George L. Wright Jr. Center for Biomedical Proteomics – located within the Leroy T. Canoles Jr. Cancer Research Center and houses a variety of mass spectrometers and other instruments for protein isolation, separation, identification, characterization and data analysis

- Mass spectrometers
- HPLC & UHPLC systems
- 2D-Electrophoresis System & Agilent 3100 OFFGEL Fractionator
- Savant SPD1010 Speed-vac Concentrator, Thermo Fisher
- NanoDrop One Spectrophotometer, Thermo Fisher Scientific
- Qualitative/Quantitative Proteome Analysis & De Novo sequencing and PTM characterization

Location: Lester Hall, 4th floor; Contact: 757-446-5676, CancerCenter@evms.edu

EVMS-Sentara Healthcare Analytics and Delivery Science Institute – provides funding, grant writing assistance, data analysis, and research support

- Research feasibility and hypotheses development
- Study design
- Randomization and blinding
- Sample size calculation and power analysis
- EHR access
- Database design, data collection & management
- Health policy and economic analysis
- Tables and figures for results presentation

Location: Williams Hall A wing; Contact: 757-446-7991, HADSI@evms.edu

<u>New Equipment Available at EVMS Core Facilities</u>

- ONI Nanoimager Microscope
- Meso Scale Discovery Meso Quick Plex
- NanoString nCounter FLEX
- Image Stream X
- ISeq 100 NGS
- Gel Documentation Systems
- Thermo Fisher Automated Cell Counter
- Fully Integrated Speed-Vac System for HPLC and Mass Spectrometry sample prep

<u>EVMS Services & Core Facilities</u>

Bioinformatics Analytics Core – develops cutting-edge techniques for analyzing assay and other data sets

- Gene expression analysis
- Ingenuity pathway analysis
- siRNA design and miR discovery
- PCR optimization and evaluation
- Genetic pathogen analysis
- Sequence analysis
- Model building for drugs and targets
- In Vivo flow cytometric analysis of tagged pathogen gene expression
- Custom, publication quality figures

Location: Lewis Hall 3186; Contact: 757-446-5174, bioinformatics.core@evms.edu

Biorepository and Histology Lab – College of American Pathologists (CAP) accredited facility that procures, processes, and stores over 70,000 human specimens and the associated data

- Subject consenting and specimen procurement
- nanoString nCounter FLEX Analysis System
- Tissue microarray design & construction
- Tissue processing, sectioning (microtomy & cryotomy) and slide scanning
- Routine and specialized staining including immunohistochemistry
- Laser capture microdissection

Contact: 757-446-7910, wellmall@evms.edu; clemenma@evms.edu

Flow Cytometry Core – measures individual cells in a stream of fluid for cell phenotyping, cell cycle analysis, cell signaling, and protein modification

- Cytek-upgraded FACSCaliber
- BD FACSAria Fusion
- Bio-Rad Bio-Plex MAGPIX Multiplex Reader
- Amnis ImageStreamX Mark II Imaging Flow Cytometer
- Meso Scale Discovery Meso Quick Plex

Location: Lewis Hall 3052; Contact: flowfacility@evms.edu

EVMS
Eastern Virginia Medical School

Microscopy and Imaging Core – provides technical assistance and training in microscopy and image analysis

- *Transmission* Electron microscopy
- *In vivo and in vitro* Fluorescence, *Brightfield, DIC, Polarized light* microscopy
- *In vivo and in vitro* Confocal microscopy
- Image analysis
- ONI Nanoimager Microscope

Location: Lewis Hall 3084; Contact: 757-446-5636, lattanfa@evms.edu

Molecular Core – Houses state-of-the-art instrumentation for the analysis of DNA, RNA, and protein

- Nucleic Acid Analysis: Nanodrop (1000 and 8000), Agilent 2100 Bioanalyzer, ISeq 100 NGS, and Bio-Rad Real Time PCR Systems
- Protein Analysis: Odyssey Infrared Scanner, Spectra iD3 Max Multi-mode microplate reader, and BioTek Plate Reader
- Gel Documentation Systems: Axygen and Bio-Rad Gel Doc EZ Systems
- Other: refrigerated centrifuges, heatblocks, speedvac, nucleofector and ultrasonicator
- Fee-for-Service offerings: DNA sequencing (Sanger) and Microarray service (Affymetrix)

Contact: MolecularCore@evms.edu