Fluorescence microscopy:
Materials:
Fluorescence microscope
Glass slide
Coverslip

Method

1. Prepare cells appropriately.
2. Adjust cell suspension to a desired concentration.
3. Place a 2 µL drop of resuspended cells on the microscope slide.
4. Gently add a coverslip (taking care to avoid bubbles), and viewed under a fluorescence microscope using a suitable filter set.
5. With samples containing only a single fluorescent protein (as it was the case in our experiments) excitation wavelengths, dichroics and emission filters can be configured for each FP as described in the parameters below.

Filters and exposure time:

Phase measurements were produced at an exposure time of 20 ms, whilst GFP/RFP filters at 600 nm.

Fluorescent protein	Excitation wavelength	Dichroic transition	Emission filter
GFP	488 nm	500 nm	500 LP
RFP	561 nm	575 nm	575 LP