

Gian Luca Rampioni Vinciguerra

Curriculum Vitae

Rome, 15/05/2023

General Information

Full Name	Gian Luca Rampioni Vinciguerra
Year of Birth	1986
Place of Birth	Rome
Citizenship	Italian
E-mail	gianluca.rampionivinciguerra@uniroma1.it
Spoken Languages	Italian, English
Current Position	Assistant Professor (RTDB), University of Rome "La Sapienza"

Education

- **11/2017 - 12/2020. PhD Program in Oncology**, University of Rome "La Sapienza", Italy.
Final Dissertation entitled: "The role of p27 in the response to CDK-inhibitors in KRAS mutated colorectal cancer".
Supervisor: Prof. Andrea Vecchione. *Final degree mark: cum laude.*
Hosting institutions:
1/2020 - 12/2020. Laboratory of Dr. Carlo M. Croce, Department of Cancer Biology and Genetics. The Ohio State University, Columbus (OH), USA.
11/2017 - 1/2020. Laboratory of Dr. Gustavo Baldassarre, Division of Molecular Oncology, Centro di Riferimento Oncologico di Aviano (CRO), IRCCS, National Cancer Institute, Aviano, Italy.
- **07/2012 - 07/2017. Residency Program in Pathology**, Faculty of Pharmacy and Medicine, University of Rome "La Sapienza", Italy. Thesis entitled: "Role of miR-9 in the response to radiotherapy and EGFR-inhibitors in head and neck squamous cell carcinoma".
Supervisor: Prof. Andrea Vecchione. *Final degree mark: 70/70 cum laude.*
Hosting institutions:
01/2017 - 07/2017. Laboratory of Dr. Gustavo Baldassarre, Division of Molecular Oncology, Centro di Riferimento Oncologico di Aviano (CRO), IRCCS, National Cancer Institute, Aviano, Italy.
07/2012 - 01/2017. UOC Anatomia Patologica, Santo Andrea Hospital, Rome, Italy.
- **10/2005 - 07/2011. Master's degree in Medicine and Surgery**, Faculty of Medicine and Psychology, University of Rome "La Sapienza", Italy. Thesis entitled "microRNA expression profiling of preneoplastic lesions of the breast".
Supervisor: Prof. Andrea Vecchione. *Final degree mark: 110/110 cum laude.*
- **09/2000 - 07/2005. High school diploma in Classical Studies**, Liceo Ginnasio Statale G.Mameli, Rome, Italy. *Final degree mark: 100/100.*

Appointments

- **From 01/2023 – (current position). Assistant Professor (RTDB).** Department of Clinical and Molecular Medicine, Faculty of Medicine and Psychology. University of Rome “La Sapienza”, Rome, Italy.
- **From 12/2020 - 12/2022. Postdoctoral Researcher.** Department of Cancer Biology and Genetics. The Ohio State University, Columbus (OH), USA.
Supervisor: Prof. Carlo M. Croce.
- **From 07/2017 - 10/2017. Fellow.** Division of Molecular Oncology, Centro di Riferimento Oncologico di Aviano (CRO), IRCCS, National Cancer Institute, Aviano, Italy.
Supervisor: Dott. Gustavo Baldassarre.

Job Related Skills

Autopsy technique, human histopathology, FFPE tissue preparation, H&E, immunohistochemical staining, light and confocal microscopy.

Cellular transfection/transduction, DNA/RNA extraction and electrophoresis, PCR, qRT-PCR, protein extraction (total or differential lysis), immunoprecipitation, chromatin-immunoprecipitation, immunofluorescence, WB analysis, luciferase assay.

Cell cultures and techniques of cellular biology for analysis of in vitro proliferation (growth curves, kill curve, colony assay, MTS assay, FACS analysis, soft agar assay, inclusion in 3D-matrix), bacterial transformation, plasmid preparation, gene cloning.

Handling of immunodeficient mice (nude, NOD/SCID and NSG mice) and genetically engineered mouse models. Injection techniques (intraperitoneal, subcutaneous), drug administration, surgical procedures and murine histopathology.

Research Activities

- **From 2023 – (Current position) Assistant Professor (RTDB).** I am currently investigating how diet could alter the response to targeted therapy in pancreatic cancer. My preliminary data collected in the laboratory of Dr. Carlo M Croce (The Ohio State University, USA), show that expression of specific microRNAs can be induced by modifying the protein intake in mouse model of pancreatic cancer. In turn, these microRNAs regulate the expression of key genes for the response to receptor-tyrosine kinase inhibitors. My research aims to select specific diet regimen that could increase the drug sensitivity of pancreatic cancer, drastically improving patients' survival and prognosis.
- **2021 – 2022 Post-Doctoral Researcher.** At the Ohio State University (USA), in Dr. Carlo M. Croce's Lab, I investigated the insurgence of cisplatin resistance in lung cancer (Rampioni Vinciguerra et al. *Nature STTT*, 2023). We discovered that miR-301a can be used as biomarker to stratify patients who better respond to cisplatin. Importantly, we provided a clear rationale for the development of a novel combined schedule with AP-1 inhibitors and cisplatin in resistant/refractory patients.
- **2017 – 2020 PhD in Oncology Program.** I carried on a project aiming to define predictive markers of resistance to CDK4/6 kinase-inhibitors in colorectal cancer (Rampioni Vinciguerra et al. *Nature CDDIS*, 2021), (Rampioni Vinciguerra et al. *Frontiers in Oncol* 2022). In this context, I explored the role of p27^{kip1} as a marker of resistance to Palbociclib (Rampioni Vinciguerra et al. *Cell Div.* 2019). I also contributed to other studies focusing on the molecular mechanisms of oncogenesis and resistance to oncological therapies, particularly in breast cancer (Segatto et al. *Cancer Res.* 2019) (Citron et al. *Cancer Res.* 2020) and ovarian cancer (Califano D, Gallo D, Rampioni Vinciguerra et al. *Cancers* 2021), (Sonego M et al. *Science Advances* 2019), (Sonego M et al. *Cells* 2019).

- **2013 – 2017 Pathology Residency Program.** I focused on the possibility to stratify outcome of patients affected by different solid tumors according to the histological features. In particular, I studied the distribution of ALK/ROS1 translocation respect to the age of lung cancer patients (Scarpino, Rampioni Vinciguerra et al. Lung Cancer 2016) and the use of immunohistochemical staining as a reliable test to identify ALK overexpressing tumors in routine histological analysis (Rampioni Vinciguerra et al., Virchow Arch. 2017). I worked on an experimental thesis, actively contributing to the study of miR-9 in head and neck squamous cell carcinoma response to radiotherapy and EGFR-inhibitors (Citron et al. EMBO Mol Med 2021).

Summary of Attended National and International Scientific Meetings

- **AACR Annual Meeting 2023**
14-19 April 2023, Orlando (FL), USA
Poster presentation “The novel miR-15a/Fra-2/IGF1R axis drives response to starvation-induced cell stress in pancreatic ductal adenocarcinoma”
- **62nd Annual Meeting of the Italian Cancer Society (SIC)**
16-18 November 2022, Venice, Italy
Oral Presentation “Role of the miR-301a/Fra-2/GLIPR1 axis in lung cancer cisplatin resistance”
- **Cancer Biology and Genetics Retreat of The Ohio State University**
23 September 2022, Columbus, USA
Oral Presentation “Dissecting the Role of miR-301a in the platinum response of non-small cell lung cancer”
- **Associazione di Biologia Cellulare e del Differenziamento (ABCD) National Congress**
19-21 September 2019, Bologna, Italy
Oral Presentation and Poster Session “p27^{kip1} regulates hematopoiesis by inducing Notch signaling pathway”.
- **9th triennial Congress of the Societa’ Italiana di Anatomia Patologica e Citologia (SIAPEC)**
16-19 October 2019, Turin, Italy
Oral Presentation and Poster Session “immunohistochemical expression of p27^{kip1} is a predictive marker of response to cdk4/6 inhibitors in colorectal carcinoma”.
- **60th Annual Meeting of the Italian Cancer Society (SIC)**
19-22 September 2018, Milan, Italy
Poster Session “Exploring miR-9 driven resistance to gamma-radiation and EGFR inhibitors in HNSCC”.
- **7th triennial Congress of Societa’ Italiana di Anatomia Patologica e Citologia (SIAPEC)**
23-26 November 2016, Genova, Italy
Poster Session “High prevalence of ALK+/ROS1+ cases in pulmonary adenocarcinoma of adolescents and young adults” and “Routine IHC with D5F3 mAb is an efficient and cheap tool for identification of ALK+ lung adenocarcinomas: a prospective study of 234 cases”.

Society memberships and Scientific Recognition

- Member of American Association for Cancer Research (AACR)
- Member of European Association for Cancer Research (EACR)

- Member of Societa' Italiana Cancerologia (SIC)
- Member of Societa' Italiana Anatomia Patologica e Citologia (SIAPeC)
- Guest Editor of "Catch me if you can: cellular plasticity in tumor progression and drug resistance" *Frontiers in Cell and Developmental Biology* (IF **6.684**)
- Review Board of *Frontiers in Oncology* (IF **6.244**)
- Reviewer Board of *Frontiers in Bioscience – Landmark* (IF **4.009**)
- Peer Reviewer for: *Molecular Cancer* (IF **27.401**), *Cancers* (IF **6.639**), *Diagnostics* (IF **3.706**)
- Best Oral Presentation Award, Cancer Biology and Genetics Retreat. The Ohio State University
- Student on Honors Program, Faculty of Medicine and Psychology, University of Rome "Sapienza"

Summary of Scientific Achievements

Product type	Number	Data Base	Start	End
International Papers	27	Scopus	2013	2023
Total Citations	328			
Average Citations per Product	12.1			
Hirsch (H) index	10			

Selected Publications

First Author/Corresponding Author:

- 1. Role of the miR-301a/Fra-2/GLIPR1 axis in lung cancer cisplatin resistance**
Rampioni Vinciguerra GL, Capece M, Distefano R, Nigita G, Vecchione A, Lovat F, Croce CM.
Nature Signal Transduction and Targeted Therapy, 2023, 8(1), 37 (IF **18.18**)
- 2. CDK4/6 Inhibitors in combination therapies: better in company than alone**
Rampioni Vinciguerra GL, Sonogo M, Segatto I, Dall'Acqua A, Vecchione A, Baldassarre G, Belletti B.
Frontiers in Oncology, 2022, 12, 891580 (IF **6.244**)
- 3. Evaluation of angiogenesis-related genes as prognostic biomarkers of bevacizumab treated ovarian cancer patients: Results from the phase iv mito16a/mango ov-2 translational study**
 Califano D*, Gallo D*, **Rampioni Vinciguerra GL***, ...Pignata S, Baldassarre G.
 (*Co-First Authors) *Cancers*, 2021, 13(20), 5152 (IF **6.639**)
- 4. p27kip1 expression and phosphorylation dictate Palbociclib sensitivity in KRAS-mutated colorectal cancer.**
Rampioni Vinciguerra GL, Dall'Acqua A, Segatto I, Vecchione A, Belletti B, Baldassarre G.
Cell Death and Disease, 2021, 12(10), 951 (IF **8.469**)
- 5. p27kip1 at the crossroad between actin and microtubule dynamics.**
Rampioni Vinciguerra GL, Citron F, Segatto I, Belletti B, Vecchione A, Baldassarre G.
Cell Division, 2019, 14(1), 2 (IF **3.667**)

6. Pathologist second opinion significantly alters clinical management of pT1 endoscopically resected colorectal cancer.

Rampioni Vinciguerra GL, Antonelli G, Citron F, Berardi G, Angeletti S, Baldassarre G, Vecchione A, Di Giulio E, Pillozzi E.

Virchows Arch. 2019 Jun 17. (IF **2.906**)

7. Optimized immunohistochemistry using the D5F3 antibody provides a reliable test for identification of ALK-positive lung adenocarcinomas

Rampioni Vinciguerra GL, Scarpino S, Pini B, ... Fochetti F, Ruco L.

Virchows Archiv, 2017, 471(1), pp. 123–127 (IF **2.936**)

Co-Author:

1. Pan-Cancer analysis of canonical and modified miRNAs enhances the resolution of the functional miRNAome in cancer

Distefano R, Tomasello L, **Rampioni Vinciguerra GL**, Gasparini P, Xiang, Y, ... Croce CM.

Cancer Research, 2022, 82, 3687-3700 (IF **12.7**)

2. EMILIN-1 deficiency promotes chronic inflammatory disease through TGFβ signaling alteration and impairment of the gC1q/α4β1 integrin interaction

Pivetta E, Capuano A, Vescovo M, Scanziani E, **Rampioni Vinciguerra GL**, ... Spessotto P.

Matrix Biology, 2022, 111, 133-152 (IF **11.583**)

3. miR-9 modulates and predicts the response to radiotherapy and EGFR inhibition in HNSCC

Citron F, Segatto I, Musco L, Pellarin I, **Rampioni Vinciguerra GL**, ... Belletti B, Baldassarre G.

EMBO Molecular Medicine, 2021, 13(7), e12872 (IF **12.137**)

4. CDKN1B mutation and copy number variation are associated with tumor aggressiveness in luminal breast cancer.

Viotto D, Russo F, Anania I, Segatto I, **Rampioni Vinciguerra GL**, Dall'Acqua A, Bomben R, Perin T, ... Belletti B, Baldassarre G.

J Pathol. 2020 Nov 3 (IF **7.996**)

5. Downregulation of miR-223 expression is an early event during mammary transformation and confers resistance to CDK4/6 inhibitors in luminal breast cancer.

Citron F, Segatto I, **Rampioni Vinciguerra GL**, Musco L, Russo F, Mungo G, D'Andrea S, Mattevi MC, Perin T, Schiappacassi M, Massarut S, Marchini C, Amici A, Vecchione A, Baldassarre G, Belletti B.

Cancer Res. 2020 Mar 1;80(5):1064-1077 (IF **12.701**)

6. Usp1 links platinum resistance to cancer cell dissemination by regulating snail stability.

Sonego M, Pellarin I, Costa A, **Rampioni Vinciguerra GL**, Coan M, Kraut A, D'andrea S, Dall'acqua A, Castillo-Tong Dc, Califano D, Losito S, Spizzo R, Couté Y, Vecchione A, Belletti B, Schiappacassi M, Baldassarre G.

Sci Adv. 2019 May. 8;5(5). (IF **13.117**)

7. Stathmin is required for normal mouse mammary gland development and Δ16HER2-driven tumorigenesis.

Segatto I, De Marco Zompit M, Citron F, D'Andrea S, **Rampioni Vinciguerra GL**, Perin T, Berton S, Mungo G, Schiappacassi M, Marchini C, Amici A, Vecchione A, Baldassarre G and Belletti B.

Cancer Res. 2019 Jan 15;79(2): 397-409. (IF **9.727**)

8. Sleeping beauty genetic screen identifies miR-23b::BTBD7 gene interaction as crucial for colorectal cancer metastasis.

Grisard E, Coan M, Cesaratto L, Rigo I, Zandonà L, Paulitti A, Andreuzzi E, **Rampioni Vinciguerra GL**, Poletto E, (...), Baldassarre G, Mongiat M, Spizzo R, Nicoloso MS.
EBioMedicine. 2019 Aug;46:79-93. (IF **5.736**)

9. Mice with reduced expression of the telomere-associated protein ft1 develop p53-sensitive progeroid traits.

La Torre M, Merigliano C, Burla R, Mottini C, Zanetti G, Del Giudice S, Carcuro M, Virdia I, Bucciarelli E, Manni I, **Rampioni Vinciguerra GI**, ... Verni F, Soddu S, Gatti M, Saggio I.
Aging Cell. 2018 Aug;17(4):e12730. (IF **7.346**)

10. Inhibition of breast cancer local relapse by targeting p70s6 kinase activity.

Segatto I, Berton S, Sonogo M, Massarut S, D'andrea S, Perin T, Fabris L, Armenia J, **Rampioni Vinciguerra GL**, Lovisa S, Schiappacassi M, Colombatti A, Bristow Rg, Vecchione A, Baldassarre G, Belletti B.
J Mol Cell Biol. 2013 dec;5(6):428-31. (IF **8.432**)