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

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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
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
Clinical application of Genomic Reports

- Treatments selection
- Disease-specific guidelines
- MTB
- Targets and Therapeutics
- Genomic reports
RHLCC OncoSET Care Model

- Education
- Monitoring
- Treatment
- Consult-1 Assessment
- Consult-2 Planning
- MTB
- Molecular Testing*
- Prospective Registry
- Telemedicine

Patient

Genetic Counseling

MTB
Sources of cell-free DNA

- Tumor Cells
- Fetal Tissue
- Transplanted Tissue
- Normal Cells
- Donor DNA
- ptDNA
- cffDNA
- Normal DNA

SEQUENCING
DETECTION
QUANTIFICATION
MONITORING

OncoSET
The Future of Precision Medicine for Cancer Treatment
Dynamic changes in mutational pattern
Molecular Diagnostic Algorithm and Selection

Tumor

Genomic Transcriptome Proteomic

Pathway Analysis

Patient

Blood

Urine

CTCs cfDNA exosome

Genetic Immune Profile

Treatment Selection

Adaptive Monitoring

OncoSET
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.
How the OncoSET Process Works, continued…

Patient is scheduled for a follow up visit with their Physician a week after their case was presented at the OncoSET Molecular Tumor Board where they will receive the following, along with a detailed discussion with the Physician:

• Therapeutic Choices
• All Molecular Testing reports
• A PDF of what was discussed in the OncoSET Molecular Tumor Board in layman terms so that the patient is able to understand the recommendations given.
• A USB drive with all these items saved for their records

Therapeutic Choices

Standard of Care vs. Clinical Trial /Immunotherapy Trial
(Stable Disease, Complete or Partial response, Progressive Disease)

• Standard Targeted Therapy
• Off Label Targeted Therapy

Disease Resistant Care Molecular Characterization:

• CTC’s
• cfDNA

Research only:

• cfRNA
• Exosomes

Palliative Care

Patient case is placed in the OncoSET Registry - Genomic information along with clinical response and outcome are collected to gain a more comprehensive understanding of cancer and to identify new and individually tailored treatments.

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

Leonidas C. Platanias, 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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