

Curriculum Vitae **Gaetano Marverti**

Work address: Department of Biomedical, Metabolic and Neural Sciences
Via Campi 287, 41125, Modena

Contacts Office: +39 0592055394
Lab: +39 0592055395
E-mail: gaetano.marverti@unimore.it

Researcher identifiers: ResearcherID: G-9315-2016; ORCID 0000-0002-9074-0795;
Scopus Author ID: 6603369348.

Education and Training

Degrees: Degree cum Laude in Medicinal Chemistry in 1988 at the University of Modena and Reggio Emilia. Degree cum Laude in Pharmacy in 1990 at the same University.

Positions: 1991, Technical Assistant in the Section of Biological Chemistry, Department of Biomedical Sciences of the University of Modena and Reggio Emilia
From 15.7.1993 to 25.7.1994 Postdoctoral fellow in the lab directed by Prof. Paul A. Andrews, Cancer Pharmacology Section, Georgetown University, Washington D.C., USA.
2001, Researcher of Biochemistry in the Faculty of Medicine and Surgery of the same University.
2010, Associate Professor in the Faculty of Medicine and Surgery of the same University.

EDUCATIONAL ACTIVITY

Charged of the course of Chemistry and Biochemistry for Nursery students and charged of the course of Biochemistry for Medicine and Surgery students of the University of Modena and Reggio Emilia. Charged of the course of Biochemistry in the Medicine and Surgery Degree for student-officers of the Medical Corps of the Army, Military Academy of Modena.

In particular:

In the Academic Years 1991 to 1993 he held the practical exercises of Biochemistry for students of degree courses in Medicinal Chemistry and Pharmacy.

In the Academic Years 1994-95 and 1995-96 he held the Course of support for the students of the Integrated Course of Chemistry and Propedeutic Biochemistry, degree course in Medicine and Surgery.

In the Academic Years 1997-2002 he held the teaching of General and Organic Chemistry, and Propedeutic Biochemistry in Integrated Course of Medical Chemistry and Biochemistry of the University Diploma of Nursing and Physiotherapy at the headquarters in Reggio Emilia.

In the Academic Year 2001-02 held the Integrated Course of General Chemistry, Organic and Inorganic Chemistry of the University Diploma in Sanitary Technician of Medical Radiology at the headquarters in Reggio Emilia.

In the Academic Years 2007-10 he held the teaching of "Medical Chemistry and Biochemistry" (28 hours) in the Integrated Course of Biological Sciences of the Degree in Dental Hygiene at the headquarters of Modena.

In the Academic Years 2007-10 he held the teaching of "Chemistry and Biochemistry" (40 hours) in the Integrated Course of Human Morphology of the Degree in Speech Therapy at the headquarters of Modena.

In the Academic Years 2007-10 he held the teaching of "Medical Chemistry and Biochemistry" (30 hours) in the Integrated Course of Biological Sciences of the Degree Course in Obstetrics at the headquarters of Modena.

In the Academic Years 2007-10 he held the teaching of "Medical Chemistry and Biochemistry" (40 hours) of the Degree Course in Techniques of Psychiatric Rehabilitation at the headquarters of Modena.

In the Academic Years 2007-10 he held the teaching of "Medical Chemistry and Biochemistry" (40 hours) of the Degree Course in Medical Radiology Techniques for Imaging and Radiotherapy at the headquarters of Modena.

In the Academic Years 2007-10 he held the teaching of "Medical Chemistry and Biochemistry" (40 hours) in the Integrated Course of Biological Sciences of the Degree Course in Techniques of Cardiocirculatory Pathophysiology and Cardiovascular Perfusion at the headquarters of Modena.

In the Academic Years 2007-10 he held the teaching of "Medical Chemistry" (20 hours) in the Integrated Course of Biological Sciences of the Degree in Dietetics at the headquarters of Modena.

From the Academic Year 2002-03 to the AY 2015-16 he held the teaching of "Biochemistry" in Integrated Course of Cellular and Molecular Basis of Life (formerly Basic Sciences) of the Degree in Nursing (20 hours) at the headquarters of Modena. From AY 2011-12 is coordinator of CI in "Fundamentals of cellular and molecular life" which includes the course of Biochemistry and Biology and Genetics.

From the Academic Year 2010-11 to the AY 2014-15 he holds the teaching of "Biochemistry" in Integrated Course of Molecular Basis of Life (formerly Propaedeutical Sciences) of the Degree in Nursing (24 hours) at the headquarters of Reggio Emilia.

In the Academic Year 2014-15 he held the teaching of Biochemistry for the Integrated Course of Biochemistry, in the first year of the degree course in Dentistry.

From Academic Year 2009-10 to the AY 2014-15 he is lecturer in Biochemistry for the Integrated Course of Biological Chemistry, for Cadet Officers of the Military Academy,

From the Academic Year 2010-11 to the AY 2014-15 he also teaches Biochemistry for the Integrated Course of Biochemistry, in the first year of the degree course in Medicine and Surgery.

Since the Academic Year 2014-15 he has been teaching Biochemistry for the first year of the Specialization School of "PSICHIATRY".

Assistance and guidance to students and doctoral students.

Thesis supervisor of undergraduate program for students of Biotechnology and master thesis for students of Pharmaceutical Biotechnology and Pharmacy.

He was a member of the Teaching Committee in the DOCTORATE Schools:

1. QUALITY AND SAFETY OF FOOD, - Cycle: XXII.

2. PHYSIO-PHARMACOLOGICAL, - Cycles: XXIII AND XXIV

3. SCIENCES AND TECHNOLOGIES OF HEALTH PRODUCTS, - Cycles: XXV-XXVI-XXVII-XXVIII

He is a member of the Teaching College in the DOCTORATE School:

4. CLINICAL AND EXPERIMENTAL MEDICINE (CEM) - CLINICAL MEDICINE E EXPERIMENTAL, - CYCLE: XXIX (2013-14) - XXX (2014-15) - XXXI (2015-16) - XXXII (2016-17) - XXXIII (2017-18) - XXXIV (2018-19) - XXXV (2019-20).

RESEARCH GRANTS

2004-2006 Ha fatto parte di Unità di Ricerca Locale Progetto di Ricerca di Interesse Nazionale (PRIN) dal titolo: “Profili di espressione delle inforne di clusterina e dei geni coinvolti nella proliferazione cellulare durante lo sviluppo del carcinoma prostatico”.

2004-2006 Ha fatto parte di Unità di Ricerca Locale Progetto di Ricerca di Interesse Nazionale (PRIN) dal titolo: “Nuovi inibitori della timidilato sintasi ad azione antitumorale: identificazione di nuovi lead e ottimizzazione chimica di lead noti; valutazione biologica mediante sub-cellular and cellular assays “.

2006-2008 Ha fatto parte di Unità di Ricerca Locale Progetto di Ricerca di Interesse Nazionale (PRIN) dal titolo: “Design, sintesi e aspetti di biologia strutturale nello studio di inibitori della timidilato sintasi con azione apoptotica.”.

2006-2009 Ha fatto parte di un Programma triennale europeo SIXTH FRAMEWORK PROGRAMME STREP VI FP (Progetto LIGHTS) intitolato: “Small ligands to interfere with thymidylate synthase dimer formation as new tools for development of anticancer agents against ovarian carcinoma”.

2009 Contributo di Euro 8.000,00 al Dr. Marverti assegnato dall' Associazione Angela Serra per la Ricerca sul Cancro, Centro Oncologico Modenese, a favore del progetto: “Studi sui meccanismi della resistenza al cisplatino in cellule umane di carcinoma ovarico: effetto della modulazione dell'espressione della timidilato sintasi”.

PRIN 2009 - Ha fatto parte di Unità di Ricerca Locale Progetto di Ricerca di Interesse Nazionale (PRIN) dal titolo: Design and development of leads targeting the folate pathway as antiparasitic agents against Trypanosomatidae. G.Cannazza, G.Ponterini, MP Costi, G.Marverti, D.Farina, S.Lazzari, U.Battisti.

2010-2013 - Progetto AIRC dal titolo “AIRC Project IG 10474 - AIRC DROC: TARGETING OVARIAN CANCER DRUG RESISTANCE”. Costi MP, Ferrari S., Ponterini G., Marverti G., Frassinetti C., Genovese F., D'Arca D., Guerrini R., Salvadori S., Trapella C., Conte P. Importo 465.000 euro.

- 2014-2017 - Grant Agreement No 603240: New Medicines for Trypanosomatidic Infections NMTrypI. University of Modena and Reggio Emilia (UNIMORE), Italy. Bernhard Nocht Institute for Tropical Medicine (BNI), Germany. Centro Nacional de Pesquisa em Energia e Materiais (CNPEM), Brazil. ETHNIKO IDRYMA EREVNON (NHRF), Greece. Fraunhofer Institute for

Molecular Biology and Applied Ecology IME, Germany. Instituto de Biologia Molecular e Celular (IBMC), Portugal. National Center for Research Universidad Complutense de Madrid (UCM), Spain. National Center for Research (NCR), North Sudan. University of Siena (UNISI), Italy.

2016-2018 - Progetto AIRC IG 2015 Id.16977: "Protein-protein interaction inhibitors of thymidylate synthase against colorectal cancers.". Costi MP, Domenico D'Arca; Glauco Ponterini; Luca Costantino; Lorena Losi; Stefania Ferrari; Gaetano Marverti; Giorgia Pavesi; Stefano Mangani; Remo Guerrini. Importo 465.000 euro.

Circolare prot. N. 45.329 del 28/2/2018; Progetto U-GOV 020145_17_FU_MARVERTI_2018. STUDI SULL'EFFETTO DI NUOVI COMPLESSI FENANTROLINICI E BIPRIDINICI DEL Pt(II) E DEL Pd(II) CON TIOUREA SU CELLULE TUMORALI UMANE. 16355,87 €.

REVISION ACTIVITY FOR SCIENTIFIC JOURNALS

Analytical Cellular Pathology, AminoAcids, Anti-Cancer Agents in Medicinal Chemistry, Archives of Gynecology and Obstetrics, Biochemical Journal, Bioscience Reports, Biochemical Journal-China, Cancers, Cancer Investigation, Cancer Letters, Cell Proliferation, Current Drug Target, European Journal of Medicinal Chemistry, Food and Chemical Toxicology, Future Medicinal Chemistry, Gavin Journal of Stem Cell Research and Therapy, Gavin Journal of Microbiology and Genetics, International Journal of Nanomedicine, International Journal of Molecular Sciences, Journal of Cellular Molecular Medicine, Journal of Cellular Physiology, Journal of Clinical Medicine, Journal of Drug Design & Research, Journal of Drug Targeting, Journal of Molecular Structure, Journal of Inorganic Biochemistry, Letters in Drug Design & Discovery (LDDD), Marine Drugs, Medical Science Monitor, Molecules, Nutrients, OncoTargets and Therapy, Oxidative Medicine and Cellular Longevity, PathoPhysiology, Pharmaceutical Biology, Pharmaceutical Sciences. Review Recent Clinical Trials (Bentham Science Publisher), Scientific Reports, The Journal of Obstetrics and Gynecology Research, TOPROCJ, Toxins, Toxicology Letters.

REVISION ACTIVITY FOR FUNDING AGENCIES

Revisione progetto PRIN-MIUR per UNITO: 2012

Swiss National Science Foundation: Request for scientific evaluation 200021 135329 (2010).

SCIENTIFIC ACTIVITY:

The scientific activity can be summarized in the following topics:

1. Studies on the effect of polyamines on the regulation of protein kinase C.
2. Studies on the involvement of polyamines in cell death processes.
3. Studies on the pharmacology of the anticancer drug cisplatin and related mechanisms of resistance in human carcinoma cell lines.
4. Studies on the effects of polyamines on the cytotoxicity of cisplatin in human cancer cells.
5. Studies on the biological effects of Amadori's Pt(II)-compounds, of Fe³⁺-glycosil complexes of curcumin and of non-complexing curcuminoids.
6. Studies on novel inhibitors of folate cycle enzymes, thymidylate synthase and dihydrofolate reductase, as anticancer drugs in cisplatin-resistant human carcinoma cell lines.
7. Studies on novel N, N'-disubstituted thiocarbamide derivatives as anticancer drugs against human tumour cell lines.

PUBLICATIONS

1. Moruzzi, M.S., Monti, M.G., Piccinini, G., **Marverti, G.**, and Tadolini, B. Effect of spermine on association of protein kinase C with phospholipid vesicles. *Life Sciences*, 47: 1475-82, 1990.
2. Moruzzi, M.S., **Marverti, G.**, Piccinini, G., Frassinetti, C., and Monti, M.G. Effect of spermine on membrane-associated and membrane-inserted forms of protein kinase C. *Molecular and Cellular Biochemistry*, 124: 1-9, 1993.
3. Monti, M.G., **Marverti, G.**, Ghiaroni, S., Piccinini, G., Pernecco, L., and Moruzzi, M.S. Spermine protects protein kinase C from phospholipid-induced inactivation. *Experientia*, 50: 953-957, 1994.
4. Moruzzi, M.S., **Marverti, G.**, Piccinini, G., Frassinetti, C. and Monti, M.G. The effect of spermine on calcium requirement for protein kinase C association with phospholipid vesicles. *International Journal of Biochemistry & Cell Biology*, 27: 783-788, 1995.
5. **Marverti, G.**, and Andrews, P.A. Stimulation of cis-diamminedichloroplatinum(II) accumulation by modulation of passive permeability with genistein: an altered response in accumulation-defective resistant cells. *Clinical Cancer Research*, 2: 991-999, 1996.
6. Monti, M.G., Pernecco, L., Manfredini, R., Frassinetti, C., Barbieri, D., **Marverti, G.**, Ghiaroni, S. Inhibition of cell growth by accumulated spermine is associated with a transient alteration of cell cycle progression. *Life Sciences*, 58: 2065-2072, 1996.
7. **Marverti, G.**, Andrews, P.A., Piccinini, G., Ghiaroni, S., Barbieri, D. and Moruzzi, M.S. Modulation of cis-diamminedichloroplatinum(II) accumulation and cytotoxicity by spermine in sensitive and resistant human ovarian carcinoma cells. *European Journal of Cancer*, 4: 669-675, 1997.
8. Monti M.G., Ghiaroni S., Pernecco L., Barbieri D., **Marverti G.**, Franceschi C. Polyamine depletion protects HL-60 cells from 2-deoxy-D-ribose-induced apoptosis. *Life Sciences*, 62: 799-806, 1998.
9. **Marverti, G.**, Piccinini, G., Ghiaroni, S., Barbieri, D., Quaglino D., and Moruzzi, M.S. N¹, N¹²-bis(ethyl)spermine effect on growth of cis-diamminedichloroplatinum(II)-sensitive and -resistant human ovarian carcinoma cell lines. *International Journal of Cancer*, 78: 33-40, 1998.
10. Monti M.G., Ghiaroni S., Barbieri D., Franceschi C., **Marverti G.**, and Moruzzi, M.S. 2-Deoxy-D-ribose-induced apoptosis in HL-60 cells is associated with the cell cycle progression by spermidine. *Biochemical and Biophysical Research Communications*, 257, 460-465, 1999.
11. **Marverti, G.**, Bettuzzi, S., Astancolle, S., Pinna, C., Monti, M.G., and Moruzzi, M.S. Differential induction of spermidine/spermine N¹-acetyltransferase in cisplatin-sensitive and -resistant ovarian cancer cells in response to N¹, N¹²-bis(ethyl)spermine involves

- transcriptional and post-transcriptional regulation. *European Journal of Cancer*, 37/2, 281-289, 2001.
12. **Marverti, G.**, Monti, M.G., Bettuzzi, S., Caporali, A., Astancolle, S., and Moruzzi, M.S. Cisplatin-resistance modulates the effect of protein synthesis inhibitors on spermidine/spermine N¹-acetyltransferase expression. *International Journal of Biochemistry & Cell Biology*, 36/1, 123-137, 2004.
 13. Monti, M.G., Ghiaroni, S., **Marverti, G.**, Montanari, M., and Moruzzi, M.S. Polyamine depletion switches the form of 2-deoxy-D-ribose-induced cell death from apoptosis to necrosis in HL-60 cells. *International Journal of Biochemistry & Cell Biology*, 36/7, 1236-1246, 2004.
 14. **Marverti, G.**, Monti, M.G., Pegg, A.E., McCloskey, D.E., Bettuzzi, S., Ligabue, A., Caporali, A., D'Arca, D., and Moruzzi, M.S. Spermidine/Spermine N¹-Acetyltransferase Transient Over-Expression Restores Sensitivity of Resistant Human Ovarian Cancer Cells to N¹,N¹²-bis(ethyl)spermine and to Cisplatin. *Carcinogenesis*, 26(10), 1677-1686, 2005.
 15. Ferrari, E., Grandi, R., Lazzari, S., **Marverti, G.**, Rossi, M.C., and Saladini, M. ¹H, ¹³C, ¹⁹⁵Pt NMR study on platinum(II) interaction with sulphur containing Amadori compounds. *Polyhedron*, 26, 4045-4052, 2007.
 16. **Marverti, G.**, Cusumano, M., Ligabue, A., Di Pietro, M.,L., Vainiglia, P.,A., Ferrari, A., Bergomi, M., Moruzzi, M.,S., and Frassinetti, C. Studies on the antiproliferative effects of novel DNA-intercalating bypyridylthiourea-Pt(II) complexes against cisplatin-sensitive and -resistant human ovarian cancer cells. *Journal of Inorganic Biochemistry*, 102(4), 699-712, 2008.
 17. Arezzini, B., Ferrali, M., Ferrari, E., Frassinetti, C., Lazzari, S., **Marverti, G.**, Spagnolo, F., Saladini, M. Synthesis, chemical and biological studies on new Fe³⁺-glycosilated β-diketo complexes for the treatment of iron deficiency. *European Journal of Medicinal Chemistry*, 43, 2549-2556, 2008.
 18. Ferrari, E., Lazzari, S., **Marverti, G.**, Pignedoli, F., Spagnolo, F., and Saladini, M. Synthesis, cytotoxic and combined cDDP activity of new stable Curcumin derivatives. *Bioorganic & Medicinal Chemistry*, 17, 3043-3052, 2009.
 19. **Marverti, G.**, Ligabue, A., Paglietti, G., Corona, P., Piras, S., Vitale, G., Guerrieri, D., Luciani, R., Costi, M.P., Frassinetti, C., and Moruzzi, M.S. Collateral sensitivity to novel thymidylate synthase inhibitors correlates with folate cycle enzymes impairment in cisplatin-resistant human ovarian cancer cells. *European Journal of Pharmacology*, 615, 17-26, 2009.
 20. **Marverti, G.**, Ligabue, A., Guerrieri, D., Paglietti, G., Piras, S., Costi, M.P., Farina, D., Frassinetti, C., Monti, M.G., and Moruzzi, M.S. Spermidine/Spermine N¹-acetyltransferase modulation by novel folate cycle inhibitors in cisplatin-sensitive and -resistant human ovarian cancer cell lines. *Gynecologic Oncology*, 117, 202-210, 2010.
 21. Carosati, E., Sforna, G., Pippi, M., **Marverti, G.**, Ligabue, A., Guerrieri, D., Piras, S., Guaitoli, G., Luciani, R., Costi, M. P., Cruciani, G. Ligand-Based Virtual Screening and

ADME-Tox Guided Approach to Identify Triazolo-quinoxalines as Folate Cycle Inhibitors. *Bioorganic & Medicinal Chemistry* 2010 Nov 15;18(22):7773-85. Epub 2010 Oct 1.

22. **Marverti, G.**, Ligabue, A., Montanari, M., Guerrieri, D., Cusumano, M., Di Pietro, M.L., Troiano, L., Di Vono, E., Iotti, S., Farruggia, G., Wolf, F., Monti, M.G., and Frassinetti, C. Characterization of the cell growth inhibitory effects of a novel DNA-intercalating bipyridyl-thiourea-Pt(II) complex in cisplatin-sensitive and -resistant human ovarian cancer cells. *Investigational New Drugs* 29 (1), 73-81, 2011. DOI 10.1007/s10637-009-9336-3.
23. Daniela Cardinale, Giambattista Guitoli, Donatella Tondi, Rosaria Luciani, Stefan Henrich, Outi M. H. Salo-Ahen, Stefania Ferrari, **Gaetano Marverti**, Davide Guerrieri, Alessio Ligabue, Chiara Frassinetti, Cecilia Pozzi, Stefano Mangani, Dimitrios Fessas, Remo Guerrini, Glauco Ponterini, Rebecca C. Wade, and M. Paola Costi. Discovery of dimer interface-binding peptides with a novel inhibitory mechanism against the cancer target thymidylate synthase. *PNAS USA*, 108, E542-E549, 2011. doi/10.1073/pnas.1104829108.
24. Ferrari, Erika; Pignedoli, Francesca; Imbriano, Carol; **Marverti, Gaetano**; Basile, Valentina; Venturi, Ettore; Saladini, Monica. Newly synthesized curcumin derivatives: crosstalk between chemico-physical properties and biological activity. *Journal of Medicinal Chemistry* 2011, vol. 54, p. 8066-8077.
25. **Marverti, G.**, Guitoli, G., Ligabue, A., Frassinetti, C., Monti, M.G., Lombardi, P. and Costi, M.P. Distamycin A and derivatives as synergic drugs in cisplatin-sensitive and -resistant ovarian cancer cells. *Amino Acids* 2012 Feb;42(2-3):641-53. DOI 10.1007/s00726-011-1039-3.
26. F.Genovese, A.Gualandi, L.Taddia, M.Caselli, G.Ponterini, **G. Marverti**, S.Pirondi, R.Guerrini, M. Pelà, G.Pavesi, C.Trappella, M.P. Costi (2012). Proteomic Approach to the Detection of the Mechanism of Action of Anticancer Peptides. *JOURNAL OF PEPTIDE SCIENCE*, vol. 18, p. S145, ISSN: 1075-2617.
27. Ligabue A., **Marverti G.**, Liebl U., Myllykallio H. Transcriptional activation and cell cycle block are the keys for 5-fluorouracil induced up-regulation of human thymidylate synthase expression. *PLOS ONE* October 2012 | Volume 7 | Issue 10 | e47318 - PONE-D-12-05622R2. doi: 10.1371/journal.pone.0047318.
28. Emanuele Carosati, Anna Tochowicz, **Gaetano Marverti**, Giambattista Guitoli, Paolo Benedetti, Stefania Ferrari, Robert M. Stroud, Janet Finer-Moore, Rosaria Luciani, Gabriele Cruciani, and M. Paola Costi. Inhibitor of Ovarian Cancer Cells by Virtual Screening: A New Hydroxy-Thiazole Derivative Targeting Human Thymidylate Synthase. *Journal of Medicinal Chemistry*. 2012, 55, 10272–10276.
29. Divita Garg, Alexander V. Beribisky, Glauco Ponterini, Alessio Ligabue, **Gaetano Marverti**, Andrea Martello, M. Paola Costi, Michael Sattler, and Rebecca C. Wade. Translational Repression of Thymidylate Synthase by Targeting its mRNA. *Nucleic Acids Research*, 2013, 1–12 doi:10.1093/nar/gkt098.
30. **Gaetano Marverti**, Alessio Ligabue, Paolo Lombardi, Stefania Ferrari, Maria Giuseppina Monti, Chiara Frassinetti and Maria Paola Costi. Modulation of the expression of folate cycle enzymes and polyamine metabolism by berberine in cisplatin-sensitive and -resistant human

ovarian cancer cells. *International Journal of Oncology* 43: 1269-1280, 2013. doi: 10.3892/ijo.2013.2045.

31. Belluti S., Basile V., Benatti P., Ferrari E., **Marverti G.**, Imbriano C. Concurrent inhibition of enzymatic activity and NF- κ B-mediated transcription of Topoisomerase-II α by bis-DemethoxyCurcumin in cancer cells. *Cell Death & Disease* (2013) 4, e756; doi:10.1038/cddis.2013.287.
32. Pela' Michela; Saxena Puneet; Luciani Rosaria; Santucci Matteo; Ferrari Stefania; **Marverti Gaetano**; Marraccini Chiara; Martello Andrea; Pironi Silvia; Genovese Filippo; Salvadori Severo; D' Arca Domenico; Ponterini Glauco; Costi Maria Paola; Guerrini Remo. "Optimization of peptides that target human thymidylate synthase to inhibit ovarian cancer cell growth." *Journal of Medicinal Chemistry* 2014, 57, 1355-1367. dx.doi.org/10.1021/jm401574p.
33. Genovese, Filippo; Gualandi, Alessandra; Taddia, Laura; **Marverti, Gaetano**; Pironi, Silvia; Marraccini, Chiara; Perco, Paul; Pela, Michela; Guerrini, Remo; Amoroso, Maria Rosaria; Esposito, Franca; Martello, Andrea; Ponterini, Glauco; D'Arca, Domenico; Costi, Maria Paola. Mass spectrometric/bioinformatic identification of a protein subset that characterizes the cellular activity of anticancer peptides." the Special Issue "*Proteomics of Human Diseases: Pathogenesis, Diagnosis, Prognosis and Treatment*" in the *Journal of Proteome Research*. 2014, 13(11), 5250-61. DOI: 10.1021/pr500510v.
34. Cannazza Giuseppe; Cazzato, Addolorata; Marraccini, Chiara; Pavesi, Giorgia; Pironi, Silvia; Guerrini, Remo; Pela, Michela; Frassinetti, Chiara; Ferrari, Stefania; **Marverti, Gaetano**; Ponterini, Glauco; Costi, Maria Paola. The internalization and stability of a Thymidylate synthase peptide inhibitor in ovarian cancer cells." *Journal of Medicinal Chemistry*. 2014, 57, 10551-10556. DOI:10.1021/jm501397h.
35. Durga P. Singh, Seema Pratap, Sunil K. Pandey, Ray J. Butcher & **Gaetano Marverti**. N-(naphthyl)-N'-(methoxy carbonyl)thiocarbamide and its Cu(I) complex: Synthesis, spectroscopic, X-ray, DFT and in vitro cytotoxicity study. *Journal of Coordination Chemistry* 68 (2), 2015, 261-276. DOI: 10.1080/00958972.2014.97916.
36. Taddia Laura; D'Arca Domenico; Ferrari Stefania; Marraccini Chiara; Severi Leda; Ponterini Glauco; Assaraf Yahuda G.; **Marverti Gaetano**; Costi Maria Paola. Inside the biochemical pathways of thymidylate synthase perturbed by anticancer drugs: novel strategies to overcome cancer chemoresistance. *Drug Resistance Updates* (2015) 23, 20–54.
37. Glauco Ponterini, Andrea Martello, Giorgia Pavesi, Angela Lauriola, Rosaria Luciani, Matteo Santucci, Michela Pelà, Gaia Gozzi, Salvatore Pacifico, Remo Guerrini, **Gaetano Marverti**, Maria Paola Costi, and Domenico D'Arca. Intracellular quantitative detection of human thymidylate synthase engagement with an unconventional inhibitor using tetracysteine-diarsenical-probe technology. *Scientific Reports* 6, 27198, 2016. Doi:10.1038/srep27198.
38. Luciani Rosaria; Saxena, Puneet; Surade, Sachin; Santucci, Matteo; Venturelli, Alberto; Borsari, Chiara; **Marverti, Gaetano**; Ponterini, Glauco; Ferrari, Stefania; Blundell, Tom L.; Costi, Maria Paola. Virtual screening and X-ray crystallography identify non-substrate analog inhibitors of Flavin-dependent Thymidylate Synthase". *Journal of Medicinal Chemistry* 2016, 59, 9269–9275. DOI: 10.1021/acs.jmedchem.6b00977.

39. Andrew Anighoro, Luca Pinzi, **Gaetano Marverti**, Jürgen Bajorath and Giulio Rastelli. Heat Shock Protein 90 and Serine/Threonine Kinase B-Raf inhibitors have overlapping chemical space. *RSC Advances.*, 2017, 7, 31069.
40. Davalli P, **Marverti G**, Lauriola A, D'Arca D. "Targeting Oxidatively induced DNA damage Response in Cancer: Opportunities for Novel Cancer Therapies". *Oxid Med Cell Longev.* 2018 Mar 27; 2018:2389523. doi: 10.1155/2018/2389523. eCollection 2018. Review.
41. Sunil K. Pandey, Seema Pratap, Durga P. Singh, **Gaetano Marverti**, R.J. Butcher. Monodentate coordination of N, N'-disubstituted thiocarbamide ligands: Syntheses, structural analyses, *in vitro* cytotoxicity and DNA damage studies of Cu(I) complexes. *Chemistry Select* 2018, 3(13), 3675 - 3679. DOI: 10.1002/slct.201800145.
42. Sunil K. Pandey, Seema Pratap, Gaia Gozzi, **Gaetano Marverti** & R. J. Butcher (2018): Synthesis, molecular structure exploration and *in vitro* cytotoxicity screening of five novel N, N'- disubstituted thiocarbamide derivatives. *Phosphorus, Sulfur, and Silicon and the Related Elements*, 193(8), 507-514. DOI: 10.1080/10426507.2018.1452234.
43. Severi L, Losi L, Fonda S, Taddia L, Gozzi G, Marverti G, Magni F, Chinello C, Stella M, Sheouli J, Braicu EI, Genovese F, Lauriola A, Marraccini C, Gualandi A, D'Arca D, Ferrari S and Costi MP (2018) Proteomic and Bioinformatic Studies for the Characterization of Response to Pemetrexed in Platinum Drug Resistant Ovarian Cancer. *Frontiers in Pharmacology* 9:454-471. doi: 10.3389/fphar.2018.00454.
44. Saxena P, Severi L, Santucci M, Taddia L, Ferrari S, Luciani R, **Marverti G**, Marraccini C, Tondi D, Mor M, Scalvini L, Vitiello S, Losi L, Fonda S, Pacifico S, Guerrini R, D'Arca D, Ponterini G, Costi MP. Conformational propensity and biological studies of proline mutated LR peptides inhibiting human thymidylate synthase and ovarian cancer cell growth. *J Med Chem.* 2018 Aug 23;61(16):7374-7380. doi: 10.1021/acs.jmedchem.7b01699.
45. F. Sacchetti, **G. Marverti**, D. D'Arca, L. Severi, E. Maretti, V. Iannuccelli, S. Pacifico, G. Ponterini, M. P. Costi and E. Leo. pH-promoted release of a novel anti-tumour peptide by "stealth" liposomes: effect of nanocarriers on the drug activity in cis-platinum resistant cancer cells. *Pharmaceutical Research* (2018) 35:206.
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