Notebook

20170330-20170331

Test the optical device: connect to the projector, narrow image to 35mm*43mm and project movie in hands.

20170413-20170417

Test CoChR and RGECO in cho cell.

1. Exposure cells in the light of 555nm wavelength. Each exposure is 400ms and the total is 10 seconds.
2. Exposure cells in the light of 555nm and 395nm wavelength. Each exposure is 500ms and repeat 1 loop.
3. Exposure cells in the light of 555nm wavelength. Each exposure is 500ms. Repeat 100 loops.

20170602-20170608

Test CoChR for a long time. Test whether CoChR and RGECO will affect each other.

1. Exposure RGECO in light of 555nm wavelength for 10s, and then exposure it by light of 30% 555nm wavelength for 5min to test the stimulate effect of light in 555nm for CoChR and REGCO.
2. Exposure RGECO in light of 60% 555nm wavelength for 10s. After adding KCl, exposure the light of 60% 555nm wavelength for 5min to make a positive control of REGCO.
3. Exposure CoChR and RGECO in the light of 30% 555nm wavelength for 5min and then add KCl to do the same steps to make a positive control for CoChR and RGECO.

201708

Test the worms' GEM-GECO1 in the microfluidics

1. Put worms into microfluidics.
2. Use diacetyl diluted in M9 buffer to stimulate AWA neuron.
3. Observe changes of Ca^{+}

20170905-20170907

Verity mCherry and Gem-geco in 130 worms by Luxendo Microscope

1. Add worms and anesthetic into a 2ml tube
2. Transfer anesthetic worms into an EP tube with agar
3. Inject diacetyl after 2min
4. Observe it under fluorescence microscope with 375nm light

20170908-20170916

Verity Gem-geco in 130 worms by Sp8 Microscope

1. Make a specimen (an anesthetic worm) in a 19mm special cell culture dish
2. Put it under the Sp8 Microscope

3. Excite 130 worms without diacetyl by 552nm light, and observe mCherry under the emission of 600nm light
4. Excite 130 worms without diacetyl by 405 nm light, and observe Gem-geco under the emission of 450-490nm light
5. Excite 130 worms with diacetyl by 405 nm light, and observe Gem-geco under the emission of 500-540nm light

20170926-20171013

Test the wavelength and bleach of light by Sp8 Microscope

1. Make a specimen (an anesthetic worm) in a special cell culture dish
2. Use 63× oil objective to find worms
3. Excite worm by 15% 405nm light for a long time
4. Observe the phenomenon of light blenching

20171022-20171101

Verity Gem-geco in 130 worms by Sp8 Microscope and repeat the steps from Sep. 8th to Sep. 16th.