SISTEMA SANITARIO REGIONALE
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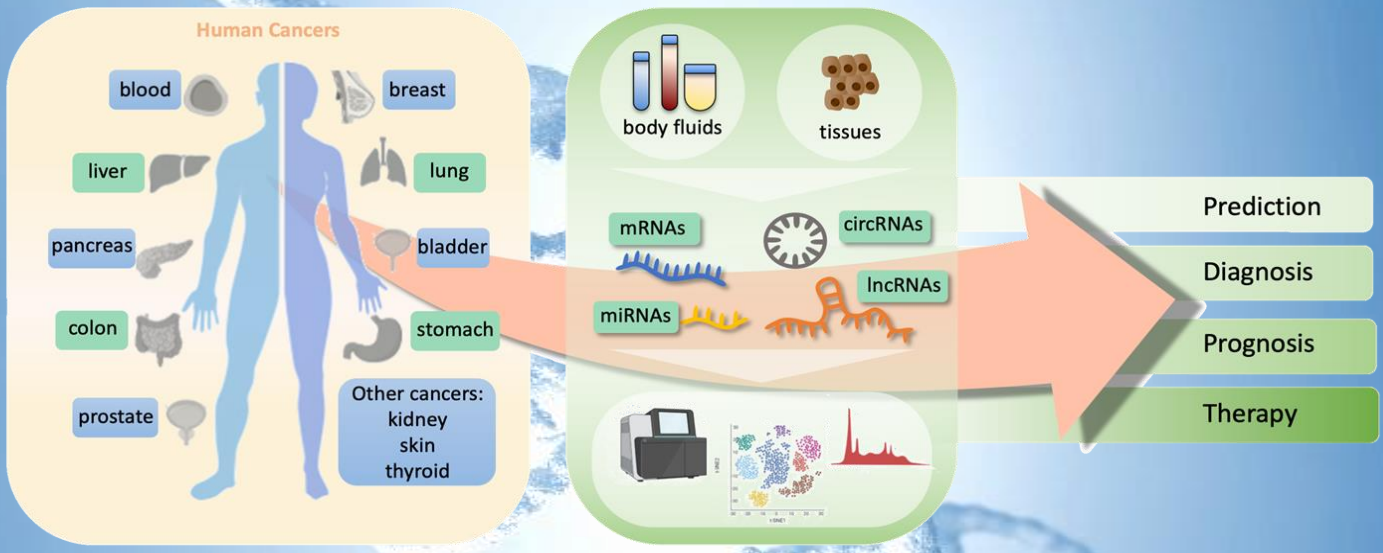
ISTITUTO NAZIONALE TUMORI
REGINA ELENA
ISTITUTO DI RICOVERO E CURA A CARATTERE SCIENTIFICO

In Collaboration with

HSCI HARVARD STEM CELL INSTITUTE

IV° IRE WORKSHOP ON TRANSLATIONAL ONCOLOGY

The New World of RNA diagnostics and therapeutics



INVITED SPEAKERS

FranK J. Slack (Boston, USA)
Andrea Carfì (Cambridge, USA)
Fabrizio d'Adda di Fagagna (Milan, Italy)
Marco Marcia (Grenoble, France)
Eleni Anastasiadou (Rome, Italy)
Brid Ryan (London, UK)
George Calin (Houston, USA)
Gabriella Sozzi (Milan, Italy)
Jit Kong Cheong (Singapore)
Ranit Aharonov (Tel Aviv, Israel)
Giovanni Blandino (Rome, Italy)
Qiagen (Hilden, Germany)

March 27-28, 2023
Regina Elena National Cancer Institute
Rome

Welcome Message

- *Mammalian genomes encode for two main gene categories: protein coding transcription units and non-coding RNA transcription units.*
- *Over the last years the medical promise of mRNA has been fully realized with the approval of mRNA vaccines against SARS-Cov-2 as the most successful weapons in the fight of COVID-19.*
- *As per GlobalData there is a broad landscape of mRNA-focussed vaccines and therapeutics to tackle genetic disorders and oncological disease in various stages of clinical development.*
- *Despite, at earlier stage in the development than mRNA, non-coding RNAs that are stable, tissue specific and circulating biomarkers in cancer patients are the focus of unprecedent research efforts both at academic centres and pharmaceutical companies.*
- *Since only 20% of cancers carries actionable genetic alterations, the resurgence of research on RNA coupled with the advancement of big data analysis holds the promise to reshape prevention, diagnosis and therapy of cancer.*

ORGANIZING COMMITTEE

FranK J. Slack, Gennaro Ciliberto, Giovanni Blandino, Annamaria Biroccio, Rita Falcioni

Provisional Program

SESSION THERAPEUTICS

Chairs: **Anna Biroccio**, Regina Elena National Cancer Institute
Enzo Medico, University of Turin, Italy

Frank Slack, Harvard Medical School, Boston, MA, USA
"Towards microRNA therapeutics in cancer"

Andrea Carfi Moderna Cambridge, MA, USA
"*mRNA/LNP: a revolution in vaccine research and development"*

Fabrizio d'Adda di Fagagna IFOM-ETS, Milan – CNR, Pavia, Italy
"RNA therapeutics opportunities in aging diseases"

Marco Marcia EMBL Grenoble
"Dissecting biological mechanisms and folding dynamics of medicallyrelevant large non-coding RNAs"

Eleni Anastasiadou Sapienza University of Rome, Italy
"From kisses to cancer: miRNA-aided immunotherapy"

Bríd M. Ryan MiNA Therapeutics, London, UK
"Applications of RNA activation in Oncology "

SESSION DIAGNOSTIC

Chairs: **Mauro Piacentini**, University of Tor Vergata, Rome, Italy
Lucia Di Marcotullio, University of Rome "Sapienza"

George A Calin University of Texas, Houston, TX USA
"About motifs, non-codingRNAs and cancer therapy"

Gabriella Sozzi, National Cancer Institute, Milan, Italy
"MirRNA for early diagnosis and screening of lung cancer"

Jit Kong Cheong, MiRXES - Singapore
"A miRNA blood test for early detection of gastric cancer"

Ranit Aharonov Pangaea Biomed, Tel Aviv, Israel
"Prediction of Cancer Treatment Response from Histopathology Images Through Imputed Transcriptomics"

Giovanni Blandino Regina Elena National Cancer Institute, Rome
"Exploring miRNAs/mRNAs network in breast cancer progression"

Qiagen, Hilden, Germany
Title to be announced