Immunology Services

SRI International Immunology Services Facility provides quality services in the area of immunology, virology, autoimmunity and inflammation that covers all stages of drug discovery and development. With state-of-the-art instruments, laboratory, and validated software systems, the Immunology team offers customized services to meet clients’ needs which includes but is not limited to assay development and validation for preclinical and clinical studies, as well as preclinical and clinical sample analysis.

Regulatory Compliance
- Immunology Services group routinely supports studies that require compliance with FDA GLP and cGMP regulations.
- Immunology Services group works with Quality Control and Quality Assurance groups, to assure compliance with regulations.

Assay Development and Validation
- In vitro and ex vivo assays (cell function/receptor binding assays/compound screening)
- In vivo efficacy studies in inflammatory disease models
- Custom and client-provided assays

Research and Drug Discovery
- In vitro and ex vivo evaluations of immune cell function
- Specialized compound screening in Immune cells from human and animal tissues

Preclinical and Clinical Services
- Assessment of immunogenicity
  - Cellular and humoral
  - Antidrug antibody (ADA)
  - Neutralizing antibody (NAb)
- Measurement of large molecules in biological fluids
- Measurement of vaccine efficacy, potency and stability
- Immunotoxicology evaluation

Standard Techniques
- ELISA
  - Sandwich, bridging & competitive immunoassays
  - Direct binding assay
  - Electrochemiluminescence (ECL)
- MSD multi-array technology (Meso QuickPlex SQ 120)
- Automated ELISpot analysis (ImmunoSpot® CTL Universal Analyzer)
- Multi-colored flow cytometry (FACS) acquisition and analysis: intracellular and cell surface staining, cell cycle analysis, and apoptosis (BD LSRII)
- Multi-color cell sorting using flow cytometry (BD AriaII)

Measurement of cytokines
- Biomarker analysis
Standard Techniques (continued)

- Magnetic-activated cell sorting (MACS) with RoboSep™
- Cellular proliferation assays
- Cytotoxic T lymphocyte (CTL) assay
- Mixed-lymphocyte reaction (MLR)
- Clonal expansion of primary immune cells
- Electrophoresis and immunoblotting
- DNA and RNA molecular biology techniques, eukaryotic cell transfection
- RT-PCR, qualitative and quantitative
- Immunohistochemistry of various tissues, e.g. spleen, kidney and solid tumors

- Viral TCID50 (in vitro)
- Toxin LD50 (in vivo)

Selected In Vivo Models

- Acute and chronic collagen-induced arthritis
- Acute and chronic DSS, TNBS/
- Oxazolone, and spontaneous (IL-10-/-) inflammatory bowel disease
- Active and passive experimental autoimmune encephalomyelitis
- Systemic autoimmune disorder models (Lupus)
- Immuno-oncology models (ovarian and breast cancer)