



# SPECIALTY LAB & FULL SERVICE CRO



Capabilities Presentation



# ABOUT AVROK

Who We Are



## Sound Science

At Avrok, we prioritize advancing research over revenue, focusing on scientific progress rather than short-term financial gain.



## Boutique Approach

Despite our high throughput capacity, we deliver personalized solutions tailored to each customer's unique needs and preferences.



## Collaboration

We see our clients as extensions of their research teams, offering full support from validation to troubleshooting throughout the entire process



## Transparency

Unlike larger CROs, Avrok guarantees transparency with clear communication, effective problem-solving, and reliable delivery, all at transparent pricing.





# OUR CUSTOM BUILT FACILITY

Visit Our Lab!



## Key Features

**Biosafety Level 2**

**10,000 sq ft**

**24/7 Monitoring**

**CAP/CLIA Accredited**



# SPECIALTY LAB & FULL SERVICE CRO

Streamline Your Research Process with Tailored, Full-Service Capabilities



**BIOSPECIMEN  
PROCUREMENT**



**SAMPLE  
PROCESSING**



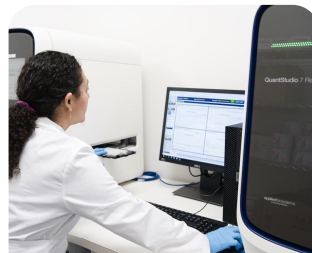
**SAMPLE  
ANALYSIS**



**CLINICAL TRIAL  
SERVICES**



**ASSAY  
DEVELOPMENT**



**BIOINFORMATICS**



**BIOBANKING**





# PATIENT RECRUITMENT

## Prioritizing Patients

Avrok is committed to advancing scientific research with a **patient-first mindset**, ensuring that everyone can access impactful research.

We foster collaboration among researchers, healthcare providers, and nonprofits organizations to innovate healthcare through ethical, transparent research that benefits patients.

### Avrok offers:

- IRB Protocol Creation & Execution
- Customizable I/E Criteria
- Flexible Clinical Data Collection
- NPO & PAO Partnerships





# SAMPLE COLLECTION

Specimens for Any Research Need



## At-Home Collection

Avrok empowers patients to participate in research by offering minimally invasive, home-based sample collections. These collections include:

- Whole Blood
- Saliva
- Sputum
- Buccal Swab
- Nasal & Throat Swabs
- Urine
- Stool
- Hair
- Nail Clippings
- Skin Taping
- Tears
- Sweat



## In-Clinic Collections

Avrok works with international & domestic clinical sites as well as hospital networks to obtain human tissue samples. Tissue collection & preparation options include:

### Preparation/Format

- FFPE Blocks
- Snap Frozen
- Fresh Frozen
- Cryopreserved
- Fresh
- OCT Embedded

### Collection Methods

- Punch Biopsies
- Needle Biopsies
- Resections



# SAMPLE PROCESSING

Utilize Our In-House SOPs or Implement Your Own Custom Procedures

## Whole Blood

- PBMC Isolation
- Plasma
- Serum
- Immune Cells
- DNA Extraction
- RNA Extraction

## Tissue

- Digestion
- Cell Isolation
- Slide Preparation
- Staining
- Embedding

## Leukopaks

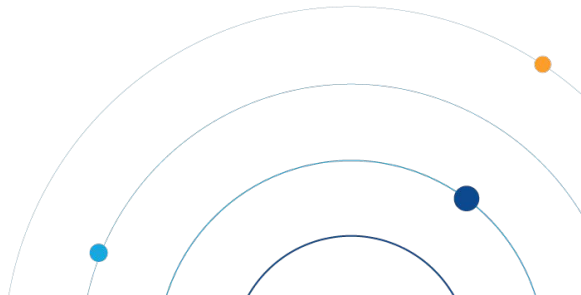
- PBMC Isolation
- Lymphocyte Isolation
- Cryopreservation

## Other Sample Types

- Digestion
- Cell Isolation
- Slide Preparation
- Staining
- Embedding

*Avrok can be your trusted partner to collect and process your samples or serve as a **central laboratory** for your clinical trials needs.*

*We will work with your team to create a **custom solution** with our high-throughput technologies, and opt for sample processing using either custom protocols or our in-house SOPs.*





# SAMPLE ANALYSIS

Avrok's Testing Services

## Frequently Requested Services

- HLA Typing
- Whole Genome Sequencing
- Antibody Screening
- Biomarker Analysis
- Infectious Disease Screening
- DNA/RNA Sequencing
- Custom Assay Development

## Additional Services Available

- Small Molecule Analysis
- Environment Testing
- Contaminant Testing
- DNA Methylation
- Comparative Genomic Hybridization
- Protein Profiling
- API Characterization
- Mutational Analysis
- Insertion/Deletion (Indel) Analysis
- MicroRNA Pathway Analysis







# PBMC ISOLATION

Delivering high-quality cells for research and drug discovery

## Key Features & Benefits

- **High Viability & Purity** – Ensuring optimal recovery of lymphocytes and monocytes
- **Custom Isolation Protocols** – Tailored to meet research specifications
- **Flexible Shipment and Storage** – Samples are ready for immediate shipment or can be stored at our facility until your team is ready to use them.
- **Comprehensive QC & Analytics** – Stringent quality control for reproducibility and performance

## Applications

- **Immuno-oncology**: T-cell functional assays, checkpoint inhibitor studies
- **Inflammation & Autoimmune Research**: Cytokine profiling, immune response analysis
- **Cell Therapy & Regenerative Medicine**: *Ex vivo* cell expansion, gene editing
- **Infectious Disease Research**: Vaccine and antiviral efficacy testing

## Why Avrok?

- **End-to-End Biospecimen Solutions** – From donor recruitment to processing & delivery
- **Rapid Turnaround Times** – Ensuring researchers receive high-quality PBMCs needed
- **Flexible Sourcing & Processing** – Customizable to unique project needs



# HLA TYPING

High & Low Resolution



## HLA Typing: High Resolution

- 11 Loci, covering Class I and Class II Genes
  - HLA-A    ● HLA-C    ● HLA-DQA1/DQB1
  - HLA-B    ● HLA-DPA1/DPB1    ● HLA-DRB1/3/4/5
- 4 Field Resolution
- Performed on Next Generation Sequencing
- Batch Size: 20-24 Samples
  - Smaller batches can be accommodated
- Turn around time: 2 Weeks
  - Faster TATs can be accommodated



## HLA Typing: Low Resolution

- Class I and Class II Genes
  - Compatibility to specify loci of interest.
  - Do not have to type all loci
- 2 Field Resolution
- Performed on qPCR
- Minimum batch size: 1 sample
- Turn Around time: within 5 business days



# CUSTOM ASSAY

Over 100 Years of Combined Experience

## Cutting Edge Technology

Avrok has instruments ranging from microarray, Next generation sequencing, real-time PCR and mass spectroscopy. The availability of automations and robotics enables your assay to be performed at scale. No project is too small or too large.

## Quality & Compliance

Avrok is licensed under **CAP and CLIA**, ensuring high regulatory compliance with a team that designs assays to meet these standards. Our quality control specialists apply robust validation processes and rigorous measures to guarantee reliable, reproducible results and data integrity.

## Collaborative Approach

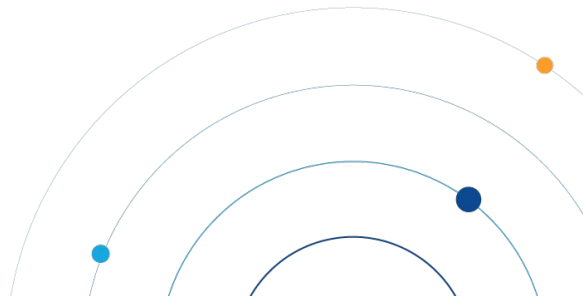
Avrok offers client-centric service with open communication, regular updates, and alignment with your goals. We provide **flexible co-development options**, whether through collaboration or periodic updates, and adapt to changing project needs or timelines.

## Expedited Turnaround Times

Avrok delivers rapid development timelines, ensuring **efficiency without compromising quality**, and can scale assays from R&D to high-throughput production. Our streamlined workflow integrates every phase, from assay design to final reporting, for a seamless process.

*Avrok's team brings **over 100 years of combined experience** in custom assay development, including product launch and market integration.*

*Our expertise in **molecular biology** and **analytical chemistry** allows us to deliver tailored solutions for projects of all types, ensuring precision and excellence.*





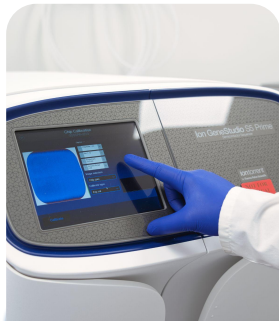
# SUITE OF TECHNOLOGY

Custom Analysis Solutions for Any Research Needs



## PCR

- Applied Biosystems QuantStudio 7 Flex (Real-Time qPCR)
- Applied Biosystems ProFlex 2 x 96-well PCR systems (end point PCR)



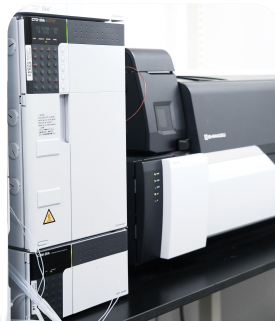
## NGS

- Ion Torrent GeneStudio S5 Prime
- Illumina Sequencing



## Microarray

- Affymetrix GeneChip 3000



## Mass Spectrometry

- Shimadzu LC/MS/MS 8060
- Thermo GC/MS/MS TSQ9000
- Shimadzu Nexera LC-20ADXR



## Quality Control

- ThermoFisher Scientific VarioScan LUX
- Invitrogen Qubit Flex Fluorometer
- Agilent BioAnalyzer



## Preparation Equipment

- Avidien Micro Pro 300
- Avidien Micro Pro 20
- King Fisher Flex
- ARI Scorpion
- Shimadzu SIL-30AC Autosampler
- Hudson Solo Liquid Handler



# BIOINFORMATICS

Turn Your Data Into Actionable Insights

*We combine advanced technology with expert analysis to deliver tailored bioinformatics solutions.*

*Our team ensures that every aspect of the data lifecycle—from **high-throughput analysis to custom algorithms and clear visualizations**—is handled with precision.*

*By seamlessly integrating bioinformatics with laboratory processes & testing we provide comprehensive support for your research needs.*

## Comprehensive Data Analysis & Custom Algorithms

Advanced analysis of complex biological data (genomics, transcriptomics, proteomics) with tailored algorithms to meet specific research needs.

## High-Throughput Data Processing & Integration

Scalable solutions for large-scale data processing, seamlessly integrated with our laboratory services for end-to-end support.

## Expert Data Visualization

Clear and intuitive data visualizations to help clients interpret complex data and make informed decisions.

## Regulatory Compliance & Quality Assurance

Adherence to industry standards and regulatory guidelines to ensure bioinformatics processes meet the highest quality and compliance requirements.





# BIOBANKING

## Convenient Sample Management

Managing your samples and conducting **on-site testing** is seamless. Access our **client portal** to view samples in storage, request sample pulls, and prepare shipments conveniently.

Leverage our extensive range of technology options for on-site testing of specific aliquots.



### Flexible Temperature Solutions

- 4°C
- -20°C
- -80°C
- LN2
- Ambient



### 24/7 Monitoring

Certified temperature probes on all storage units, real-time environment monitoring, and backup generators.



### Sample Types

- Tissues
- Serum
- Plasma
- PBMCs
- Leukopaks
- Stool
- Saliva
- DNA/RNA
- Slides
- And More!



### Optimized Efficiency

We accept a wide variety of raw materials and handle all isolation and sample preparation before cryopreservation all in one facility.

# Thank You!



**Dana Immerso**

Director of Strategic Partnerships

Email: [dimmerso@avrokbio.com](mailto:dimmerso@avrokbio.com)

Phone: (203) 450-8879



## General Contact Info



[info@avrokbio.com](mailto:info@avrokbio.com)



(818) 280-8485



1321 Mountain View Circle  
Azusa, CA 91702



[linkedin.com/company/avrok-bio](https://www.linkedin.com/company/avrok-bio)



[avrokbio.com](http://avrokbio.com)



Scan the  
QR code  
for more  
information

