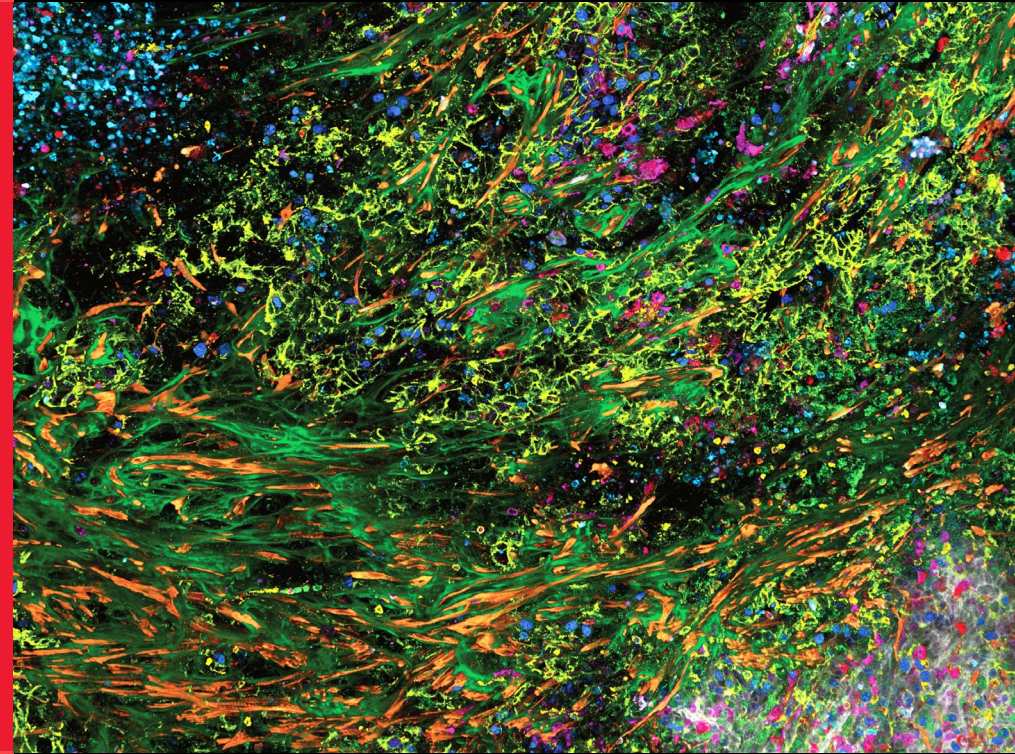


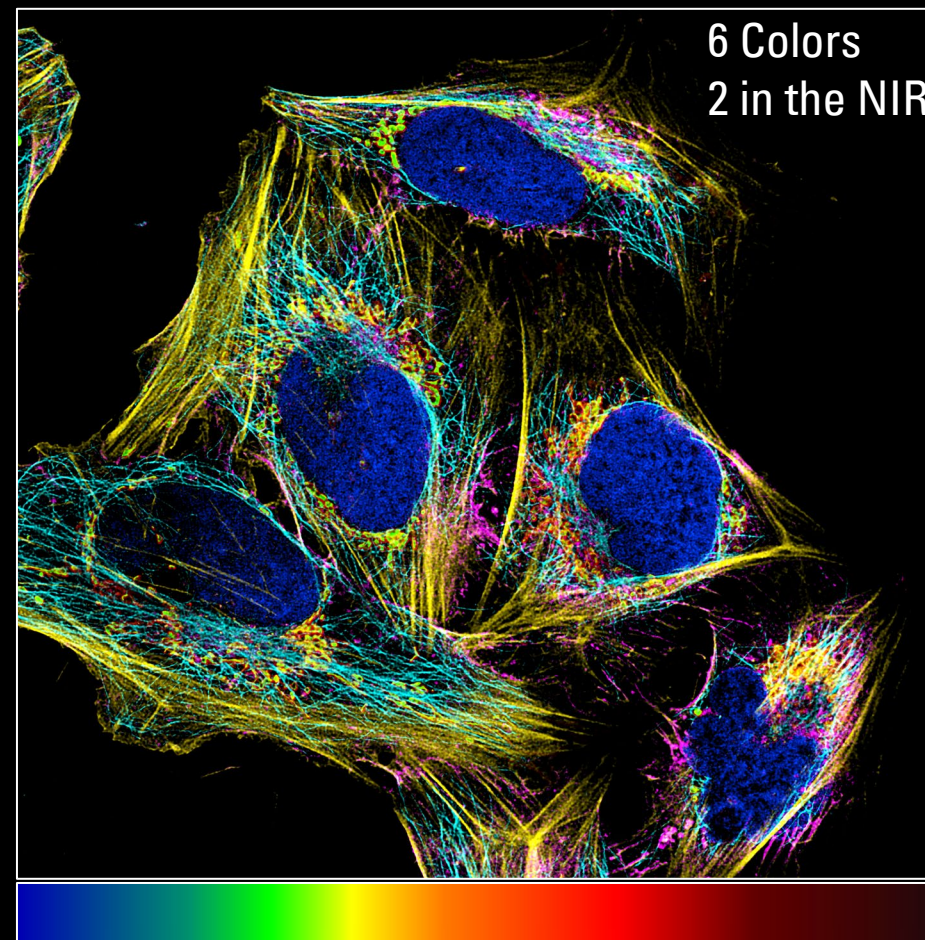
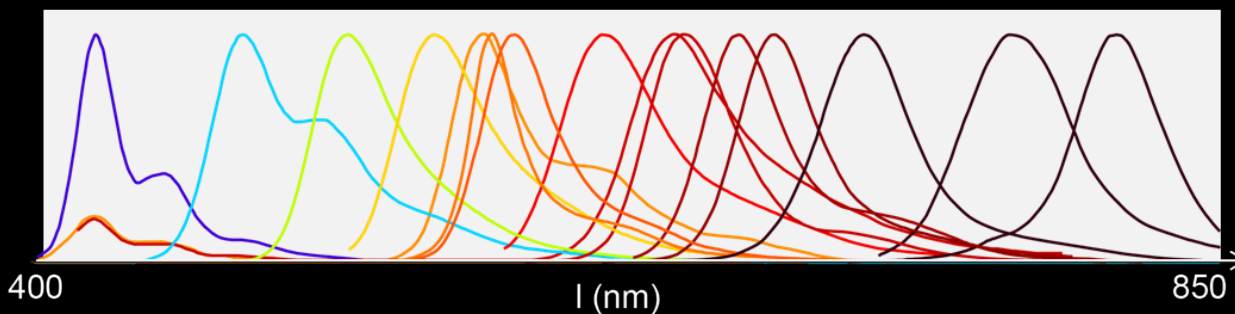
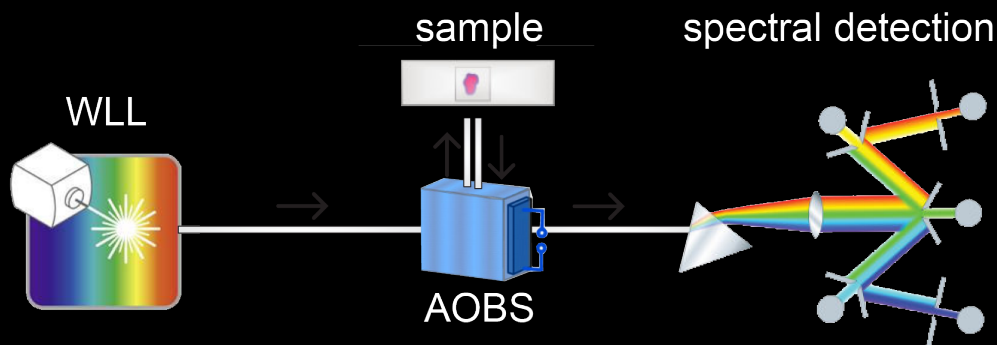
NEW ON STELLARIS:

Discover the power of
3D high-multiplex imaging across scales



From Eye to Insight

Spatial Phenotyping and the STELLARIS Confocal Platform



405 WGA AF555-Tubulin SIR700 Actin
488 SytoxGreen MitoTracker-Red AF750-Tomm20

STELLARIS designed with high-multiplex imaging at its core

Spatial Phenotyping and STELLARIS: What is Needed?

- Setting up a high-multiplex experiment takes a lot of time and it is awfully painful.
- Managing large data pipelines manually leads to mistakes and wasted hours
- The required level of multiplexing in one go, at the right resolution and in 3D is insufficient, unmixing algorithms are missing
- Segmenting objects and performing data analysis is extremely challenging



SpectraPlex for STELLARIS

Discover the power of 3D high-plex imaging across scales

3D high-multiplex imaging in cancer immunology. Kunz L., Speziale D., et al., Nat. Methods (2024). <https://www.nature.com/articles/d42473-024-00260-7>



danaher

Leica Microsystems | SpectraPlex Sales Launch | Dr. Julia Roberti | 30 September 2024 **Confidential**
Leica Microsystems GmbH. Registered Office: Wetzlar. All rights reserved, also regarding any disposal, exploitation, reproduction, editing, distribution, as well as in the event of applications for industrial property rights.

The Leica logo, featuring the word "Leica" in a red, cursive script font.

SpectraPlex Built for Spatial Biology

Access 3D high-plex spatial information across scales in one go, at the right resolution, and far beyond conventional multicolor imaging.

Design experiments in advance, explore and optimize panel options with the integrated Virtual Fridge and Design Panel functionalities.

Manage data with minimal human interaction, with intelligent guidance for experimental controls while keeping flexibility for the advanced user.

Benefit from a fully integrated spatial discovery solution, from imaging to analysis



Leica STEARIS Configuration Acquire Process Quantify Analysis File Help

Open projects Acquisition

Acquisition Mode

xyz FLIM

XY: 512x512 | 400 Hz | 1.00 | 1.00 AU

Objective: HC PL APO CS2 20x/0.75 DRY
MFP: Substrate Autoselect
X1-Port: Mirror
Fluo Turret: Scan-BF

Annotations

100%

Ch1
3D

Leica STELLA

Open projects Acquisition

Acquisition Mode

xyz Plex FLIM

XY: 512x512 | 400 Hz | 1.00 | 1.00 AU

Format: 512 x 512
Speed: 400
Bidirectional X:
Zoom Factor:
Zoom In:
Image Size: 581.25 μm
Pixel Size: 1.14 μm
Optical Section: 1
Pixel Dwell Time: 2.8 μs Frame
Line Average: 1
Line Accu: 1
Frame Average: 1
Frame Accu: 1
Pinhole

Z-Stack:
Begin End
Z Positi
Z Siz
Re-C
Stack Dir
piezo stage

Autofocus Live Fast Live 5/31/2024 1:06:26 AM | Infor... Capture Image Start

the multiplex experiment002_Mask x = 512 y = 512 (256 kB)
Size: 512 x 512



How Is SpectraPlex Integrated in STELLARIS?

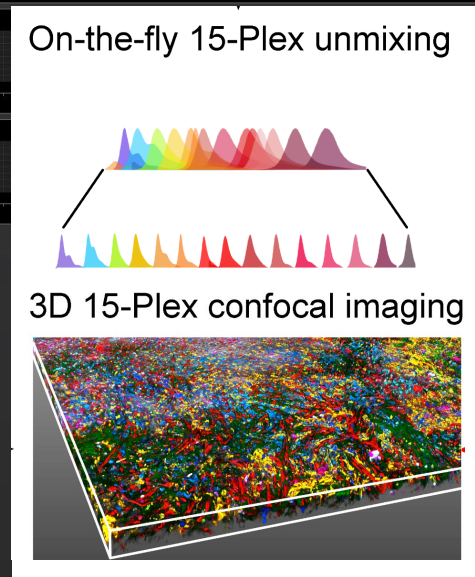
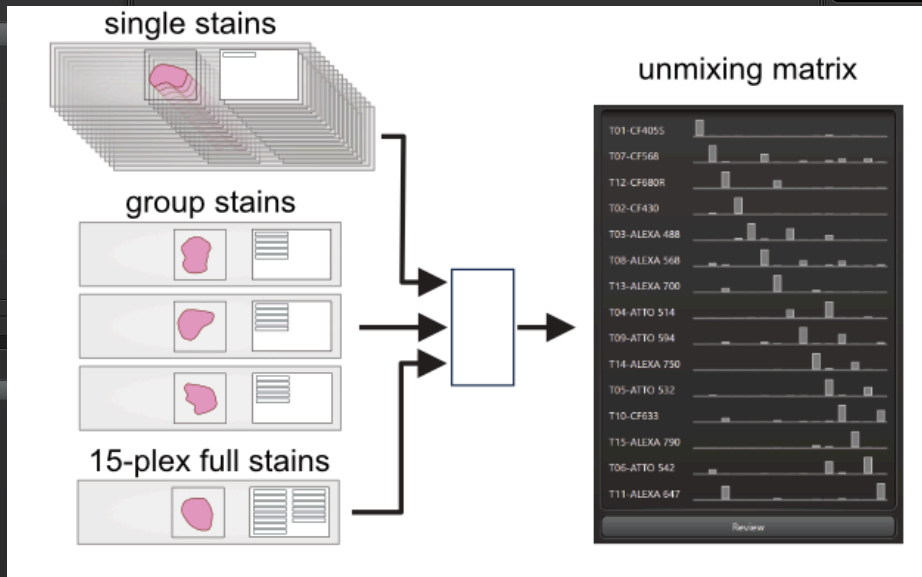
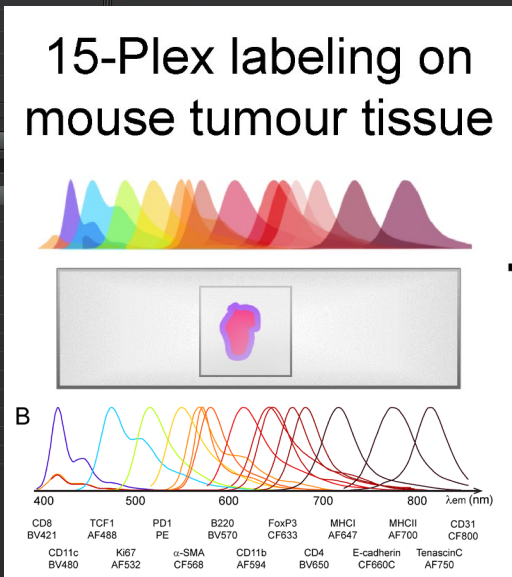
The screenshot shows the SpectraPlex software interface with three main workflow steps highlighted in a dark grey bar: **Define Panel**, **Setup Acquisition**, and **Acquire** (with a lock icon).

Define Panel: Shows a list of dyes on the left and a 'Markers' table with columns for Marker, Target, and Dye. The 'Panel' table below it lists markers M01-M07 with their corresponding targets and dyes.

Marker	Target	Dye
M01	M01	CF4055
M02	M02	CF430
M03	M03	ALEXA 488
M04	M04	ATTO 514
M05	M05	ATTO 532
M06	M06	ATTO 542
M07	M07	CF568

Setup Acquisition: Shows an emission spectra plot with peaks for M01, M06, and M11. The x-axis is labeled 'nm' and ranges from 400 to 900.

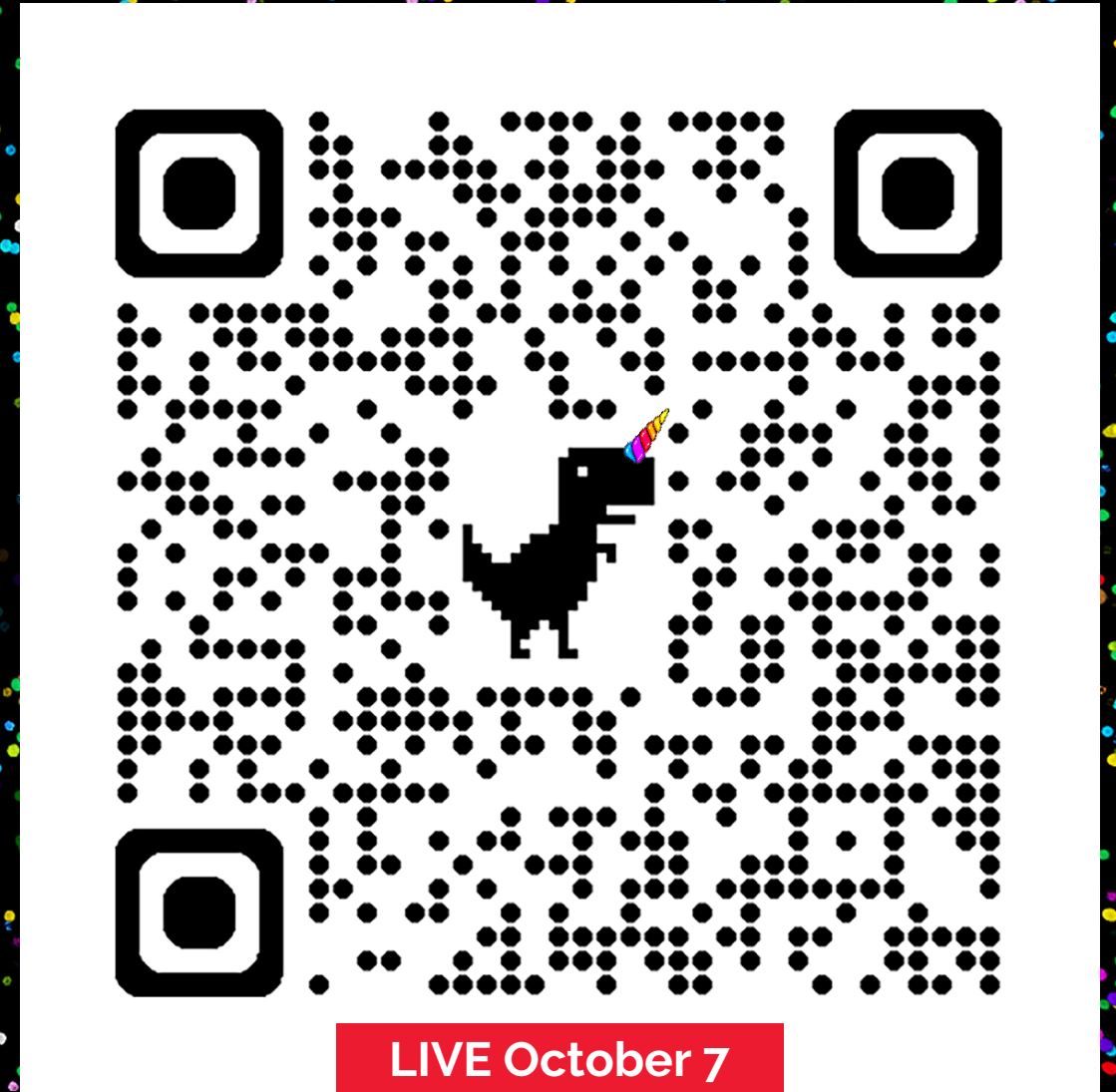
Acquire: Shows a 'Staining Groups' section and a 'Settings' panel with 'Edit Settings' button.



SpectraPlex for STELLARIS in a Nutshell

- Experiment design in advance, exploring and optimizing setup and acquisition options
- Intelligent guidance for experimental control while keeping flexibility for the advanced user
- 3D high-multiplex information across scales in one go, with powerful unmixing algorithms
- Spatial Biology integrated in a powerful, highly versatile confocal platform

Leica 15-plex microbeads sample, full stain.

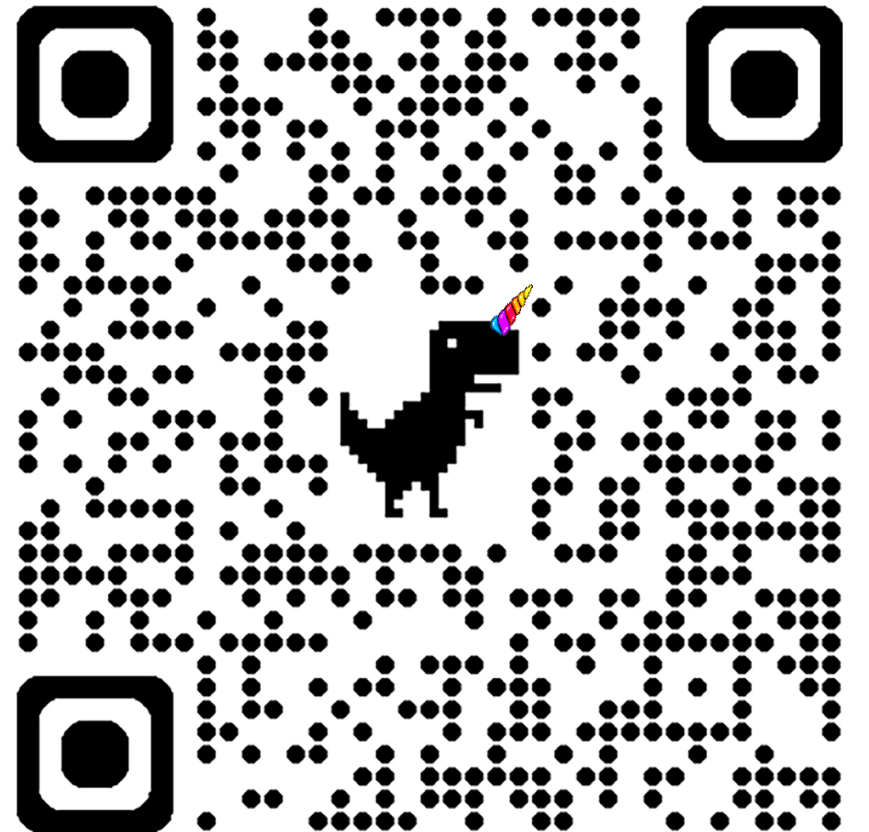


LIVE October 7



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Thank You!



LIVE October 7

From Eye to Insight