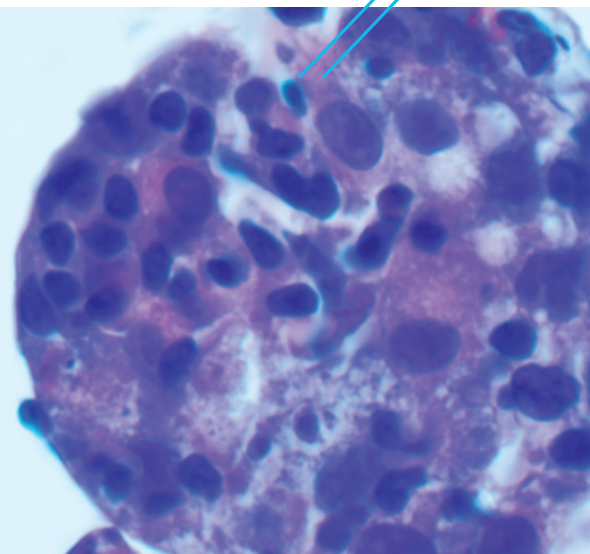


A FRESH APPROACH TO IMMUNO-ONCOLOGY



Capturing the Full Complexity of the Tumor Microenvironment

A major challenge to immuno-oncology drug development is that cell lines and animal models cannot recreate the tumor microenvironment. We address this challenge with a novel approach that uses fresh patient tumor tissue still embedded in its natural environment. With our proprietary 3D *ex vivo* drug screening platforms, you can reveal characteristics of the tumor microenvironment to accurately assess the therapeutic effects of drug treatments, including immunotherapies.

Cancer is complex. In order to treat it, we need to see the whole picture. Nilogen achieves a more accurate view of a tumor's surrounding environment with our preclinical drug testing platforms derived from fresh patient tumor samples.

Tackling Immuno-Oncology's Toughest Problems

Nilogen can help researchers:

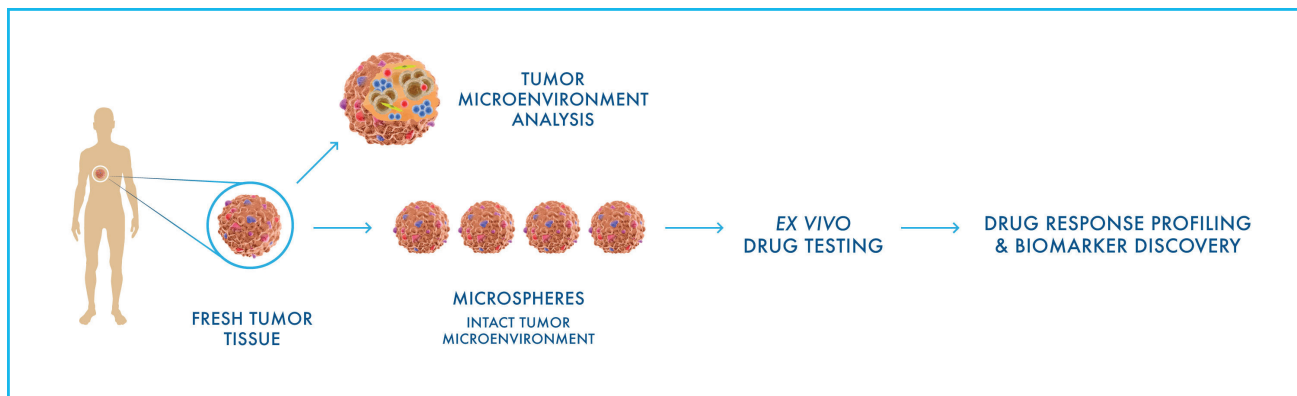
- Test the immunostimulatory activity of rational combination treatments at single or multiple drug concentrations
- Test the efficacy of immune checkpoint inhibitors, both antibody-based and small molecule
- Perform *ex vivo* co-culture experiments with 3D tumor spheroids and matching peripheral blood mononuclear cells obtained from the same patient
- Test the pharmacodynamic activity of small molecule inhibitors
- Analyze drug effects on all components of a tumor microenvironment, including cancer-associated fibroblasts
- Test the effect of a drug on tumor cell viability
- Develop and optimize genetically modified T-cells in solid tumors
- Create a PDX mouse model in parallel with the propagation of autologous TIL, CAF and tumor cell lines for *in vivo* drug testing and adoptive cell therapy

Our Drug Testing Technology

Nilogen's complementary drug testing platforms use cutting-edge technologies in next-generation sequencing, Nanostring gene expression profiling, flow cytometry, multiplex cytokine assays, mass spectrometry, immunohistochemistry and many more to help our research partners take their most promising therapies from preclinical data to clinical results.

3D-EXSM

Our proprietary, patient-derived 3D-EXSM platform rapidly and accurately analyzes tumor response to oncology and immuno-oncology drugs. The screening system uses microspheroids created from fresh patient tumor tissue—without any propagation steps—to allow for the evaluation of tumor immune microenvironment, cytotoxic efficacy of immuno-oncology drugs and tumor-drug interaction. 3D-EXSM can also be used in the clinical setting on fresh tumor biopsy samples to guide treatment options in clinical decision-making.



Visit www.nilogen.com to learn more about other patient-derived technologies available for oncology and immuno-oncology drug development.

About Us

Nilogen Oncosystems is a contract research organization offering cancer drug development services for pharmaceutical and biotechnology companies. Our proprietary drug testing platforms utilize fresh patient tumor tissue with an intact tumor immune microenvironment to accurately assess the therapeutic potential of drug treatments. In our CLIA-certified lab, Nilogen performs correlative studies between *ex vivo* drug responses and multiple aspects of the tumor microenvironment to develop companion diagnostics that can be applied to clinical trials and patient care.

Solve Your Challenges with Nilogen

Contact our experienced team to discuss your immuno-oncology drug development needs. We can assist with every step of the project, from the design and execution of the study to the preparation of the final report, including interpretation of the data.

Inquiries: info@nilogen.com

Website: www.nilogen.com

Phone: (813) 399-1888