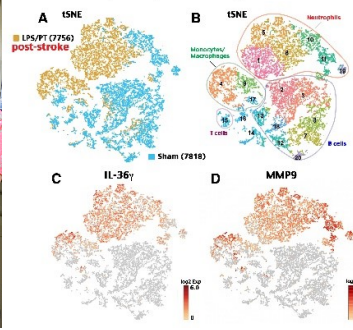


Genome Analysis and Technology Core



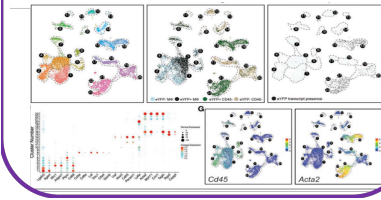
scRNA-Seq of leptomeningeal CD45+ cells



Arteriosclerosis, Thrombosis, and Vascular Biology

BASIC SCIENCES

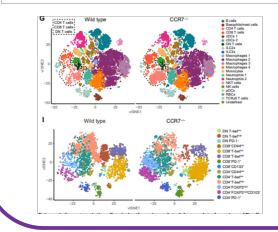
KLF4 (Kruppel-Like Factor 4)-Dependent Perivascular Plasticity Contributes to Adipose Tissue Inflammation



SCIENCE ADVANCES | RESEARCH ARTICLE

IMMUNOLOGY

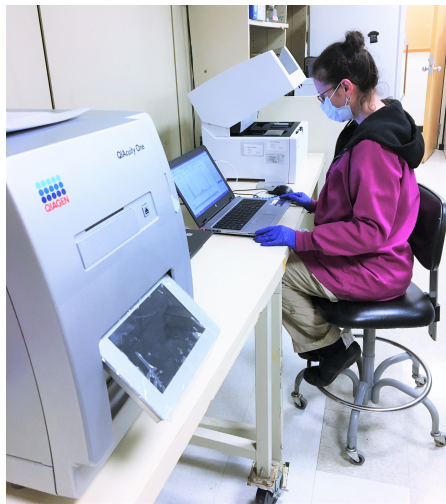
Ageing-associated deficit in CCR7 is linked to worsened glymphatic function, cognition, neuroinflammation, and β -amyloid pathology



About Us

The mission of the Genome Analysis and Technology Core (GATC) is to serve as a scientific resource and biotechnology hub enhancing the scope and quality of basic and translational research at UVA, and to provide customer satisfaction, collaboration and quality control.

We provide support for project design, data troubleshooting, methods for publication and support for grant application (letter of support, budget preparation).



Our Services

Nucleic Acid - QC and Measurement

- Agilent Bioanalyser, Tape Station
- NanoVue and Qubit

Single Cell Analysis

- 10x Genomics
 - RNA-seq - 3' Library kits
 - VDJ - T or B cell with 5' RNA-seq kit
 - MultiOmics (ATAC-seq and GEX)
 - Cell Plex (liquid based), Feature barcode (antibody based)
 - Fixed RNA single cell (FLEX)
- Parse Bioscience Ever Code
 - WT Mini 12 samples 10,000 cells
 - WT 48 samples 100,000 cells
 - WT Mega 96 samples 1 Million cells

Bulk RNA/DNA Library Prep for NGS Illumina's NextSeq and miSeq

- RNA-seq gene profiling (RNA-M)
- Whole transcriptome (RNA-R)
- Custom-Amplicon, Crisper screen and 16S-Metagenomic
- Whole Small Genome (DNA-seq)
- Whole Exome Seq

Quantitative PCR

- Qiagen QiaCuity Digital PCR: GEX, CNV
- Real Time PCR: GEX, Genotyping



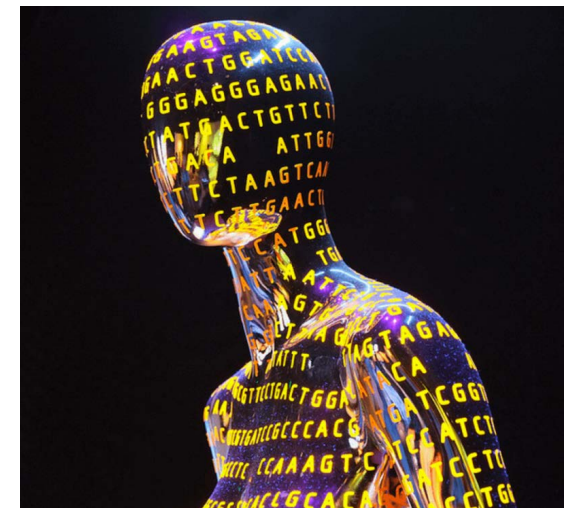
**Enhancing Research,
Rigor and Reliability**

Our Team

Katia Sol-Church, PhD - Director
Professor of Pathology

Yongde Bao, PhD - Associate Professor

Alyson Prorock, MS - Lab Specialist



The goal of GATC staff is to enable

Next Generation Sequencing

projects for novice and experienced users

Instrumentation

Shared Instrumentation

- Agilent Bioanalyzer and Tape Station
- Qubit 3.0 fluorometer
- Qiagen QIAcuity One 5plex
- Nanopore GridION
- QuantStudio 6 Flex Real Time PCR
- NanoVue spectrophotometer
- Platform System FUL-2

Core Operated Instrumentation

- 10X Genomics Chromium Controller
- Illumina NextSeq 2000 Sequencing System
- Illumina MiSeq Sequencer

Contact

Dr. Katia Sol-Church: ks5uq@virginia.edu
434.297.6650

Dr. Yongde Bao: yb8d@virginia.edu
434.924.2553

Alyson Prorock: ajp7x@virginia.edu
434.243.9689

GATC Website:
med.virginia.edu/gatc

Request services on:
uva.corefacilities.org/account/login

UVA Genome Analysis and Technology Core
Pinn Hall | Room 1074/1076
1340 Jefferson Park Avenue
Charlottesville, VA 22908