University of South Alabama BioImaging Core Facilities

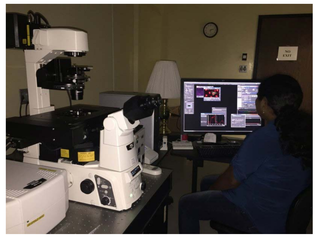
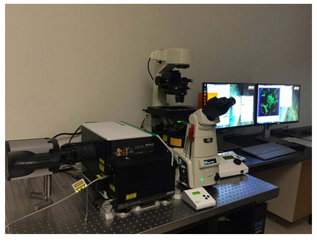
Kimberly P. Littlefield, Ph.D.

University of South Alabama Office of Research Communications, Development and Learning

Contact Info.: kplittlefield@southalabama.edu, 251-460-6628

CCTS

BioImaging Core Facility – USA College of Medicine


Research Interests and Expertise: Spectral Imaging** (T. Rich & S. Leavesley); Technology Development; 5D Imaging, Automated Imaging Analysis (M. Taylor); Monolayer Stress Microscopy (D. Tambe); Light Sheet Microscopy*** (R. Littlefield)

Instrumentation Available:

- **Nikon A1R spectral confocal microscope** (4 – channel traditional detection module, 32-channel spectral detection module)
- **Environmental chamber**
- **Leica TCS SP2 laser-scanning confocal microscope**
- **Andor Revolution WD spinning disk confocal microscope**
- **PerkinElmer Ultraview RS-3 spinning disk confocal microscope**
- **MMI Laser Capture Microdissection System**
- **Photon Technology International QuantaMaster 40 Spectrofluorimeter**

USA BioImaging Core Contact Information:

Mark Taylor, Ph.D. - Director
mtaylor@southalabama.edu
251-460-6817

http://www.southalabama.edu/centers/bioimaging/bioimaging_core_facility.html

Cellular and Biomolecular Imaging Facility – USA Mitchell Cancer Institute

N-STORM

N-SIM

Research Expertise: Sub-diffraction Limit Super-Resolution Imaging (Stochastic Optical Reconstruction (N-STORM) or Structured Illumination (N-SIM)); Spectral, Widefield, and Confocal Imaging; FRAP, FRET, BIFC (bi-molecular fluorescent complementation); Micro-precision DNA Damage

Instrumentation Available:

- **Nikon Ti-E with A1rsi and N-STORM (Stochastic Optical Reconstruction Microscopy) Super-Resolution Imaging** (Spectral confocal microscope equipped with 6 laser lines for resonance and standard laser-scanning confocal imaging, two laser lines for **N-STORM** super-resolution imaging, automated stage, and 32-channel spectral detection with variable diffraction grating.)
- **Nikon Ti-E with N-SIM (Structured Illumination Microscopy) Super-Resolution Imaging** (Structured Illumination Microscopy system equipped with two laser lines for super-resolution imaging, incubation chamber, and automated stage.)
- **Nikon TE2000E** (Automated inverted widefield microscope equipped with automated Stage, incubation chamber, Z-drive, Perfect Focus System, and external filter wheels for FRET)
- **Nikon TE2000U, Nikon TE100** (inverted widefield fluorescent microscope)
- **Nikon SMZ1500** (stereo widefield fluorescent microscope)
- **Zeiss Axiovert 200M** (automated inverted widefield fluorescent microscope)
- **Zeiss Axioskop 40** (histology microscope)
- **MMI CellCut Plus** (Laser dissection microscope mounted on an Olympus IX81 base equipped with widefield fluorescence)

USA Cellular and Biomolecular Imaging Facility Contact Information:

Joel Andrews, Ph.D. – Core Lab Manager
jandrews@health.southalabama.edu
251-533-2489

http://www.usahealthsystem.com/imaging-4866

Engineering Core Facilty – USA College of Engineering

Techni G2 20

Keysight 5500 AFM

Research Expertise: Techni G2 20: Elemental identification and mapping (EDXS and EELS) ; 2D and 3D imaging at both ambient and cryogenic conditions, bright-field, dark-field STEM imaging, electron diffraction and detailed microanalysis; Keysight 5500: Equipped with Kelvin Force Microscopy (KFM) imaging mode for mapping surface potential distribution at the nanoscale

Instrumentation Available:

- **Tecnai G2 20 Transmission Electron Microscope***
- **Keysight 5500 Atomic Force (AFM)/Scanning Probe Microscope**

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USA Engineering Core Facility Contact Information:

Sumit Arora, Ph.D. - Director
sarora@southalabama.edu
251-445-9874

http://www.southalabama.edu/colleges/engineering/ecf.html

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S. Leavesley, Ph.D. – leavesley@southalabama.edu
R. Littlefield, Ph.D. – ryanlittlefield@southalabama.edu
Tom Rich, Ph.D. – trich@southalabama.edu
D. Tambe, Ph.D. – dtambe@southalabama.edu
M. Taylor, Ph.D. – mtaylor@southalabama.edu