Faculty,

I am pleased to announce that the Office of Research, through its Core Instrumentation Fund, has partnered with the Norris Comprehensive Cancer Center to acquire an **N-Storm single molecule microscope**. This new super-resolution microscope will be placed in the Norris Cell and Tissue Imaging Core on the Health Science Campus, overseen by David Hinton from the Keck School of Medicine.

This new microscope complements USC’s rapidly expanding capabilities in super-resolution microscopy, including:

**GE DeltaVision OMX microscope** within the Center for Electron Microscopy and Microanalysis (CEMMA) on the University Park Campus (also acquired with core instrumentation support) ([http://www.usc.edu/dept/CEMMA/instruments/](http://www.usc.edu/dept/CEMMA/instruments/))

**PALM Zeiss ELYRA microscope**, within the Translational Imaging Core on the University Park Campus. ([http://bioimaging.usc.edu/microscopes.html#shared_microscopes](http://bioimaging.usc.edu/microscopes.html#shared_microscopes))

Super-resolution microscopy is a technique for overcoming the normal diffraction limit of light to provide images at a scale that was impossible in the past. The science underlying this technology was the foundation for the 2014 Nobel Prize in chemistry.

The new N-Storm microscope reflects USC’s commitment to shared state-of-the-art instrumentation that advances innovative research. Other equipment acquired in the last year with support of the Core Instrumentation Fund includes:

- **Thermo Scientific iCAP 7400 ICP-OES Spectrometer & Thermo Scientific Flash 2000 Combustion CHNS Analyzer** ([CE Elantech, Inc](https://www.celeantech.com)), within the Center of Excellence for Molecular Characterization on the University Park Campus ([http://nmrnet.usc.edu/](http://nmrnet.usc.edu/)), overseen by Travis Williams.

- **Macromolecular Crystallization Screening Robot** ([Phoenix ARI](https://www.phoenixari.com)), within the NanoBiophysics Core on the University Park Campus ([https://dornsife.usc.edu/nanobiophysicscore/](https://dornsife.usc.edu/nanobiophysicscore/)), overseen by Xiaojiang Chen.

- **Illumina MiSeq Integrated System and an Illumina NextSeq 500 Sequencing System** ([Illumina, Inc](https://www.illumina.com)), within the Norris Cancer Center’s Molecular Genomics Core on the Health Sciences Campus ([http://uscnorriscancer.usc.edu/Core/MolGen/](http://uscnorriscancer.usc.edu/Core/MolGen/)), overseen by Graham Casey.

- **UltraSharp U2212HM 21.5-inch Widescreen Monitor and Precision T5500 Workstation** ([Dell](https://www.dell.com)), within the Video Tracking Core on the University Park Campus ([http://dornsife.usc.edu/towerlab/uscvtc/](http://dornsife.usc.edu/towerlab/uscvtc/)), overseen by John Tower.
• **Q Exactive Mass Spectrometer and an EASY-nLCTM II High Pressure Nano-HPLC System (Thermo Electron North America LLC)**, within the USC Proteomics Core, on the Health Sciences Campus [http://keck.usc.edu/Research/Centers_and_Programs/Proteomics_Core_Facility.aspx](http://keck.usc.edu/Research/Centers_and_Programs/Proteomics_Core_Facility.aspx), overseen by Ebrahim Zandi.

• **High-energy, High-Resolution nanoCT Upgrade (Nikon XT H 225ST System)** to the Nikon XT H 225ST System on the Health Sciences Campus [http://keck.usc.edu/Research/Facilities_and_Resources/Imaging/Molecular_Imaging_Center.aspx](http://keck.usc.edu/Research/Facilities_and_Resources/Imaging/Molecular_Imaging_Center.aspx), overseen by Peter Conti.

• **PlasmaPro System 100 PECVD**, within the Keck Photonics Center Cleanroom, on the University Park Campus [http://www.usc.edu/dept/engineering/eleceng/photonics/index.html](http://www.usc.edu/dept/engineering/eleceng/photonics/index.html), overseen by John O'Brien

• **Fluidigm CyTOF Imaging Mass Spectrometry (IMC) apparatus, with the adaptation of a novel laser ablation device, for Flow Cytometry and Imaging**, on the University Park Campus [http://bioimaging.usc.edu/](http://bioimaging.usc.edu/), overseen by Scott Fraser

All equipment supported by the Core Instrumentation Fund is available to the entire research community at USC.

Acquisition of USC’s core instrumentation is guided by USC’s Plan for Science and Technology Facilities: [https://research.usc.edu/files/2011/05/Plan_for_ST_4-10.pdf](https://research.usc.edu/files/2011/05/Plan_for_ST_4-10.pdf). Core lab directors interested in receiving support for new core equipment should apply to our current peer-reviewed solicitation: [http://research.usc.edu/for-investigators/funding/usc/#instrumentation](http://research.usc.edu/for-investigators/funding/usc/#instrumentation).

Information on all of USC’s core laboratories can be found at: [http://research.usc.edu/facilities/](http://research.usc.edu/facilities/)

Randolph Hall
Vice President, Research