## About Immunovault

We're a virtual biorepository that connects biopharmaceutical companies with leading hospitals, pathology groups and oncology practices to accelerate drug development and diagnostic tests.

**Mission:** To electronically index a global collection of various genetically profiled tumor blocks.

**Vision:** Become the world’s most comprehensive database of genetically profiled tissues, searchable by tissue, tumor type, or molecular abnormality, and facilitate the exchange of those samples between suppliers (hospitals, pathology groups, surgery centers) and consumers (labs, academic centers and pharmaceutical companies).

**Background:** When performing surgery a surgeon may see tissue that appears atypical and will take a biopsy. The biopsy is then brought to the Pathologist who creates a frozen section, a rapid technique to allow the Pathologists to review the tissue quickly, allowing them, while the patient is still on the table, to inform the surgeon if they removed all the tumor or not.

With the remaining tissue, the Pathologist fixes the tissue in formaldehyde, dehydrates remaining water and encases the tissue in paraffin wax. The final product from this process creates a formalin-fixed-paraffin-embedded block or FFPE block.

To further classify the tumor, the Pathologist will cut additional slides to further study the morphology. These slides can be stained with immunohistochemical antibodies that will bind to the cell surface telling the Pathologist a great deal of information about the tumor tissue.

Today, the Pathologists is becoming more involved in not only identifying the cancer and its origin, but more specifically, what is it’s molecular phenotype and what potential drugs or classes of drugs can the Oncologist treat the patient with. For example, once the Pathologists makes his diagnosis of non-small cell lung cancer, the Oncologist will request the Pathologists to order EGFR and ALK/ROS1 testing, these are actionable mutations which when detected will determine the course of therapy for the patient. After a clinically actionable diagnosis is met, these blocks are usually put into storage and kept for 10 years.

There are several companies that actively look to purchase these classified blocks including pharmaceutical companies and medical laboratories, which would use these blocks as positive and negative controls in their experiments.