Nikon Microscope Parameters

**Excitation Filters: anticlockwise, Lambda Wheel A**
- Filter 1 (Position 0): 420/20 nm -> 410 -430 nm CFP excitation
- Filter 2 (Position 1): 546/11 nm mOrange1 excitation
- Filter 3 (Position 2): 590/40 nm for Red Photoactivation (previously 340 nm Fura2 excitation).
- Filter 4 (Position 3): 660/20 nm for Red Photo-deactivation (previously 380 nm Fura2 excitation 2, broken through).
- Filter 5 (Position 4): 495/10x nm YFP excitation
- Filter 6 (Position 5): 560/40 nm mCherry1 excitation
- Filter 7 (Position 6): 515/10x nm mOrange2 excitation
- Filter 8 (Position 7): 580/10 nm mCherry2 excitation
- Filter 9 (Position 8): closed
- Filter 10 (Position 9): Open

**Emission Filters: anticlockwise, Lambda Wheel B**
- Filter 1 (Position 0): 480/40 nm CFP emission
- Filter 2 (Position 1): 535/25 nm YFP emission
- Filter 3 (Position 2): 535/40 nm Fura2 emission
- Filter 4 (Position 3): 575/20 nm Orange2 emission
- Filter 5 (Position 4): 630/20 nm Cherry1 emission
- Filter 6 (Position 5): 650/100 nm Cherry2 emission
- Filter 7 (Position 6): Closed
- Filter 8 (Position 7): Closed
- Filter 9 (Position 8): Closed
- Filter 10 (Position 9): Open

**Dichroic Mirrors:**

**Position 1: Analysis (DIC) - ANALY**
- Position 2: 455 dxcr (for CFP and C/Y FRET) – CFPHQ
- Position 3: 510dclp (for YFP) – G2B
- Position 4: 560 dxcr (for mOrange2 and O/C FRET) - YFPHQ
- Position 5: GFP/FITC (full cube) –GFP-L
- Position 6: RFP/Tritc (full cube) - TxRed
- Backup Dichroic Mirror: 595dclp (for mCherry)

For photo-activation experiments, we switch either position 3 or position 6 to an enhanced silver mirror. We switch back to the original dichroic mirrors right after the experiment.

The arrows of filters should all facing the main body of the scope or dichroic mirror.