner
```

You can do the adding by copy/pasting the above lines in file: `/etc/apt/sources.list.d/anduril.list`

1. (optional) Add the signing key for our repository in the command line:

```
wget http://csbl.fimm.fi/anduril/linux/anduril_pub.gpg -O - | sudo apt-key add -
```

2. Update your package lists

```
sudo apt-get update
```

3. Install Anduril

```
sudo apt-get install anduril-image-analysis
```

4. Get the relevant R-packages

```
cd /tmp  
sudo ANDURIL_HOME=/usr/share/anduril anduril run-component SystemDiagnostics
```

5. Download the Cellgrain script files in to a directory
 6. Uncompress the ZIP archive
 7. All the editable variables are in the `setup.and` file.
 8. Run with `run.sh` script.
- If you install Anduril by more manual means, the image analysis bundle can be downloaded here:
 - [Anduril Image Analysis bundle v20110401](#)