



# Lurie Cancer Center (LCC) OncoSET: Bringing *Real-Time* Precision Medicine to Patients

## OncoSET

SEQUENCE

EVALUATE

TREAT

*The Future of Precision Medicine for Cancer Treatment*

Massimo Cristofanilli, MD  
Professor of Medicine

Associate Director of Translational Research and Precision Medicine

# Why OncoSET Care Model?

From the Physician's Perspective

- Patients are informed about “**medical innovations**” in Oncology and use multiple Media/Internet tools to obtain information and communicate.
- Patients are interested in **Personalized Medicine** and **Clinical Trials**.
- There is a need to implement a different model of Patient-Centered Personalized Care.
- Need to demonstrate Value and Clinical Utility.

# Robert H. Lurie Cancer OncoSET Care Model

## The Future of Precision Medicine for Cancer Treatment

### SEQUENCE

Sophisticated methods of **genomic sequencing** and molecular analysis capture valuable information from tumor specimens and/or blood or urine samples.

### EVALUATE

Individual test results are reviewed and discussed by the **OncoSET Molecular Tumor Board**, a multidisciplinary group of leading physicians and scientists.

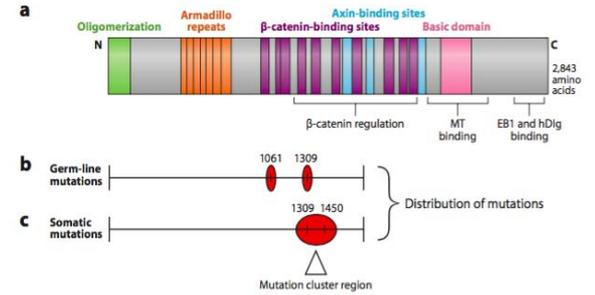
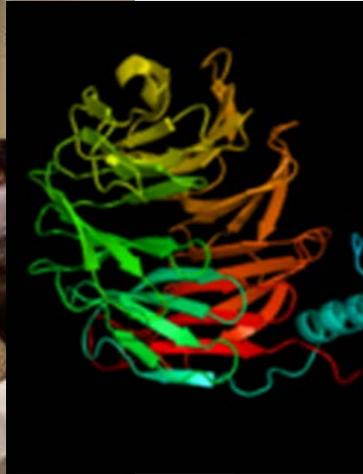
### TREAT

OncoSET patients receive a detailed and accurate **customized treatment plan** and access to individually tailored treatments and clinical trials.

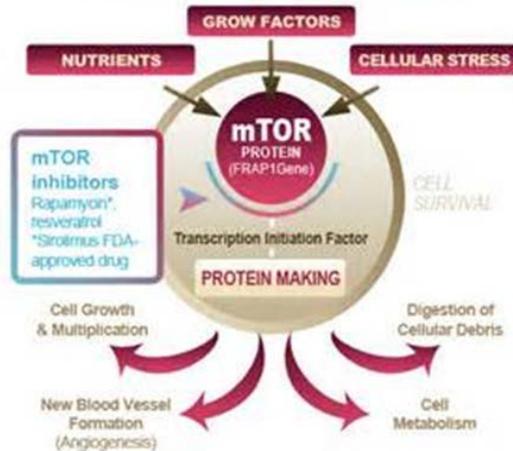
# Challenges of Personalized Medicine

- Cancer is an heterogeneous (diverse) and dynamic disease (changes over time).
- The “Host” (the patient) is as important as the “Cancer” (role of immune function).
- The planning and delivering of Personalized Medicine requires a Team Approach.
- There is a need for molecular monitoring and adaptive approach (adjust recommendations).
- There is a clinical and economical impact of Personalized Medicine.

# Molecular Tumor Board: The essential function of the OncoSET Program



**mTOR PATHWAY**  
TOR = target gene of rapamycin, antibiotic soil organism

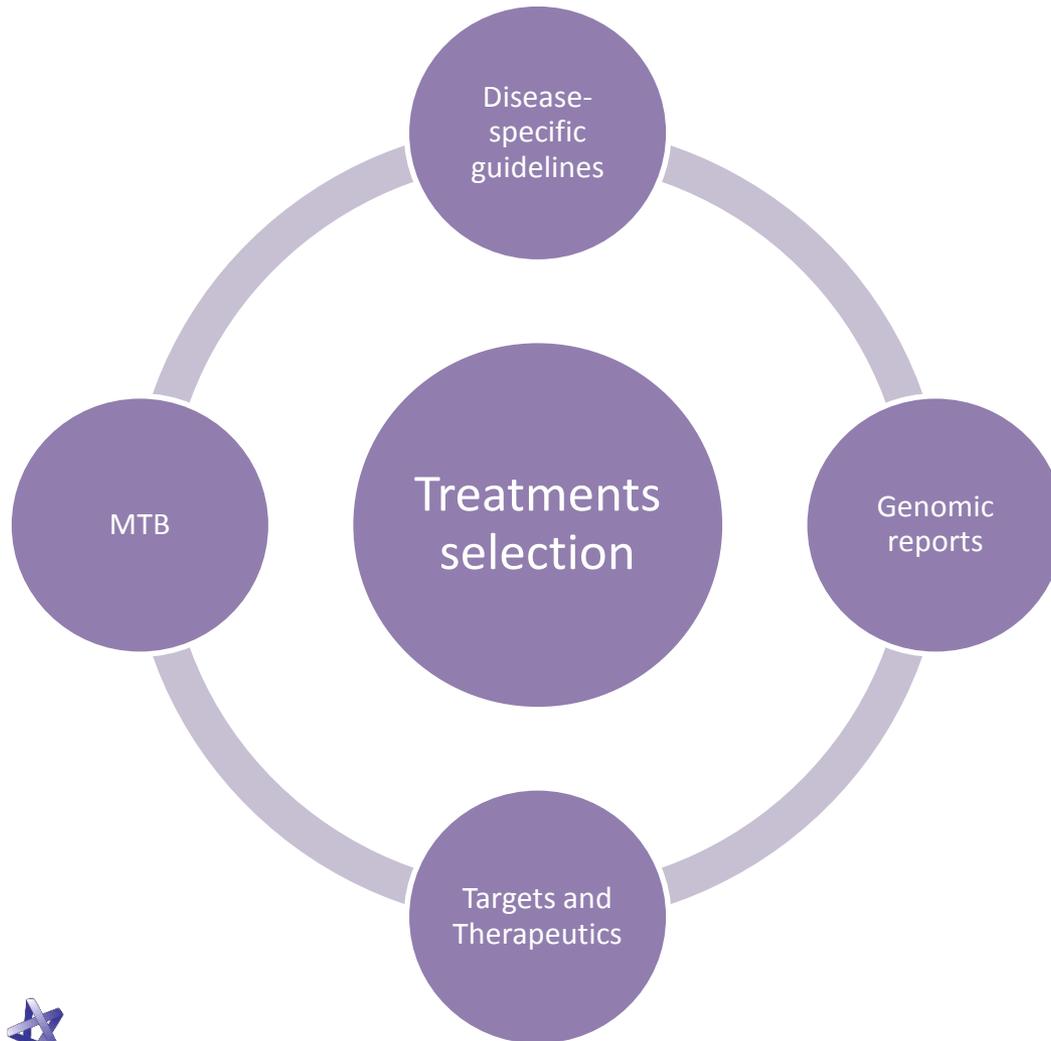


# The **Clinical** interpretation **AFTER Genomic Data** interpretation

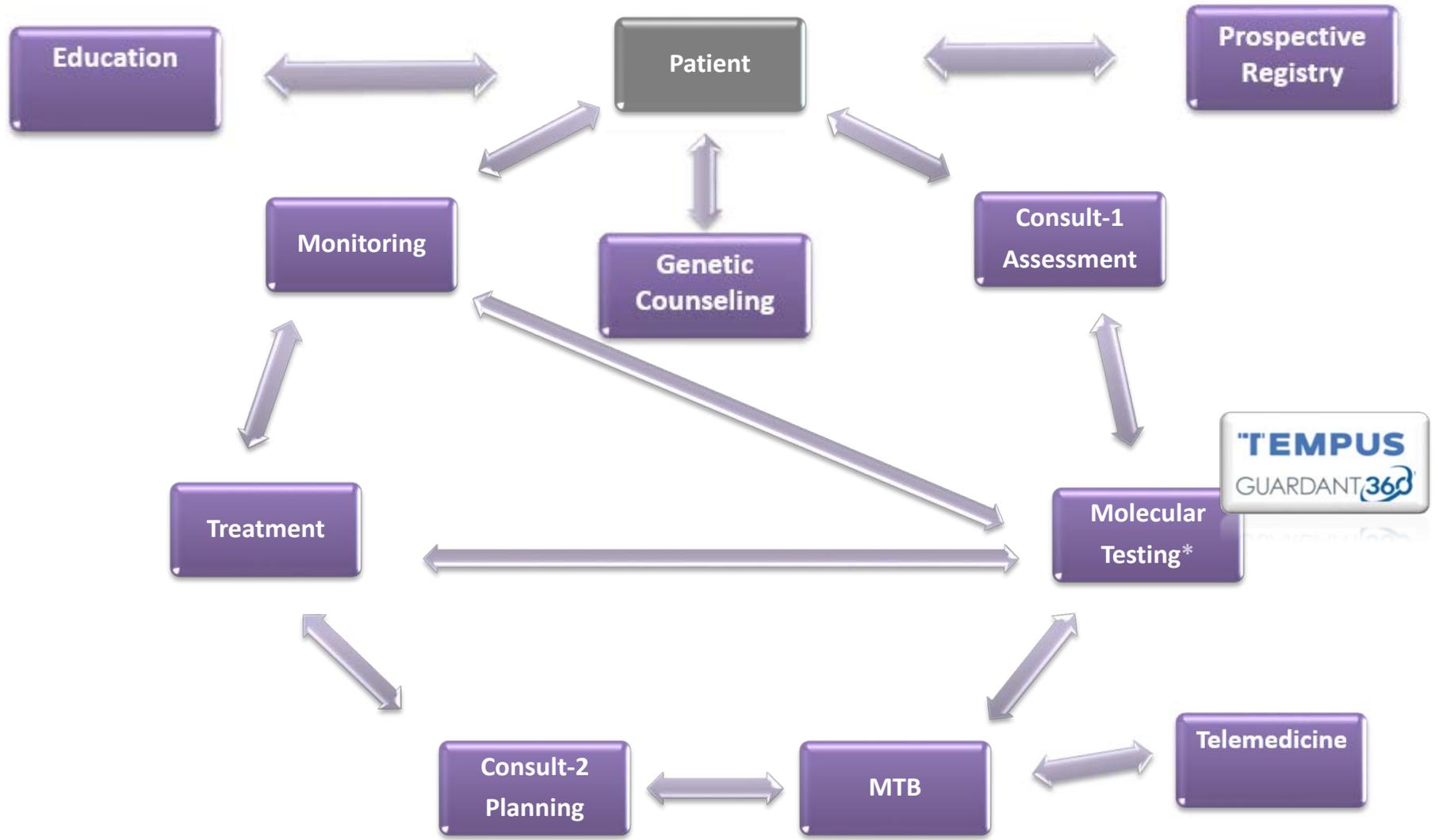
- Incorporating **genomic analysis** and **disease-specific treatment recommendations** to advance personalized medicine
- The critical role of the **Molecular Tumor Board**

MOLECULAR ANALYSIS FOR PERSONALISED THERAPY  
CONFERENCE  
M A P  
October 13-14  
2017  
Swissôtel, Zurich  
INTERPRETING MOLECULAR ALTERATIONS FOR CLINICAL PRACTICE

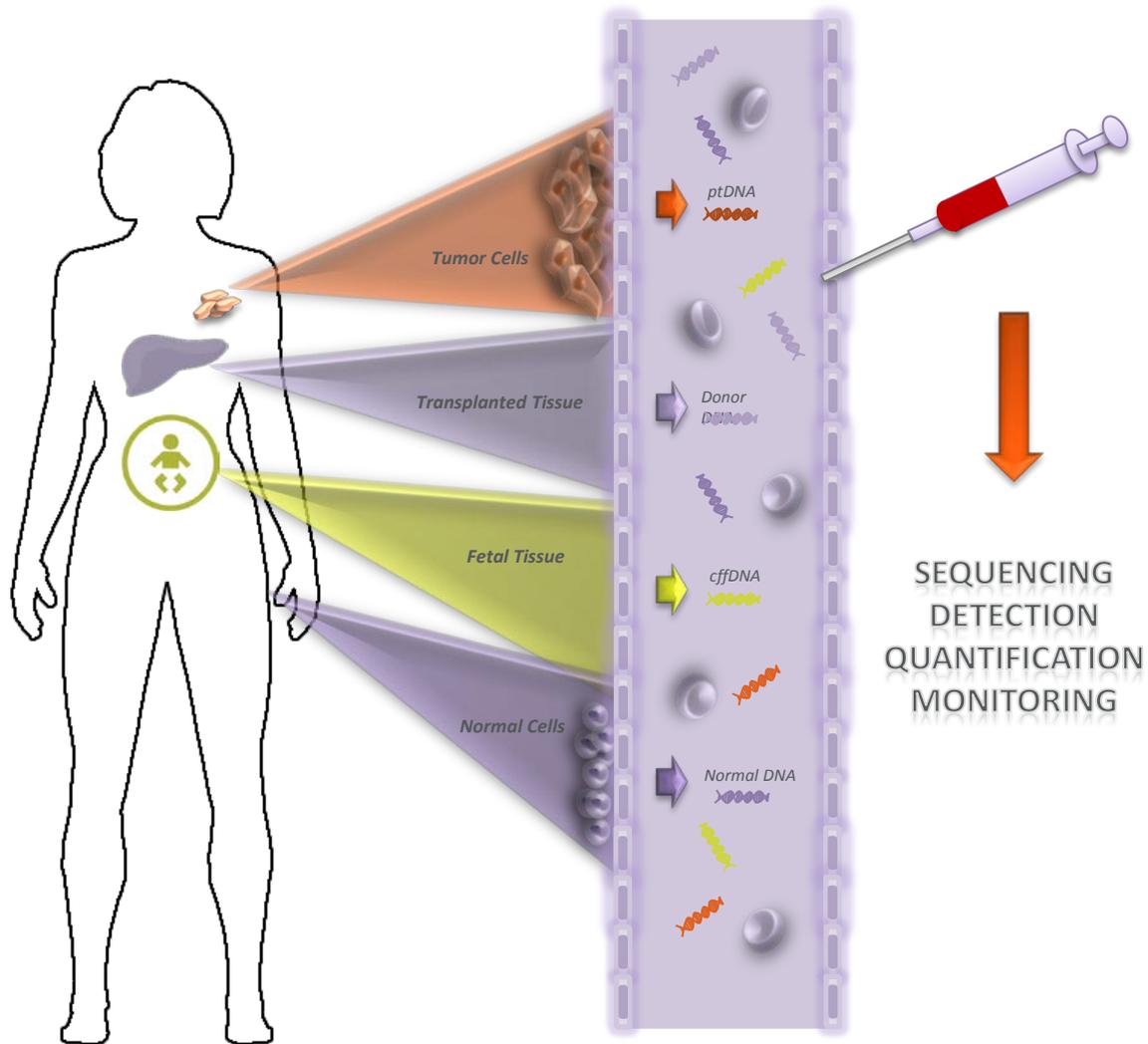
# Clinical application of Genomic Reports



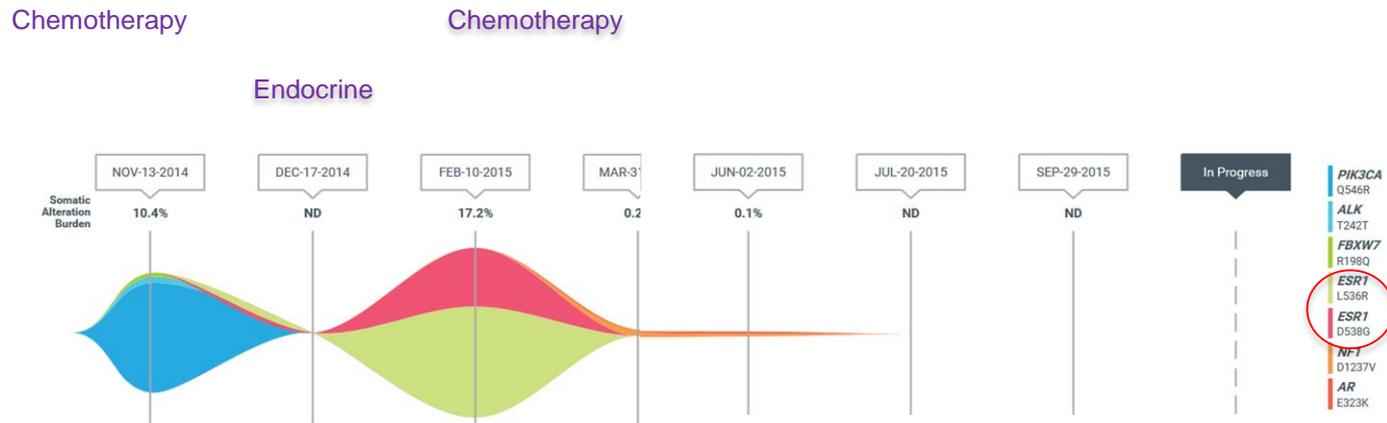
# RHLCC OncoSET Care Model



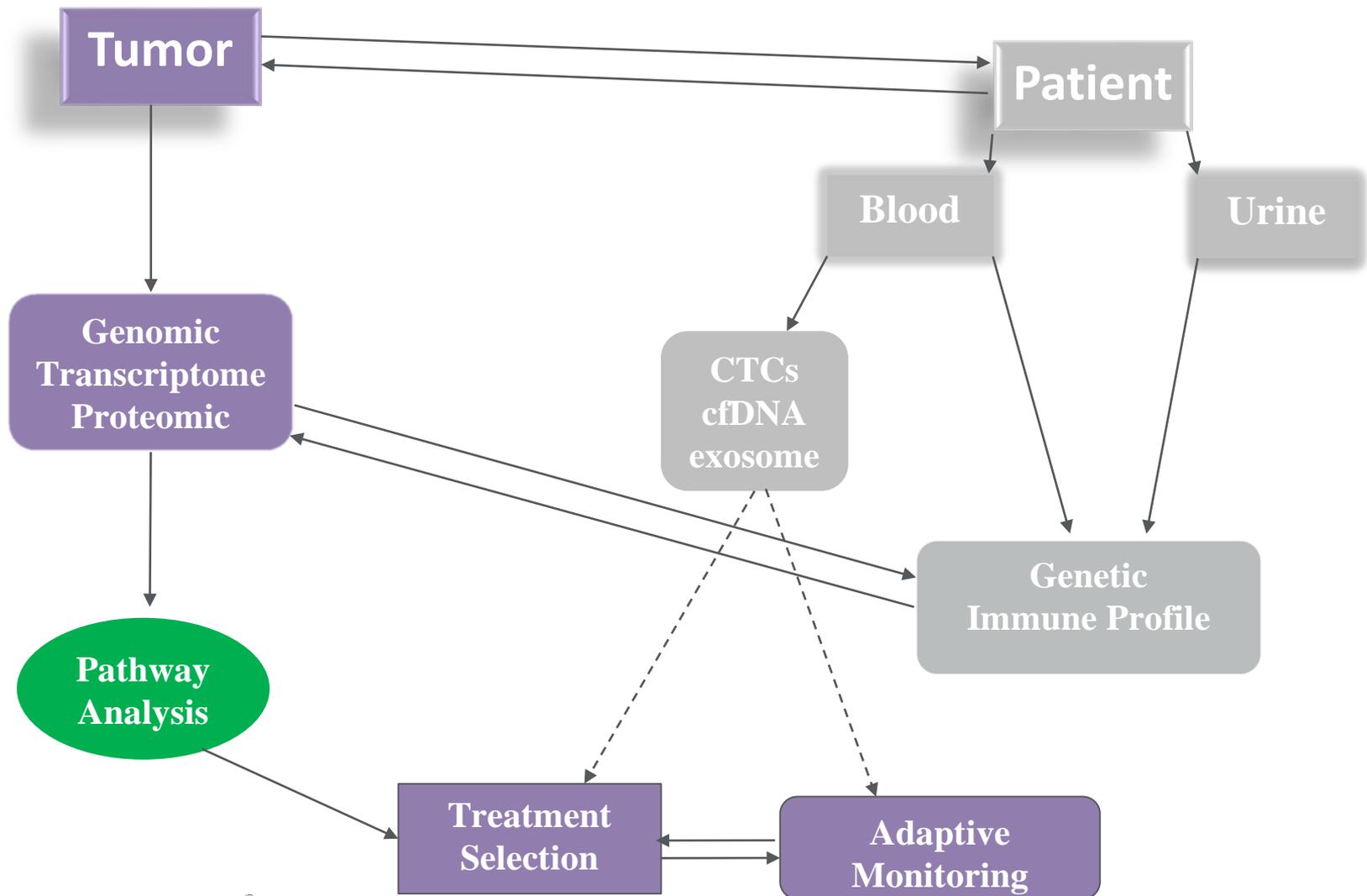
# Sources of cell-free DNA



# Dynamic changes in mutational pattern

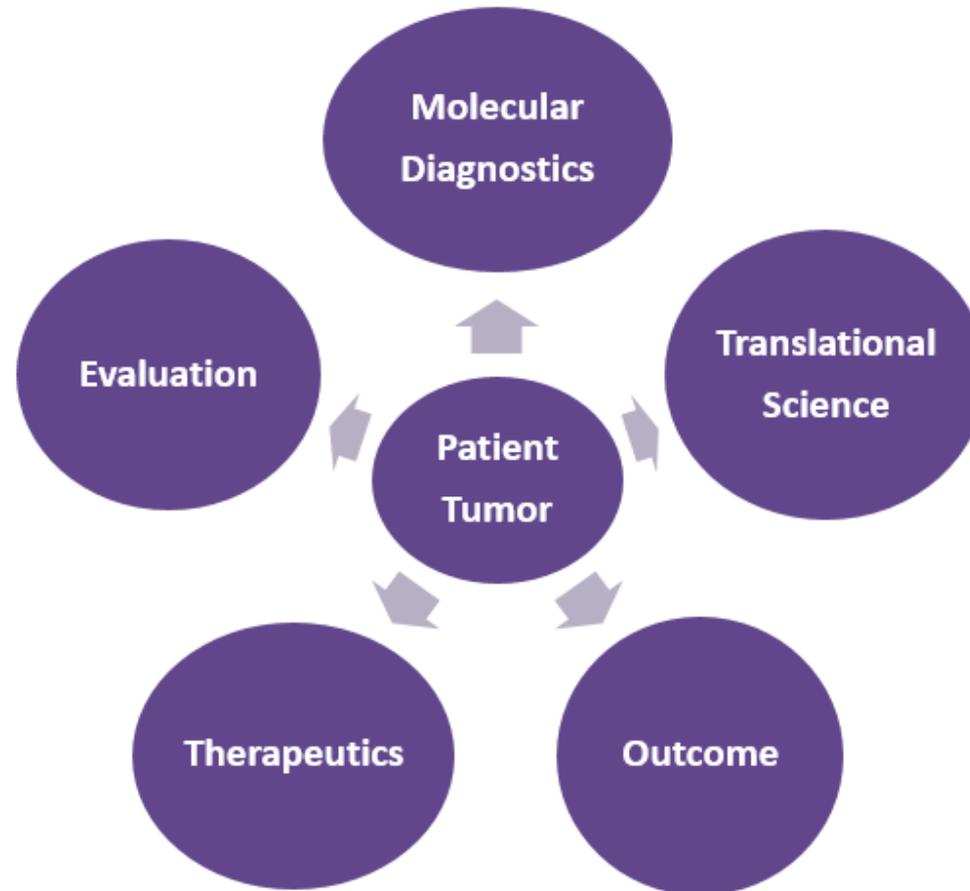


# Molecular Diagnostic Algorithm and Selection



# Robert H. Lurie Cancer Center OncoSET

## Programmatic Organization



## Summary

The Lurie Cancer Center OncoSET Care Model is unique and distinctive

- The **diagnostics partnership** provides support for clinical testing and translational research including access to more sophisticated tests for early detection.
- The **multidisciplinary nature of the MTB** increases the depth, and scope of the meeting and increases the participation/engagement of treating physicians.
- The availability of telemedicine and the sharing of the OncoSET registry trial introduces **Precision Medicine to NM network.**
- Patients are given the **tools** to be more informed about their disease, are more in control of the individualized care they receive and have an open forum to communicate with their Physician.

# How the OncoSET Process Works

Patient is referred by their Physician to the OncoSET Program

Patients are evaluated by an OncoSET Physician to ensure they are suitable for the Program:

- New patients to NM will need to consent to have all Medical records, Scans and Pathology with accompanying reports requested from their prior Physician/Institution before the initial OncoSET visit.
- Patients from within NM will have their charts reviewed to ensure all records are present prior to the OncoSET visit.

OncoSET Scheduling Department will call the Patient and schedule their initial OncoSET appointment.

If the Patient has not received Molecular testing they will be sent to have it completed.

Patient case is scheduled to be presented at the OncoSET Molecular Tumor Board and is contacted by the Genetic Counselor to discuss the results of the Molecular testing

Pathology and the OncoSET Physician present their analysis of the patient case to the Molecular Tumor Board and the Board provides recommendations.



**Lurie Cancer Center OncoSET Program is led by Co-Directors:**

**Leonidas C. Plataniyas, MD, PhD**

Director of the Robert H. Lurie Comprehensive Cancer Center  
of Northwestern University

**Massimo Cristofanilli, MD**

Associate Director for Translational Research and Precision  
Medicine



**The OncoSET Molecular Tumor Board is led by Co-Directors:**

**Massimo Cristofanilli, MD**

Associate Director for Translational Research and Precision  
Medicine



**Amir Behdad, MD**

Assistant Professor in Pathology



**To refer a patient or request a consultation contact:**

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**Learn more at: [cancer.northwestern.edu/OncoSET](http://cancer.northwestern.edu/OncoSET)**