



TEXAS TECH UNIVERSITY
HEALTH SCIENCES CENTER

Jerry H. Hodge School of Pharmacy
Office of Sciences

Activity Report

From the Desk of Sanjay K. Srivastava, Associate Dean of Sciences

The Office of Sciences celebrates the success of our School of Pharmacy researchers, as calendar year 2018 was the BEST YEAR for productivity and awards in five years, and resulted in over \$9 million in grant funding, 70 papers published in scientific journals, several new provisional patents filed, and 25 faculty members with active research programs. The Office of Sciences staff coordinated three workshops for the LCMS core, plus workshops for the Imaging core. (As usual, the LC-MS/MS was the most heavily used equipment by the researchers this year with a total of 1133.25 hours of usage). In another innovation, the Office of Sciences worked with SOM faculty to facilitate a pathway for more collaboration. Two seed grants were provided to basic science faculty and a grant to pharmacy practice faculty.



Finally, the Office of Sciences reorganized the program for the Annual Research Days at the Amarillo Civic Center. This marquee event was attended by 160 researchers, and featured outstanding keynote speakers, breakout sessions, poster judging, student presentations, and notably has resulted in several collaborations. Going forward, we are very excited about 2019, which has already started looking brighter with several new R01 grants funding. The Office of Sciences will continue to provide excellence in service and support, and a calm, steady foundation for encouraging School of Pharmacy researchers to even greater impact and achievement.

25 Faculty Researchers with Active Programs

- ◆ Average 88 grant applications per year
- ◆ 74% have active Grant Funding; 19 NIH Grants PI Status
- ◆ >30,000 citations to School published research

\$6M in Major Research Equipment

- ◆ Mass spectrometry, NMR, Flow cytometry, Imaging
- ◆ Core equipment service contracts costing >\$200,000

Goal Achieved: 604,725 60.5%
Goal: 1,000,000 100%

100.00
90.00
80.00
70.00
60.00
50.00
40.00
30.00
20.00
10.00



Research Impact

- ◆ 50-70 Scientific Research Papers Each Year
- ◆ 30,000 Citations to our Research
- ◆ 8 Faculty with H-Index of 25-52
- ◆ 5 University Distinguished Professors
- ◆ 12 Faculty on NIH Study Section / 1 Chair
 - ◆ 2 Faculty as Keynote speakers at International Conference
- ◆ 1 Amarillo Endowed Professor

Strategic Goals

To collect:

\$1 million in indirect Funds from Extramural Research Grants In Support of Research. 85% of Research Indirects funds Come from NIH fund accounts.



Amarillo

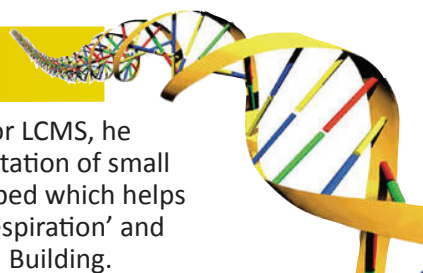
CORE EQUIPMENT PROGRAM MANAGER - Dhaval Patel



Dhaval Patel manages Sciex 5500 QTRAP LCMS/MS and XFe24 Flux Analyzer. For LCMS, he provides bio-analytical method development and validation support for quantitation of small molecules and peptides. XFe24 Flux Analyzer user protocols have been developed which helps researchers to conduct in-vitro cell based assays to read the "Mitochondrial Respiration" and "Glycolysis stress test". These instruments are located in the Amarillo Research Building.

Please feel free to contact him by email at: Dhavalkumar.Patel@ttuhsc.edu, or by phone at: (806) 414-9094.

LCMS workshop, Training and Seminars	Training duration	Core Equipment Usage Yearly
Workshop: MultiQuant LCMS/MS Quantitative Data Analysis Software	1:30 hr	LCMS/MS: 1133 hrs
Training: LCMS/MS Method Development	2:00 hr	XFe24 Flux Analyzer : 58 hrs
Seminar: LCMS/MS Fundamentals and Applications	1:30 hr	



IMAGING CORE FOCUS - Dr. Zijuan (Amy) Liu

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Olympus IX81 microscope has been updated by new software CellSens which will control both fluorescence and bright field imaging acquisition and will greatly enhance the quality of images. FACSVerse is working well and is able to test more than 4 colors at the same time. NIS Elements software for Nikon MP confocal microscope has been updated to 5.11 which has some new functions for use. The Nikon confocal microscope has wide range of objectives, including dry air 4X, 10X, and 20X; water based 16X, 25X, 60X; oil based 40X and 100X. The microscopes are located in Amarillo Research Building. Please feel free to contact Amy by email at: Zijuan.Liu@ttuhsc.edu, or by phone at: (806) 414-9199.

Imaging Equipment and Flow Cytometer Training	Training duration	Imaging Equipment Usage Yearly
FACSVerse Operating/FACSuite Data Analysis	1:00 hr	BD FACS Verse - 126.5 hrs
IVIS operating, X-Ray operating, Living Image software	2:00 hr	InVivo Animal Imaging - 208 hrs
Nikon MP Confocal Microscope / NIS Elements software	1:00 hr	Nikon Multiphoton Microscope - 251 hrs
Olympus IX81 and Olympus MVX10 Microscope	1:00 hr	Olympus Microscope - 520 hrs

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COMMON EQUIPMENT MANAGER - Nga Nguyen

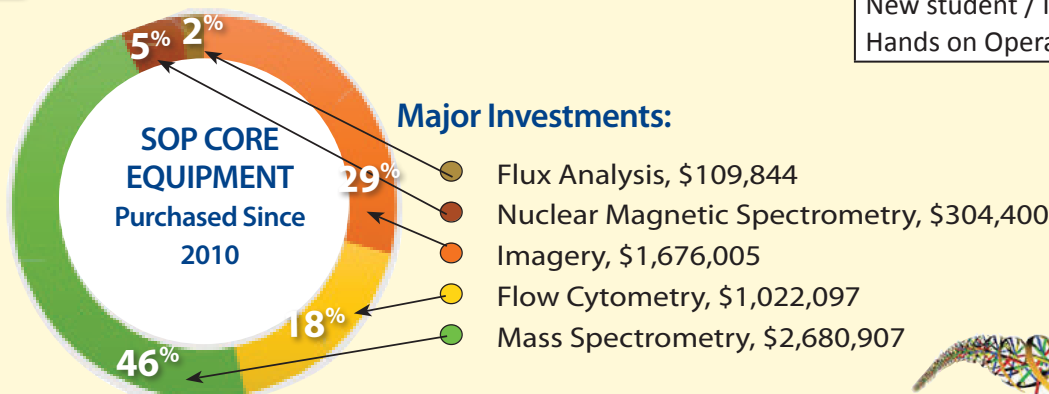


Personally repairs common equipment such as: Gamma counter 434 SOP, Microtome in ARB-1207, -80 freezer in ARB-2206, liquid scintillation counter in SOP-B34, ARB-1304 and ARB 1210 microscopes; he repaired the air conditioning in SOP 413 Cold Room and saved us over \$5,000. Nga managed Sciex 5500 QTRAP LCMS/MS during new hire process and will troubleshoot and repair individual lab equipment when needed.

Please feel free to contact Nga by email at: Nga.Nguyen@ttuhsc.edu, or by phone at: (806) 414-9204.

Common Equipment Training

New student / Individual
Hands on Operation



Post-Doctoral Association Monthly Meetings:

Second Tuesday of each month 12:00 - 1:00, SOP Post Doctoral collaborative discussion and updates on current breakthroughs in cancer research, organized by Office of Sciences Associate Dean Dr. Sanjay K. Srivastava.

Designed by Office of Sciences Joyce Moore