

POR FESR 2014 2020 - SMART HEALTH

PREDITT

New Predictive approach
for thyroid cancer
management



**POR FESR
2014 2020**
Friuli Venezia Giulia



OPPORTUNITÀ PER UNA CRESCITA SOSTENIBILE



REGIONE AUTONOMA
FRIULI VENEZIA GIULIA



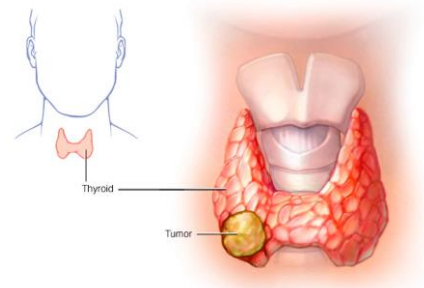
26 settembre 2018

1 / THE PROJECT

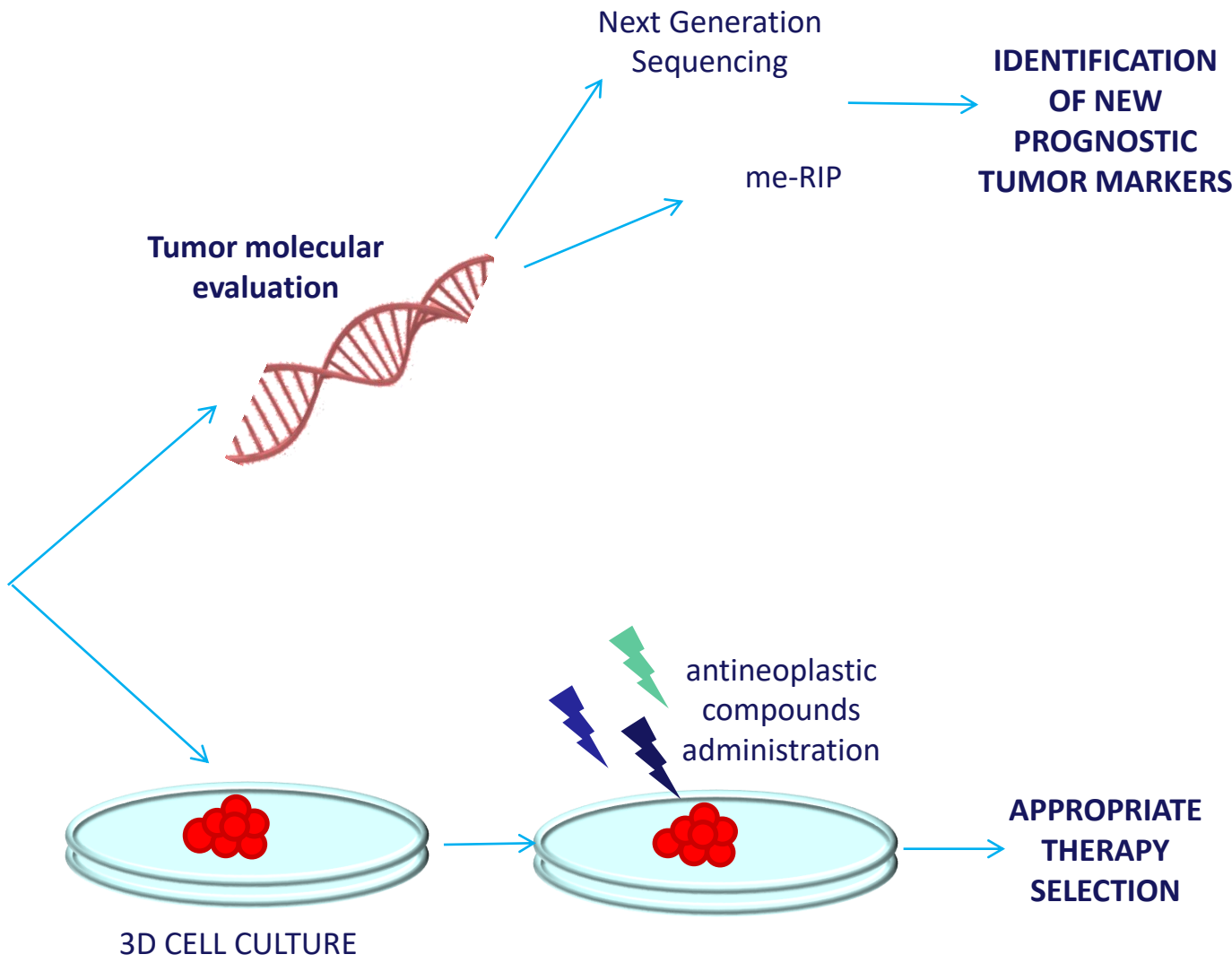
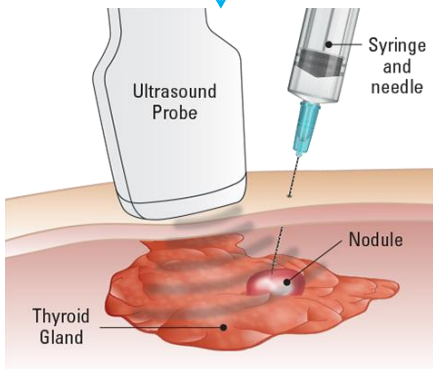
Thyroid cancer is the most common endocrine neoplasm worldwide, with a frequency of 12/100.000 new cases per year in Italy. The aim of this project is to develop an innovative integrated system to improve thyroid tumors management.

This approach will be defined in two phases:

1. **Pre-surgery stage:** FNAB-obtained material will be used to evaluate both known tumor associated biomarkers and new molecular markers by using innovative technologies such as Next Generation Sequencing.
2. **Post-surgery:** the tumor response towards antineoplastic compounds will be analyzed with 3D cell cultures in order to select the most appropriate therapy for the single tumor sample.



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2 / PROJECT MAJOR GOALS

This project will develop highly innovative approaches based on NGS technology for the identification of prognostic/predictive markers in thyroid cancer. Therefore, at the end of the project, several results will be achieved:

AB Analitica
UNIUD

Generation and validation of a low-cost NGS system to identify the presence of somatic mutations based on a panel of genes known to be involved in thyroid tumors progression.

UNIUD

Evaluation of a very innovative approach (me-RIP), characterized by the analysis of RNA methylation patterns in neoplastic tissues and aimed to evaluate RNA methylation as a prognostic/predictive marker in thyroid cancer. To this purpose, new technologies meant to perform me-RIP on FNAB samples will be developed.

Biofuture Medicine
UNIUD

Creation of a standardized workflow to create thyroid cancer 3D cultures (organoids) aimed to develop a methodology to evaluate tumor sensitivity towards antineoplastic drugs.



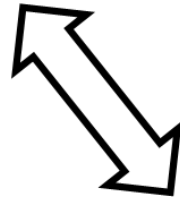
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3 / THE PARTNERS



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