The mission of the Molecular Pathology Research Services (MPRS) Laboratory is to provide high quality, cost effective Next Generation Sequencing (NGS) services for research, translational research, and clinical trials for all Virginia Commonwealth University researchers.

The MPRS laboratory provides the members of the VCU community the opportunity to incorporate the benefits of the complete list of NGS services in their individual research projects. The MPRS laboratory is designed to work collaboratively with other VCU researchers and core facilities providing assistance with nucleic acid extraction from tissue, cell lines, plasma, nucleic acid quantitation, library preparation, template preparation, sequencing, bioinformatics analysis and annotation.

The MPRS laboratory offers a full range of nucleic acid based tests including NGS services for researchers which include: nucleic acid extraction, nucleic acid quantitation, library preparation, template preparation and sequencing.

Next Generation Sequencing tests currently offered:

**Oncogenomic Dx One**
**Oncogenomic Dx One Plus**
**Oncogenomic Dx One Comprehensive**

Each of these tests is offered in 3 different configurations: a) tier 1 which includes nucleic acid extraction, library and template preparation, sequencing and output VCF file, b) tier 2 which includes tier 1 services in addition to annotation of identified variants; and c) tier 3 which includes tier 2 services and clinical annotation and significance of identified variants.

The MPRS laboratory is housed in the Molecular Diagnostics Laboratory in the Department of Pathology at VCU. This is a state of the art, CLIA’88 certified and College of American Pathologist (CAP) accredited laboratory that is fully equipped to provide high throughput NGS and bioinformatic services. MPRS laboratory has automatic nucleic acid extraction robots, liquid handlers, Ion Torrent PGM and Proton, Illumina MySeq and NextSeq instruments.