Tumour Profiling Service

A better guide for
Molecular Intelligence
Comprehensive tumour profiling with MI Profile™ assesses DNA, RNA and Proteins with multiple technologies (NGS DNA/RNA, PyroSeq, IHC, ISH) to reveal a more complete molecular blueprint to guide precise and individualised treatment decisions.

**Standard of Care + Clinical Trial Biomarkers**
- Immunotherapy
- Targeted Therapy
- Chemotherapy
- Clinical Trials

**Profiling Technologies**
Caris Molecular Intelligence uses multiple tumour profiling technologies to identify explicit genomic and proteomic aberrations and better understand the biology driving tumour growth.

- **Next-Generation Sequencing (NGS):** rapidly examines and more broadly detects somatic point mutations, small insertions and deletions, copy number alterations, gene fusions, as well as genomic signatures, including microsatellite instability (MSI) and tumour mutational burden (TMB).
- **Pyro Sequencing (PyroSeq):** detects and quantifies mutations, methylation, etc., through sequencing by synthesis
- **Fragment Analysis (FA/Frag. Analysis):** detects changes in DNA or RNA to indicate the presence or absence of a genetic marker; useful in limited tissue situations, i.e. lung cancer
- **Polymerase Chain Reaction (PCR):** quickly amplifies copies of a specific region of DNA or RNA for analysis
- **Immunohistochemistry (IHC):** determines level of protein expression
- **in situ Hybridization:** detects gene deletions, amplifications, translocations and fusions
- **Microdissection:** Tumour enrichment to increase and isolate a larger portion of cancer cells and improve the chances for successful testing from small tumour samples
MI Tumour Seek™ is a Next-Generation Sequencing (NGS)-based tumour profiling assay that covers DNA point mutations, copy number alterations, insertions/deletions, and RNA Whole Transcriptome Sequencing (Fusions & Variant Transcripts) for all tumour types. Microsatellite Instability (MSI) and Tumour Mutational Burden (TMB) are also included with every order to inform immunotherapy opportunities.

**DNA**
- Next-Generation Sequencing (Mutations, Indels & Copy Number Alterations)
- 592 genes
- 750x depth of coverage
- 8-10 slides
- 8-14 day turnaround time

**RNA**
- Whole Transcriptome Sequencing (Fusions & Variant Transcripts)
- ~22,000 genes
- 60 million reads/sample
- 2-5 slides
- 8-14 day turnaround time

**Immunotherapy Diagnostics Expertise**

PD-L1
- Programmed Cell Death Ligand 1 by IHC
- 93,000+ tests performed

MSI
- Microsatellite Instability by NGS
- 52,000+ tests performed

TMB
- Tumour Mutational Burden by NGS
- 60,000+ tests performed

MMR
- Mismatch Repair proteins by IHC
- 36,000+ tests performed

By harnessing the body's immune system to detect and destroy tumour cells, immune checkpoint inhibitors are rapidly ushering in a new era of precision medicine. Identify patients more likely to respond to immunotherapies with reliable molecular information based on validated assays for MMR, MSI, PD-L1 and TMB in our state-of-the-art laboratory.
MI Profile Report

Caris Molecular Intelligence reports are built to maximise clinical utility in an easy-to-interpret format. We understand that clinicians need treatment information fast. That’s why our report was built by oncologists for oncologists. With results back in under 3 weeks, we’ll help you find answers when you need them the most.

How Tumour Profiling Works

In order to decode cancer and illuminate a clearer path to precision medicine, Caris Molecular Intelligence performs comprehensive molecular testing on DNA, RNA and Proteins using sophisticated technologies and state-of-the-art bioinformatics. Molecular testing is performed in Caris’ state-of-the-art, 66,000 sq-ft laboratory in Phoenix, Arizona. The Caris laboratory holds the industry’s strictest quality and compliance accreditations, including ISO 15189, CAP, CLIA, NY State and CE Mark.
With the promise of precision medicine becoming a reality, molecular profiling has become standard of care for many cancer types – and required for certain therapies (companion dx). More than ever, oncologists need a trusted tumour profiling partner to provide reliable, high-quality molecular information to guide more precise and individualised treatment decisions.

Caris Molecular Intelligence® identifies key molecular features of cancer and provides molecular insights to aid oncologists in personalising cancer therapies for their solid tumour cancer patients. Caris Molecular Intelligence helps oncologists:

- navigate among therapies with potential benefit;
- identify therapies that may not have been considered;
- determine drugs with potential lack of benefit (avoiding unnecessary toxicities and costs); and
- match patients to clinical trials.

Why Caris?

The Most Experienced Comprehensive Tumour Profiling Provider

- **Unmatched Experience**
  - 2,342,000+ tests completed
  - 160,000+ clinical cases performed

- **Immunotherapy Dx Expertise**
  - PD-L1 by IHC, including TPS and CPS scoring methods
  - Mismatch Repair (MMR) proteins by IHC: MLH1, MSH2, MSH6, PMS2
  - Microsatellite Instability (MSI) by NGS
  - Tumour Mutational Burden (TMB) by NGS

- **Rigorous Quality Standards**
  - CAP, CLIA, NYSDOH, ISO15189, CE Mark certified/approved
  - 66,000-square-foot central laboratory
  - Staffed by: bioinformaticians, oncologists, molecular geneticists, pathologists and PhD scientists

- **Limited Tissue Capabilities**
  - Tumour enrichment via microdissection
  - Multiple reflex options to alternative technologies/methods

- **Rapid Turnaround Time**
  - Report in under 3 weeks from ordering to results

[www.CarisMolecularIntelligence.com](http://www.CarisMolecularIntelligence.com)
Precision Oncology is the exclusive partner of Caris Molecular Intelligence in Australia and New Zealand.

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