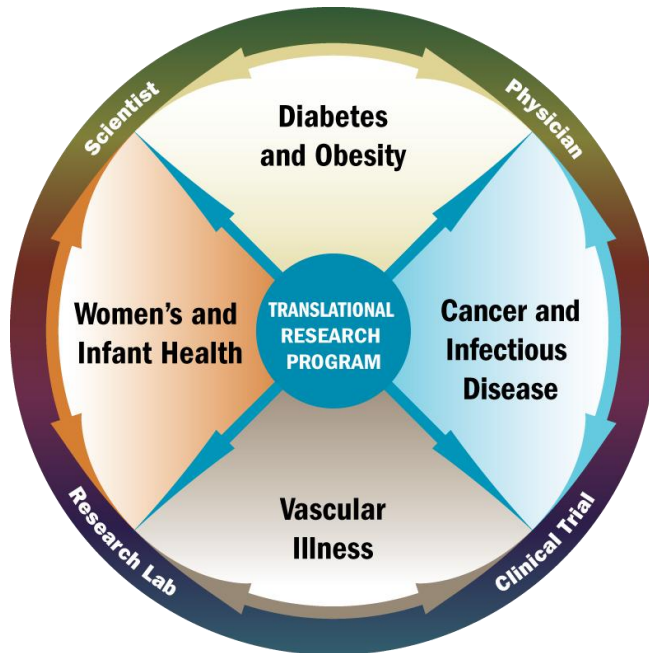




Biomedical Research: Clinical Translational Focus



Translational Research Resources and Laboratories

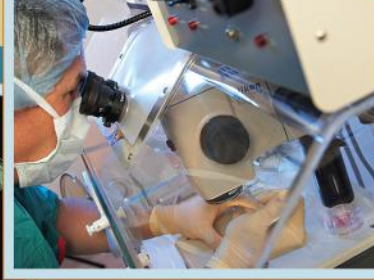
- Cancer and Infectious Disease
- Women's and Infant Health
- Diabetes and Obesity
- Cardiovascular

- Molecular Pathology
- Biomedical Proteomics
- Annotated BioRepository
- Microscopy and Imaging Resources
- Translational Animal Models
- Technology Transfer and Commercialization



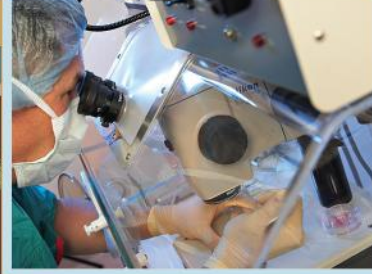
George L. Wright Center For Biomedical Proteomics

- ❑ **Bruker Daltonics Ultraflex III MALDI-TOF/TOF w/ tissue imaging sprayer, Thermo LTQ, ABI QTRAP 4000 hybrid triple quadruple MS**
- ❑ **Targeted Mass Spectrometry, small molecule and peptide MRM/SRM assays**
- ❑ **MALDI MS Tissue Imaging**
- ❑ **Protein post-translational mapping**
- ❑ **Glycoprotein analysis and antibody lectin array detection**
- ❑ **Protein Interactome Analysis, protein interface mapping**



Leroy T. Canoles Jr. Cancer Research Center

- ❑ Biorepository of over 40,000 cancer specimens (Blood, Urine, Tissue, Seminal Plasma, Expressed Prostatic Secretions)
- ❑ Annotated and fully populated CAISIS database for tracking/linking clinical specimens and patient data
- ❑ Tumor Tissue Microarray
- ❑ Molecular Pathology Suite
- ❑ Clinical Trials and Studies Coordinator



George L. Wright Center For Biomedical Proteomics Mass Spectrometers and Analytical Equipment



Thermo Finnigan LCQ Ion trap: For shotgun proteomics, identification and characterization of proteins.



Thermo Finnigan LTQ Ion trap: For shotgun proteomics, identification and characterization of proteins and PTMs.



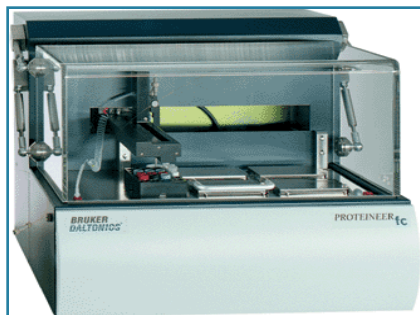
Ultraflex III MALDI-TOF-TOF with Smart Beam Laser: For MALDI MS/MS analysis and Imaging mass spectrometry



ABI/Sciex Q-TRAP 4000 Triple Quadrupole: Multiple reaction monitoring For targeted hypothesis driven mass spectrometry to identify, characterize and quantitate post translational modifications in proteins and for the validation and quantitation of biomarkers.



George L. Wright Center For Biomedical Proteomics Mass Spectrometers and Analytical Equipment



**Proteiner FC picker
robot for LC-MALDI
MS/MS**



**ClinProt robot for affinity
based biomarker profiling**



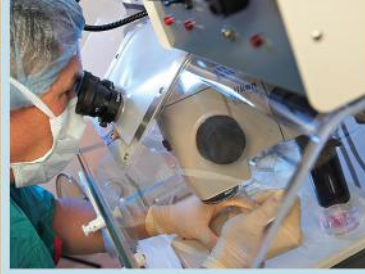
**Ettan Spot picker robot
for 2D Gels**



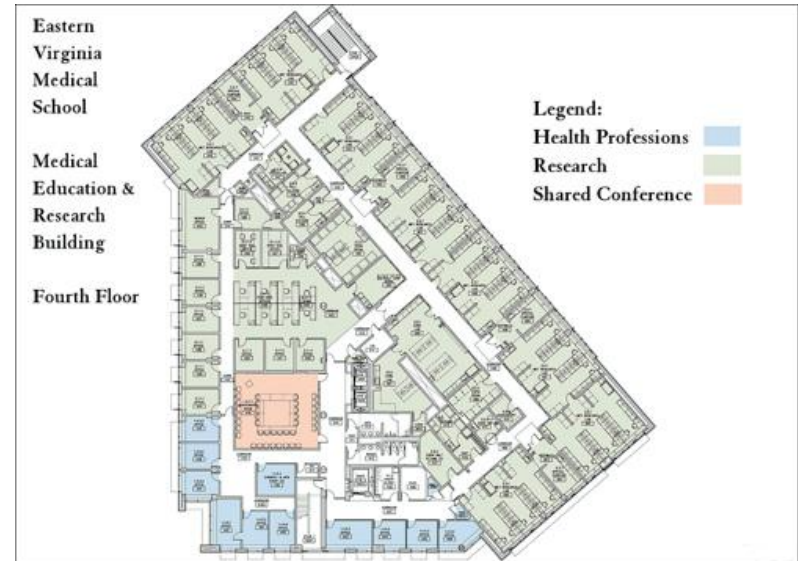
**ImagePrep™: Matrix
deposition device for MALDI
Imaging mass spectrometry**



**Tempo Eksigent Nano
HPLC**



Leroy T. Canoles Jr. Cancer Research Center



O. John Semmes, Ph.D.
Director, Leroy T. Canoles Cancer Research Center
Anthem Professor for Cancer Research
Department of Microbiology and Molecular Cell Biology
Eastern Virginia Medical School
Norfolk, VA 23507

Office: 757-446-5676
FAX: 757-446-5766



Opportunities and Needs

- Collaborations and Resources
 - DNA analysis
 - Informatics
 - Cell Imaging
 - Protein analysis and metabolomics
- Training
 - Equipment and technical
 - Workshops and Seminars
- Best Practices
 - Administration
 - Funding models
 - Upgrade strategies