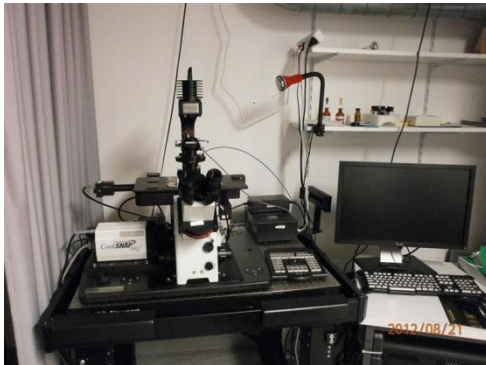


DeltaVision 1



Installed 2010. Inverse widefield epifluorescence microscope unit with state-of-the art solid state fluorescence illumination source. Equipped with a medium-speed, cooled 1.3 Megapixel camera. Suited to image most common dyes (DAPI, CFP, GFP, YFP, Cy3, TexasRed, mCherry, Cy5). XYZ-scanning stage allows 5D-data acquisition. Software-integrated deconvolution algorithms fitted to the optical path of the system. Optional: critical fluorescence illumination for dim samples. (Last update April 2019)

Stand

Olympus IX-71, inverse, with auxiliary magnification (1.6x)

Objectives

- UPlanSApo 20x/0.85 Oil
- UApo N 340 40x/1.35 Oil
- PlanApo N 60x/1.42 Oil
- UPlanSApo 100x/1.4 Oil

A 20x dry objective (UApo/340 20x/0.75) is available on request

Widefield Illumination

- 7-color combined SSI-source: 381-399 nm (55 mW), 426-450 (85 mW), 461-489 (54 mW), 505-515 (22 mW), 529-556 (85 mW), 563-588 (89 mW), 621-643 (48 mW). Fiber optic module switchable between Köhler and critical illumination, equipped with photosensor and slider holding a UV blocking filter (to eliminate residual UV for live cell imaging).
- White LED

Detection Systems

- Roper CoolSNAP HQ2, 1344 x 1024 pixel (6.45 x 6.45 μm pixel size)

Software

- softWorX suite R6.1.1 running on Linux (CentOS 5.11)

DeltaVision 1



Filters

Filter sets have to be pre-selected in the software (not all combinations are available).

Dichroic	Pos.	Set	Channels	Center Wavelength/Bandpass	
				Excitation	Emission
Quad	1	Standard	DAPI	390/18	435/48
			FITC/GFP	475/28	523/36
			TRITC	542/27	594/45
			Cy5	632/22	676/34
Quad-mCherry	2	Alexa	DAPI	390/18	435/48
			FITC/GFP	475/28	523/36
			A594 (mCherry)	575/25	632/60
			Cy5	632/20	676/34
CFP/YFP	3	Live	CFP	438/24	470/24
			YFP	513/17	559/38
GFP/mCherry	4	Live	FITC/GFP	475/28	525/50
			mCherry(A594)	575/25	632/60
DAPI/GFP/mCherry	5	Alexa	DAPI	390/18	435/48
			FITC/GFP	475/28	523/36
			mCherry	575/25	632/60

Additional Devices

- Immersion oil formulations with different refractive indices from $n = 1.510$ to 1.520 (increasing in 0.002 steps)
- Stage inserts for slides, special device to hold 35 mm dishes on the same stage insert