With a rich history of scientific inquiry and discovery, Tuskegee University researcher's continue to blaze new and exciting paths in the areas of Cancer Therapeutics, HIV/AIDS, Companion Animal Health, Food Security, Material Science, Biomedical Engineering and many more. The need to support many on-going research projects has led to the installation of a wide array of technical resources and services.

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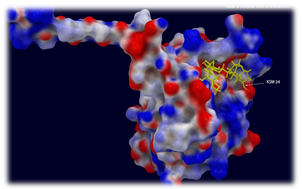
TU RCMI Research Infrastructure Core: Boasting the largest inventory of shareable instrumentation on campus, this facility supports the research endeavors of Faculty and students throughout the TU research community. Instrumentation/facilities include flow cytometers, FACSAria sorter, confocal and widefield microscopes, IVIS Lumina XR, RTPCR systems, cell culture, cold storage and multimodal plate readers. Additionally, Facility staff provide technical assistance in the areas sample preparation, experimental design, data acquisition, data analysis and bioinformatics.

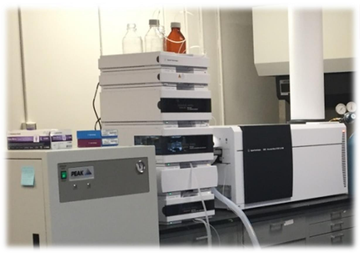
Confocal Microscopy: an Olympus FV1000 and IX2-DSU provide confocal capabilities. The FV1000 enables the simultaneous visualization of up to 12 probes, while the IX2-DSU accommodates live-cell imaging techniques.

IVIS Lumina XR: (housed in the TU Comparative Medicine Resource Center) provides InVivo imaging capabilities. Powered by Living Image software, this system can provide small animal imaging using fluorescence, bioluminescence, photography and/or X-ray.



Molecular Modeling: two dedicated workstations provide molecular modeling capabilities. Utilizing Chimera, Schrodinger, PyMol, Discovery Studio and other software packages, researchers can investigate known molecules, generate novel molecules and investigate molecular interactions. Both workstations have Xeon E5 processors, at least 10MB Cache, run at 3.10-3.90 GHz and have high capacity TB HDDs, this provides all of the computational power necessary to perform in-depth investigations.

NMR Spectrometer: a 400 MHz Bruker BioSpin Avance III with a 5mm BBFO 400 MHz Z-gradient high-resolution probe with automatic tuning and matching. The probe is capable of performing H^1, C^{13}, F^{19}, and P^{31}. The 400 MHz magnet provides the ability to perform complex 1D and 2D experiments that are necessary for structure elucidation. The range of disciplines and applications include organic chemistry, polymer chemistry, physical/biochemistry, biology, agricultural sciences, and engineering. The NMR is housed in Samuel C. Armstrong Hall, Room 101 and managed by Mohamed A. Abdala, PhD.



Agilent Q-TOF HPLC-MS: an ultra-high pressure HPLC system with a binary pump, autosampler, two column modules, and a diode array detector. The mass spectrometer is capable of being operated in either MS mode, or MS-MS mode. Compounds can be run by Electrospray or APCI, in both positive and negative ion mode, with a mass measurement accuracy within 2 ppm. This unit is located in Samuel C. Armstrong Hall, Room 101 and managed by Marilyn Tourne, PhD.

Additional Resources: With facilities to accommodate a wide range of animal models and Board certified Veterinarians and Pathologists, the TU Comparative Medicine Resource Center and TU Vet School proved the ideal infrastructure and expertise to conduct robust animal studies. The TU National Center for Bioethics in Research and Health Care engages the communities served in discussions and resolutions of health and health disparity issues. The Center also provides ethics training and consultations in the area of responsible conduct of research, and overseas research activities through the IRB.

For more information please visit Tuskegee.edu or email Jason White (Lab Manager) at jwhite7264@Tuskegee.edu