Molecular Immunologic Translational Sciences Research Facility

About Us

The Molecular Immunologic and Translational Sciences (MITS) Core offers access to a variety of cellular, molecular, immunologic, and preclinical assays to serve your translational research needs. Our mission is to support basic, translational, and clinical cancer research at the University of Virginia by supplying access to immunologic assay services that can be utilized by all investigators. Specifically, we help investigators at the University of Virginia who are interested in banking human specimens and clinical trial specimens, performing translational involving flow cytometry, studies multiplex Immunofluorescence histology, ELISpot and cell culture.



Our Services

- Sample banking, inventorying, and tracking
- Cell and T-cell culture and stimulation
- Flow Cytometry Staining and analysis
- Long Term Cryo-storage and freezer storage of samples

• Enzyme-linked immunospot assays (ELISpot) for IFN detection

• 7-color Multiplex Immunofluorescence histology Staining, Imaging and Analysis

• Ready to use 7-color multiplex panels are available for analysis of human and murine tissue specimens

• We offer custom panel development for analyses of murine and human tissue specimens.

• Data analysis of slides available to enumerate cell subsets and marker expression.





Instrumentation

- Biosys BioReader 7000 ELISpot Plate Reader -Used to enumerate the cytokine secreting cells within a population. Can be adapted for use with plaque and CFU assays.
- Guava EasyCyte Plus Benchtop Flow Cytometer -Used for live/dead cell counting, apoptosis analysis, cell cycle analysis, cellular toxicity analysis and proliferation analysis.
- Vectra 3 -An imaging system comprised of a microscope and robot arm that can be used for acquiring images from fluorescently stained slides, and enables high throughput image acquisition from up to 200 slides
- Tissue Culture Equipment water-jacketed CO2 incubators, benchtop and microcentrifuges, biosafety cabinets, micro-scopes and liquid nitrogen storage.
- Halo and Inform Software for Image Analysis





• PNAD • CD83 • DAPI

Enhancing Research, Rigor and Reliability



MEL63 DIRECT ELISPOT 12/2/2015

Our Team

Ileana Mauldin, PhD - Director Assistant Professor of Surgery

Kelly Smith, BS - Laboratory and Research Manager

Marya Dunlap-Brown, MS - Lab Specialist Senior

Timothy N.J. Bullock, PhD - Faculty Director Professor of Pathology

> The MITS provides cellular, molecular, and preclinical expertise

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Contact

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Request services on: uva.corefacilities.org/account/login

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