

Alessio Paone

Curriculum Vitae

Place Rome
Date June 22, 2020

Part I – General Information

Full Name	Alessio Paone
Date of Birth	
Place of Birth	
Citizenship	Italian
Permanent Address	
Mobile Phone Number	
E-mail	
Spoken Languages	Italian/English

Part II – Education

Type	Year	Institution	Notes (Degree, Experience,...)
University graduation	2005	“Roma3” University of Rome	Laurea <i>cum laude</i> in Biology – Molecular biology
PhD	2010	“La Sapienza” University of Rome Dept of Histology and Medical Embryology	Scienze e Tecnologie Cellulari (Cell Biology)
Pre-doctorate training	2005-2006	“La Sapienza” University of Rome Dept of Histology and Medical Embryology	Cell Biology/Biochemistry

Part III – Appointments

IIIA – Academic Appointments

Start	End	Institution	Position
03/08/2020	today	“La Sapienza” University of Rome Dept of Biochemical Sciences A. Rossi Fanelli	Research associate Ricercatore a tempo determinato – full-time (art. 24 c.3-a L. 240/10) RTDB.
01/10/2017	03/08/2020	“La Sapienza” University of Rome Dept of Biochemical Sciences A. Rossi Fanelli	Research associate Ricercatore a tempo determinato – full-time (art. 24 c.3-a L. 240/10) RTDA.
01/04/2013	30/09/2017	“La Sapienza” University of Rome Dept of Biochemical Sciences A. Rossi Fanelli	Postdoctoral Researcher (assegnista di ricerca vincitore di concorso Legge 240/2010)
15/02/2010	15/03/2013	The Ohio State University, Columbus OH, USA Dept. of	Postdoctoral Researcher

**Molecular Virology, Immunology
& Medical Genetics**

IIIB – Other Appointments and Qualifications

31/03/2016	31/03/2026	National Scientific Qualification (ASN)	05/E1 BIO10 Associate professor
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Part IV – Teaching experience

Year	Institution	Course
2017-today	“La Sapienza” University of Rome	Chemistry and propaedeutic biochemistry Degree course in Medicine and Surgery (2CFU) and member of the examination committee.
2017-2021	“La Sapienza” University of Rome	One Day Lab Safety short course for the Ph.D. School in Biochemistry (1CFU)

Teaching Assistant (TA) and Tutoring (T)		
2015-today	“La Sapienza” University of Rome	Bioinformatics and Protein Engineering - Degree Courses in Medical Biotechnologies and Pharmaceutical Biotechnologies (TA)
2015-today	“La Sapienza” University of Rome	Molecular Biology - Biotechnology Degree Course (TA)
2014-today	“La Sapienza” University of Rome	Supervisor of students on thesis and Ph.D. Students (Pontecorvi V., Sun D., Garcia I., Bouzidi A. etc) T
2012-2013	The Ohio State University	Rotating scholar supervisor (Sharpnack M.)T
2012-2013	The Ohio State University	Supervisor of students on thesis (Riaz S.)T

Part V - Society memberships, Awards and Honors

Year	Title
2019	Italian Society of Biochemistry and Molecular Biology (SIB)
2019	CONFERENCE-Molecular, cellular and translational approaches to differentiation and neoplastic transformation 17th June 2019 Florence. Exploiting serine hydroxymethyltransferase moonlighting function: novel perspectives to target serine metabolism in cancer cells BEST POSTER PRICE

Part VI - Funding Information [grants as PI-principal investigator or I-investigator]

Year	Title	Program	Grant value
2013	Inhibition of serinehydroxymethyltransferase	PI Avvio alla ricerca	3000

	and epigenetic reprogramming in lung cancer cell lines	
2013-2015	Probing the metabolic reprogramming of tumor cells by inhibition of Serine Hydroxymethyltransferase	I AIRC IG 13150 (2013-2015) 179000
2016-2018	Serine/glycine one-carbon metabolism and cancer: biological role and inhibition of Serine Hydroxymethyltransferase	I AIRC IG 16720 (2016-2018) 187000
2017	Infection, inflammation and metabolism: the missing link in prostate cancer	I Ateneo Sapienza RG11816430AF48E1 3000
2018	Dissecting Serine Hydroxymethyltransferase functions to target cancer metabolic reprogramming	I Ateneo Sapienza RP11715C644A5CCE 30000

Part VII – Editorial experience

Role	journal
Review editor	Frontiers Molecular Biosciences
Review editor	Frontiers in Genetics
Guest Editor	International Journal of Cell Biology (v.2014 ISSN 1687-8876)
Reviewer	Oncotarget
Reviewer	Frontiers in Genetics
Reviewer	Oncoimmunology
Reviewer	Journal of Nucleic Acid Investigation
Reviewer	Frontiers in Oncology
Reviewer	Cellular Physiology and Biochemistry
Reviewer	Cancers

Part VIII- Other experience - participation in selection committees

Member of the selection committee for the awarding of a category B research fellowship Type II call N. A / 6/2017 of 28.12.2017 Department of Biochemical Sciences “A. Rossi Fanelli” Sapienza University of Rome.

Part IX – Principal Research Activities

Keywords	Brief Description
RNA/protein interaction	From the beginning, Alessio Paone's research activity has been focused on the study of the function of proteins involved in tumor processes and their role in cellular metabolic re-programming, with an approach that ranges from the biochemistry of macromolecules and their interactors, to molecular and cellular biology. Currently, he is also directly involved in managing the experimental set up of the
One Carbon Metabolism	
Serine hydroxymethyltransferase	
Cancer cells	

HypACB facility at the Department of Biochemical Sciences in Sapienza, whose service is to gain quantitative respiratory/energetic parameters of cellular in normoxia and under hypoxic conditions.

More in detail, his research work spans from two main topics:

- 1) Mechanism of re-shaping of One carbon Metabolism in cancer.

In the last six years, his work has been focused on proteins involved in cellular serine/glycine-one-carbon-SGOC metabolism as important factor in tumor transformation; his study is mainly (but not only) focused on lung cancer. He is involved in the characterization of the mechanism behind the SGOC metabolic re-programming, in order to identify the metabolic status (and vulnerability) of lung cancer cells required to sustain proliferation. In particular, the role of the enzyme serine hydroxymethyltransferase (SHMT), which strongly supports the production of key molecules for tumor proliferation such as DNA bases or methyl group donors, has been analyzing by integrating protein biochemistry and engineering with cell biology.

Main achievement of his research:

- Explaining specific role of the cytosolic SHMT in supporting the thymine incorporation during DNA replication in lung cancer cells.
- Characterizing novel role of SHMT as moonlight enzyme. He contributed in showing that SHMTs are able to interact with high affinity with RNA; these interactions are required to control both the expression of the different isoforms of the enzyme and catalysis.
- Identification of novel strategies to target SHMT. Beyond the physiological relevance of the RNA/SHTM interactions, this feature allowed the design of novel tool to inhibit the enzymatic activity of SHMTs. A draft of a patent is currently under evaluation of the Academic committee.
- Connection between the inflammatory mechanisms regulated by the TLRs and the metabolic alterations in the tumor cells.

- 2) "Toll Like Receptors" (TLR) in cancer cells.

During the first post-DOC period, the research focus has been on a group of proteins called "Toll Like Receptors" (TLR) and their role in cancer cells. TLRs are receptors of innate immunity and represent the first line of defense against pathogen invasion. He contributed in unveiling the mechanism of TLR activation and of the associated signal transduction process upon interaction of these proteins with specific ligands in tumor cells.

Main achievement of his research:

- it has been shown that the activation of these receptors can induce diametrically opposed effects on tumor cells from different tissues causing in some cases apoptosis, in others proliferation, angiogenesis etc.
 - identification of novel endogenous ligands for TLR7 / 8 with pro-tumor functions. In a work published in PNAS in 2012 a new family of ligands for hTLR8 and mTLR7 receptors was discovered, including several mature microRNAs, secreted by tumor cells. These molecules were able to activate these receptors expressed on the cells
-

of the immune system inducing a rewiring in the secretoma which in turn support the growth of metastases in the lung.

The results reported were also obtained thanks to the skills acquired by Alessio Paone specifically in the study of:

- protein-protein and protein-RNA interactions;
- signal transduction;
- processes of cell death;
- regulatory metabolic mechanisms.

By taking advantage of his technical expertise in:

-protein biochemistry and engineering: expression and purification of proteins.

-cell biology: cell culture, Western Blotting, RT-PCR, iRNA, fluorescence microscopy, respiratory assays through Seahorse apparatus.

-in vivo: mouse handling, intraperitoneal injections, xenograft tumor inoculation, in vivo angiogenetic assays.

-data handling: standard statistics, seahorse data analysis.

Part X -Patents

WO Patent WO/2011/128,436 Combination of Hypoxia Inducible Factor -1 inhibitors and Toll-Like Receptor-3 agonists for treating solid tumors

A Filippini, A Riccioli, A Paone, E Ziparo

Part XI – Summary of Scientific Achievements

Product type	Number	Data Base	Start	End
Papers [international]	33	SCOPUS	2006	2020

Total Impact factor	164 (JCR)
Average Impact factor	5,164
Total Citations	2190 (scopus)
Average Citations per Product	66 (scopus)
Hirsch (H) index	17 (scopus)
Normalized H index*	1,21
Last 10 years Impact factor	150

*H index divided by the academic seniority.

Part XII– SELECTED Publications

List of the 12 publications selected for the evaluation (last 10 years).

Notes	Reference	IF	citations
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LAST AUTHOR	1)Linking Infection and Prostate Cancer Progression: Toll-like Receptor3 Stimulation Rewires Glucose Metabolism in Prostate Cells. Magnifico MC, Macone A, Marani M, Bouzidi A, Giardina G, Rinaldo S, Cutruzzolà F, Paone A . Anticancer Res. 2019 Oct;39(10):5541-5549. doi: 10.21873/anticanres.13747.	1,935	0
In this publication the candidate Alessio Paone should be considered FIRST AUTHOR as the first and second authors (*) contributed equally to the work as reported in the specific journal page.	2) The moonlighting RNA-binding activity of cytosolic serine hydroxymethyltransferase contributes to control compartmentalization of serine metabolism. Guiducci G*, Paone A* , Tramonti A, Giardina G, Rinaldo S, Bouzidi A, Magnifico MC, Marani M, Menendez JA, Fatica A, Macone A, Armaos A, Tartaglia GG, Contestabile R, Paiardini A, Cutruzzolà F. Nucleic Acids Res. 2019 Feb 27. pii: gkz129. doi: 10.1093/nar/gkz129. [Epub ahead of print]	11,147	0
In this publication the candidate Alessio Paone should be considered FIRST AUTHOR as the first and second authors (*) contributed equally to the work as reported in the specific journal page.	3) The catalytic activity of serine hydroxymethyltransferase is essential for de novo nuclear dTMP synthesis in lung cancer cells. Giardina G*, Paone A* , Tramonti A, Lucchi R, Marani M, Magnifico MC, Bouzidi A, Pontecorvi V, Guiducci G, Zamparelli C, Rinaldo S, Paiardini A, Contestabile R, Cutruzzolà F. FEBS J. 2018 Sep;285(17):3238-3253. doi: 10.1111/febs.14610. Epub 2018 Aug 7.	4,739	2
LAST AND CORRESPONDING AUTHOR	4) Glucose Metabolism in the Progression of Prostate Cancer. Cutruzzolà F, Giardina G, Marani M, Macone A, Paiardini A, Rinaldo S, Paone A . Front Physiol. 2017 Feb 21;8:97. doi: 10.3389/fphys.2017.00097. eCollection 2017. Review. PMID: 28270771	3,394	19
In this publication the candidate Alessio Paone should be considered FIRST AUTHOR as the first and second authors (*) contributed equally to the work as reported in the specific journal page.	5) A pyrazolopyran derivative preferentially inhibits the activity of human cytosolic serine hydroxymethyltransferase and induces cell death in lung cancer cells. Marani M*, Paone A* , Fiascarelli A, Macone A, Gargano M, Rinaldo S, Giardina G, Pontecorvi V, Koes D, McDermott L, Yang T, Paiardini A, Contestabile R, Cutruzzolà F. Oncotarget. 2016 Jan 26;7(4):4570-83. doi: 10.18632/oncotarget.6726.	5,168	14
	6) MicroRNA-135b promotes cancer progression by acting as a downstream effector of oncogenic pathways in colon cancer. Valeri N, Braconi C, Gasparini P, Murgia C, Lampis A, Paulus-Hock V, Hart JR, Ueno L,	23,523	173

	Grivennikov SI, Lovat F, Paone A , Cascione L, Sumani KM, Veronese A, Fabbri M, Carasi S, Alder H, Lanza G, Gafa' R, Moyer MP, Ridgway RA, Cordero J, Nuovo GJ, Frankel WL, Rugge M, Fassan M, Groden J, Vogt PK, Karin M, Sansom OJ, Croce CM. Cancer Cell. 2014 Apr 14;25(4):469-83. doi: 10.1016/j.ccr.2014.03.006.		
FIRST AUTHOR	7) SHMT1 knockdown induces apoptosis in lung cancer cells by causing uracil misincorporation. Paone A , Marani M, Fiascarelli A, Rinaldo S, Giardina G, Contestabile R, Paiardini A, Cutruzzolà F. Cell Death Dis. 2014 Nov 20;5:e1525. doi: 10.1038/cddis.2014.482.	5,014	30
In this publication the candidate Alessio Paone should be considered FIRST AUTHOR as the first and second authors (*) contributed equally to the work as reported in the specific journal page.	8) Toll-like receptor 3 (TLR3) activation induces microRNA-dependent reexpression of functional RAR β and tumor regression. Galli R*, Paone A* , Fabbri M, Zanesi N, Calore F, Cascione L, Acunzo M, Stoppacciaro A, Tubaro A, Lovat F, Gasparini P, Fadda P, Alder H, Volinia S, Filippini A, Ziparo E, Riccioli A, Croce CM. Proc Natl Acad Sci U S A. 2013 Jun 11;110(24):9812-7. doi: 10.1073/pnas.1304610110. Epub 2013 May 28.	9,809	38
	9) miR-EdiTari: A database of predicted A-to-I edited miRNA target sites Laganà A., Paone A. , Veneziano D., Cascione L., Gasparini P., Carasi S., Russo F., Nigita G., Valentina Macca, Giugno R., Pulvirenti A., Shasha D., Ferro A. and Croce C.M. ¹ Bioinformatics. 2012 Oct 7 [Epub ahead of print] PMID:23044546	5,323	19
In this publication the candidate Alessio Paone should be considered FIRST AUTHOR as the first and second authors (*) contributed equally to the work as reported in the specific journal page.	10) MicroRNAs bind to Toll-like receptors to induce prometastatic inflammatory response. Fabbri M*, Paone A* , Calore F, Galli R, Gaudio E, Santhanam R, Lovat F, Fadda P, Mao C, Nuovo GJ, Zanesi N, Crawford M, Ozer GH, Wernicke D, Alder H, Caligiuri MA, Nana-Sinkam P, Perrotti D, Croce CM. Proc Natl Acad Sci U S A. 2012 Jul 31;109(31):E2110-6. Epub 2012 Jul 2.	9,737	715
Press release/comments in Cancer Malicious exosomes Anastasiadou E, Slack FJ.			

	Science. 2014 Dec 19;346(6216):1459-60. doi: 10.1126/science.aaa4024. No abstract available.		
	11) MicroRNA-21 induces resistance to 5-fluorouracil by down-regulating human DNA MutS homolog 2 (hMSH2). Valeri N, Gasparini P, Braconi C, Paone A , Lovat F, Fabbri M, Suman KM, Alder H, Amadori D, Patel T, Nuovo GJ, Fishel R, Croce CM. Proc Natl Acad Sci U S A. 2010 Dec 7;107(49):21098-103. Epub 2010 Nov 15.	9,771	248
FIRST AUTHOR	12) Toll-like receptor 3 regulates angiogenesis and apoptosis in prostate cancer cell lines through hypoxia-inducible factor 1 alpha. Paone A , Galli R, Gabellini C, Lukashev D, Starace D, Gorlach A, De Cesaris P, Ziparo E, Del Bufalo D, Sitkovsky MV, Filippini A, Riccioli A. Neoplasia. 2010 Jul;12(7):539-49	5,476	60

Part XIII- COMPLETE list of publications

Notes	Publication	IF	Citations
LAST AUTHOR	1)Linking Infection and Prostate Cancer Progression: Toll-like Receptor3 Stimulation Rewires Glucose Metabolism in Prostate Cells. Magnifico MC, Macone A, Marani M, Bouzidi A, Giardina G, Rinaldo S, Cutruzzolà F, Paone A . Anticancer Res. 2019 Oct;39(10):5541-5549. doi: 10.21873/anticanres.13747.	1,935	3
	2)Fractalkine Modulates Microglia Metabolism in Brain Ischemia Clotilde Lauro, Giuseppina Chece, Lucia Monaco, Fabrizio Antonangeli, Giovanna Peruzzi, Serena Rinaldo, Alessio Paone , Francesca Cutruzzolà and Cristina Limatola Front. Cell. Neurosci., 13 September 2019 https://doi.org/10.3389/fncel.2019.00414	3,900	7
In this publication the candidate Alessio Paone should be considered FIRST AUTHOR as the first and second authors (*) contributed equally to the work as reported in the specific journal page.	3) The moonlighting RNA-binding activity of cytosolic serine hydroxymethyltransferase contributes to control compartmentalization of serine metabolism. Guiducci G*, Paone A* , Tramonti A, Giardina G, Rinaldo S, Bouzidi A, Magnifico MC, Marani M, Menendez JA, Fatica A, Macone A, Armaos A, Tartaglia GG, Contestabile R, Paiardini A, Cutruzzolà F. Nucleic Acids Res. 2019 Feb 27. pii: gkz129. doi: 10.1093/nar/gkz129. [Epub ahead of print]	11,147	3

	4) Insights into the GTP-dependent allosteric control of c-di-GMP hydrolysis from the crystal structure of PA0575 protein from <i>Pseudomonas aeruginosa</i> . Mantoni F, Paiardini A, Brunotti P, D'Angelo C, Cervoni L, Paone A , Cappellacci L, Petrelli R, Ricciutelli M, Leoni L, Rampioni G, Arcovito A, Rinaldo S, Cutruzzolà F, Giardina G. <i>FEBS J.</i> 2018 Oct;285(20):3815-3834. doi: 10.1111/febs.14634. Epub 2018 Sep 7.	4,739	1
	5) A novel bacterial l-arginine sensor controlling c-di-GMP levels in <i>Pseudomonas aeruginosa</i> . Paiardini A, Mantoni F, Giardina G, Paone A , Janson G, Leoni L, Rampioni G, Cutruzzolà F, Rinaldo S. <i>Proteins</i> . 2018 Oct;86(10):1088-1096. doi: 10.1002/prot.25587. Epub 2018 Sep 8.	2,501	2
In this publication the candidate Alessio Paone should be considered FIRST AUTHOR as the first and second authors (*) contributed equally to the work as reported in the specific journal page.	6) The catalytic activity of serine hydroxymethyltransferase is essential for de novo nuclear dTMP synthesis in lung cancer cells. Giardina G*, Paone A* , Tramonti A, Lucchi R, Marani M, Magnifico MC, Bouzidi A, Pontecorvi V, Guiducci G, Zamparelli C, Rinaldo S, Paiardini A, Contestabile R, Cutruzzolà F. <i>FEBS J.</i> 2018 Sep;285(17):3238-3253. doi: 10.1111/febs.14610. Epub 2018 Aug 7.	4,739	2
	7) Differential inhibitory effect of a pyrazolopyran compound on human serine hydroxymethyltransferase-amino acid complexes. Tramonti A, Paiardini A, Paone A , Bouzidi A, Giardina G, Guiducci G, Magnifico MC, Rinaldo S, McDermott L, Menendez JA, Contestabile R, Cutruzzolà F. <i>Arch Biochem Biophys</i> . 2018 Sep 1;653:71-79. doi: 10.1016/j.abb.2018.07.001. Epub 2018 Jul 4.	3,559	4
	8) Beyond nitrogen metabolism: nitric oxide, cyclic-di-GMP and bacterial biofilms. Rinaldo S, Giardina G, Mantoni F, Paone A , Cutruzzolà F. <i>FEMS Microbiol Lett</i> . 2018 Mar 1;365(6). doi: 10.1093/femsle/fny029.	1,994	4
	9) Discovering Selective Diguanylate Cyclase Inhibitors: From PleD to Discrimination of the Active Site of Cyclic-di-GMP Phosphodiesterases. Rinaldo S, Giardina G, Mantoni F, Paiardini A, Paone A , Cutruzzolà F. <i>Methods Mol Biol</i> . 2017;1657:431-453. doi: 10.1007/978-1-4939-7240-1_32.		1
LAST AND CORRESPONDING AUTHOR	10) Glucose Metabolism in the Progression of Prostate Cancer.	3,394	19

	Cutruzzolà F, Giardina G, Marani M, Macone A, Paiardini A, Rinaldo S, Paone A . Front Physiol. 2017 Feb 21;8:97. doi: 10.3389/fphys.2017.00097. eCollection 2017. Review.PMID: 28270771		
In this publication the candidate Alessio Paone should be considered FIRST AUTHOR as the first and second authors (*) contributed equally to the work as reported in the specific journal page.	11) A pyrazolopyran derivative preferentially inhibits the activity of human cytosolic serine hydroxymethyltransferase and induces cell death in lung cancer cells. Marani M*, Paone A* , Fiascarelli A, Macone A, Gargano M, Rinaldo S, Giardina G, Pontecorvi V, Koes D, McDermott L, Yang T, Paiardini A, Contestabile R, Cutruzzolà F. Oncotarget. 2016 Jan 26;7(4):4570-83. doi: 10.18632/oncotarget.6726.	5,168	14
	12) How pyridoxal 5'-phosphate differentially regulates human cytosolic and mitochondrial serine hydroxymethyltransferase oligomeric state. Giardina G, Brunotti P, Fiascarelli A, Cicalini A, Costa MG, Buckle AM, di Salvo ML, Giorgi A, Marani M, Paone A , Rinaldo S, Paiardini A, Contestabile R, Cutruzzolà F. FEBS J. 2015 Apr;282(7):1225-41. doi: 10.1111/febs.13211. Epub 2015 Feb 13.	4,237	30
	13) Screening and in vitro testing of antifolate inhibitors of human cytosolic serine hydroxymethyltransferase. Paiardini A, Fiascarelli A, Rinaldo S, Daidone F, Giardina G, Koes DR, Parroni A, Montini G, Marani M, Paone A , McDermott LA, Contestabile R, Cutruzzolà F. ChemMedChem. 2015 Mar;10(3):490-7. doi: 10.1002/cmdc.201500028. Epub 2015 Feb 10.	2,980	14
	14) MicroRNA-135b promotes cancer progression by acting as a downstream effector of oncogenic pathways in colon cancer. Valeri N, Braconi C, Gasparini P, Murgia C, Lampis A, Paulus-Hock V, Hart JR, Ueno L, Grivennikov SI, Lovat F, Paone A , Cascione L, Suman KM, Veronese A, Fabbri M, Carasi S, Alder H, Lanza G, Gafa' R, Moyer MP, Ridgway RA, Cordero J, Nuovo GJ, Frankel WL, Rugge M, Fassan M, Groden J, Vogt PK, Karin M, Sansom OJ, Croce CM. Cancer Cell. 2014 Apr 14;25(4):469-83. doi: 10.1016/j.ccr.2014.03.006.	23,523	173
FIRST AUTHOR	15) SHMT1 knockdown induces apoptosis in lung cancer cells by causing uracil misincorporation. Paone A , Marani M, Fiascarelli A, Rinaldo S, Giardina G, Contestabile R, Paiardini A, Cutruzzolà F.	5,014	30

	Cell Death Dis. 2014 Nov 20;5:e1525. doi: 10.1038/cddis.2014.482.		
	16) Cell death. Giampietri C, Paone A , D'Alessio A. Int J Cell Biol. 2014;2014:864062. doi: 10.1155/2014/864062. Epub 2014 May 11		3
	17) An analysis of genetic factors related to risk of inflammatory bowel disease and colon cancer. Ryan BM, Wolff RK, Valeri N, Khan M, Robinson D, Paone A , Bowman ED, Lundgreen A, Caan B, Potter J, Brown D, Croce C, Slattery ML, Harris CC. Cancer Epidemiol. 2014 Oct;38(5):583-90. doi: 10.1016/j.canep.2014.07.003. Epub 2014 Aug 15.	2,711	16
In this publication the candidate Alessio Paone should be considered FIRST AUTHOR as the first and second authors (*) contributed equally to the work as reported in the specific journal page.	18) Toll-like receptor 3 (TLR3) activation induces microRNA-dependent reexpression of functional RAR β and tumor regression. Galli R*, Paone A* , Fabbri M, Zanesi N, Calore F, Cascione L, Acunzo M, Stoppacciaro A, Tubaro A, Lovat F, Gasparini P, Fadda P, Alder H, Volinia S, Filippini A, Ziparo E, Riccioli A, Croce CM. Proc Natl Acad Sci U S A. 2013 Jun 11;110(24):9812-7. doi: 10.1073/pnas.1304610110. Epub 2013 May 28.	9,809	38
	19) A new role for microRNAs, as ligands of Toll-like receptors Muller Fabbri, Alessio Paone, Federica Calore, Roberta Galli and Carlo M. Croce RNA Biology Volume 10, Issue 2 2013 Feb	5,377	68
	20) miR-EdiTari: A database of predicted A-to-I edited miRNA target sites Alessandro Laganà, Alessio Paone , Dario Veneziano, Luciano Cascione, Pierluigi Gasparini, Stefania Carasi, Francesco Russo, Giovanni Nigita, Valentina Macca, Rosalba Giugno, Alfredo Pulvirenti, Dennis Shasha, Alfredo Ferro and Carlo M. Croce ¹ Bioinformatics. 2012 Oct 7 [Epub ahead of print] PMID:23044546	5,323	19
In this publication the candidate Alessio Paone should be considered FIRST AUTHOR as the first and second authors (*) contributed equally to the work as reported in the specific journal page.	21) MicroRNAs bind to Toll-like receptors to induce prometastatic inflammatory response. Fabbri M, Paone A , Calore F, Galli R, Gaudio E, Santhanam R, Lovat F, Fadda P, Mao C, Nuovo GJ, Zanesi N, Crawford M, Ozer GH, Wernicke D, Alder H, Caligiuri MA, Nana-Sinkam P, Perrotti D, Croce CM. Proc Natl Acad Sci U S A. 2012 Jul 31;109(31):E2110-6. Epub 2012 Jul 2. Press release Cancer. Malicious exosomes. Anastasiadou E, Slack FJ. Science. 2014 Dec 19;346(6216):1459-60. doi: 10.1126/science.aaa4024. No abstract available.	9,737	715

	22) rs4919510 in hsa-mir-608 Is Associated with Outcome but Not Risk of Colorectal Cancer. Ryan BM, McClary AC, Valeri N, Robinson D, Paone A , Bowman ED, Robles AI, Croce C, Harris CC. PLoS One. 2012;7(5):e36306. Epub 2012 May 11.	3,730	51
FIRST AUTHOR	23) MicroRNAs as New Characters in the Plot between Epigenetics and Prostate Cancer. Paone A , Galli R, Fabbri M. Front Genet. 2011;2:62. Epub 2011 Sep 6. PMID: 22303357		14
	24) MicroRNA-21 induces resistance to 5-fluorouracil by down-regulating human DNA MutS homolog 2 (hMSH2). Valeri N, Gasparini P, Braconi C, Paone A , Lovat F, Fabbri M, Suman KM, Alder H, Amadori D, Patel T, Nuovo GJ, Fishel R, Croce CM. Proc Natl Acad Sci U S A. 2010 Dec 7;107(49):21098-103. Epub 2010 Nov 15.	9,771	248
	25) TLR stimulation of prostate tumor cells induces chemokine-mediated recruitment of specific immune cell types. Galli R, Starace D, Busà R, Angelini DF, Paone A , De Cesaris P, Filippini A, Sette C, Battistini L, Ziparo E, Riccioli A. J Immunol. 2010 Jun 15;184(12):6658-69. Epub 2010 May 17	5,745	44
FIRST AUTHOR	26) Toll-like receptor 3 regulates angiogenesis and apoptosis in prostate cancer cell lines through hypoxia-inducible factor 1 alpha. Paone A , Galli R, Gabellini C, Lukashev D, Starace D, Gorlach A, De Cesaris P, Ziparo E, Del Bufalo D, Sitkovsky MV, Filippini A, Riccioli A. Neoplasia. 2010 Jul;12(7):539-49	5,476	60
	27) Toll-like receptor 3 activation induces antiviral immune responses in mouse sertoli cells. Starace D, Galli R, Paone A , De Cesaris P, Filippini A, Ziparo E, Riccioli A. Biol Reprod. 2008 Oct;79(4):766-75. Epub 2008 Jul 2.	3,469	58
FIRST AUTHOR	28) Toll-like receptor 3 triggers apoptosis of human prostate cancer cells through a PKC-alpha-dependent mechanism. Paone A , Starace D, Galli R, Padula F, De Cesaris P, Filippini A, Ziparo E, Riccioli A. Carcinogenesis. 2008 Jul;29(7):1334-42. Epub 2008 Jun 19.	4,930	113
	29) c-Flip(L) is expressed in undifferentiated mouse male germ cells. Giampietri C, Petrungaro S, Coluccia P, Antonangeli F, Paone A , Padula F, De Cesaris P, Ziparo E, Filippini A. FEBS Lett. 2006 Nov 13;580(26):6109-14. Epub 2006	3,372	8

	Oct 16.		
	30) c-Flip expression and function in fetal mouse gonocytes. Giampietri C, Petrungaro S, Klinger FG, Coluccia P, Paone A , Vivarelli E, Filippini A, De Cesaris P, De Felici M, Ziparo E. FASEB J. 2006 Jan;20(1):124-6. Epub 2005 Nov 1.	6,721	12

Part XIV – Conferences

Participation in national and international meetings, including 3 oral, 6 poster presentations as selected abstract and 1 best poster price

Year	Title	notes
2008	Toll Like Receptor activation induces cytokine upregulation in human prostate cancer cells <u>Paone A.</u> , Starace D., Galli R., Padula F., De Cesaris P., Filippini A., Ziparo E. and Riccioli A. “Cytokines 2008” Florence Italy, December 2-6, 2008	poster
2009	HIF-1a activation by Toll Like Receptor-3 agonist poly (I:C) in prostate cancer cell line <u>Paone A.*</u> , Galli R., Starace D., De Cesaris P., Filippini A., Ziparo E. and Riccioli A. “Inflammation and Cancer” Berlin, Germany, September 24 – 25, 2009	poster
2010	mir-21 causes resistance to 5-fluorouracil by inducing MSH2-MSH6 downregulation in colon cancer. Nicola Valeri, Pierluigi Gasparini, Chiara Braconi, Francesca Lovat, <u>Alessio Paone</u> , Muller Fabbri, Gerard Nuovo, Carlo Croce. “Colorectal Cancer: Biology to Therapy” Philadelphia (PA) USA, October 27-30, 2010	poster
2015	Probing the metabolic reprogramming of cancer cells: functional and struttural studies of human serine hydriximethyltransferase <u>Paone Alessio</u> , Giorgio Giardina, Paolo Brunotti, Marina Marani, Serena Rinaldo, Alessandro Paiardini, Roberto Contestabile Francesca Cutruzzolà. Cancer and Metabolism conference 2015: September 28-30, 2015 Robinson College, Cambridge UK	poster
2016	A pyrazolopyran derivative preferentially inhibits the activity of human cytosolic serine hydroxymethyltransferase and induces cell death in lung cancer cells <u>Marina Marani1</u> , <u>Alessio Paone</u> , Alessio Fiascarelli1, Alberto Macone1, Maurizio Gargano1, Serena Rinaldo1, Giorgio Giardina1, Valentino Pontecorvi1, David Koes2, Lee McDermott3, Tianyi Yang 4, Alessandro Paiardini5, Roberto Contestabile1, Francesca Cutruzzolà1 SIC VERONA. SEPTEMBER 5-8. 2016	poster
2016	FISV 2016 September 22 2016 Rome, Italy TOLL LIKE RECEPTORS: linking inflammation to carcinogenesis	Abstract selected for the Oral presentation

2018	Metabolic Regulation of The Immune Response 8th June 2018 Rome Aula Convegni CNR Linking inflammation to prostate cancer: innate immune receptor stimulation triggers metabolic re-programming in non-immune cells.	Abstract selected for the Oral presentation
2018	The druggable proteome in cancer Molecular approaches to ameliorate the diagnostic, prognostic and therapeutic indexes in cancer 26 th June 2018 Rome Università Cattolica del Sacro Cuore, Largo Francesco Vito 1 Serine Hydroxymethyltransferase, a key metabolic target in cancer chemotherapy	Abstract selected for the Oral presentation