ELISPOT immunologic assay

Evaluation of cytokines secretion of Effector T cells

- Unique, sensitive and specific *ex vivo* assay to evaluate immune system functionality

ELISpot measures the frequency of T cells capable to secret cytokines in response to an antigen. Today it is possible to detect different cytokines (such us IL-2, IL-4, IL-6, IL-10, IL-12, Perforin, IFN- γ), both in humans and animals

- Application in many fields:
  - ✓ Vaccine immune monitoring (assessment of constitution of immune response)
  - ✓ Cancer vaccine immune monitoring (assessment of constitution of immune response)
  - ✓ Transplantation (assessment of donor-specific T cell immunity pre-and-post-transplant)
  - ✓ Drug development (assessment of immunogenicity of therapeutics)
  - ✓ Infectious disease
  - ✓ Cancer research
  - ✓ Autoimmune diseases
  - ✓ Drug development (assessment of immunogenicity of therapeutics)

- Better evaluation of the full efficiency of cytokines secretion compared to classical ELISA assay or flow cytometry analysis

Measuring PHA-induced IL-2-secreting Effector T cells
Each spot that develops in the assay represents a single reactive cell