

## BIOGRAPHICAL SKETCH

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<b>NAME</b> <b>Maria Paola Paronetto</b>	<b>POSITION</b> Associate Professor at the University of Rome "Foro Italico" Head of the Lab. of Molecular and Cellular Neurobiology CERC, Fondazione Santa Lucia, Rome Italy
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INSTITUTION	DEGREE	MM/YY	FIELD of STUDY
University of Rome "La Sapienza", Rome, IT	Master Degree	05/2000	Biological Sciences
University of Rome "Tor Vergata", Rome, IT	PhD	02/2006	Medical Embryology
Fondazione Santa Lucia, Rome, IT	Postdoc	2006/2008	Cancer Biology
CRG Barcelona, Spain	Postdoc	2008/11	Gene Regulation

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**Personal Statement:** The aim of my research is focused on co- and post-transcriptional regulation of gene expression, with a specific interest to alternative splicing and its modulation by signal transduction pathways. Alternative splicing decisions allow cells to greatly extend the repertoire of structurally and functionally distinct RNA transcripts and proteins from a limited number of genes, thus expanding the coding potential of our genome. Alterations in the splicing process underlie genetic diseases and contribute to pathologies such as cancer and neurodegenerative diseases.

We are using a broad range of approaches, from biochemical studies to high-throughput sequencing, functional genomics, and bioinformatic analyses, to understand the function and regulation of alternative splicing networks, in physiological and pathological conditions. Our research is also directed at elucidating how altered splicing patterns cause and contribute to human diseases, including Ewing Sarcoma and Amyotrophic Lateral Sclerosis. Splicing vulnerabilities open the path to new therapeutic strategies, which we are currently pursuing.

*h* index Scopus 37; *h* index Google scholar 40

### AWARDS

2009 Human Frontier Science Program Long Term Fellowship (3 years)  
2008 EMBO Long Term Fellowship (2 years)  
2006-2008 Post-doctoral Fellowship by the IRCCS Fondazione Santa Lucia

### SCIENTIFIC SOCIETY MEMBERSHIP

Free Radical Research Europe (SFRR-E)  
Italian Association of Biology and Genetics (AIBG)

### GRANT FUNDING

**2023-2024:** BANDO PRIN 2022: 202224MK8Z - *EXPLOITING THE AR/DHX9 MOLECULAR AXIS AS NOVEL THERAPEUTIC TARGET FOR PROSTATE CANCER*, PI

**2023-2024:** PNRR-MR1-2022-12376821, *ADENYLOSUCCINATE LYASE DEFICIENCY, PURINE METABOLISM DISORDERS AND MITOCHONDRIAL HOMEOSTASIS: UNVEILING NOVEL MECHANISMS TO DESIGN THERAPEUTIC OPPORTUNITIES*; RESPONSABILE DI UNITÀ.

**2021-2021: Lazio Innova:** *"Costruzione di un pannello NGS testing di predisposizione genetica al concepimento di figli con sindromi di Klinefelter e Turner"*.

**2019-2023: Italian Association for Cancer Research (AIRC):** *"Pathophysiological impact of non-coding RNAs in Ewing sarcoma: exploiting novel RNA functions"* (IG21877).

**2018-2019: Sarcoma Foundation of America (SFA):** *"Pathophysiological impact of non-coding RNAs in Ewing sarcoma pathogenesis"*.

**2018-2020: RF-Italian Ministry of Health:** *"Exploiting the co and post-transcriptional regulation of gene expression as therapeutic tool for human cancer"*. (Co-PI)

**2016-2018: Italian Association for Cancer Research (AIRC)** Investigator Grant (IG17278), *"Regulation of DHX9 alternative splicing and the acquisition of chemo-resistance in Ewing Sarcoma cells"*.

**2014-2016: Worldwide Cancer Research Association** (AICR-UK n.14-0333) *"Regulation of alternative pre-mRNA processing in the pathogenesis of Ewing's Sarcoma"*.

**2012-2014: Italian Association for Cancer Research (AIRC)** (my first AIRC: MFAG *"Co-transcriptional regulation of gene expression by EWS and EWS-FLI1 in the pathogenesis of Ewing Sarcoma"*).

### POSITIONS AND HONORS

**Nov. 2015 to date:** Associate Professor at the Department of Health Sciences, University of Rome "Foro Italico", Rome, Italy.

**Nov. 2015 to 2017:** Chair of the European Master of Science in Health and Physical Activity (LM67Int), University of Rome "Foro Italico", Rome, Italy.

**March 2012-to date:** Head of the Laboratory of Cellular and Molecular Neurobiology, appointment at the Institute for Experimental Neuroscience, Santa Lucia Foundation, Rome, Italy.

**Nov. 2011-2015:** Assistant Professor at the Department of Health Sciences, University of Rome "Foro Italico" – IUSM, Rome, Italy.

**May 2008-2011:** Post-doctoral Fellow at the Center for Genomic Regulation, Barcelona, Spain. Research Advisor: Dr Juan Valcárcel.

**2006-2008:** Post-doctoral Fellow at Fondazione Santa Lucia, Rome, Italy. Research advisor: Prof. Claudio Sette.

**April 2007:** Visiting Fellow at the Department of Obstetrics, Gynecology & Reproductive Sciences, UCSF, collaboration with Prof. Marco Conti.

**September 2006:** Visiting Fellow at the Departments of Medicine and Oncology, McGill University, Montreal, Quebec, Canada, collaboration with Dr. Stephan Richard.

**2002-2006:** PhD student in Medical Embryology at the Department of Public Health and Cell biology, University of Rome Tor Vergata, Rome, Italy. Tutor: Prof. Raffaele Geremia.

**November 2004:** Visiting Fellow at the Biosignal Research Center, Kobe University, Japan, collaboration with Dr. Ken-ichi Sato.

**October 2004:** Visiting Fellow at the Division of Reproductive Biology, Department of Obstetrics and Gynecology, Stanford University, California U.S.A., collaboration with Prof. Marco Conti.

**December 2002:** CNR-INSERM fellow, visiting Fellow at the Department of Biochemistry, INSERM 352, Lyon, France, collaboration with Dr. Georges Nemoz.

**2001-2002:** Pre-doctoral Fellow, Department of Public Health and Cell biology, University of Rome Tor Vergata, Rome, Italy.

**1999-2001:** Undergraduate Internship at the Department of Biological Chemistry, University of Rome La Sapienza, Italy.

## PUBLICATIONS

1. Scaricamazza S, Nesci V, Salvatori I, Fenili G, Rosina M, Gloriani M, Paronetto MP, Madaro L, Ferri A, Valle C. Endurance exercise has a negative impact on the onset of SOD1-G93A ALS in female mice and affects the entire skeletal muscle-motor neuron axis. *Front Pharmacol.* 2024 Mar 25;15:1360099.
2. Naro C, Antonioni A, Medici V, Caggiano C, Jolly A, de la Grange P, Bielli P, **Paronetto MP**, Sette C. Splicing targeting drugs highlight intron retention as an actionable vulnerability in advanced prostate cancer. *J Exp Clin Cancer Res.* 2024 Feb 27;43(1):58.
3. Chellini L, Scarfò M, Bonvissuto D, Sette C, **Paronetto MP**. The DNA/RNA helicase DHX9 orchestrates the KDM2B-mediated transcriptional regulation of YAP1 in Ewing sarcoma. *Oncogene.* 2024 Jan;43(4):225-234.
4. Frezza V, Chellini L, Del Verme A, **Paronetto MP**. RNA Editing in Cancer Progression. *Cancers (Basel).* 2023 Nov 3;15(21):5277.
5. Verdile V, Palombo R, Ferrante G, Ferri A, Amadio S, Volonté C, **Paronetto MP**. Dysregulation of alternative splicing underlies synaptic defects in familial amyotrophic lateral sclerosis. *Prog Neurobiol.* 2023 Dec;231:102529.
6. Verdile V, Riccioni V, Guerra M, Ferrante G, Sette C, Valle C, Ferri A, **Paronetto MP**. An impaired splicing program underlies differentiation defects in hSOD1G93A neural progenitor cells. *Cell Mol Life Sci.* 2023 Jul 31;80(8):236.
7. Giannattasio T, Testa E, Palombo R, Chellini L, Franceschini F, Crevenna Á, Petkov PM, **Paronetto MP**, Barchi M. The RNA-binding protein FUS/TLS interacts with SPO11 and PRDM9 and localize at meiotic recombination hotspots. *Cell Mol Life Sci.* 2023 Mar 26;80(4):107.
8. Palombo R, Passacantilli I, Terracciano F, Capone A, Matteocci A, Tournier S, Alberdi A, Chiurchiù V, Volpe E, **Paronetto MP**. Inhibition of the PI3K/AKT/mTOR signaling promotes an M1 macrophage switch by repressing the ATF3-CXCL8 axis in Ewing sarcoma. *Cancer Lett.* 2023 Feb 28;555:216042.
9. Chellini L, Palombo R, Riccioni V, **Paronetto MP**. Oncogenic Dysregulation of Circulating Noncoding RNAs: Novel Challenges and Opportunities in Sarcoma Diagnosis and Treatment. *Cancers (Basel).* 2022 Sep 26;14(19):4677.
10. Chellini L, Pieraccioli M, Sette C, **Paronetto MP**. The DNA/RNA helicase DHX9 contributes to the transcriptional program of the androgen receptor in prostate cancer. *J Exp Clin Cancer Res.* 2022 May 19;41(1):178.
11. Naro C, Barbagallo F, Caggiano C, De Musso M, Panzeri V, Di Agostino S, **Paronetto MP**, Sette C. Functional Interaction Between the Oncogenic Kinase NEK2 and Sam68 Promotes a Splicing Program Involved in Migration and Invasion in Triple-Negative Breast Cancer. *Front Oncol.* 2022 Apr 21;12:880654.
12. Sette C, **Paronetto MP**. Somatic Mutations in Core Spliceosome Components Promote Tumorigenesis and Generate an Exploitable Vulnerability in Human Cancer. *Cancers (Basel).* 2022 Apr 4;14(7):1827.
13. Palombo R, **Paronetto MP**. pncCCND1\_B Engages an Inhibitory Protein Network to Downregulate CCND1 Expression upon DNA Damage. *Cancers (Basel).* 2022 Mar 17;14(6):1537.
14. Verdile V, Svetoni F, La Rosa P, Ferrante G, Cesari E, Sette C, **Paronetto MP**. EWS splicing regulation contributes to balancing Foxp1 isoforms required for neuronal differentiation. *Nucleic Acids Res.* 2022 Apr 8;50(6):3362-3378.

15. Verdile V, Guizzo G, Ferrante G, **Paronetto MP**. RNA Targeting in Inherited Neuromuscular Disorders: Novel Therapeutic Strategies to Counteract Mis-Splicing. *Cells*. 2021 Oct 22;10(11):2850.
16. Pradella D, Deflorian G, Pezzotta A, Di Matteo A, Belloni E, Campolungo D, Paradisi A, Bugatti M, Vermi W, Campioni M, Chiapparino A, Sciatti L, Forneris F, Giampietro C, Volf N, Rehman M, Zacchigna S, **Paronetto MP**, Pistocchi A, Eichmann A, Mehlen P, Ghigna C. A ligand-insensitive UNC5B splicing isoform regulates angiogenesis by promoting apoptosis. *Nat Commun*. 2021. 12(1):4872.
17. Innocenzi E, Cariati I, De Domenico E, Tiberi E, D'Arcangelo G, Verdile V, **Paronetto MP**, Tancredi V, Barchi M, Rossi P, Sette C, Grimaldi P. Aerobic Exercise Induces Alternative Splicing of Neurexins in Frontal Cortex. *J Funct Morphol Kinesiol*. 2021 6(2):48.
18. Ghigna C, **Paronetto MP**. Alternative Splicing: Recent Insights into Mechanisms and Functional Roles. *Cells*. 2020 Oct 20;9(10):2327.
19. **Paronetto MP**, Dimauro I, Grazioli E, Palombo R, Guidotti F, Fantini C, Sgrò P, De Francesco D, Di Luigi L, Capranica L, Caporossi D. Exercise-mediated downregulation of MALAT1 expression and implications in primary and secondary cancer prevention. *Free Radic Biol Med*. 2020; 160:28-39.
20. De Paola E, Forcina L, Pelosi L, Pisu S, La Rosa P, Cesari E, Nicoletti C, Madaro L, Mercatelli N, Biamonte F, Nobili A, D'Amelio M, De Bardi M, Volpe E, Caporossi D, Sette C, Musarò A, **Paronetto MP**. Sam68 splicing regulation contributes to motor unit establishment in the postnatal skeletal muscle. *Life Sci Alliance*. 2020;3(10):e201900637.
21. Mercatelli N, Palombo R, **Paronetto MP**. Emerging Contribution of PancRNAs in Cancer. *Cancers (Basel)*. 2020;12(8):2035.
22. Chellini L, Frezza V, **Paronetto MP**. Dissecting the transcriptional regulatory networks of promoter-associated noncoding RNAs in development and cancer. *J Exp Clin Cancer Res*. 2020;39(1):51.
23. Dimauro I, **Paronetto MP**, Caporossi D. Exercise, redox homeostasis and the epigenetic landscape. *Redox Biol*. 2020; 35:101477.
24. Palombo R, Verdile V, **Paronetto MP**. Poison-Exon Inclusion in DHX9 Reduces Its Expression and Sensitizes Ewing Sarcoma Cells to Chemotherapeutic Treatment. *Cells*. 2020;9(2):328.
25. Palombo R, Frisone P, Fidaleo M, Mercatelli N, Sette C, **Paronetto MP**. The Promoter-Associated Noncoding RNA pncCCND1\_B Assembles a Protein-RNA Complex to Regulate Cyclin D1 Transcription in Ewing Sarcoma. *Cancer Res*. 2019 Jul 15;79(14):3570-3582.
26. Verdile V, De Paola E, **Paronetto MP**. Aberrant Phase Transitions: Side Effects and Novel Therapeutic Strategies in Human Disease. *Front Genet*. 2019 Mar 22;10:173.
27. De Paola E, Verdile V, **Paronetto MP**. Dysregulation of microRNA metabolism in motor neuron diseases: Novel biomarkers and potential therapeutics. *Noncoding RNA Res*. 2018 Dec 20;4(1):15-22.
28. Angiolini F, Belloni E, Giordano M, Campioni M, Forneris F, **Paronetto MP**, Lupia M, Brandas C, Pradella D, Di Matteo A, Giampietro C, Jodice G, Luise C, Bertalot G, Freddi S, Malinverno M, Irimia M, Moulton JD, Summerton J, Chiapparino A, Ghilardi C, Giavazzi R, Nyqvist D, Gabellini D, Dejana E, Cavallaro U, Ghigna C. A novel L1CAM isoform with angiogenic activity generated by NOVA2-mediated alternative splicing. *Elife*. 2019 Mar 4;8:e44305.
29. Volpe E, Cesari E, Mercatelli N, Cicconi R, De Bardi M, Capone A, Bonvissuto D, Fraziano M, Mattei M, Battistini L, **Paronetto MP**, Sette C. The RNA binding protein Sam68 controls T helper 1 differentiation and anti-mycobacterial response through modulation of miR-29. *Cell Death Differ*. 2018 Sep 26. doi: 10.1038/s41418-018-0201-9.
30. Passacantilli I., Frisone P., De Paola E., Fidaleo M., **Paronetto MP**. hnRNPM guides an alternative splicing program in response to inhibition of the PI3K/AKT/mTOR pathway in Ewing sarcoma cells. *Nucleic Acids Research*, gkx831.Oct 2017.
31. Mercatelli N, Fittipaldi S, De Paola E, Dimauro I, **Paronetto MP**, Jackson MJ, Caporossi D. MiR-23-TrxR1 as a novel molecular axis in skeletal muscle differentiation. *Sci Rep*. 2017;7(1):7219.
32. Svetoni F, De Paola E, La Rosa P, Mercatelli N, Caporossi D, Sette C, **Paronetto MP**. Post-transcriptional regulation of FUS and EWS protein expression by miR-141 during neural differentiation. *Hum Mol Genet*. 2017 Jul 15;26(14):2732-2746.
33. Svetoni F, Frisone P, **Paronetto MP**. Role of FET proteins in neurodegenerative disorders. *RNA Biol*. 2016 Nov;13(11):1089-1102.
34. **Paronetto MP**, Passacantilli I, Sette C. Alternative splicing and cell survival: from tissue homeostasis to disease. *Cell Death Differ*. 2016 Dec;23(12):1919-1929.
35. Fidaleo M, Paola E, **Paronetto MP**. The RNA helicase A in malignant transformation. *Oncotarget*. 2016.
36. Fidaleo M, Svetoni F, Volpe E, Miñana B, Caporossi D, **Paronetto MP**. Genotoxic stress inhibits Ewing sarcoma cell growth by modulating alternative pre-mRNA processing of the RNA helicase DHX9. *Oncotarget*. 2015 Oct 13;6(31):31740-57.
37. Ghigna C, Cartegni L, Jordan P, and **Paronetto MP**. 2015. Posttranscriptional Regulation and RNA Binding Proteins in Cancer Biology. *Biomed Res Int*. 2015;2015:897821.
38. Frisone P, Pradella D, di Matteo A, Belloni E, Ghigna C, and **Paronetto MP**. 2015. SAM68: signal transduction and RNA metabolism in human cancer. *Biomed Res Int*. 2015;2015:528954.
39. Fittipaldi S, Mercatelli N, Dimauro I, Jackson MJ, **Paronetto MP**, Caporossi D. Alpha B-crystallin induction in skeletal muscle cells under redox imbalance is mediated by a JNK-dependent regulatory mechanism. *Free Radic Biol Med*. 2015 Jun 8. pii: S0891-5849(15)00258-0.
40. Cumming KT, Raastad T, Holden G, Bastani NE, Schneeberger D, **Paronetto MP**, Mercatelli N, Ostgaard HN, Ugelstad I, Caporossi D, Blomhoff R, Paulsen G. 2014. Effects of vitamin C and E supplementation on endogenous antioxidant systems and heat shock proteins in response to endurance training. *Physiol Rep*. 2 pii: e12142.
41. Volpe E, Pattarini L, Martinez-Cingolani C, Meller S, Donnadieu MH, Bogiatzi SI, Fernandez MI, Touzot M, Bichet JC, Reyat F, **Paronetto MP**, Chiricozzi A, Chimenti S, Nasorri F, Cavani A, Kislat A, Homey B, Soumelis V. 2014. Thymic stromal lymphopoietin links keratinocytes and dendritic cell-derived IL-23 in patients with psoriasis. *J Allergy Clin Immunol*. 134:373-81.
42. **Paronetto MP**, Bernardis I, Volpe E, Bechara E, Sebestyén E, Eyra E, Valcárcel J. 2014. Regulation of FAS exon definition and apoptosis by the Ewing sarcoma protein. *Cell Rep*. 7:1211-26.

43. Naro C, Barbagallo F, Chieffi P, Bourgeois CF, **Paronetto MP**, Sette C. 2014. The centrosomal kinase NEK2 is a novel splicing factor kinase involved in cell survival. *Nucleic Acids Res.* 42:3218-27.
44. Cappellari M, Bielli P, **Paronetto MP**, Ciccocanti F, Fimia GM, Saarikettu J, Silvennoinen O, Sette C. 2014. The transcriptional co-activator SND1 is a novel regulator of alternative splicing in prostate cancer cells. *Oncogene.* 33:3794-802.
45. **Paronetto MP**. 2013. Ewing Sarcoma Protein: A Key Player in Human Cancer. *Int J Cell Biol.*; 2013:642853.
46. Schmid R, Grellscheid SN, Ehrmann I, Dalgliesh C, Danilenko M, **Paronetto MP**, Pedrotti S, Grellscheid D, Dixon RJ, Sette C, Eperon IC, Elliott DJ. 2013. The splicing landscape is globally reprogrammed during male meiosis. *Nucleic Acids Res.* 41:10170-84.
47. Messina V, Meikar O, **Paronetto MP**, Calabretta S, Geremia R, Kotaja N, Sette C. 2012. The RNA binding protein SAM68 transiently localizes in the chromatoid body of male germ cells and influences expression of select microRNAs. *PLoS One.*;7:e39729.
48. **Paronetto MP**, Miñana B, Valcárcel J 2011. The Ewing Sarcoma protein (EWS) regulates DNA damage-induced alternative splicing. *Mol Cell.* 43:353-68.
49. Bielli P, Busà R, **Paronetto MP**, Sette C. 2011. The RNA binding protein Sam68 is a multifunctional player in human cancer. *Endocr Relat Cancer.* 18(4):R91-R102.
50. **Paronetto MP**, Messina V, Barchi M, Geremia R, Richard S, Sette C. 2011. Sam68 marks the transcriptionally active stages of spermatogenesis and modulates alternative splicing in male germ cells. *Nucleic Acids Res.* 39:4961-74.
51. Muciaccia B, Sette C, **Paronetto MP**, Barchi M, Pensini S, D'Agostino A, Gandini L, Geremia R, Stefanini M, Rossi P. 2010. Expression of a truncated form of KIT tyrosine kinase in human spermatozoa correlates with sperm DNA integrity. *Hum Reprod.* 25: 2188-202.
52. Pedrotti S, Bielli P, **Paronetto MP**, Ciccocanti F, Fimia GM, Stamm S, Manley JL, Sette C. 2010. The splicing regulator Sam68 binds to a novel exonic splicing silencer and functions in SMN2 alternative splicing in spinal muscular atrophy. *EMBO J.* 29:1235-47.
53. Barrios F, Filipponi D, Pellegrini M, **Paronetto MP**, Di Siena S, Geremia R, Rossi P, De Felici M, Jannini EA, Dolci S. (2010) Opposing effects of retinoic acid and FGF9 on Nanos2 expression and meiotic entry of mouse germ cells. *J Cell Sci.* 123:871-80.
54. **Paronetto MP**, Cappellari M, Busà R, Pedrotti S, Vitali R, Comstock C, Hyslop T, Knudsen KE, Sette C. (2010). Alternative Splicing of the Cyclin D1 Proto-Oncogene Is Regulated by the RNA-Binding Protein Sam68. *Cancer Res.* 70: 229-39.
55. Sette C, Messina V, **Paronetto MP**. (2010) Sam68: A New STAR in the Male Fertility Firmament. *J Androl.* 3: 66-74.
56. Brignatz C, **Paronetto MP**, Opi S, Cappellari M, Audebert S, Feuillet V, Bismuth G, Roche S, Arold ST, Sette C, Collette Y. (2009). Alternative splicing modulates autoinhibition and SH3 accessibility in the Src kinase Fyn. *Mol Cell Biol.* 24:6438-48.
57. Muñoz MJ, Pérez Santangelo MS, **Paronetto MP**, de la Mata M, Pelisch F, Boireau S, Glover-Cutter K, Ben-Dov C, Blaustein M, Lozano JJ, Bird G, Bentley D, Bertrand E, Kornblihtt AR. (2009). DNA damage regulates alternative splicing through inhibition of RNA polymerase II elongation. *Cell.* 137:708-720.
58. **Paronetto MP**, Messina V, Bianchi E, Barchi M, Vogel G, Moretti C, Palombi F, Stefanini M, Geremia R, Richard S, Sette C. (2009) Sam68 regulates translation of target mRNAs in male germ cells, necessary for mouse spermatogenesis. *J Cell Biol.* 185:235-249.
59. **Paronetto MP**, Sette C. (2009). Role of RNA-binding proteins in mammalian spermatogenesis. *Int J Androl.* 33:2-12.
60. Barbagallo F, **Paronetto MP**, Franco R, Chieffi P, Dolci S, Fry AM, Geremia R, Sette C. 2009. Increased expression and nuclear localization of the centrosomal kinase Nek2 in human testicular seminomas *J Pathol.* 217:431-441.
61. Bianchini A, Loiarro M, Bielli P, Busà R, **Paronetto MP**, Loreni F, Geremia R, Sette C. 2008. Phosphorylation of eIF4E by MNKs supports protein synthesis, cell cycle progression and proliferation in prostate cancer cells. *Carcinogenesis.* 29: 2279-2288.
62. Ehrmann I, Dalgliesh C, Tsaousi A, **Paronetto MP**, Heinrich B, Kist R, Cairns P, Li W, Mueller C, Jackson M, Peters H, Nayernia K, Saunders P, Mitchell M, Stamm S, Sette C, Elliott DJ. 2008. Haploinsufficiency of the germ cell-specific nuclear RNA binding protein hnRNP G-T prevents functional spermatogenesis in the mouse. *Hum Mol Genet.* 17: 2803-18.
63. **Paronetto MP**, Bianchi E, Geremia R, and Sette C. 2008. Dynamic expression of the RNA-binding protein Sam68 during mouse pre-implantation development. *Gene Expression Patterns.* 8, 311-22.
64. Fedele M, Franco R, Salvatore G, **Paronetto MP**, Barbagallo F, Pero R, Chiariotti L, Sette C, Tramontano D, Chieffi G, Fusco A, and Chieffi P. 2008. Patz1 gene has a critical role in the spermatogenesis and testicular tumours. *J Pathol.*,215: 39-47.
65. Iwasaki T, Koretomo Y, Fukuda T, **Paronetto MP**, Sette C, Fukami Y, Sato K 2008. Expression, phosphorylation, and mRNA-binding of heterogeneous nuclear ribonucleoprotein K in *Xenopus* oocytes, eggs, and early embryos *Dev Growth Differ.* 50: 23-40.
66. Lolicato F, Marino R, **Paronetto MP**, Pellegrini M, Dolci S, Geremia R, and Grimaldi P. 2007). Potential role of Nanos3 in maintaining the undifferentiated spermatogonia population. *Dev Biol.* 313: 725-738.
67. **Paronetto MP**, Achsel T, Massiello A, Chalfant CE, and Sette C. 2007. The RNA-binding protein Sam68 modulates apoptosis through the alternative splicing of Bcl-x. *J Cell Biol.* 176: 929-939.
68. Busà R, **Paronetto MP**, Farini D, Pierantozzi E, Botti F, Angelini DF, Attisani F, Vespasiani G, and Sette C. 2007. The RNA-binding protein Sam68 contributes to proliferation and survival of human prostate cancer cells. *Oncogene* 26: 4372-82.
69. **Paronetto MP**, Zalfa F, Botti F, Geremia R, Bagni C, Sette C. 2006. The nuclear RNA-binding protein Sam68 translocates to the cytoplasm and associates with the polysomes in mouse spermatocytes. *Mol Biol Cell.* 17:14-24.
70. Seung JH, Chen R, **Paronetto MP**, Conti M. 2005. Wee1B is an oocyte-specific kinase involved in the control of meiotic arrest in the mouse. *Curr Biol.* 15: 1670-1676.
71. **Paronetto MP**, Giorda E, Carsetti R, Rossi P, Geremia R, and Sette C. 2004. Functional interaction between p90(Rsk2) and Emi1 contributes to the metaphase arrest of mouse oocytes. *EMBO J.* 23: 4649-4659.

72. **Paronetto MP**, Farini D, Sammarco I, Maturo G, Vespasiani G, Geremia R, Rossi P, and Sette C 2004. Expression of a truncated form of the c-Kit tyrosine kinase receptor and activation of Src kinase in human prostatic cancer. *Am J Pathol.* 164: 1243-12.
73. Venables JP, Dalglish G, **Paronetto MP**, Skitt L, Thornton JK, Saunders PT, Sette C, Jones KT, and Elliott DJ. 2004. SIAH1 targets the alternative splicing factor T-STAR for degradation by the proteasome. *Hum. Mol. Genet.* 13:1525-1532.
74. Sato KI, Sette C, Kurokawa M, **Paronetto MP**, Iwasaki T, Fissore R, Fukami Y. 2004. Fertilizome project: proteomics of fertilization signalling- The biological bridge between gametogenesis and embryogenesis. *Current Proteomics* 1: 231-246.
75. Rossi P, Dolci S, Sette C, Capolunghi F, Pellegrini M, Loiarro M, Di Agostino S, **Paronetto MP**, Grimaldi P, Merico D, Martegani E, and Geremia R. 2004. Analysis of the gene expression profile of male meiotic germ cells. *Gene Expr. Patterns* 4:267-281.
76. **Paronetto MP**, Venables JP, Elliott DJ, Geremia R, Rossi P, Sette C. 2003. Tr-kit promotes the formation of a multimolecular complex composed by Fyn, PLCgamma1 and Sam68. *Oncogene.* 22:8707-8715.
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78. Bonaccorsi di Patti MC, **Paronetto MP**, Dolci V, Felice MR, Lania A, Musci G. 2001. Mutational analysis of the iron binding site of *Saccharomyces cerevisiae* ferroxidase Fet3. An in vivo study. *FEBS Lett.* 508:475-478.
79. **Paronetto MP**, Miele R, Maugliani A, Borro M, Bonaccorsi di Patti MC. 2001. Cloning of *Pichia pastoris* Fet3: insights into the high affinity iron uptake system. *Arch Biochem Biophys.* 392:162-167.

#### **PATENTS**

1. Paronetto MP and Pedrotti S 2012. Dominant negative mutants of Sam68 for use in the treatment of spinal muscular atrophy (SMA) Applicaton #20120071415 - Class: 514 177 (USPTO); Agent: Fondazione Santa Lucia - Rome, Italy.
2. Paronetto MP, Fimia GM and Di Bartolomeo S 2011. Peptidic and peptidomimetic compounds for regulating autophagy. Applicaton #20110281804 – Class: 514/17.8 (USPTO); Agent: Fondazione Santa Lucia - Rome, Italy.

#### **Ad hoc REVIEWER**

**Journals:** Nature Communications, Genome Research, Nature Structural and Molecular Biology, Nucleic Acids Research, BMC Cancer, Human Molecular Genetics, Scientific reports, BioMed Research International, Biology of Reproduction, BBA - Gene Regulatory Mechanisms, PLOS ONE, E-Biomedicine, Oncotarget, Cell Cycle, Cellular and Molecular Life Sciences, Cancers, Cells, Cell Reports, and Journal of Experimental and Clinical Cancer Research, Clinical and Translational Medicine, Frontiers in Oncology

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**Editorial Board Member:** Cancer Letters, Cancers, and Journal of Experimental and Clinical Cancer Research.