



# Cleveland Clinic

Center for Immunotherapy  
and Precision Immuno-Oncology

## Immunomonitoring Laboratory (IML) Services

### Sample Procurement, Processing and Banking

#### Blood

Processing of whole blood for PBMC, Plasma (or Serum) and freezing  
Serum/Plasma collection and freezing (no PBMC)  
PBMC retrieval, thawing and counting

#### Fresh Tissue

Procure specimen  
Dissociate to single cell suspension and freeze

#### Formalin-fixed, paraffin embedded tissue (PLMI prices)

Pull and re-file slides, per case  
Pull and re-file blocks, per case  
Block selection per case  
Cut piece of tissue from block, re-embed case (Daughter block)  
Cassette, process, and embed tissue block  
Unstained paraffin recut, Initial Slide  
(Unstained paraffin recut, additional slides) per slide  
Unstained paraffin section in Eppendorf tube

#### Frozen Tissue

Frozen tissue, retrieve, transfer, re-file, initial specimen  
Retrieve, OCT embed, transfer, re-file, each specimen  
Frozen section, unstained (2 sections/slide), each slide  
Frozen section + HE/Dif Quick stain, each slide  
Frozen Shaving in Tube w/ Pre & Post HE stains, each tube  
Frozen Shaving in Tube, each tube

### Immune Analysis

#### Flow Cytometry

Multicolor flow cytometry standard panels whole blood  
Multicolor flow cytometry standard panels PBMCs  
High parameter flow cytometry myeloid panel  
High parameter flow cytometry T cell panel  
High parameter flow cytometry T cell exhaustion panel  
Custom panel design and optimization  
Staining and FACS cell sorting

#### Cytokine/Serology Assays

Multiple cytokine analysis (56 analytes)  
Proteomics Olink platform (Price per sample per panel 92 analytes)<sup>6</sup>  
Tumor Antigen ELISA

#### Functional Assays

T cell proliferation assay ELISPOT  
T cell proliferation assay intracellular cytokine  
T cell suppression assay

### Nucleic acid isolation and analysis

RNA isolation from fresh tissue/PBMC

DNA isolation from fresh tissue/PBMC

RNA isolation from frozen tissue

DNA isolation from frozen tissue

RNA isolation from FFPE tissue

DNA isolation from FFPE tissue

Nanostring analysis

### Immune Phenoptics

H&E paraffin recut, per slide

Enzyme histochemistry, per slide

Conventional special stain

Tumor circling and purity quantification

Multispectral Imaging