

ADVANCED IMAGING CORE (AIC)

NEED HIGH-RES IMAGES FOR YOUR PUBLICATIONS AND GRANTS?

With the AIC's Zeiss Elyra 7 super-resolution microscope (SRM) system featuring Structured Illumination Microscopy (SIM), your lab can double the resolution of confocal microscopy with minimal, but required, changes in reagents without making significant changes to your staining protocols.

UTHSC RESEARCH

Breast cancer cells cultured on multi-well ibidi micro-slides, #1.5H glass (cat# 80827), stained with TOMM-20 (green) and creatine kinase, brain isoform (red). Mounted in ibidi mounting media (cat# 50001). Courtesy of Dr. Hilaire Smith, Seagroves laboratory.

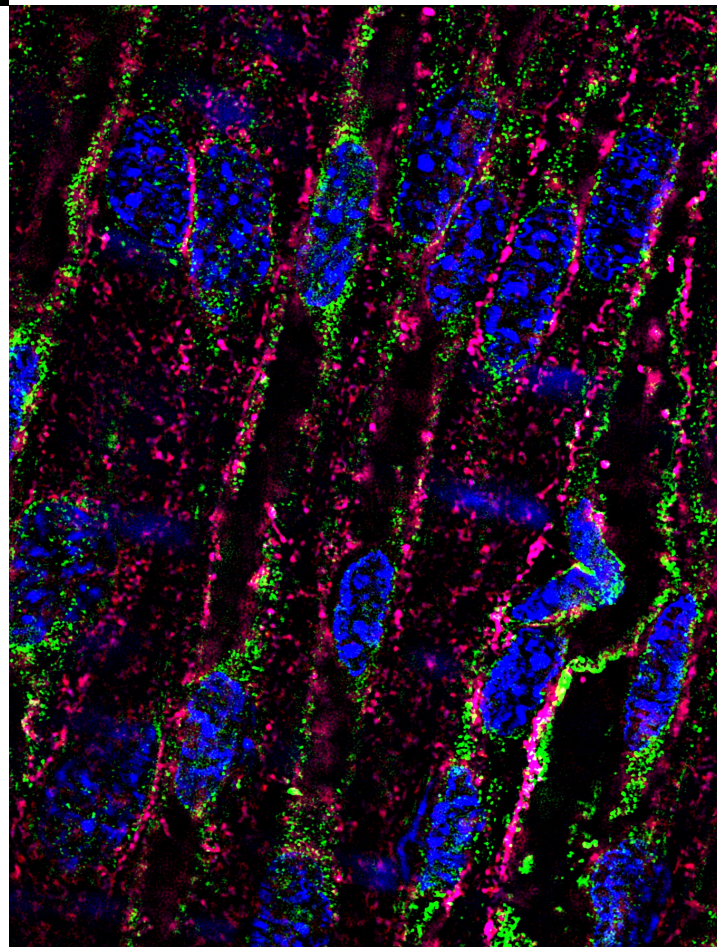
SAMPLE REQUIREMENTS

Coverslips must be #1.5H size thickness. While #1.5 may be sufficient for some samples, the high precision options available offer a more consistent glass thickness needed for SRM. ***The AIC has samples available to new consults!

Mounting media must have a RI of >1.4. The AIC recommends the VECTASHIELD and ProLong product lines.

All common fluorescent proteins and dyes are suitable for SIM, provided that they are compatible with the available laser lines: 405, 488, 561, and 642nm.

As the quality of the reconstructed SIM image is dependent on the signal-to-noise ratio, samples that have been optimized to have little background with precise fluorescent labeling will yield the best images.



En face preparation of mesenteric artery, labeled with AlexaFluors 488, 546, and 647 as well as DAPI. Courtesy of Jaggar laboratory.

Book via the
UTHSC iLab website

For more information, visit:
uthsc.edu/research/institutional-cores/advanced-imaging-core

SPECIFIC MATERIALS THAT WILL WORK WITH THE ELYRA

MOUNTING MEDIA

BRAND	PRODUCT NAME	CAT. NO.
LIFE TECHNOLOGIES	PROLONG GOLD ANTIFADE MOUNTANT	P36934
LIFE TECHNOLOGIES	PROLONG DIAMOND ANTIFADE MOUNTANT	P38970
LIFE TECHNOLOGIES	SLOWFADE GOLD ANTIFADE MOUNTANT	S36963
LIFE TECHNOLOGIES	SLOWFADE DIAMOND ANTIFADE MOUNTANT	S36963
VECTOR LABORATORIES	VECTASHEILD ANTIFACE MOUNTING MEDIUM	H-1000-10
SOUTHERNBIOTECH	FLUOROMOUNT-G	0100-01

1.5 COVERSLEIPS/ COVERGLASS

BRAND	CAT. NO.	SIZE	PRODUCT TYPE
ZEISS	474030-9010-000	18x18 mm	COVER SLIPS
MARIENFELD SUPERIOR	0107032	18x16 mm	COVER SLIPS
MARIENFELD SUPERIOR	0107052	22x22x mm	COVER SLIPS
MARIENFELD SUPERIOR	0117580	18mm ROUND	COVER SLIPS
CELLPATH LTD UK	SAN-5018-03A	18x18 mm	COVER SLIPS
WILLCO	GWST-3512	35mm	GLASS BOTTOM DISH
WILLCO	0107032	18x18 mm	COVER SLIPS
WILLCO	0107052	22x22x mm	COVER SLIPS
AZER SCIENTIFIC	ES0107032	18x18 mm	COVER SLIPS
AZER SCIENTIFIC	ES0107052	22x22x mm	COVER SLIPS
AZER SCIENTIFIC	ES0117580	18 mm ROUND	COVER SLIPS
IBIDI	80427	4 WELL	CHAMBERED COVERGLASS
IBIDI	81158	35mm	GLASS BOTTOM DISH
NUNC LAB-TEK II	155409	8 WELL	CHAMBERED COVERGLASS