



2. scan lens : SL 50 - ZPZ , 50 mm focal length . optimised for 2 photon microscopy

3. tube lens : TTL 200 - A : 200 mm focal length, 2 photon compatible

5. objective : XLP LN 25X WMPZ : 25x magnification, NA 1.05
water immersion designed for excitation + multiphoton imaging

4. Dichroic 1: Semrock FF205 - Di01 - 25x36

- reflects λ below 205 nm, transmits above

Dichroic 2: Semrock FF560 - Di01 - 25x36

- separate Td Tomato + EYFP emissions
527 nm 581 nm

6. Emission filter 1: Semrock FF01 - 525 / 50 - 25

center λ = 525 nm, 50 nm bandwidth, maximize capture peak EYFP
minimise Td Tomato bleedthrough

Emission filter 2: Semrock FF01 - 607 / 20 - 25

center λ = 607 nm, bandwidth 20 nm, filter for peak Td tomato

5. Laser Choice: Coherent Chameleon Discovery

- tunable λ between 680 - 1300 nm,
950 target excitation within range: excites tdTomato and EYFP
- pulse width < 100 fs: crucial for 2 photon excitation.
- repetition: 80 MHz = standard for 2 photon
- Avg power ≈ 2.5 W allows for adequate depth of tissue depth.