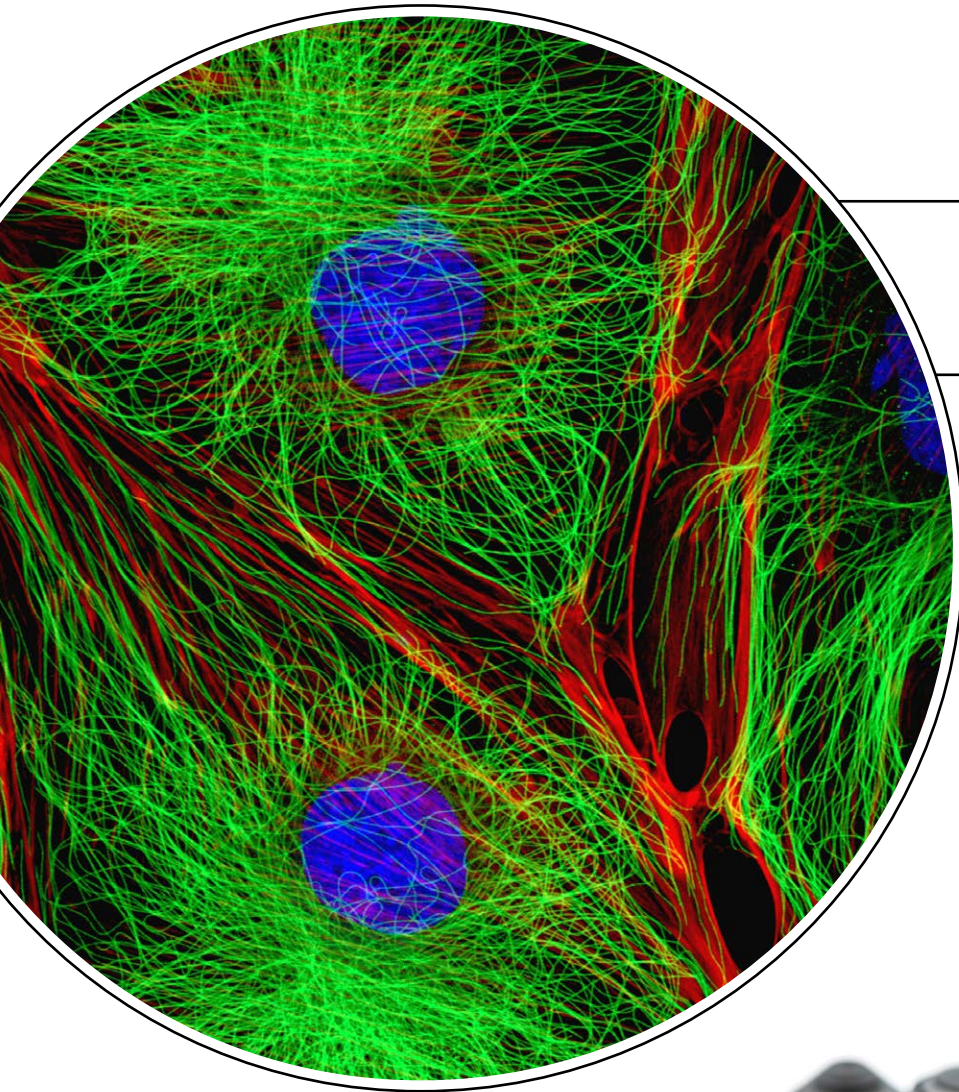


X Line: Breaking Barriers



Flatness

Expanded flatness with consistent sharpness, from the center to the edge

Chromatic Aberration

Exceptional color accuracy during brightfield and multicolor fluorescence imaging

Numerical Aperture

Improved brightness, resolution, and signal-to-noise ratio resulting in excellent image quality

Olympus' revolutionary polishing technology delivers ultra-thin lenses at the core of every X Line high-performance objective.

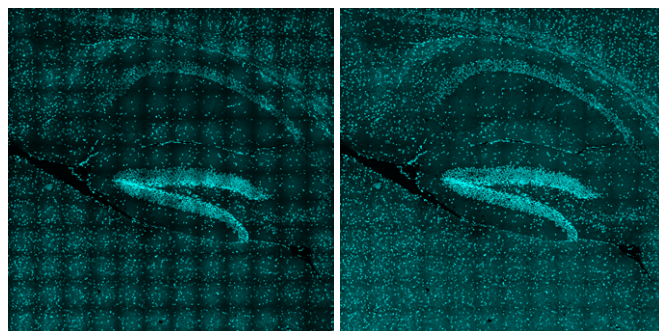


Precise Image Acquisition Advances Your Research

Expanded Flatness

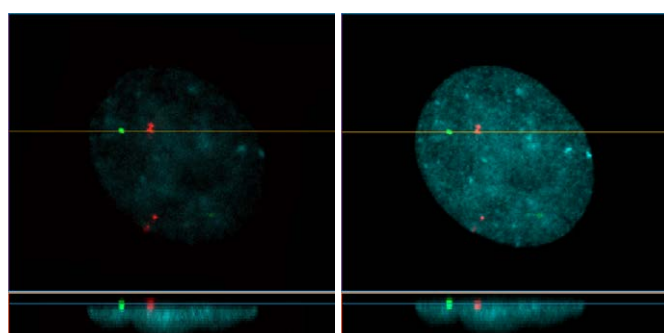
Conventional objectives have good image quality in the center, but the edges are out of focus. X Line objectives offer uniform image quality from the center all the way to the edge, even with a large field of view. If you're stitching images together, the improved flatness delivers much clearer wide-area images.

Brain section of Fucci2 Tg mouse
 Stitched image of 12X12 images acquired by FV3000 using 60X oil immersion objective (NA1.42)
 Cyan: DAPI (405nm)
 Image Courtesy of
 Laboratory for Cell Function Dynamics RIKEN Center for Brain Science
 Takako Kogure, Atsushi Miyawaki



Conventional objectives

X Line



Conventional objectives

X Line

Exceptional Color Accuracy

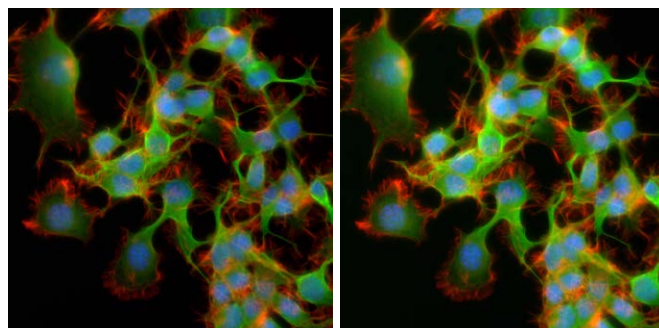
With chromatic aberration correction from 400 to 1000 nm, X Line objectives deliver accurate multicolor images and quantitative results during colocalization analysis.

HeLa cell labeled by FISH technique acquired by FV3000 using 60X oil immersion objective (NA1.42)
 CEP17(Spectrum Green), CEP18(Spectrum Orange), Nuclear (DAPI)
 When observing with conventional objectives, signals located at the bottom of cell nuclear appears outside the nuclear.

Excellent Image Quality

X Line objectives' high numerical aperture (NA) enables them to gather more light for brighter, higher resolution images. During live cell fluorescence imaging experiments, this feature helps minimize phototoxicity and photobleaching.

Wide field fluorescence image of NG108-15 cells by using 20X dry objectives
 Blue: Nucleus, Green: Microtubules, Red: Actin filaments



Conventional objectives
(NA0.75)

X Line
(NA0.8)

Selection Guide for X Line Objectives

Objectives	Numerical Apertures	Working Distance (mm)	Chromatic Correction Wavelength (nm)
UPLXAPO4X	0.16	13	400-1000
UPLXAPO10X	0.4	3.1	400-1000
UPLXAPO20X	0.8	0.6	400-1000
UPLXAPO40X	0.95	0.18	400-1000
UPLXAPO40XO	1.4	0.13	400-1000

Objectives	Numerical Apertures	Working Distance (mm)	Chromatic Correction Wavelength (nm)
UPLXAPO60XO	1.42	0.15	400-1000
UPLXAPO100XO	1.45	0.13	400-1000
UPLXAPO60XOPH	1.42	0.15	400-1000
UPLXAPO100XOPH	1.45	0.13	400-1000

- OLYMPUS CORPORATION is ISO14001 certified.
- OLYMPUS CORPORATION is ISO9001 certified.
- Illumination devices for microscope have suggested lifetimes. Periodic inspections are required. Please visit our website for details.

- All company and product names are registered trademarks and/or trademarks of their respective owners.
- Images on the PC monitors are simulated.
- Specifications and appearances are subject to change without any notice or obligation on the part of the manufacturer.

www.olympus-lifescience.com/landing/objectives

OLYMPUS[®]

OLYMPUS CORPORATION
 Shinjuku Monolith, 2-3-1 Nishi-Shinjuku, Shinjuku-ku, Tokyo 163-0914, Japan