**MISSION**

The UM SOM Cytokine Core Laboratory (CCL) is an academic-based, fee-for-service laboratory dedicated to providing a high-quality, low-cost cytokine, chemokine and growth factor measurement service for both intramural and extramural investigators.

**CORE SERVICES**

The CCL offers an extensive list of human, mouse, and rat cytokine, chemokine and growth factor assays. We offer two assay platforms, ELISAs and Multiplex. Both platforms have their own unique advantages and disadvantages.

The lab offers in-house ELISA protocols utilizing validated commercial reagents and have the ability to order commercial kits for those less common biomarkers. Using in-house protocols allows us to greatly reduce costs while still upholding high standards in quality.

We utilize a Luminex™ MagPix System for our multi analyte assays using high quality fully customizable commercial kits from the country’s leading vendors in multiplex technology.

The CCL is here for every investigator from beginning to end. We are happy to help with experimental design all the way through to data interpretation.

Our turnaround time is approximately 10 business days, and data are emailed to the investigator in a user-friendly Excel format.

Please contact us for sample volume requirements and pricing, or visit us at www.cytokines.com.

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**CORE INSTRUMENTATION**

**Luminex™ MagPix System**

This system allows for the simultaneous measurement of up to 50 analytes in a single well using magnetic beads. The MagPix System uses a magnetic force to excite the beads and a CCD camera to detect the beads of each analyte.

**Molecular Dynamics Precision Microplate Reader**

The reader is used for all ELISA applications. It has 8 filters with the ability to change to others as required to read plates at multiple wavelengths. It reads 96-well plates in a matter of seconds and paired with the SoftMax Pro software it becomes a powerful machine to cover all ELISA needs.

**BioTek ELx50 Plate Washer**

BioTek’s ELx50 Microplate Washer is a fully programmable instrument that allows for full control of plate washing required for ELISA assays. Automated plate washers allows for higher throughput and for lower CV%’s over standard manual washing.
Results for both the ELISA and Multiplex can be customized to your needs. Results can include individual measurement results, means, standard deviations, and coefficient of variation.

If you are generating preliminary data, contact us to discuss our Pilot Development Program which allows for data for a smaller number of samples for one set price.

All of our assays are run with an internal control to ensure optimal assay function and every plate includes a 6- to 7- point standard curve.

Example of Multiplex Standard Curves