



DETECTION, CHARACTERIZATION & MODULATION OF IMMUNE GENE EXPRESSION

PROVIDED TO YOU BY: EATRIS & VETBIONET

Contact

exvivo-invivo-services@isidore-project.eu

The services listed below are available for access regardless of the call for proposals and research topic that you select in your pre-application form.

- **siRNA libraries**
 - Human
 - Swine
 - Poultry
- **sgRNA/CRISPR Cas9 knockout libraries**
 - Human
 - Swine
 - Poultry
 - Cattle
- **RNaseq transcriptomics, 16S NGS microbiome analysis, metabolomics (LC-MS) in livestock**
 - Swine
 - Poultry
- **Specific primer sets and protocols for medium-throughput Fluidigm qPCR targeting up to 96 immune genes**
 - Mice
 - Swine
 - Cattle
 - Chicken

DETECTION & CHARACTERIZATION OF THE IMMUNE RESPONSE

PROVIDED TO YOU BY: EATRIS, VETBIONET & ERINHA

Contact

Patricia Carvajal-Vallejos

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- **Medium- to large-scale analysis of immune proteins**

The services listed below are available for access for SARS-CoV-2 research projects.

 - Protein/peptide identification
 - Antibody Characterization / Multi-Attribute Method (MAM)
 - Post-Translational Modifications Analysis (Glycosylation; Oxidation/Deamination, Glycan Identity)
 - High-throughput Quantitative Proteomics – SWATH analysis (untargeted; relative quantification)
 - Intact Protein Measurement
 - Aggregation and refolding (SEC chromatography)
 - Antibody profiling to evaluate the host immune response
 - ICS-T-cell-responses (TRM), Virus-immunome profiling

Quantification of cytokines/chemokines (Bio-plex Multiplex Immunoassay), surface and intracellular detection of markers/cytokines (flow cytometry) in infected biological samples
 - Functional studies of pathogenicity of genetic variants at molecular and cellular level

Including virus sequencing, non-coding RNAs expression and ELISA assay, drugs; drug testing
 - Epigenetics of immune cells

To study genome-wide epigenetic changes including DNA methylation, histone modifications and non-coding RNAs expression
 - Immunoprofiling in swine and poultry

Polychromatic flow cytometry assays, single cell immunomics, MHC haplotyping, Luminex cytokine profiling



DETECTION & CHARACTERIZATION OF IMMUNE TISSUES & CELLS

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- **Immune-function profiling**
This service is available for access regardless of the call for proposals and research topic that you select in your pre-application form. Antigen-specific T proliferation and cytokine, chemokine and immune factor analysis (mass cytometry, FACSCanto, LSR IV, Symphony, Helios, Bio-Plex Multiplex immunoassay).
- **Immune-cell profiling**
This service is available for access in the following calls for proposals: CALL I (SARS-CoV-2), CALL IV (non-SARS-CoV-2 respiratory pathogens), CALL V (vector-borne pathogens), and CALL VI (Other epidemic-prone pathogens).
- **Antiviral screening & mucosal immunology**
This service is available for access for SARS-CoV-2 research projects. Including human airway models for testing drugs and for virus – cells interaction, to evaluate the role of individual immune subsets in different contexts against infectious disease and to characterize viral isolates.
- **Detection and quantification of SARS-CoV-2-specific T cells at the single cell level**
This service is available for access for SARS-CoV-2 and MPXV research projects
- **T-cell cloning and expansion**
This service is available for access for SARS-CoV-2 research projects. Determination of specificity
- **Detection and quantification of SARS-CoV-2-specific B cells at the single cell level**
This service is available for access for SARS-CoV-2 research projects.
- **Access to organoids, spheroids & multifluidic devices for immune surveillance (IncuCyte live-cell imaging of spheroids)**
This service is available for access for SARS-CoV-2 research projects.
 - Virus sequencing, non-coding RNA expression and antibody responses to viral antigens with high-content imaging and analysis.
 - Access to Multi-site Immuno-analysis of SARS-CoV-2, including analysis of infected samples based on metal tag detection by mass cytometry

HOW TO ACCESS OUR SERVICES FOR SARS-COV-2 & COVID-19 RESEARCH

Three steps to get free-of-charge access to our services:

1. Browse our catalogue and identify the service that you need
2. Fill out the pre-application form at the bottom of the page and hit the 'SUBMIT' button
3. After receiving an email with your ISIDORe ID number, follow the instructions to complete your application