

Sequencing Service Overview for Internal Users
Prices Current as of January 1, 2022

The University of Tennessee Genomics Core (UTGC) provides high-throughput next-generation sequencing services to all interested on-campus and off-campus researchers. Sequencing is performed using the Illumina NovaSeq, MiSeq, or Oxford Nanopore MinION instruments located in room 407 of the Science and Engineering Research Facility (SERF) within the Center for Environmental Biotechnology (CEB). We recommend consultation with UTGC staff prior to project initiation. While we strive for successful sequencing every time, we cannot guarantee project success, and in all cases, the user will be billed for cost and labor for UTGC effort as per our fee structure. All samples are assumed to be safe and no greater than BSL1, unless otherwise agreed upon in advance. The prices listed below are subject to change as material costs change. Troubleshooting may necessitate additional costs.

DNA Extraction

Some DNA extractions are suitable for automation and some are better suited for manual extraction. Automated extractions are performed on a KingFisher Flex using Zymo Research kits and manual extractions are performed using Qiagen extraction kits. Please contact Core Facility staff to discuss which method is best for your sample type.

Cost/Pricing Details	Internal University of Tennessee User
Manual DNA extraction, each	\$16.00
Automated DNA extraction, 1-48 samples, each	\$13.00
Automated DNA extraction, 49-96 samples, each	\$7.00

Genome and Metagenome Library Preparation

Genome and metagenome libraries are prepared using Illumina’s DNA Prep kit (formerly Nextera DNA Flex Library Prep). This is the cost for library construction of extracted, quantified DNA. Next you will need to select the appropriate MiSeq or NovaSeq run.

Cost/Pricing Details	Internal University of Tennessee User
Genome and metagenome preps, 1-11 samples, each	\$94.00
Genome and metagenome preps, 12-22 samples, each	\$85.00

Metabarcoding of Amplicon Products

Amplicon libraries are prepared with Illumina’s two-step PCR Nextera XT amplicon protocol. Users can prepare their own PCR products or Core staff can fully prepare the amplicon libraries with common primers. Please contact Core staff prior to preparing your own library to confirm compatibility with Illumina sequencing platforms, as specific adapters are required. These are the costs for library construction of extracted, quantified DNA. Next you will need to select the appropriate MiSeq or NovaSeq run.

Cost/Pricing Details	Internal University of Tennessee User
Full Amplicon library prep, up to 24 samples	\$1,138.00
Full Amplicon library prep, 25-48 samples	\$1,445.00
Full Amplicon library prep, 49-96 samples	\$1,907.00
Amplicon library prep of post-PCR product, up to 24 samples	\$890.00
Amplicon library prep of post-PCR product, 25-48 samples	\$1,133.00
Amplicon library prep of post-PCR product, 49-96 samples	\$1,511.00

RNASeq

RNA libraries are prepared using Zymo Research's Zymo-Seq RiboFree Total RNA Library Kit, which includes an rRNA depletion step. Please check that this kit is compatible with your needs. This is the cost for library construction of extracted, quantified and quality confirmed RNA. Next you will need to select the appropriate MiSeq or NovaSeq run.

Cost/Pricing Details	Internal University of Tennessee User
RNA prep of up to 12 samples, each	\$141.00
RNA prep of 13-24 samples, each	\$129.00

Illumina MiSeq Sequencing

The appropriate Illumina MiSeq flow cell for your project is determined by the depth of coverage needed, as well as the desired read length. Contact Core facility staff for advice on which flow cell is right for your project. The costs below are for a PREPARED library. Costs for library prep done at the Core facility listed on this website are in addition to the cost of the flow cell.

Cost/Pricing Details	Internal University of Tennessee User
Version 3, 600 cycle (2 X 300) kit; 13-15 Gb data, ~22-24 million reads	\$1,975.00
Version 3, 150 cycle (2 X 75) kit; 2-3 Gb data, ~22-24 million reads	\$1,380.00
Version 2, 500 cycle (2 X 250) kit; ~7-8 Gb data, ~12-14 million reads	\$1,660.00
Version 2, 50 cycle (2 X 25) kit; 750-850 MB data, ~12-14 million reads	\$1,000.00
MiSeq run only	\$350.00

Illumina NovaSeq Sequencing

The appropriate Illumina NovaSeq flow cell for your project is determined by the depth of coverage needed, as well as the desired read length. Contact Core facility staff for advice on which flow cell is right for your project. We are currently offering SP flow cells by lane. If you need deeper coverage, contact Core facility staff for options. The costs below are for a PREPARED library. Costs for library prep done at the Core facility listed on this website are in addition to the cost of the flow cell.

Cost/Pricing Details	Internal University of Tennessee User
Illumina NovaSeq SP flow cell lane 2 x 100 nt PE Sequencing, ~300-400 million reads	\$2,200.00
Illumina NovaSeq SP flow cell lane 2 x 150 nt PE Sequencing, ~300-400 million reads	\$2,356.00
Illumina NovaSeq SP flow cell lane 2 x 250 nt PE Sequencing, ~300-400 million reads	\$3,000.00

Oxford MinION Pricing

The Oxford MinION sequencer enables direct, real-time analysis of short to ultra-long (>4 Mb) fragments of DNA/RNA in an easy-to-use, low-cost format.

Cost/Pricing Details	Internal University of Tennessee User
Library Prep with Oxford Nanopore Rapid Sequencing Kit, per sample	\$150.00
Library Prep with Oxford Nanopore Genomic DNA Litigation Kit, per sample	\$225.00
Oxford Nanopore MinION run*	\$45.00
Oxford Nanopore wash between runs run*	\$32.00

*Flow cells for the MinION have the potential to be reused but have carryover between runs. For this reason, flow cells must be purchased by each individual user who have the option to reuse their own flow cells. Contact Core Facility staff for more information and flow cell costs.