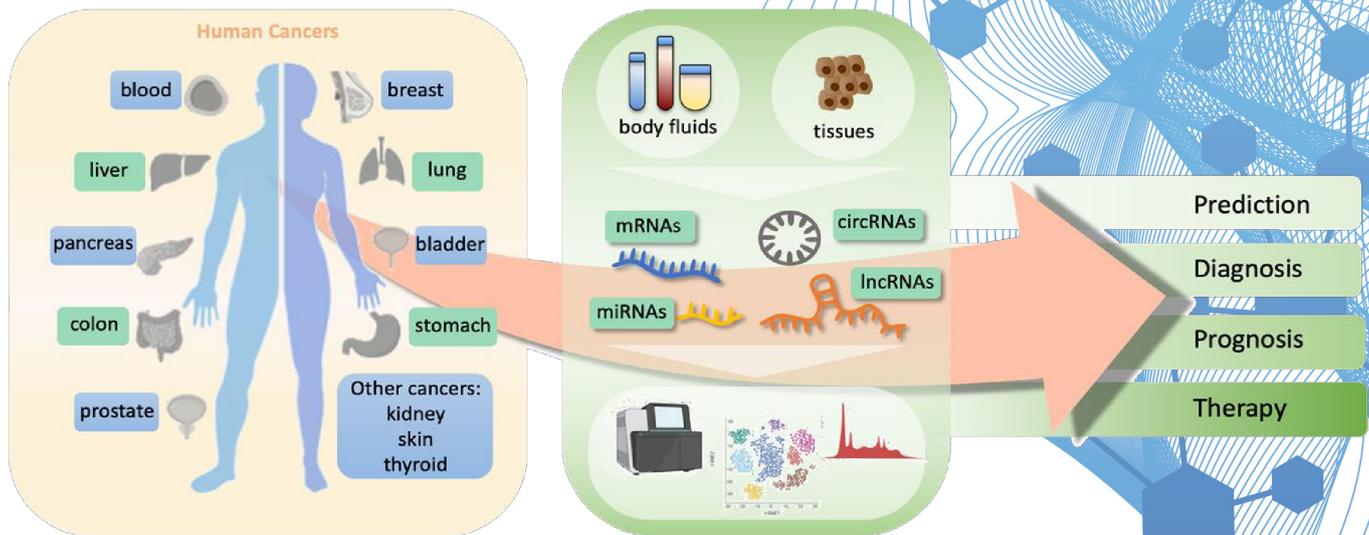


In Collaboration with

HSC HARVARD
STEM CELL INSTITUTE

5th WORKSHOP IRE on Translational Oncology: “The New World of RNA diagnostics and therapeutics”



27/28 March 2023

**Centro Formazione Bastianelli,
Via Fermo Ognibene, 23 Rome, Italy,
IRCCS Regina Elena National Cancer Institute**



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 unprecedented 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**

SECRETARIAT:

Tania Merlino, Carmela Matrascia, Roberto Bernardi

IRCCS Regina Elena National Cancer Institute (IRE)

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ORGANIZING SECRETARIAT:

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WITH THE UNCONDITIONAL SUPPORT OF:



AUROGENE
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CARLO ERBA
REAGENTS

Programme

Monday, 27 March 2023

13:30 – 14:00

WELCOME ADDRESS

Dr Marina Cerimele - Director General, Istituti Fisioterapici Ospitalieri, Rome, IT

Prof. Gennaro Ciliberto - Scientific Director, IRCCS Regina Elena National Cancer Institute, Rome IT

Prof Aldo Morrone - Scientific Director, IRCCS San Gallicano Dermatological Institute, Rome IT

Prof. Frank Slack - Director, HMS Initiative for RNA Medicine Department of Pathology, Harvard Medical School, Boston, MA, USA

14:00 – 18:00

SESSION RNA THERAPEUTICS

Chairperson:

Annamaria Biroccio - IRCCS Regina Elena National Cancer Institute, Rome, IT

Enzo Medico - University of Turin, IRCCS Candiolo Institute, TO, IT

14:00 – 14:40

Frank Slack - Harvard Medical School, Boston, MA, USA

“Towards microRNA therapeutics in cancer”

14:40 – 15.10

Andrea Carfi - Moderna Cambridge, MA, USA

“mRNA/LNP: a revolution in vaccine research and development”



15:10 – 15:40

Fabrizio d'Adda di Fagagna - *IFOM – ETS, Milan - CNR, Pavia, IT*
“RNA therapeutics opportunities in aging diseases”

15:40 – 16:00

Roberto Dinami - *IRCCS Regina Elena National Cancer Institute, Rome, IT*
“Targeting TRF2 by LNPs-miR-182-3p in triple-negative breast cancer”

16:00 – 16:20

Coffee break

16:20 – 16:50

Marco Marcia - *EMBL Grenoble, FR*

“Dissecting biological mechanisms and folding dynamics of medically relevant large non-coding RNAs”

16:50 – 17:20

Eleni Anastasiadou - *Sapienza University of Rome, IT*

“From kisses to cancer: miRNA-aided immunotherapy”

17:20 – 17:50

Brid M. Ryan - *MiRNA Therapeutics, London, UK*

“Applications of RNA activation in Oncology”

Programme

Tuesday, 28 March 2023

YOUNG INVESTIGATORS SESSION

IRCCS Regina Elena National Cancer Institute, Rome, IT

9:00 – 9:30

WELCOME ADDRESS

Dr Marina Cerimele - *Director General, Istituti Fisioterapici Ospitalieri, Rome, IT*

Prof. Gennaro Ciliberto - *Scientific Director IRCCS Regina Elena National Cancer Institute, Rome IT*

9:30 – 12:45

Chairperson:

Frauke Goeman - *IRCCS Regina Elena National Cancer Institute, Rome, IT*

Matteo Allegretti - *IRCCS Regina Elena National Cancer Institute, Rome, IT*

9:30 – 9:45

Alina Catalina Palcau

“CircPVT1-mediated microRNA sponging activity affects glutaminolysis unleashing the c-MYC/GLS1 metabolic axis in breast cancer cells”

9:45 – 10:00

Luigi Fattore

“The multifaceted role of miR-579-3p in melanoma: diagnostic and therapeutic implications”

10:00 – 10:15

Regazzo Giulia

“Different genome-wide approaches to identify microRNAs related to DLBCL resistance to immune-chemotherapy”



10:15 – 10:30

Rosanna Sestito

“Deciphering the role of endothelin-1/ZEB1/gasdermin E axis in metastatic progression of high-grade serous ovarian cancer”

10:30 – 10:45

Rossella Loria

“Exploring molecular traits and immunogenicity of osteosarcoma for new therapeutic approaches”

10:45 – 11:00

Coffee break

11:00– 11:15

Ana Belén Diaz Mèndez

“A diagnostic circulating miRNA signature in human gliomas as orchestrator of tumor invasiveness by targeting mediator of cell invasion: is it useful for miRNA-based complementary therapy?”

11:15 – 11:30

Maria Chiara Cappelletto

“Che-1/miR-590-3p/TAZ axis sustains multiple myeloma disease”

11:30 – 11:45

Claudio Pulito

“Role of microRNA-dependent PTEN downregulation in the resistance to PI3K inhibitor alpelisib in head & neck squamous cell carcinoma”



11:45 – 12:00

Laura Monteonofrio

“The HIPK’s circular RNA in Gastro-intestinal cancer”

12:00 – 12:45

Session Contribution from Scipio Bioscience - Carlo Erba – Thermo Fisher

Chairperson:

Giovanni Blandino - *IRCCS Regina Elena National Cancer Institute, Rome, IT*

12:00 – 12:15

Federico Biella - *Scipio Bioscience, Paris, FR*

“Scipio Bioscience Single Cell Solution”

12:15 – 12:30

Max Stadler - *Stilla Technologies, Villejuif, FR*

Raffaella Macchi - *Carlo Erba Reagents, Milan, IT*

“Multiple target interrogation from highly sensitive assays transforming liquid biopsy practice”

12:30 – 12:45

Letizia Gerace - *Senior Field Application Scientist qPCR/dPCR eSPOC OpenArray System - Thermo Fisher Scientific*

Gianluca Fascioli - *Genetic Analysis Instruments Sales Representative, qPCR, dPCR, CE and Affymetrix microarrays - Thermo Fisher Scientific*

“TaqMan™ RNA World for translational research on dPCR and qPCR technologies”

12:45 – 14:00

Light lunch

14:00 – 17:30

SESSION RNA DIAGNOSTICS

Chairperson:

Mauro Piacentini - *Tor Vergata University, IRCCS Spallanzani Institute, Rome IT*

Lucia Di Marcotullio - *Sapienza University, Rome, IT*



14:00 – 14:40

George A Calin - *University of Texas, Houston, TX*
“About motifs, non-codingRNAs and cancer therapy”

14:40 – 15:10

Gabriella Sozzi - *IRCCS National Cancer Institute, Milan, IT*
“MirRNA for early diagnosis and screening of lung cancer”

15:10 – 15:40

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

15:40 – 16:00

Valentina Bruno - *IRCCS Regina Elena National Cancer Institute, Rome, IT*
“The role of Tumor Immune Microenvironment in Endometrial Cancer (EC) in Clinical risk Classification: Reviewing Guidelines with ML-based Approach”

16:00 – 16:20

Coffee break

16:20 – 16:50

Ranit Aharonov - *Pangaea Biomed, Tel Aviv, ISR*
“Prediction of Cancer Treatment Response from Histopathology Images Through Imputed Transcriptomics”

16:50 – 17:20

Giovanni Blandino - *IRCCS Regina Elena National Cancer Institute, Rome, IT*
“Exploring miRNAs/mRNAs network in breast cancer progression”

17:20 – 17:50

Samuel Rulli - *Qiagen, Hilden, DE*
“MicroRNA profiling biofluids using next-generation sequencing and digital PCR”

17:50 **CLOSING REMARKS**

Prof. Gennaro Ciliberto - *IRCCS Regina Elena National Cancer Institute, Rome IT*
Prof. Frank Slack - *Harvard Medical School, Boston, MA, USA*



Faculty

Marina Cerimele
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Istituti Fisioterapici
Ospitalieri, Rome, IT

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IRCCS Regina Elena
National Cancer
Institute, Rome IT

Aldo Morrone
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OpenArray System
- Thermo Fisher
Scientific

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Aviv, ISR

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National Cancer
Institute, Rome, IT

Samuel Rulli
Qiagen, Hilden, DE

Info & Subscriptions

MEETING VENUE

The venue for the Meeting will be:

Centro Formazione "R. Bastianelli", Via Fermo Ognibene n. 23, - 00144 Rome

SECRETARIAT DURING THE MEETING

The Secretariat will be open at the following times:

- Monday, 27 March 2023, from 8.00 a.m. to 6.30 p.m.
- Tuesday, 28 March 2023, from 9.00 a.m. to 6.30 p.m.

OFFICIAL LANGUAGE

The official language of the Meeting will be English.

TECHNICAL FACILITIES

Facilities will be available for computer presentations and overhead projections. A business centre with PC (PowerPoint for Windows) will be available for the checking and preview of presentations. All speakers must take their presentations to the business centre at least one hour before the session starts.

FACULTY SLIDE CENTRE OPENING HOURS

The centre will be open at the following times:

- Monday, 27 March 2023, from 8.00 a.m. to 6.30 p.m.
- Tuesday, 28 March 2023, from 9.00 a.m. to 6.30 p.m.

COFFEE BREAKS

Coffee breaks will be held in the Meeting area

HOW TO REGISTER TO THE EVENT

REGISTRATION TO THE WORKSHOP IS FREE.

Subscription is required.

Please visit the website: https://docs.google.com/forms/d/18kgaP7lgHwIJ2E-ELk_31QreKkznMalhtqyYIBwTlJds/viewform?edit_requested=true