

LABORATORY CORE

AT VIRGINIA BIOINFORMATICS INSTITUTE

AVAILABLE SERVICES & RATES | All rates and services are subject to change without prior notice

| ILLUMINA GENOME ANALYZER | VIRGINIA TECH RESEARCHERS | NON-VIRGINIA TECH RESEARCHERS |
|---|---------------------------|-------------------------------|
| Indexing for Multiplexing <i>per sample</i> | \$15 | \$24 |
| Chip-Seq DNA Library Prep <i>per sample</i> | \$285 | \$452 |
| MicroRNA Library Prep <i>per sample</i> | \$370 | \$587 |
| mRNA-Seq Library Prep <i>per sample</i> | \$370 | \$587 |
| DNA Library Prep <i>per sample</i> | \$410 | \$650 |
| Mate-pair DNA Library Prep <i>per sample</i> | \$525 | \$833 |
| 36-Cycle Data Generation <i>per lane</i> | \$640 | \$1,015 |
| 50-Cycle Data Generation <i>per lane</i> | \$865 | \$1,372 |
| 75-Cycle Data Generation <i>per lane</i> | \$945 | \$1,499 |
| 101-Cycle Data Generation <i>per lane</i> | \$1,630 | \$2,585 |
| 36-Cycle Paired-end Data Generation <i>per lane</i> | \$1,165 | \$1,848 |
| 50-Cycle Paired-end Data Generation <i>per lane</i> | \$1,078 | \$1,710 |
| 75-Cycle Paired-end Data Generation <i>per lane</i> | \$1,788 | \$2,836 |
| 101-Cycle Paired-end Data Generation <i>per lane</i> | \$2,164 | \$3,432 |

| SHOTGUN SEQUENCING (GS-FLX) | VIRGINIA TECH RESEARCHERS | NON-VIRGINIA TECH RESEARCHERS |
|--|---------------------------|-------------------------------|
| Titanium FLX DNA Library Prep <i>per library</i> | \$900 | \$1,427 |
| Titanium FLX Titration by Enrichment <i>per library</i> | \$335 | \$531 |
| Titanium FLX Sequencing Prep <i>per run</i> | \$2,300 | \$3,648 |
| Titanium FLX Sequencing Run <i>per run</i> | \$5,200 | \$6,590 |

| ION TORRENT | VIRGINIA TECH RESEARCHERS | NON-VIRGINIA TECH RESEARCHERS |
|-----------------------|---------------------------|-------------------------------|
| DNA/RNA Lib Prep | \$475 | \$758 |
| Amplicon Lib Prep | \$275 | \$439 |
| Data Generation (314) | \$343 | \$547 |

| DNA SEQUENCING | VIRGINIA TECH RESEARCHERS | NON-VIRGINIA TECH RESEARCHERS |
|---|---------------------------|-------------------------------|
| DNA Sequencing, full service <i>per sample</i> | \$2.50 | \$4 |
| DNA Sequencing, clean and run only <i>per sample</i> | \$8.50 | \$13.50 |
| *call us about high-throughput submissions | | |

| GENE EXPRESSION ANALYSIS | VIRGINIA TECH RESEARCHERS | NON-VIRGINIA TECH RESEARCHERS | |
|--|---------------------------|-------------------------------|--------|
| Affymetrix GeneChip and Exon Processing | \$230 | \$365 | |
| Affymetrix SNP Processing | \$71 | \$108 | |
| Affymetrix Standard Expression Service <i>(per sample) Includes: QC, sample prep, data generation (Does not include array cost)</i> | \$179 | \$284 | |
| Bioanalyzer QC <i>per sample</i> | DNA | \$4 | \$6.30 |
| | RNA | \$3 | \$5 |
| Quantitative Real-Time PCR | Enquire | Enquire | |
| Custom Chip Processing | \$350 | \$555 | |

| GENOTYPING | VIRGINIA TECH RESEARCHERS | NON-VIRGINIA TECH RESEARCHERS |
|--|---------------------------|-------------------------------|
| DNA fragment analysis <i>per sample</i> | \$2.50 | \$4 |

| PROTEOMICS | VIRGINIA TECH RESEARCHERS | NON-VIRGINIA TECH RESEARCHERS |
|----------------------------|---------------------------|-------------------------------|
| Protein Array Services | Enquire | Enquire |
| Affymetrix Cytokine Arrays | Enquire | Enquire |
| Kinexus Kinase Arrays | Enquire | Enquire |
| Invitrogen Proto Arrays | Enquire | Enquire |

FOR MORE INFORMATION

www.vbi.vt.edu/core_laboratory_facility/
CLF@vbi.vt.edu, 540-231-1229

COMPUTATIONAL CORE

AT VIRGINIA BIOINFORMATICS INSTITUTE

AVAILABLE SERVICES & RATES | *All rates and services are subject to change without prior notice*

Computational Core Facility (CCF) at the Virginia Bioinformatics Institute (VBI) is responsible for providing a secure, stable, and manageable infrastructure supporting data-intensive research. The architecture focuses on scalability and flexibility ensuring fulfillment of future computational and data requirements. The goal of CCF is to enable excellence through proactive technological development

and implementation. CCF strives to position VBI at the forefront of life science-oriented computational capabilities. As a service center of VBI, the CCF offers the services described below to both internal and external customers. The internal rate is available to those paying for the services rendered using a Virginia Tech managed fund.

IBM LTO LIBRARY

This enterprise-class tape library ensures data backup and protection, featuring an IBM Tivoli Storage Manager fronting an IBM 3584. On-site data backup ensures fast recovery times while off-site data backup provides for data recovery in the event of a disaster.

PILLAR ENTERPRISE STORAGE

A Pillar Data Systems Axiom 500 provides enterprise-level disk storage capacity. This architecture facilitates rapid capacity scaling as needs increase as well as accommodations for differing usage patterns. Access is available both via Network Attached Storage (NAS) and a high speed Storage Area Network (SAN).

DATABASE HOSTING

The CCF database personnel manage central information resources at VBI, ensuring data availability to authorized users while maintaining security and data recovery capabilities. Our preferred database system is Oracle 10g, although MySQL hosting is also available. These databases are hosted on servers running Suse Linux Enterprise Server and SAN-attached disk storage on a Pillar Axiom 500 storage system houses database files.

LARGE SCALE POSTER PRINTING

The CCF can print posters on a large format HP Designjet T1120ps printer, which can be used for printing high quality posters. Posters are 42" wide, up to 60" in length, on a glossy photo paper.

DATA SPECIALISTS (HOURLY)

For databases and other data related tasks not utilizing CCF Database Hosting service, database support, monitoring, and maintenance are available for an hourly rate. CCF Data Specialists will assist with database design and architecture as well as data access strategies and development.

Additionally, CCF Data Specialists can assist in the development of tools, applications, and systems that utilize high performance computing resources. This will ensure that these tools are web accessible, scalable, and maintainable over the entire lifecycle of the system.

FOR MORE INFORMATION

www.vbi.vt.edu/ccf/

CCF@vbi.vt.edu, 540-231-2101

DATA ANALYSIS CORE

AT VIRGINIA BIOINFORMATICS INSTITUTE

AVAILABLE SERVICES & RATES | *All rates and services are subject to change without prior notice*

The Data Analysis Core (DAC) at the Virginia Bioinformatics Institute (VBI) is a dedicated multi-user resource that provides state-of-the-art computational support for biologically related research. The goal of the DAC is to help customers solve the data analysis bottleneck through access to best-in-class capabilities and expertise.

The DAC offers the services described below to both internal and external customers. The internal fees are available to those paying for the services rendered using a Virginia Tech managed fund. All work is performed via quotes from the DAC after discussions on the project and experimental design.

EXPERIMENTAL DESIGN, TARGET/ARRAY DESIGN, AND STATISTICAL ASSISTANCE

Experimental design is an important and complex topic. As modern biological experiments have grown in complexity, so has the need for rigorous experimental designs. Where appropriate, the DAC can develop statistical models to assess the validity of the experiment and discover anomalies or infeasibilities. Experimental design (cross-sectional, longitudinal, etc), block design, bias, randomizing, controls, powering, and replication are all topics that can be explored in an experimental design.

DATA ANALYSIS AND INTERPRETATION

Modern biological experiments are producing data volumes at unprecedented rates. This is generating issues in data handling/storage, data computation and analysis, and interpretation of results. The central goal of the DAC is to reduce these issues in a cost-effective manner to allow researchers to focus on the biological problem rather than the data problem. To meet this goal, the DAC offers services for gene expression analysis, next generation sequencing data analysis, proteomics data analysis and much more.

FOR MORE INFORMATION

www.vbi.vt.edu/dac/

DAC@vbi.vt.edu, 540-231-2777

All projects are unique and require individual consideration when determining pricing. Please call us to discuss your project needs. Following project discussions, the DAC will develop an analysis plan and appropriate fixed-price quote. We look forward to working with you on your project. Please contact Dr. Settlage, Director of the Data Analysis Core, to discuss your project and obtain a quote.