Tutorial 5: Generating *in-silico* microscopy image with different hues

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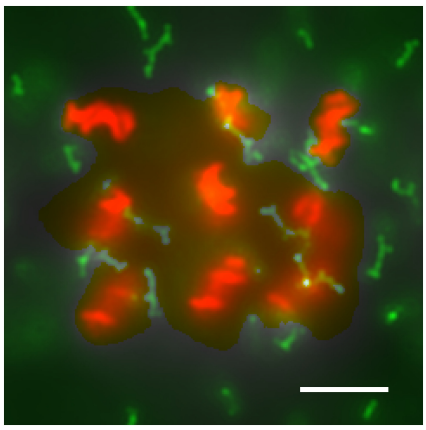
The monochrome image intensities generated in **Tutorial 1** (`img100_lam670_fs530.dat` and `img100_lam518_fs530.dat`) is used to demonstrate the use of different hues. First, the microscopy image is generated with red (0°) and green (120°) hues using the command,

```
Tut2$ siliscopy plot --file img --paramfile param_rg.dat --method
    color --timestep 100 --calc specific --output img_rg_ --type
    jpeg
```

It reads the image intensity files created in **Tutorial 1** and reads the following variables from `param_rg.dat`,

- `fs` $= 530$
- `lam1`, `lam2` $= 670, 518$
- `lam_I0_1`, `lam_I0_2` $= 0.13, 0.25$
- `lam_hue1`, `lam_hue2` $= 0, 120$
- `dlmn` $= 0.1, 0.1, 0.2$
- `maxlen` $= 0.25, 0.25, 0.25$
- `T` $= 1$
- `scale` $= 5$
- `dpi` $= 600$
- `opt_axis` $= 2$

This generates the following image `img_rg_100_fs530_T1_I_0.13_0.25.jpeg`,



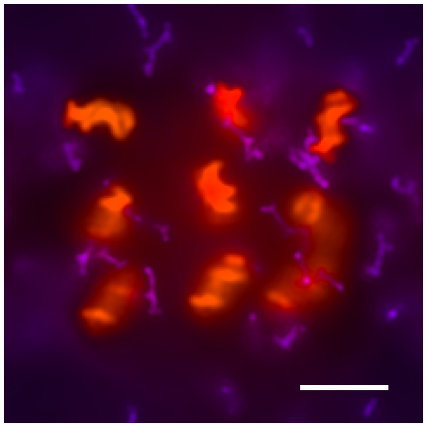
Second, the microscopy image is generated with orange (30°) and violet (270°) hue using the command,

```
Tut2$ siliscopy plot --file img --paramfile param_ov.dat --method
    color --timestep 100 --calc specific --output img_ov_  --
   type jpeg
```

It reads the image intensity files created in **Tutorial 1** and reads the following variables from `param_rg.dat`,

- `fs` $= 530$
- `lam1`, `lam2` $= 670, 518$
- `lam_I0_1`, `lam_I0_2` $= 0.13, 0.25$
- `lam_hue1`, `lam_hue2` $= 30, 270$
- `dlmn` $= 0.1, 0.1, 0.2$
- `maxlen` $= 0.25, 0.25, 0.25$
- `T` $= 1$
- `scale` $= 5$
- `dpi` $= 600$
- `opt_axis` $= 2$

This generates the following image `img_ov_100_fs530_T1_I_0.13_0.25.jpeg`,



Third, the microscopy image is generated with cyan (180°) and magenta (300°) hue using the command,
m

```
Tut2$ siliscopy plot --file img --paramfile param_cm.dat --method
    color --timestep 100 --calc specific --output img_cm_ --type
    jpeg
```

It reads the image intensity files created in **Tutorial 1** and reads the following variables from `param_rg.dat`,

- `fs` $= 530$
- `lam1`, `lam2` $= 670, 518$
- `lam_I0_1`, `lam_I0_2` $= 0.13, 0.25$
- `lam_hue1`, `lam_hue2` $= 180, 300$
- `dlmn` $= 0.1, 0.1, 0.2$
- `maxlen` $= 0.25, 0.25, 0.25$
- `T` $= 1$
- `scale` $= 5$
- `dpi` $= 600$
- `opt_axis` $= 2$

This generates the following image `img_cm_100_fs530_T1_I_0.13_0.25.jpeg`,