

Biomarker and Neuroimaging Core

About Us

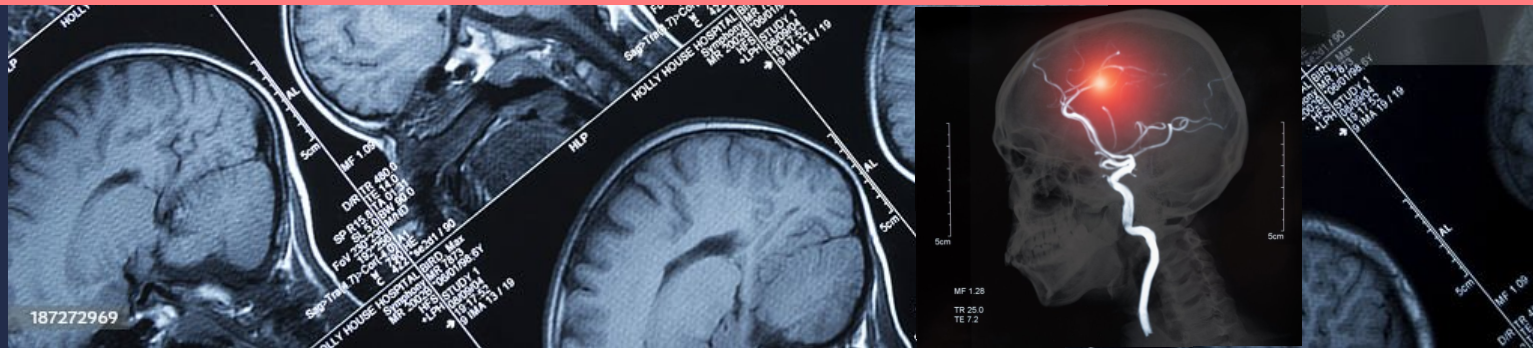
The UVA Biomarker and Neuroimaging Core is a newly established provisional core designed to connect researchers with specialized biomarker services and expertise at UVA. Support for the core comes in part through the School of Medicine and the Grand Challenges Research Investments in Brain and Neuroscience.

The identification of novel biomarkers and acquisition of high-quality imaging data from research participants - including newborn term and premature infants, children, individuals with dementia and adult/child-caregiver dyads (hyperscanning) is a formidable challenge. The core leverages existing human imaging services provided by the Department of Radiology and procurement and processing of human tissue and other biospecimens for basic, translational, and clinical research by the Biorepository and Tissue Research Facility (BTRF). Integrating comprehensive and specialized approaches with data analytics expertise and infrastructure will enable collection of high-quality neuroimaging and biospecimen data.

Our Services

The provisional core will support comprehensive human neuroimaging services, associated neuropsychological assessment, biomarker collection and analysis, and related image/data analysis services and expertise.

*Enhancing Research,
Rigor and Reliability*



- Magnetic Resonance Imaging (MRI)
- Positron Emission Tomography (PET)
- Behavioral phenotyping
- Biofluid and tissue specimen processing, aliquoting, storage and distribution for UVA investigators
- Neuroimaging data transfer, storage, and analysis
- Novel biomarker development

Instrumentation

- **MRI** - 3-Tesla (Siemens Prisma) scanner, two 1.5-Tesla (Siemens Avanto) scanners, a patient examination room, and an advanced computer lab for data post-processing.
- **PET-CT** - Siemens Biograph mCT (PETCT). Features include: 0.3 s rotation time Biograph mCT • X (0.33 s Biograph mCT • S), Biograph mCT • S: 20-, 40-, 64-slice, Biograph mCT • X: slice, 78 cm open bore, Multislice UFC™ (Ultra Fast Ceramic) detector, 100 kW generator Biograph mCT • X (80 kW Biograph mCT • S), Adaptive dose shield, Multi-LSO-detector ring system, OptisoHD detection system, 16.4 cm axial field-of-view (FoV), 22.1 cm axial FoV with TrueV, 3D acquisition mode.
- **Radiochemistry** - Cyclotron. Siemens Eclipse™ HP 11 MeV Cyclotron that can produce curies amounts of 18F, 11C, 13N and 15O using a 4-position automated target carousel. We also have solid targets for the production of isotopes such as 64Cu.
- **Biorepository and Tissue Research Facility** – A complete list of equipment can be found here.

Our Team

Amy Fansler, MPH
Senior Associate Director,
UVA Brain Institute

Jaideep Kapur, MD, PhD
Professor of Neurology,
Faculty Advisor



The BNC has expertise in

***human
neuroimaging***

Contact

Amy Fansler: acf7h@uvahealth.org

Phone: (434) 243-1760

BNC Website:

<https://med.virginia.edu/neuroimaging-core/>

Request Services on:

uva.corefacilities.org/account/login

**UVA Biomarker and Neuroimaging Core
UVA Brain Institute**

Ivy Translational Research Building
560 Ray C. Hunt Drive, Second Floor
Charlottesville, VA 22908



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