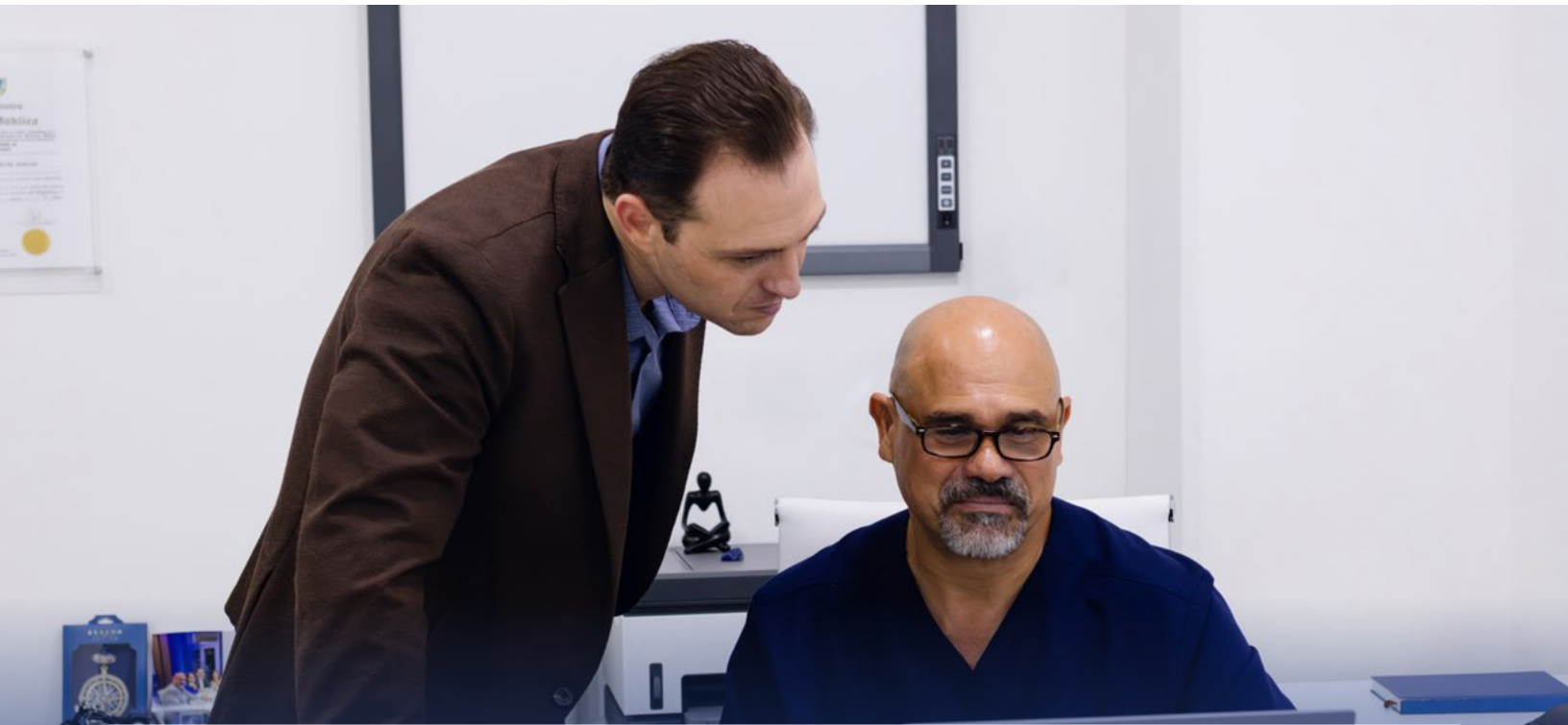


# We Don't Guess. We Measure.



## Immune System Tracking

Every Immunocine treatment is accompanied by structured clinical monitoring and advanced immune profiling. Our goal is simple: if we are engaging the immune system, there should be measurable evidence of that engagement.

### Tracking Structural and Molecular Changes

Imaging and circulating tumor cell analysis interpreted through an immunologic lens.

+

### Profiling Immune Activity

Advanced cellular profiling that reveals how your immune system is responding.

+

### Following Laboratory Trends

Certain parameters are known to be directly affected when experiencing an immune reprogramming event.

# Seeing What Others Don't

Most oncology programs rely primarily on imaging and routine laboratory panels. These are important tools, but they only tell part of the story. At Immunocine, we believe that if you're training the immune system to fight cancer, you should be able to observe that fight taking shape.

That's why every Immunocine patient receives structured clinical monitoring that goes beyond standard oncology metrics. We extend monitoring deeper — into tumor biology and immune cell behavior at the molecular and cellular level. These advanced analyses allow us to evaluate not only structural changes, but biological responses occurring beneath the surface.

Cancer remains a complex and serious challenge. No monitoring system eliminates that reality. But observing measurable immune and tumor-related changes provides insight, accountability, and clarity.

## Evidence-Based Interpretation

All findings are grounded in published research and clinical context.

## Collaboration with Referring Physicians

Reports are designed to support the broader care team.

## Clear Communication

Results are presented in language that patients and physicians can act on.

## Responsible Scientific Reporting

We distinguish between established markers and emerging signals.



# Our Approach to Measuring Immune Response

Immunocine's monitoring protocol is built on three interconnected layers, each designed to reveal a different dimension of how the body is responding to treatment. Together, they form one of the most comprehensive immune tracking systems available at any cancer center.



## Measurement Levels

### Imaging & Bloodwork

The foundation. Standard clinical tools — CT, MRI, PET scans, and routine labs — used by leading oncology centers worldwide. At Immunocine, these tools are interpreted through an immunologic lens, accounting for the unique ways immune activation can present.

+

### Cellular Profiling

The differentiator. Advanced techniques including Circulating Tumor Cell (CTC) gene analysis and flow cytometry that reveal how tumor biology and immune cell populations are shifting in response to treatment. Most oncology programs do not offer this level of analysis.

+

### Additional Analysis

When appropriate, further testing such as cytokine analysis of plasma, in vitro immune activation studies, and antigen recall testing may be performed to characterize immune signaling and functional capacity.

# Baseline Imaging to Track Structural Changes

We begin with the same core tools used in leading oncology centers worldwide. Before treatment, patients undergo baseline imaging. Follow-up scans are performed during treatment to evaluate structural changes. These establish baseline measurements and allow us to track structural and systemic trends over time.



**Lesion Size Trends**



**Stability vs Progression**



**Immune-related Inflammation Patterns**



**Tissue Remodelling / Scarring**



# Bloodwork to Uncover Valuable Systemic Insights

Routine laboratory testing offers valuable systemic insight. While no single lab value can confirm or deny treatment response, shifts in immune cell ratios and inflammatory markers can provide early signals that immune mobilization is occurring.

For example, changes in lymphocyte distribution may reflect immune cells leaving circulation and migrating toward tumor sites. While laboratory trends must always be interpreted carefully and in context, they often contribute meaningful data to the overall picture. Standard bloodwork helps us observe how the immune system is responding at a systemic level.




Lymphocyte percentages and absolute counts



Neutrophil-to-Lymphocyte Ratio (NLR)



Inflammatory Fluctuations



Complete Blood Count (CBC) and Comprehensive Metabolic Panel (CMP)



Cancer Markers and Signals



# Beyond Standard Oncology Metrics

Most oncology programs rely primarily on imaging and routine laboratory panels. At Immunocine, we extend monitoring deeper — into tumor biology and immune cell behavior at the molecular and cellular level.

These advanced analyses allow us to evaluate not only structural changes, but biological responses occurring beneath the surface. The following two capabilities — CTC Gene Analysis and Flow Cytometry — represent some of the most differentiating elements of Immunocine's monitoring protocol.



# Measuring CTCs to Evaluate Gene Signatures

Circulating Tumor Cells (CTCs) are cancer cells that have detached from primary or metastatic lesions and entered the bloodstream. We analyze these cells at baseline and during treatment to evaluate gene signatures related to tumor behavior.

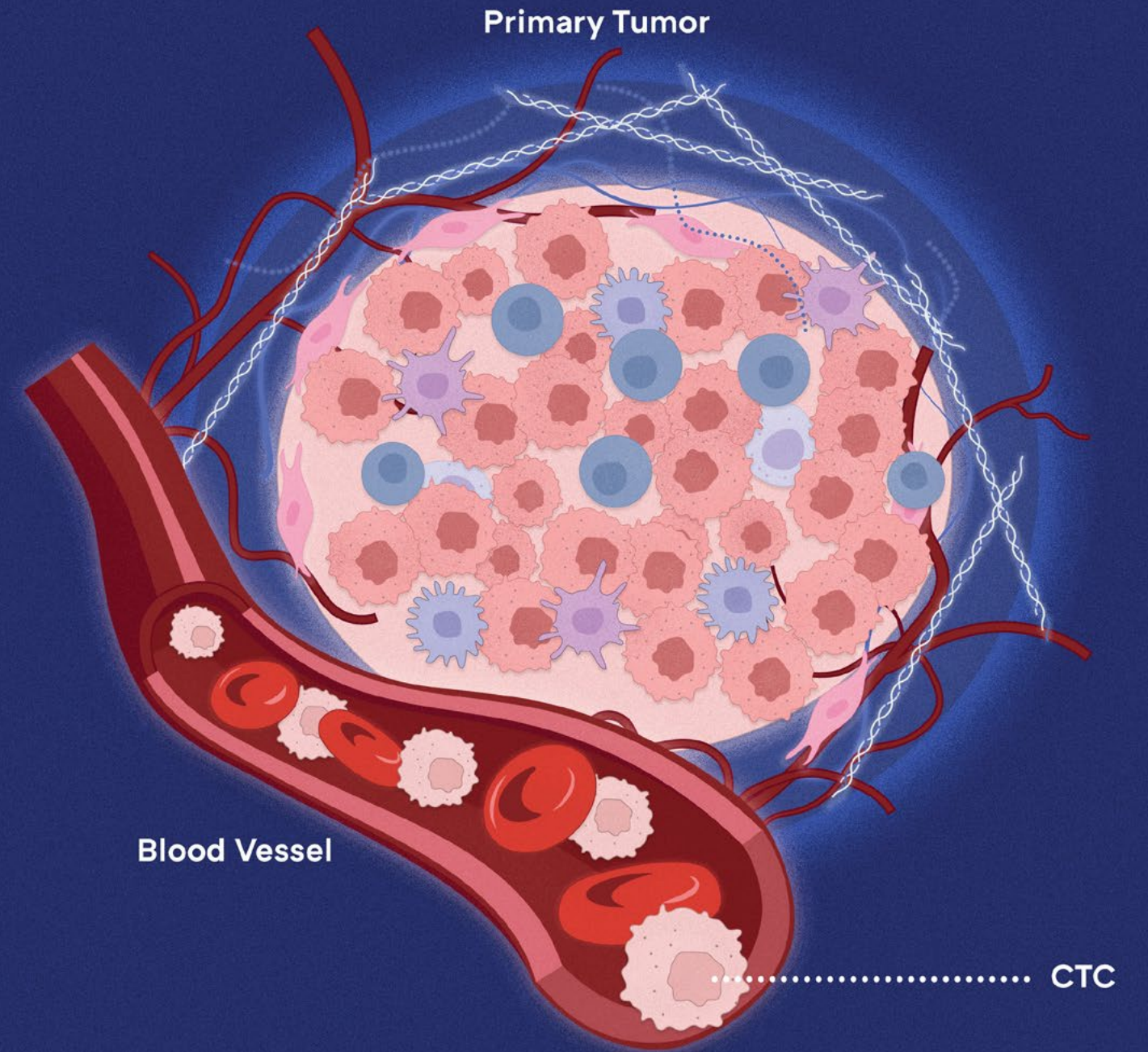
**Proliferation**

**Aggressiveness**

**Immune Escape Mechanisms**

**Tumor Survival Pathways**

Changes in gene expression patterns over time can provide insight into how tumor biology may be responding to immune pressure. In some cases, markers associated with growth or immune suppression may decrease. In other cases, gene signatures may shift in ways that suggest altered tumor behavior. These findings are interpreted cautiously and always in conjunction with clinical context — but they add an additional biological layer beyond imaging alone. CTC analysis allows us to examine tumor dynamics in real time.




# Deep Immune Profiling via Flow Cytometry


Flow cytometry is one of the most powerful tools in modern immunology, allowing scientists to evaluate immune cells at the single-cell level. At Immunocine, we use this technology to analyze immune cell populations before and during treatment, helping us understand how each patient’s immune system is responding.

Following treatment with Immunocine’s Dendritic Cell Therapy (IDCT), shifts in immune cell populations can often be observed. These changes can reveal meaningful signs of immune reprogramming – including increased activation of cancer-fighting T cells, development of immune memory, and reductions in suppressive immune signals – all driven by the patient’s own fixed dendritic cells presenting tumor information back to the immune system.







**Activation Markers**




**Memory T-cell Formation**



**Cytotoxic (killer) Cell Populations**



**Exhaustion Markers**



**Suppressive Phenotypes**

This is where the connection between monitoring and treatment becomes most visible. Flow cytometry can reveal whether the immune cells trained by your personalized DC vaccine are present, active, and expanding. It’s the closest thing to seeing your treatment at work.

The screen displays a web application interface with the following sections:

- Marker:** Includes an 'Add Marker' button.
- Panel:** Includes an 'Add Panel' button.
- Dr. Matt's Panel:** A section with a 'View All' link.
- Hemostatic Assessment Panel:** A section with a 'View All' link.
- Treatment Summary Panel:** A section with a 'View All' link.

Birth Date	Gender
04/03/1983	Male
02/16/1987	Male
08/24/1984	Female
08/14/1978	Male
08/03/1982	Female



# Your Treatment Summary

Every Immunocine patient receives a comprehensive treatment summary with key findings, trends, and observations from the monitoring process. This report is designed to be clear, actionable, and shareable — a document you and your referring physician can use to understand how your body is responding to treatment.

Your summary is a commitment to transparency. We believe that when patients and physicians can see what's happening, they can make better decisions together. This is what it means to measure, not guess.



## What the Summary Includes

### 1. Protocol & Treatment Overview

A walkthrough of your treatment phases — from baseline assessment and preparation, through dendritic cell therapy, to immune activation.

### 2. OncoCELL<sup>®</sup> Liquid Biopsy

Gene expression analysis tracking circulating tumor cells and cancer-related markers, comparing baseline to post-treatment results.

### 3. Bloodwork & Metabolic Trends

Lab values tracked over time — immune function, inflammation, metabolism — showing how your body responded to treatment.

### 4. Flow Cytometry & Immune Profiling

Cell-level analysis of your immune system, including dendritic cell maturation and shifts in T cell populations over time.

### 5. Clinical Observations

Your treatment timeline — IDCT dates, interferon doses, and any immune-related side effects reported during the process.

### 6. What to Expect & Ongoing Care

Post-treatment symptoms you may experience, plus suggested bloodwork, imaging, and CTC testing to continue monitoring progress.

### 7. Trends & Takeaways

A summary of immune signals, reprogrammed biology, cancer responsiveness, and what that may tell us in response to overall effect.



**Immunocine**  
Cancer Center

[www.immunocine.com](http://www.immunocine.com)