CURRICULUM VITAE OF ROSA VISONE

Date and Place of Birth**:** 11/04/1976 Maddaloni (CE), Italy

Citizenship**:** Italian.

Marital Status**:** Married

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Education

- February 6th 2006 : PhD Degree in Molecular Oncology and Endocrinology
- 2001-2005: PhD Student in "Molecular Oncology and Endocrinology", director: Prof. G. Vecchio, Dep. of Molecular and Cellular Biology and Pathology, School of Medicine, Università degli Studi di Napoli Federico II
- 07/03/2001: Degree course in Pharmaceutical Chemistry and Technology (110/110), School of Pharmacy at Università degli Studi di Napoli Federico II
- 1995: High School Degree "Maturità Classica"

Professional Experience and Academic Appointment

- Since December 2019: Associate Professor at University G.D'Annunzio Chieti-Pescara
- November 2016-November 2019: Assistant Professor at University G.D'Annunzio Chieti-Pescara
- June 2015-November 2016: Temporary Research Associate at University G.D'Annunzio Chieti-Pescara
- December 2014-May 2015: Maternal leave
- 2011-1015: Assistant Professor, University G.d'Annunzio Chieti-Pescara
- October-November 2010: Maternal leave
- 2006-2011: Post Doctoral Researcher, "The Ohio State University", Columbus Ohio, USA
- 2004-2006: Research Fellow, "The Ohio State University", Columbus Ohio, USA
- 2003-2004: Research Fellow, Kimmel Cancer Center, Thomas Jefferson University, Philadelphia, PA; supervisor Dr C.M. Croce.
- January-February and June-August 2003: Researcher Visiting, Kimmel Cancer Center Philadelphia, PA; USA; supervisor Dr C.M. Croce
- 2000-2001: Pre-graduate Fellow at the Department of Pharmaceutical Toxicological Chemistry, School of Pharmacy, Università degli Studi di Napoli Federico II

Awards and Honors

- 2013: National Academy of Lincei - "Giovanni Di Guglielmo" foundation award
- 2013: ICLLM, Poster Award, Istanbul, Turkey; 4th Meeting,
- 2102: Marie Curie Award fellowship
- 2011:"XXIII The Marisa Bellisario Prize" Young talented researcher (http:/ www.fondazionebellisario.org/new/eng/home.html)

Scientific memberships

- Since May 2019: Member, European Hematology Association
- 2016-2018: Member, The European Association for Cancer Research
- 2013: Member, European Association for Cancer Research
- 2004-2006: Member, American Association for Cancer Research

Editorial Board Appointment

- Reviewer: Blood, Plos One, Cancer Research, Bioinformatic, Oncotarget, Oncogene, Cancers.
- Expert reviewer: H2020-Marie Skłodowska-Curie actions 2015, 2016, 2017, 2019
- Grant Reviewer: Cancer Research, UK Training and Career Development Board
- Ph.D Thesis Opponent Reviewer: 2013, Helsinki, Doctoral candidate Kui Quian, Title thesis: Bioinformatics analysis of HPV associated host microRNA functions and identification of viral microRNA

Advising

Undergraduate Students (co-advisor, committee member)

- 2011-2012 Jessica Chiacchia, G.d'A University
- 2013-2014 Stefania Pacillo G.d'A University
- 2015-2016 Alice Ramassone University "La Sapienza", Rome
- 2015 Michela Zanfagna G.d'A University
- 2018-2019 Chiara Pedriale G.d'A University

Graduate Students (Research advisor)

- 2011 Matteo, Sorge G.d'A University
- 2012-2014 Andrea D'Argenio G.d'A University

PhD student (Tutor)

- 2016-at present Alice Ramassone, G.d'A University
- 2016-at present Shima H. Soliman, G.d'A University
- 2013-2016 Mirco Di Marco, G.d'A University
- 2012-2015 Sara Pagotto, G.d'A University

Post Doctoral

- 2011-2014 Serena Veschi, G.d'A University (Tutor)
- 2008 – 2010 Veronica Balatti, The Ohio State University (co-advisor)

Oral presentations

- Invited speaker 12th World Hematologists Congress March 15-16, 2018 London, UK
- Invited speaker Fondazione Mario Negri Sud di Santa Maria Imbaro, April 6th 2011,Chieti
- Invited speaker "Genetics in CLL- The Next Step" CLL Global Research Foundation U.S./European Alliance for Therapy of CLL. January 30, 2010, M.D. Anderson, Houston, Tx.
- Oral presentation (selection from poster): *Critical role of the RB-E2F pathway in the generation of pituitary adenomas in transgenic mice overexpressing the HMGA2 gene*. 96th Annual Meeting April 16-20, 2005 Anaheim, California

Research Fundings as PI

- Start-up AIRC Abruzzo: "Role of microRNAs in the progression of Chronic Lymphocytic Leukemia" 2011-2016 €750.000/5 years
- Marie Curie Career Integration Grants (CIG) Call: FP7-PEOPLE-2011-CIG: "The impact of the tissue microenvironment on the microRNAs in chronic lymphocytic leukemia" 2012-2016 €100.000/4 years
- Individual Grant AIRC "Assessment of the allelic miR-15a/16-1 cluster transcriptional regulation for usage as therapeutic target in CLL" 2016-2018 €207.000/3 years
- Ministero della Salute GR-2016-02363070 "Role of miR-181a and miR-181b in B cell malignancies and development of rational approaches for their use as therapeutic agents" 2019-2022 €443.000/3 years

Peer Reviewed Journal Articles

1. Ramassone A, D'Argenio A, Veronese A, Basti A, Soliman SHA, Volinia S, Bassi C, Pagotto S, Ferracin M, Lupini L, Saccenti E, Balatti V, Pepe F, Rassenti LZ, Innocenti I, Autore F, Marzetti L, Mariani-Costantini R, Kipps TJ, Negrini M, Laurenti L, **Visone R**. Genetic dynamics in untreated CLL patients with either stable or progressive disease: a longitudinal study. J Hematol Oncol. 2019 Nov 19;12(1):114. doi: 10.1186/s13045-019-0802-x.
2. **Visone R*,** Bacalini MG*, Franco SD*, Ferracin M, Colorito ML, Pagotto S, Laprovitera N, Licastro D, Marco MD, Scavo E, Bassi C, Saccenti E, Nicotra A, Grzes M, Garagnani P, Laurenzi V, Valeri N, Mariani-Costantini R, Negrini M, Stassi G, Veronese A**.** DNA methylation of shelf, shore and open sea CpG positions distinguish high microsatellite instability from low or stable microsatellite status colon cancer stem cells. Epigenomics. 2019 May 8. doi: 10.2217/epi-2018-0153.
3. Pagotto S*, Veronese A*, Soranno A, Balatti V, Ramassone A, Guanciali-Franchi PE, Palka G, Innocenti I, Autore F, Rassenti LZ, Kipps TJ, Mariani-Costantini R, Laurenti L, Croce

CM, **Visone R.** HNRNPL Restrains *miR-155* Targeting of BUB1 to Stabilize Aberrant Karyotypes of Transformed Cells in Chronic Lymphocytic Leukemia. Cancers (Basel). 2019 Apr 23;11(4). pii: E575. doi: 10.3390/cancers11040575

4. Lotti LV, Vespa S, Pantalone MR, Perconti S, Esposito DL, **Visone R**, Veronese A, Paties CT, Sanna M, Verginelli F, Nauclér CS, Mariani-Costantini R. A Developmental Perspective on Paragangliar Tumorigenesis. Cancers (Basel). 2019 Feb 26;11(3). pii: E273. doi: 10.3390/cancers11030273. Review
5. Mirco Di Marco, Alice Ramassone, Sara Pagotto, Eleni Anastasiadou, Angelo Veronese, and **Rosa Visone**. MicroRNAs in Autoimmunity and Hematological Malignancies. Accepted. Int J Mol Sci. 2018 Review.
6. Pepe F, Visone R, Veronese A. The Glucose-Regulated MiR-483-3p Influences Key Signaling Pathways in Cancer. Cancers (Basel). 2018 Jun 4;10(6). pii: E181. doi:10.3390/cancers10060181. Review.
7. Alice Ramassone, Sara Pagotto, Angelo Veronese*, and **Rosa Visone***Epigenetics and microRNA in cancer. 2018 Review in the International Journal of Molecular Science. Int J.Mol Sci. 2018 Feb 3;19(2). pii: E459. doi: 10.3390/ijms19020459. Review.
8. Sara Pagotto*, Angelo Veronese*, Alessandra Soranno, Paola Lanuti, Mirco Di Marco, Marco Vincenzo Russo, Alice Ramassone, Marco Marchisio, Pasquale Simeone, Paolo E. Guanciali Franchi, Giandomenico Palka, Renato Mariani Costantini, Carlo M. Croce and **Rosa Visone**. Hsa-miR-155-5p drives aneuploidy at early stages of cellular transformation. Oncotarget. Oncotarget. 2018 Feb 7;9(16):13036-13047. doi: 10.18632/oncotarget.24437
9. Verginelli F, Perconti S, Vespa S, Schiavi F, Prasat SC, Lanuti P, Cama A, Tramontana L, Esposito DL, Guarnieri S, Sheu A, Pantalone MR, Florio R, Morgano A, Rossi C, Bologna G, Marchisio M, D'Argenio A, Taschin E, **Visone R,** Opocher G, Veronese A, Paties CT, Rajasekhar VK, Söderberg-Nauclér C, Sanna M, Lotti LV, Mariani-Costantini R. Paragangliomas arise through an autonomous vasculo-angio-neurogenic program inhibited by imatinib. Acta Neuropathol. 2018 Jan 5. doi: 10.1007/s00401-017-1799-2
10. Pepe F, Pagotto S, Soliman S, Rossi C, Lanuti P, Braconi C, Mariani-Costantini R, **Visone R**, Veronese A.Regulation of miR-483-3p by the O-linked N-acetylglucosamine transferase links chemosensitivity to glucose metabolism in liver cancer cells.Oncogenesis. 2017 May 8;6(5):e328. doi: 10.1038/oncsis.2017.35
11. Carotenuto P, Fassan M, Pandolfo R, Lampis A, Vicentini C, Cascione L, Paulus-Hock V, Boulter L, Guest R, Quagliata L, Hahne JC, Ridgway R, Jamieson T, Athineos D, Veronese A, **Visone R** et al., Wnt signalling modulates transcribed-ultraconserved regions in hepatobiliary cancers. Gut. 2017 Jul;66(7):1268-1277. doi: 10.1136/gutjnl-2016-312278.
12. Lupini L, Pepe F, Ferracin M, Braconi C, Callegari E, Pagotto S, Spizzo R, Zagatti B, Lanuti P, Fornari F, Ghasemi R, Mariani-Costantini R, Bolondi L, Gramantieri L, Calin GA, Sabbioni S, **Visone R**, Veronese A, Negrini M. Over-expression of the miR-483-3p overcomes the miR-145/TP53 pro-apoptotic loop in hepatocellular carcinoma. Oncotarget. 2016 Apr 22. doi: 10.18632/oncotarget.8913.
13. d'Avenia M, Citro R, De Marco M, Veronese A, Rosati A, **Visone R**, Leptidis S, Philippen L, Vitale G, Cavallo A, Silverio A, Prota C, Gravina P, De Cola A, Carletti E, Coppola G, Gallo S, Provenza G, Bossone E, Piscione F, Hahne M, De Windt LJ, Turco MC, De Laurenzi V. A novel miR-371a-5p-mediated pathway, leading to BAG3 upregulation in cardiomyocytes in response to epinephrine, is lost in Takotsubo cardiomyopathy. Cell Death Dis. 2015 Oct 29;6:e1948
14. Veronese A, Pepe F, Chiacchia J, Pagotto S, Lanuti P, Veschi S, Di Marco M, D'Argenio A, Innocenti I, Vannata B, Autore F, Marchisio M, Wernicke D, Verginelli F, Leone G, Rassenti LZ, Kipps TJ, Mariani-Costantini R, Laurenti L, Croce CM, **Visone R**. Allele-specific loss and transcription of the miR-15a/16-1 cluster in chronic lymphocytic leukemia. Leukemia. 2014 Apr 15. doi: 10.1038/leu.2014.139.
15. Cama A, Verginelli F, Lotti LV, Napolitano F, Morgano A, D'Orazio A, Vacca M, Perconti S, Pepe F, Romani F, Vitullo F, di Lella F, **Visone R**, Mannelli M, Neumann HP, Raiconi G,

Paties C, Moschetta A, Tagliaferri R, Veronese A, Sanna M, Mariani-Costantini R.Integrative genetic, epigenetic and pathological analysis of paraganglioma reveals complex dysregulation of NOTCH signaling. Acta Neuropathol. 2013 Aug 18.

16. **Visone R**, Veronese A, Balatti V, Croce CM. MiR-181b: new perspective to evaluate disease progression in chronic lymphocytic leukemia. Oncotarget. 2012 Feb 18
17. Acunzo M, **Visone R**, Romano G, Veronese A, Lovat F, Palmieri D, Bottoni A, Garofalo M, Gasparini P, Condorelli G, Chiariello M, Croce CM. miR-130a targets MET and induces TRAIL-sensitivity in NSCLC by downregulating miR-221 and 222.Oncogene. 2011 Jun 2
18. **Visone R**, Veronese A, Rassenti LZ, Balatti V, Pearl DK, Acunzo M, Volinia S, Taccioli C, Kipps TJ, Croce CM. miR-181b is a biomarker of disease progression in chronic lymphocytic leukemia.Blood. 2011 Sep 15;118(11):3072-9.
19. Veronese A, **Visone R**, Consiglio J, Acunzo M, Lupini L, Kim T, Ferracin M, Lovat F, Miotto E, Balatti V, D'Abundo L, Gramantieri L, Bolondi L, Pekarsky Y, Perrotti D, Negrini M, Croce CM. Mutated beta-catenin evades a microRNA-dependent regulatory loop. Proc Natl Acad Sci U S A. 2011 Mar 22;108(12):4840-5. Epub 2011 Mar 7.
20. Volinia S, Galasso M, Costinean S, Tagliavini L, Gamberoni G, Drusco A, Marchesini J, Mascellani N, Sana ME, Abu Jarour R, Desponts C, Teitell M, Baffa R, Aqeilan R, Iorio MV, Taccioli C, Garzon R, Di Leva G, Fabbri M, Catozzi M, Previati M, Ambs S, Palumbo T, Garofalo M, Veronese A, Bottoni A, Gasparini P, Harris CC**, Visone R**, Pekarsky Y, de la Chapelle A, Bloomston M, Dillhoff M, Rassenti LZ, Kipps TJ, Huebner K, Pichiorri F, Lenze D, Cairo S, Buendia MA, Pineau P, Dejean A, Zanesi N, Rossi S, Calin GA, Liu CG, Palatini J, Negrini M, Vecchione A, Rosenberg A, Croce CM. Reprogramming of miRNA networks in cancer and leukemia. Genome Res. 2010 May;20(5):589-99.
21. Veronese A, Lupini L, Consiglio J, **Visone R**, Ferracin M, Fornari F, Zanesi N, Alder H, D'Elia G, Gramantieri L, Bolondi L, Lanza G, Querzoli P, Angioni A, Croce CM, Negrini M. Oncogenic role of miR-483-3p at the IGF2/483 locus. Cancer Res. 2010 Apr 15;70(8):3140-9.
22. Volinia S, **Visone R**, Galasso M, Rossi E, Croce CM. Identification of microRNA activity by Targets' Reverse EXpression. Bioinformatics. 2009 Nov 6.
23. **Visone R**, Rassenti LZ, Veronese A, Taccioli C, Costinean S, Aguda BD, Volinia S, Ferracin M, Palatini J, Balatti V, Alder H, Negrini M, Kipps TJ, Croce CM. Karyotype-specific microRNA signature in chronic lymphocytic leukemia. Blood. 2009 Oct 29;114(18):3872-9. Epub 2009 Aug 28.
24. Pallante P, **Visone R**, Croce C, Fusco A. Deregulation of microRNA expression in follicular cell-derived human thyroid carcinomas. Endocr Relat Cancer. 2009 Nov 26.
25. **Rosa Visone** and Carlo M. Croce. MicroRNAs and Cancer. *Am J. Patho.l* 2009 Apr; 174(4):1131-8
26. Ivana De Martino, **Rosa Visone**, Monica Fedele, Fabio Petrocca, Josefina Martinez Hoyos, Floriana Forzati, Carlo M. Croce and Alfredo Fusco. Regulation of microRNA expression by HMGA1 proteins. Oncogene 2009 Mar1;69(5):1844-50
27. Taccioli C, Fabbri E, **Visone R**, Volinia S, Calin GA, Fong LY, Gambari R, Bottoni A, Acunzo M, Hagan J, Iorio MV, Piovan C, Romano G, Croce CM. UCbase & miRfunc: a database of ultraconserved sequences and microRNA function.Nucleic Acids Res. 2008 Oct 22.
28. **Rosa Visone**, Fabio Petrocca and Carlo M. Croce. MiRNAs in Gastrointestinal and Liver Disease . Gastroenterology. 2008 Dec;135(6):1866-9.
29. Petrocca F, **Visone R**, Onelli MR, Shah MH, Nicoloso MS, de Martino I, Iliopoulos D, Pilozzi E, Liu CG, Negrini M, Cavazzini L, Volinia S, Alder H, Ruco LP, Baldassarre G, Croce CM, Vecchione A. E2F1-regulated microRNAs impair TGFbeta-dependent cell-cycle arrest and apoptosis in gastric cancer. *Cancer Cell*. 2008 Mar;13(3):272-86.
30. **Visone R**, Iuliano R, Palmieri D, Server IN, Chiappetta G, De Martino I, Fedele M, Costinean S, Oberyszyn TM, Kusewitt DF, Croce CM, Fusco A. Hmga1 null mice are less susceptible to chemically induced skin carcinogenesis. *Eur J Cancer*. 2008 Jan;44(2):318-25.
31. De Martino I, **Visone R**, Palmieri D, Cappabianca P, Chieffi P, Forzati F, Barbieri A,

Kruhoffer M, Lombardi G, Fusco A, Fedele M. The Mia/Cd-rap gene expression is downregulated by the high-mobility group A proteins in mouse pituitary adenomas. Endocr Relat Cancer. 2007 Sep;14(3):875-86

32. **Rosa Visone,** Lucia Russo, Pierlorenzo Pallante, Ivana De Martino, Angelo Ferraro, Vincenza Leone, Eleonora Borbone, Fabio Petrocca, Hansjuerg Alder , Carlo Maria Croce and Alfredo Fusco MicroRNAs (miR)-221 and miR-222, both overexpressed in human thyroid papillarycarcinomas, regulate p27Kip1 protein levels and cell cycle. Endocr Relat Cancer. 2007 Sep;14(3):791-8.
33. Iorio MV, **Visone R**, Di Leva G, Donati V, Petrocca F, Casalini P, Taccioli C, Volinia S, Liu CG, Alder H, Calin GA, Menard S, Croce CM. MicroRNA Signatures in Human Ovarian Cancer.*Cancer Res*. 2007 Sep 15;67(18):8699-8707.
34. **Visone R***, Pallante P*, Vecchione A, Cirombella R, Ferracin M, Ferraro A, Volinia S, Coluzzi S, Leone V, Borbone E, Liu CG, Petrocca F, Troncone G, Calin GA, Scarpa A, Colato C, Tallini G, Santoro M, Croce CM, Fusco A. Specific microRNAs are downregulated in human thyroid anaplastic carcinomas. *Oncogene.* 2007 Jun 11;
35. Fedele M, De Martino I, Pivonello R, Ciarmiello A, Del Basso De Caro ML, **Visone R**, Palmieri D, Pierantoni GM, Arra C, Schmid HA, Hofland L, Lombardi G, Colao A, Fusco A.SOM230, a new somatostatin analogue, is highly effective in the therapy of growth hormone/prolactin-secreting pituitary adenomas.*Clin Cancer Res*. 2007 May 1;13(9):2738-44.
36. De Martino I, Fedele M, Palmieri D, Visone R, Cappabianca P, Wierinckx A, Trouillas J, Fusco A.B-RAF mutations are a rare event in pituitary adenomas.*J Endocrinol Invest*. 2007 Jan;30(1):RC1-3.
37. Fedele M, Pierantoni GM, **Visone R**, Fusco A.Critical role of the HMGA2 gene in pituitary adenomas. Cell Cycle. 2006 Sep;5(18):2045-8. Epub 2006 Sep 15.
38. Fedele M, Pierantoni GM, **Visone R**, Fusco A.E2F1 activation is responsible for pituitary adenomas induced by HMGA2 gene overexpression. *Cell Div*. 2006 Aug 17;1:17.
39. Fedele M*, **Visone R*,** De Martino I, Troncone G, Palmieri D, Battista S, Ciarmiello A, Pallante P, Arra C, Melillo RM, Helin K, Croce CM, Fusco A. HMGA2 induces pituitary tumorigenesis by enhancing E2F1 activity. *Cancer Cell*. 2006 Jun;9(6):459-71.
40. Pallante P*, **Visone R*,** Ferracin M, Ferraro A, Berlingieri MT, Troncone G, Chiappetta G, Liu CG, Santoro M, Negrini M, Croce CM, Fusco A. MicroRNA deregulation in human thyroid papillary carcinomas. *Endocr Relat Cancer*. 2006 Jun;13(2):497-508.
41. Volinia S, Calin GA, Liu CG, Ambs S, Cimmino A, Petrocca F, **Visone R**, Iorio M, Roldo C, Ferracin M, Prueitt RL, Yanaihara N, Lanza G, Scarpa A, Vecchione A, Negrini M, Harris CC, Croce CM. A microRNA expression signature of human solid tumors defines cancer gene targets.*Proc Natl Acad Sci U S A*. 2006 Feb 14;103(7):2257-61. Epub 2006 Feb 3.
42. Calin GA, Ferracin M, Cimmino A, Di Leva G, Shimizu M, Wojcik SE, Iorio MV, **Visone R**, Sever NI, Fabbri M, Iuliano R, Palumbo T, Pichiorri F, Roldo C, Garzon R, Sevignani C, Rassenti L, Alder H, Volinia S, Liu CG, Kipps TJ, Negrini M, Croce CM. A MicroRNA signature associated with prognosis and progression in chronic lymphocy leukemia.*N Engl J Med*. 2005 Oct 27;353(17):1793-801.
43. Fedele M, Pentimalli F, Baldassarre G, Battista S, Klein-Szanto AJ, Kenyon L, **Visone R,** De Martino I, Ciarmiello A, Arra C, Viglietto G, Croce CM, Fusco A. Transgenic mice overexpressing the wild-type form of the HMGA1 gene develop mixed growth hormone/prolactin cell pituitary adenomas and natural killer cell lymphomas.*Oncogene*. 2005 May 12;24(21):3427-35.
44. Battista S, Fedele M, Martinez Hoyos J, Pentimalli F, Pierantoni GM, **Visone R**, De Martino I, Croce CM, Fusco A. High-mobility-group A1 (HMGA1) proteins down-regulate the expression of the recombination activating gene 2 (RAG2). *Biochem J*. 2005 Jul 1;389(Pt 1):91-7.
45. Pierantoni GM, Battista S, Pentimalli F, Fedele M, **Visone R**, Federico A, Santoro M, Viglietto G, Fusco A A truncated HMGA1 gene induces proliferation of the 3T3-L1 pre-adipocytic cells: a model of human lipomas.

Carcinogenesis. 2003 Dec;24(12):1861-9. Epub 2003 Sep 11.
46. Fedele M, Battista S, Kenyon L, Baldassarre G, Fidanza V, Klein-Szanto AJ, Parlow AF, **Visone R**, Pierantoni GM, Outwater E, Santoro M, Croce CM, Fusco A.
47. Overexpression of the HMGA2 gene in transgenic mice leads to the onset of pituitary adenomas.*Oncogene*. 2002 May 9;21(20):3190-8.

**** equal contribition***

10 Most Significant Publications (all career)

1. Ramassone A, D'Argenio A, Veronese A, Basti A, Soliman SHA, Volinia S, Bassi C, Pagotto S, Ferracin M, Lupini L, Saccenti E, Balatti V, Pepe F, Rassenti LZ, Innocenti I, Autore F, Marzetti L, Mariani-Costantini R, Kipps TJ, Negrini M, Laurenti L, **Visone R**. Genetic dynamics in untreated CLL patients with either stable or progressive disease: a longitudinal study. J Hematol Oncol. 2019 Nov 19;12(1):114. doi: 10.1186/s13045-019-0802-x.
2. Pagotto S*, Veronese A*, Soranno A, Balatti V, Ramassone A, Guanciali-Franchi PE, Palka G, Innocenti I, Autore F, Rassenti LZ, Kipps TJ, Mariani-Costantini R, Laurenti L, Croce CM, **Visone R.** HNRNPL Restrains *miR-155* Targeting of BUB1 to Stabilize Aberrant Karyotypes of Transformed Cells in Chronic Lymphocytic Leukemia. Cancers (Basel). 2019 Apr 23;11(4). pii: E575. doi: 10.3390/cancers11040575
3. Sara Pagotto*, Angelo Veronese*, Alessandra Soranno, Paola Lanuti, Mirco Di Marco, Marco Vincenzo Russo, Alice Ramassone, Marco Marchisio, Pasquale Simeone, Paolo E. Guanciali Franchi, Giandomenico Palka, Renato Mariani Costantini, Carlo M. Croce and **Rosa Visone**. Hsa-miR-155-5p drives aneuploidy at early stages of cellular transformation. Oncotarget. Oncotarget. 2018 Feb 7;9(16):13036-13047. doi: 10.18632/oncotarget.24437
4. Veronese A, Pepe F, Chiacchia J, Pagotto S, Lanuti P, Veschi S, Di Marco M, D'Argenio A, Innocenti I, Vannata B, Autore F, Marchisio M, Wernicke D, Verginelli F, Leone G, Rassenti LZ, Kipps TJ, Mariani-Costantini R, Laurenti L, Croce CM, **Visone R**. Allele-specific loss and transcription of the miR-15a/16-1 cluster in chronic lymphocytic leukemia. Leukemia. 2014 Apr 15. doi: 10.1038/leu.2014.139.
5. **Visone R**, Veronese A, Balatti V, Croce CM. MiR-181b: new perspective to evaluate disease progression in chronic lymphocytic leukemia. Oncotarget. 2012 Feb 18
6. **Visone R**, Veronese A, Rassenti LZ, Balatti V, Pearl DK, Acunzo M, Volinia S, Taccioli C, Kipps TJ, Croce CM. miR-181b is a biomarker of disease progression in chronic lymphocytic leukemia.Blood. 2011 Sep 15;118(11):3072-9.
7. **Visone R**, Rassenti LZ, Veronese A, Taccioli C, Costinean S, Aguda BD, Volinia S, Ferracin M, Palatini J, Balatti V, Alder H, Negrini M, Kipps TJ, Croce CM. Karyotype-specific microRNA signature in chronic lymphocytic leukemia. Blood. 2009 Oct 29;114(18):3872-9. Epub 2009 Aug 28.
8. **Rosa Visone,** Lucia Russo, Pierlorenzo Pallante, Ivana De Martino, Angelo Ferraro, Vincenza Leone, Eleonora Borbone, Fabio Petrocca, Hansjuerg Alder , Carlo Maria Croce and Alfredo Fusco MicroRNAs (miR)-221 and miR-222, both overexpressed in human thyroid papillarycarcinomas, regulate p27Kip1 protein levels and cell cycle. Endocr Relat Cancer. 2007 Sep;14(3):791-8.
9. Fedele M*, **Visone R*,** De Martino I, Troncone G, Palmieri D, Battista S, Ciarmiello A, Pallante P, Arra C, Melillo RM, Helin K, Croce CM, Fusco A. HMGA2 induces pituitary tumorigenesis by enhancing E2F1 activity. *Cancer Cell*. 2006 Jun;9(6):459-71.
10. Calin GA, Ferracin M, Cimmino A, Di Leva G, Shimizu M, Wojcik SE, Iorio MV, **Visone R**, Sever NI, Fabbri M, Iuliano R, Palumbo T, Pichiorri F, Roldo C, Garzon R, Sevignani C, Rassenti L, Alder H, Volinia S, Liu CG, Kipps TJ, Negrini M, Croce CM. A MicroRNA signature associated with prognosis and progression in chronic lymphocy leukemia.*N Engl J Med*. 2005 Oct 27;353(17):1793-801.

Peer-Reviewed Publications (last 10 years)

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Scientific Achievments

Her scientific career began in the area of endocrine tumors. She clarified the mechanism by which the oncogenic protein high-mobility-group A (HMGA) 2 induces pituitary adenomas in mice. This mechanism involves an HMGA2-dependent process that inhibits the repression of the transcription factor E2F1 mediated by the oncosuppressor pRB (Fedele *, Visone * et al., Cancer Cell, 2006). This discovery solves one of the challenges of endocrine oncology since the HMGA2 gene is amplified and over-expressed in most human prolactinomas. Since 2004 her research focused on the study of microRNAs in tumors. She identified that miR-222 and miR-221, overexpressed in papillary thyroid carcinomas (Pallante and Visone et al.,), promote cell proliferation of the papillary carcinoma cell line

of the thyroid by reducing the expression levels of the protein p27Kip1, a cell cycle inhibitor (Visone et al., Endocr Relat Cancer. 2007). In gastric cancer, she helped to demonstrate that microRNAs regulated by E2F1 induces resistance to the pro-apoptotic action of TGF-β (Petrocca, Visone, Cancer Cell, 2008). Subsequently, her research was mainly addressed to study the role of microRNAs in chronic lymphatic leukemia (LLC). She identified potential diagnostic and prognostic markers in LLC (Calin et al., N Engl J Med 2005; Visone et al., Blood 2009; Visone et al., Blood 2011) that could be helpful for patient management.

Since 2011, as a principal investigator, she focused on the study of microRNAs in neoplastic transformation, disease progression, and on the study of their regulation to identify new therapeutic approaches. This interest stems from a published work (Veronese et al., Leukemia 2015) in which my group has shown that the miR-15a / 16-1 cluster is regulated in an allele-specific way, in particular, an allele is under the control of the RNA polymerase II (RNAPII, DLEU2 host gene promoter) and the other under the control of RNAPIII which binds to a region immediately upstream of the cluster. Since the cluster is located on the chromosomal region 13q14, frequently deleted in the LLC, these patients have a single allele and therefore, an abnormal regulation of the cluster that can be linked exclusively to RNAPIII or RNAPII. This could influence the outcome of the disease and the tools to deliver microRNA. Her laboratory also shown that miR-155 contributes to induce aneuploidy at the early stages of cell transformation; by targeting proteins important for the correct alignment of the metaphase plate during mitosis, such has BUB1. This compromises proper chromosomal alignment and increases the number of aneuploid daughter cells. However, in the advanced stages of cell transformation of fibroblasts and chronic lymphatic leukemia, the expression of BUB1 is restored to maintain the survival of aneuploid clones. An RNA binding protein alters the targeting of the miR-155 and restores the expression of BUB1. The mechanism would allow the expansion and selection of leukemic clones with the karyotype more adapted to the micro-macro-environment (Pagotto et al., Oncotarget 2018; Pagotto et al., Carcers 2019). To better relate the expression data of microRNA, aneuploidy, mutational status and clonal evolution and progression of CLL, her laboratory has genetically characterized two sequential time points of untreated CLL patients with either stable or progressive disease. The results obtained demonstrate that genetic alterations change over time in both groups of patients, but those with progressive disease acquire or lose clones faster than patients with stable disease. Furthermore, patients with progressive disease present nucleotide variations that change over time (NVs, nucleotide variations) more frequently than patients with stable disease. The results suggest that high genetic dynamism may represent an early indicator of poor short-term prognosis. Therefore, monitoring the frequency of mutations in a panel of specific genes could help predict disease progression in patients with CLL (Ramassone et al. J Hematol Oncol. 2019).

Chieti, 26/03/2020 Signature