

## CURRICULUM VITAE PROF. GRAZIA GRAZIANI

### **BIOGRAPHICAL AND PERSONAL INFORMATION**

Place of birth Piacenza, Italy

e-mail address: [graziani@uniroma2.it](mailto:graziani@uniroma2.it)

Married; two daughters and one son

### **EDUCATION**

**1982:** Graduated in Medicine (Magna cum Laude) at the University of Perugia, Italy

**1986:** Specialist in Oncology (Magna cum Laude) at the University of Rome Tor Vergata, Italy

### **POSITION HELD AND SCIENTIFIC CAREER:**

**May 2021-present:** Coordinator of the University Evaluation Unit at the University of Rome Tor Vergata

**February 2018-present:** Full Professor of Pharmacology at the Department of Systems Medicine, School of Medicine of the University of Rome Tor Vergata

**2015-May 2019:** Component of the Italian National University Council

**2014:** National Scientific Qualification as Full professor of Pharmacology

**2001-February 2018:** Associate Professor of Pharmacology at the Department of Systems Medicine, School of Medicine of the University of Rome Tor Vergata

**1984-2000:** Research Associate at the Department of Neuroscience University of Rome Tor Vergata

**1986-1990:** Visiting Fogarty Fellow at the laboratory of Cellular and Molecular Biology, National Cancer Institute, National Institutes of Health, Bethesda, Maryland, U.S.A.

**1983:** Guest Scientist at the laboratory of Tumor Cell Biology, National Cancer Institute, National Institutes of Health, Bethesda, Maryland, U.S.A.

### **BIBLIOMETRIC INDEXES**

Co-author of 178 full papers in peer-reviewed and Medline-based journals, of which 109 as first or last author/corresponding author, 11 book chapters and more than 120 abstracts of national and international conferences.

H-index: 44 (Scopus Author ID: 35268329000). Average Impact Factor of the scientific production: 7.

### **MAIN COMPETITIVE RESEARCH GRANTS OF WHICH SHE IS THE PRINCIPAL INVESTIGATOR OF THE PROJECT OR PRINCIPAL INVESTIGATOR OF RESEARCH UNIT IN THE LAST 20 YEARS:**

She has been Principal Investigator (PI) or Principal Investigator of Research Unit (RU-PI) of a number of projects funded by the Italian Association for Cancer Research - AIRC, LazioInnova, Banca d'Italia, Ministry of Education, University and Research (PRIN and FIRB projects), Ministry of Health, National Health Institute, University of Rome Tor Vergata, FILAS – Regione Lazio, “Compagnia di San Paolo”, pharmaceutical companies.

### **PATENTS**

**2007** Graziani G, Vergati M. Immortalized endothelial cells EP1828377.

**2016-17** Graziani G, Lacal PM; D'Atri S; Tentori L; Ruffini F; Failla C. Anticorpi anti-VEGFR-1 e usi di essi. IT 102016000034933; Anti-VEGFR-1 antibodies and their uses PCT/IB2017/000379.

### **MEMBER OF PhD SCHOOLS**

**2018-present** Member of the Doctorate School of Tissue Engineering and Remodeling Biotechnologies for Body Function (courses from XXXIV cycle-present), University of Rome Tor Vergata.

### **SCIENTIFIC SOCIETIES**

Member of the Italian Society of Pharmacology

### **MAIN RESEARCH INTERESTS**

Using in “in vitro” and “in vivo” preclinical models of solid tumor (melanoma, glioblastoma, colorectal, urothelial and breast cancer) and leukemias, the research activity mainly focused on these topics:

- mechanisms of action of anticancer agents;
- immunopharmacology;

-pharmacological modulation of tumor cell resistance through the use of DNA repair inhibitors;  
-anti-angiogenic agents.

In particular, the main findings were as follows:

- a) identification of the action and resistance mechanisms of alkylating agents, including temozolomide, a methylating agent approved for the treatment of glioblastoma;
- b) identification of the therapeutic potential of poly (ADP-ribose) polymerase (PARP) inhibitors to increase the antitumor activity of methylating agents and topoisomerase I inhibitors;
- c) demonstration, using in vivo preclinical models, that the antitumor activity of temozolomide can be boosted at the central nervous system level by means of PARP inhibitors towards glioblastoma, brain metastases of melanoma or cerebral lymphoma;
- d) demonstration that the telomerase enzyme, expressed at high levels in the tumor, can be used as a biomarker to evaluate the in vitro chemosensitivity of tumors or as a therapeutic target to increase the chemosensitivity of tumors;
- e) demonstration that PARP inhibitors, when used as single agents, may exert anti-angiogenic activity and cytotoxic effects in solid tumors and leukemia models;
- f) generation of a murine monoclonal antibody (D16F7) directed against the human type 1 receptor (VEGFR-1) of the vascular endothelial growth factor-A (VEGF-A) and demonstration of its antitumor and antiangiogenic effects in melanoma and glioblastoma in vivo models.
- g) demonstration that VEGFR-1 up-regulation in melanoma may contribute to melanoma resistance to BRAF inhibitors;
- h) demonstration that the anti-VEGFR-1 D16F7 mAb enhances the antitumor activity of immune checkpoint inhibitors in a preclinical in vivo model of melanoma.

#### ***REFEREE FOR THE FOLLOWING INTERNATIONAL SCIENTIFIC JOURNALS***

Oncogene, International Journal of Cancer, Clinical Cancer Research, Pharmacological Research, British Journal of Cancer, European Journal of Cancer, British Journal of Pharmacology, Biochemical Pharmacology, American Journal of Pathology, The FASEB Journal, Future Medicinal Chemistry.

#### ***PARTICIPATION TO EDITORIAL BOARD OR SPECIAL ISSUE GUEST-EDITOR OF SCIENTIFIC JOURNALS***

**2015-present:** Associate Editor of Chemotherapy (Anticancer Agents Section) (Karger).

**2005:** Guest-Editor pharmacological approach of DNA damage and repair: the PARP (poly ADP ribose polymerase) pathway PARP Volume 52, Issue 1 of Pharmacological Research.

#### **TEACHING**

**2015-present:** Course of Pharmacology, School of Medicine at the University of Rome Tor Vergata (English Course).

**2011-present:** Course of Chemotherapy, School of Pharmacy, University of Rome Tor Vergata (English course).

**2009-2015:** Course of Pharmaceutical Biology, School of Pharmacy, University of Rome Tor Vergata (English course).

**2007-2021:** Course of Pharmacology, School of Dentistry, University of “Nostra Signora del Buon Consiglio”, Tirana, Albania.

**2006-2021:** Course of Pharmacology, School of Medicine, University of “Nostra Signora del Buon Consiglio”, Tirana, Albania.

**2006-present:** Course of Pharmacology and Toxicology, Biotechnology degree, University of Rome Tor Vergata.

**1998-present:** Course of Pharmacology, School of Medicine at the University of Rome Tor Vergata

**1993-present:** Course of Pharmacology, Orthoptist degree, University of Rome Tor Vergata.

**1993-1999:** Course of Pharmacology, Nursing degree, University of Rome Tor Vergata.

**1992-1998:** Course of Oncology, Biotechnology degree, University of Rome Tor Vergata.

## PUBLICATIONS

### Full papers

1. Riccardi C., Migliorati G., Giuliani-Bonmassar A., **Graziani G.** Adriamycin: Mechanisms of modulation of natural antitumor reactivity. *Drugs under Experimental and Clinical Research* 9: 365-368, 1983.
2. Giuliani-Bonmassar A., **Graziani G.**, Frati L., Bonmassar E. Interferon-induced changes of the susceptibility of murine and human lymphoma cells to natural cytotoxic lymphocytes. *International Journal of Tissue Reaction* 6: 35-41, 1984.
3. De Vecchis L., **Graziani G.**, Macchi B., Grandori C., Pastore S., Popovic M., Gallo R. C., Bonmassar E. Decline of natural cytotoxicity of human lymphocytes following infection with human T cell leukemia/lymphoma virus (HTLV). *Leukemia Research* 9: 349-355, 1985.
4. **Graziani G.**, Pasqualetti D., Lopez E., D'Onofrio C., Testi A.M., Mandelli F., Gallo R.C., Bonmassar E. Increased susceptibility of peripheral mononuclear cells of leukemic patients to HTLV-I infection *in vitro*. *Blood* 69: 1175-1181, 1987.
5. D'Onofrio C., Perno C.F., Mazzetti P., **Graziani G.**, Caliò R., Bonmassar E. Depression of early phase of HTLV-I infection *in vitro* mediated by human Beta-interferon. *British Journal of Cancer* 57: 481-488, 1988.
6. Fuggetta M.P., **Graziani G.**, Aquino A., D'Atri S., Bonmassar E. Effect of hydrocortisone on human natural killer activity and its modulation by beta interferon. *International Journal of Immunopharmacology* 10: 687-694, 1988.
7. **Graziani G.**, Ron D., Eva A., Srivastava S.K. The human *dbl*-proto-oncogene product is a cytoplasmic phosphoprotein which is associated with the cytoskeletal matrix. *Oncogene* 4: 823-829, 1989.
8. Ron D., **Graziani G.**, Aaronson S.A., Eva A. The N-terminal region of proto-*dbl* down regulates its transforming activity. *Oncogene* 4: 1067-1072, 1989.
9. Eva A., **Graziani G.**, Zannini M., Merin L.M., Killian J.S., Overbeek P.A. Dominant dysplasia of the lens in transgenic mice expressing the *dbl* oncogene. *The New Biologist* 3: 158-168, 1991.
10. Graziani G., Ron D., Srivastava S., Eva A. Expression of the human *dbl*-oncogene and proto-oncogene products in insect cells using a baculovirus vector. *Annali dell'Istituto superiore di sanità*, 27(1), pp. 115-121, 1991.
11. Garcia de Herreros A., Dominguez I., Diaz-Meco M.T., **Graziani G.**, M.E. Cornet, Guddal P.H, Johansen T., Moscat J. Requirement of phospholipase C-catalyzed hydrolysis of *Xenopus laevis* oocytes in response to insulin and ras *p21*. *Journal of Biological Chemistry* 266:6825-6829, 1991.
12. Ron D., Zannini M., Lewis M., Wichner R.B., Hunt L.T., **Graziani G.**, Tronick S.R., Aaronson S.A., Eva. A region of proto-*dbl* essential for its transforming activity shows a sequence similarity to a yeast cell cycle gene, CDC 24, and the human breakpoint cluster gene, bcr. *The new Biologist* 3: 372-379, 1991.
13. Eisemann A., Ahn J.A., **Graziani G.**, Tronick S.R., Ron D. Alternative splicing generates at least five different isoforms of the human basic-FGF receptor. *Oncogene* 6: 1195-1202, 1991.
14. Dominguez I., Marshall M.S., Gibbs J.B., De Herreros A.G., Cornet M.E., **Graziani G.**, Diaz-Meco M.T., Johansen T., McCormick F., Moscat J. Role of GTPase activating protein in mitogenic signalling through phosphatidylcholine-hydrolysing phospholipase C. *EMBO Journal* 10: 3215-3220, 1991.
15. **Graziani G.**, Nebreda A.R., Srivastava S., Santos E., Eva A. Induction of *Xenopus* oocyte meiotic maturation by the *dbl* oncogene product. *Oncogene* 7: 229-235, 1992.
16. **Graziani G.**, Faraoni I., Zhang J., Caronti B., Lauro G., Bonmassar E., Macchi B. Transient HTLV-I infection of a human glioma cell line following cell-free exposure. *Virology* 197: 767-769, 1993.
17. Fuggetta M.P., Aquino A., Peponi R., D'Atri S., Lanzilli G., Bonmassar E., **Graziani G.** In vitro combined effects of human interferons and interleukin-2 on natural cell-mediated cytotoxicity. *International Journal of Immunopharmacology* 15: 1-10, 1993.
18. Macchi B., **Graziani G.**, Zhang J., Mastino A. Emergence of double-positive CD4/CD8 cells from adult peripheral blood mononuclear cells infected with Human T Cell Leukemia Virus Type I (HTLV-I). *Cellular Immunology* 149: 376-389, 1993.
19. Piccioni D., D'Atri S., Papa G., Caravita T., Franchi A., Bonmassar E., **Graziani G.** Cisplatin increases sensitivity of human leukemic blasts to triazene compounds. *Journal of Chemotherapy* 7: 224-228, 1995.
20. Tentori L., **Graziani G.**, Gilberti S., Lacial P.M., Bonmassar E., D'Atri E. Triazene compounds induce apoptosis in O<sup>6</sup>-alkylguanine-DNA alkyltransferase deficient leukemia cell lines. *Leukemia* 9: 1888-1895, 1995.
21. Giuliani A., Vernole P., D'Atri S., Del Poeta G., D'Onofrio C., Faraoni I., Greiner J.W., Bonmassar E., **Graziani G.** In vitro infection of leukemic bone-marrow with HTLV-I generates immortalized cell lines expressing T or myeloid cell phenotype. *Leukemia* 9: 2071-2081, 1995.
22. **Graziani G.**, Faraoni I., Grohmann U., Bianchi R., Binaglia L., Margison G. P., Watson A.J., Orlando L., Bonmassar E., D'Atri S. O<sup>6</sup>-alkylguanine-DNA alkyltransferase attenuates triazene-induced cytotoxicity and tumor cell immunogenicity in murine L1210 leukemia. *Cancer Research* 55: 6231-6236, 1995.
23. Reich-Slotky R., Shaoul E., Berman B., **Graziani G.**, Ron D. Chimeric molecules between keratinocyte growth factor and basic fibroblast growth factor define domains that confer receptor binding specificities. *Journal of Biological Chemistry* 270: 29813-8, 1995.

24. Lacal P.M., D'Atri S., Orlando L., Bonmassar E., **Graziani G.** In vitro inactivation of human O<sup>6</sup>-alkylguanine-DNA alkyltransferase by antitumor triazene compounds. *The Journal of Pharmacology and Experimental Therapeutics* 279: 416-422, 1996.
25. Prete S.P., Aquino A., Masci G., Orlando L., Giuliani A., De Santis S., De Vecchis L., De Filippi R., Greiner J.W., Bonmassar E., **Graziani G.** Drug-induced changes of carcinoembryonic antigen expression in human cancer cells: effect of 5-fluoracil. *The Journal of Pharmacology and Experimental Therapeutics* 279: 1574-1581, 1996.
26. Faraoni I., Turriziani M., Bonmassar E., De Vecchis L., **Graziani G.** Development of a novel in vitro chemosensitivity assay: telomerase as a possible marker of tumor cell survival. *Journal of Chemotherapy* 8: 394-398, 1996.
27. Faraoni I., Turriziani M., **Graziani G.**, De Vecchis L., Bonmassar E. Telomerase as a marker of tumor cell viability: a new approach for in vitro chemosensitivity assays. *Journal of Experimental and Clinical Cancer Research* 15: 311-312, 1996.
28. Giuliani A., Tentori L., Pepponi R., Porcelli S.A., Aquino A., Orlando L., Sugita M., Brenner M.B., Bonmassar E., **Graziani G.** Cytokine-induced expression of CD1b molecules by peripheral blood monocytes: influence of 3'-Azido-3'-deoxythymidine. *Pharmacological Research* 35: 135-140, 1997.
29. Tentori L., Orlando L., Lacal P.M., Benincasa E., Faraoni I., Bonmassar E., D'Atri S., **Graziani G.** Inhibition of O<sup>6</sup>-alkylguanine-DNA alkyltransferase or poly(ADP-ribose) polymerase increases susceptibility of leukemic cells to apoptosis induced by temozolomide. *Molecular Pharmacology* 52: 249-258, 1997.
30. Tricarico M., **Graziani G.**, Franzese O., Giuliani A., Starace G., Fuggetta M.P. CD1b expression in Molt-4 clones exposed to IL-4 and GM-CSF. *European Journal of Histochemistry* 41: 119-120, 1997.
31. Testorelli C., Bussini S., De Filippi R., Marelli O., Orlando L., Greiner J.W., Grohmann U., Tentori L., Giuliani A., Bonmassar E., **Graziani G.** Dacarbazine-induced immunogenicity of a murine leukemia is attenuated in cells transfected with mutated K-ras gene. *Journal of Experimental and Clinical Cancer Research* 16: 15-22, 1997.
32. Faraoni I., Turriziani M., Masci G., De Vecchis L., Shay J.S., Bonmassar E., **Graziani G.** Decline in telomerase activity as a measure of tumor cell killing by antineoplastic agents *in vitro*. *Clinical Cancer Research* 3: 579-585, 1997.
33. Tentori L., **Graziani G.**, Porcelli S.A., Sugita M., Brenner M.B., Madaio R. Bonmassar E., Giuliani A., Aquino A. Rifampin increases cytokine-induced expression of CD1b molecule in human peripheral blood monocytes. *Antimicrobial Agents and Chemotherapy* 42: 550-554, 1998.
34. Tentori L., Lacal P.M., Benincasa E., Franco D., Faraoni I., Bonmassar E., **Graziani G.** Role of wild-type p53 on the antineoplastic activity of temozolomide alone or combined with an inhibitor of poly(ADP-ribose) polymerase. *The Journal of Pharmacology and Experimental Therapeutics* 285: 884-893, 1998.
35. D'Atri S., Tentori L., Lacal P.M., **Graziani G.**, Pagani E., Benincasa E., Zambruno G, Bonmassar E., Jiricny J. (1998) Involvement of the mismatch repair system in temozolomide-induced apoptosis. *Molecular Pharmacology* 54: 334-341, 1998.
36. Giuliani A., Porcelli S.A., Tentori L., **Graziani G.**, Testorelli C., Prete S.P., Brenner M.B., Bonmassar E., Bussini S., Cappelletti D., Aquino A. Effect of rifampin on CD1b molecule induction in peripheral blood monocytes and on mycobacteria recognition by double-negative T cells. *Life Sciences* 63: 985-994, 1998.
37. Bonmassar E., Aquino A., Giuliani A., Porcelli S.A., Tentori L., Testorelli C., Prete S.P., Brenner M.B., Cirello I., Cappelletti D., **Graziani G.** New aspects of immune responses against mycobacteria: immunopharmacology studies. *Haematologica* 83: 58-59, 1998.
38. Levati L., Marra G., Lettieri T., D'Atri S., Vernole P., Tentori L., Lacal P.M., Pagani E., Bonmassar E., Jiricny J., **Graziani G.** Mutation of the mismatch repair gene hMSH2 in a human T-cell leukemia line tolerant to methylating agents. *Gene Chromosome & Cancer* 23: 159-166, 1998.
39. Franzese O., Comandini A., Cannavò E., **Graziani G.**, Bonmassar E. Effect of prostaglandin on proliferation and telomerase activity of human melanoma cells in vitro. *Melanoma Research* 8: 323-328, 1998.
40. Aquino A., Prete S.P., Giuliani A., **Graziani G.**, Turriziani M., de Filippi R., Masci G., Greiner J.W., Bonmassar E., De Vecchis L. Effect of the combined treatment with 5-fluorouracil,  $\alpha$ -interferon or folic acid in carcinoembryonic antigen expression in colon cancer cells. *Clinical Cancer Research* 4: 2473-2481, 1998.
41. Tonini G., Nunziata C., Prete S.P., Pepponi R., Turriziani M., Masci G., **Graziani G.**, Bonmassar E., De Vecchis L. Adjuvant treatment of breast cancer: a pilot immunochemotherapy study with CMF, interleukin-2 and interferon-alpha. *Cancer Immunology and Immunotherapy* 47: 157-176, 1998.
42. Tricarico M., Macchi B., Morrone S., Bonmassar E., Fuggetta M.P., **Graziani G.** In vitro infection of CD4+ T lymphocytes with HTLV-I generates immortalized cell line coexpressing lymphoid and myeloid markers. *Leukemia* 13: 222-229, 1999.
43. Tentori L., Turriziani M., Franco D., Serafino A., Levati L., Roy R., Bonmassar E., **Graziani G.** Treatment with temozolomide and poly(ADP-ribose) polymerase inhibitors induces early apoptosis and increases base excision repair gene transcripts in leukemic cells resistant to triazene compounds. *Leukemia* 13: 901-909, 1999.
44. Faraoni I., **Graziani G.**, Turriziani M., Masci G., Mezzetti M., Testori A., Veronesi U., Bonmassar E. Suppression of telomerase activity as an indicator of drug-induced cytotoxicity against cancer cells: in vitro studies with fresh human tumor samples. *Laboratory Investigation* 79: 993-1005, 1999.

45. Faraoni I., **Graziani G.** Telomerase as a potential anticancer target: growth inhibition and genomic instability. *Drug Resistance Updates* 3: 3-6, 2000.
46. Aquino A., Prete S.P., Baier S., Cappelletti D., Greiner J.W., De Vecchis L., **Graziani G.**, Bonmassar E. Staurosporine increases carcinoembryonic antigen expression in a human colon cancer cell line. *Journal of Chemotherapy* 12: 167-172, 2000.
47. Faraoni I., Bonmassar E., **Graziani G.** Clinical applications of telomerase in cancer treatment. *Drug Resistance Updates* 3: 161-170, 2000.
48. D'Atri S., **Graziani G.**, Lacal P.M., Nisticò V., Gilberti S., Faraoni I., Watson A.J., Bonmassar E., Margison G.P. Attenuation of O<sup>6</sup>-Methylguanine-DNA Methyltransferase Activity and mRNA levels by Cisplatin and Temozolomide in Jurkat Cells. *The Journal of Pharmacology and Experimental Therapeutics* 294: 664-671, 2000.
49. Tentori L., Vernole P., Lacal P.M., Madaio R., Portarena I., Levati L., Balduzzi A., Turriziani M., Dande P., Gold B., Bonmassar E., **Graziani G.** Cytotoxic and clastogenic effects of a DNA minor groove binding methyl sulfonate ester in mismatch repair deficient leukemia cells. *Leukemia* 14: 1451-1459, 2000.
50. Aquino A., Prete P.S., Guadagni F., Greiner J.W., Giuliani A., Orlando L., Masci G., De Santis S., Bonmassar E., **Graziani G.** Effect of 5-fluorouracil on carcinoembryonic antigen expression and shedding at clonal level in colon cancer cells. *Anticancer Research* 20: 3475--3484, 2000.
51. Prete S.P., Giuliani A., Iona E., Fattorini L., Orefici G., Franzese O, Bonmassar E., **Graziani G.** Bacillus calmette-guerin down-regulates CD1b induction by granulocyte-macrophage colony stimulating factor in human peripheral blood monocytes. *Journal of Chemotherapy* 13: 52-58, 2001.
52. Tentori L., Portarena I., Vernole P., De Fabritiis P., Madaio R., Balduzzi A., Roy R., Bonmassar E., **Graziani G.** Effects of single or split exposure of leukemic cells to temozolomide, combined with poly(ADP-ribose) polymerase inhibitors on cell growth, chromosomal aberrations and base excision repair components. *Cancer Chemotherapy and Pharmacology* 47: 361-369, 2001.
53. Tentori L., Portarena I., Bonmassar E., **Graziani G.** Combined effects of adenovirus-mediated wild-type p53 transduction, temozolomide and poly (ADP-ribose) polymerase inhibitor in mismatch repair deficient and non-proliferating tumor cells. *Cell Death & Differentiation* 8: 457-469, 2001.
54. Tentori L., Balduzzi A., Portarena I., Levati L., Vernole P., Gold B., Bonmassar E., **Graziani G.** Poly (ADP-ribose) polymerase inhibitor increases apoptosis and reduces necrosis induced by a DNA minor groove binding methyl sulfonate ester. *Cell Death & Differentiation*, 8: 817-828, 2001.
55. Pepponi R., **Graziani G.**, Falcinelli S., Vernole P., Levati L., Lacal P.M., Pagani E., Bonmassar E., Jiricny J., D'Atri S. hMSH3 overexpression and cellular response to cytotoxic anticancer agents. *Carcinogenesis* 22: 1131-1137, 2001.
56. Giuliani A., Prete S.P., **Graziani G.**, Aquino A., Balduzzi A., Sugita M., Brenner M.B., Iona E., Fattorini L., Orefici G., Porcelli S.A., Bonmassar E. Influence of Mycobacterium bovis bacillus Calmette Guerin on in vitro induction of CD1 molecules in human adherent mononuclear cells. *Infection and Immunity* 69: 7461-70, 2001.
57. Tentori L., Portarena I., **Graziani G.** Potential clinical applications of poly(ADP-ribose) polymerase (PARP) inhibitors. *Pharmacological Research* 45: 73-85, 2002.
58. Tentori L., Portarena I., Vernole P., Gold B., **Graziani G.** Apoptotic and genotoxic effects of a methyl sulfonate ester that selectively generates N3-methyladenine and poly (ADP-ribose) polymerase inhibitors in normal peripheral blood lymphocytes *Cancer Chemotherapy and Pharmacology* 49: 217-224, 2002.
59. Tentori L., Leonetti C., Scarsella M., d'Amati G., Portarena I., Zupi G., Bonmassar E., **Graziani G.** Combined treatment with temozolomide and poly(ADP-ribose) polymerase inhibitor enhances survival of mice bearing hematologic malignancy at the central nervous system site. *Blood* 99: 2241-2244, 2002.
60. **Graziani G.**, Tentori L., Portarena I., Barbarino M., Tringali G., Pozzoli G., Navarra P. Corticotropin-releasing hormone inhibits cell growth of human endometrial adenocarcinoma cells via CRH-R1 mediated activation of cAMP-protein kinase A pathway. *Endocrinology* 43: 807-13, 2002.
61. Dolci S., Levati L., Pellegrini M., Faraoni I., **Graziani G.**, Di Carlo A., Geremia R. Stem cell factor activates telomerase in mouse mitotic spermatogonia and in primordial germ cells. *Journal of Cell Science*; 115: 1643-9, 2002.
62. Prete S.P., Cappelletti D., Baier S., Nasuti P., Guadagni F., De Vecchis L., Greiner J.W., Bonmassar E., **Graziani G.**, Aquino A. Pharmacological modulation of carcinoembryonic antigen in human cancer cells: studies with staurosporine. *International Immunopharmacology* 2: 641-51, 2002.
63. Aquino A., Prete S.P., Balduzzi A., Formica V., Fossile Emanuela, Bonmassar L., Concolino F., Bonmassar E., **Graziani G.** Treatment of peripheral blood with staurosporine increases detection of circulating carcinoembryonic antigen positive tumor cells. *International Journal of Cancer* 100: 119-121, 2002.
64. Aquino A., Prete S.P., Balduzzi A., Fossile E., Formica V., Torino F., Bonmassar L., Di Giacomo A., Cappelletti D., Cardillo A., **Graziani G.** A novel method for monitoring response to chemotherapy based on the detection of circulating cancer cells: a case report. *Journal of Chemotherapy* 14: 412-416, 2002.
65. Tentori L., Portarena I., Torino F., Scerrati M., Navarra P., **Graziani G.** Poly(ADP-ribose) polymerase inhibitor increases growth inhibition and reduces G<sub>2</sub>/M cell accumulation induced by temozolomide in malignant glioma cells. *Glia* 40: 44-54, 2002.
66. Tentori L., **Graziani G.** Pharmacological strategies to increase the antitumor activity of methylating agents. *Current Medicinal Chemistry* 9: 1285-1301, 2002.

67. Tentori L., Leonetti C., Scarsella M., D'Amati G., Vergati M., Portarena I., Xu W., Kalish V., Zupi G., Zhang J., **Graziani G.** Systemic administration of GPI 15427, a novel poly(ADP-ribose) polymerase-1 inhibitor, increases the antitumor activity of temozolomide against intracranial melanoma, glioma, lymphoma. *Clinical Cancer Research* 9:5370-5379, 2003.
68. **Graziani G.**, Tentori L., Portarena I., Vergati M., Navarra P. Valproic acid increases the stimulatory effect of estrogens on proliferation of human endometrial adenocarcinoma cells. *Endocrinology* 144: 2822-2828, 2003.
69. Tentori L., Portarena I., Barbarino M., Balduzzi A., Levati L., Vergati M., Biroccio A., Gold B., Lombardi M.L., **Graziani G.** Inhibition of telomerase increases resistance of melanoma cells to temozolomide, but not to temozolomide combined with poly (ADP-ribose) polymerase inhibitor. *Molecular Pharmacology* 63: 192-202, 2003.
70. Vairano M., **Graziani G.**, Tentori L., Trincali G., Navarra P., Dello Russo C. Primary cultures of microglial cells for testing toxicity of anticancer drugs. *Toxicology Letters* 148: 91-94, 2004.
71. Tentori L., **Graziani G.** Correspondence re: DC Lev et al., Dacarbazine causes transcriptional up-regulation of interleukin 8 and vascular endothelial growth factor in melanoma cells: a possible escape mechanism from chemotherapy. *Mol Cancer Ther*, 2003;2(8):753-63. *Molecular Cancer Therapeutics* 2004;3:383; author reply 383-4.
72. Tentori L., **Graziani G.** Temozolomide: an update on pharmacological strategies to increase its antitumor activity. *Medicinal Chemistry Reviews-Online* 1:144-150,2004.
73. Tentori L., Leonetti C., Scarsella M., Vergati M., Xu W., Calvin D., Morgan L., Tang Z., Woznick K., Alemu C., Hoover R., Lapidus R., Zhang J., **Graziani G.** Brain distribution and efficacy as chemosensitizer of an oral formulation of PARP-1 inhibitor GPI 15427 in experimental models of CNS tumors. *International Journal of Oncology* 26:415-422, 2005.
74. Tentori L., Forini O., Fossile E., Muzi A., Vergati M., Portarena I., Amici C., Gold B., **Graziani G.** N3-methyladenine induces early poly (ADP-ribosylation), reduction of NF-kB DNA binding ability and nuclear up-regulation of telomerase activity. *Molecular Pharmacology* 67:572-81, 2005.
75. Tentori L., Vergati M., Muzi A., Levati L., Ruffini F., Forini O., P. Vernole P., Lacial P.M., **Graziani G.** Generation of an immortalized human endothelial cell line as a model of neovascular proliferating endothelial cells to assess chemosensitivity to anticancer drugs. *International Journal of Oncology* 27:525-435, 2005.
76. **Graziani G.**, Battaini F., Zhang J. PARP-1 inhibition to treat cancer, ischemia, inflammation. *Pharmacological Research* 52:1-4, 2005.
77. Tentori L., **Graziani G.** Chemopotential by PARP inhibitors in cancer therapy. *Pharmacological Research*52:25-33, 2005.
78. **Graziani G.**, Szabò C. Clinical perspectives of PARP inhibitors *Pharmacological Research* 52:109-118, 2005.
79. Tentori L., Leonetti C., Scarsella M., Muzi A., Vergati M., Forini O., Lacial P.M., Ruffini F., Gold B., Lie W., Zhang J., **Graziani G.** Poly (ADP-ribose) glycohydrolase inhibitor as chemosensitizer of malignant melanoma for temozolomide. *European Journal of Cancer* 41: 2948-2957, 2005.
80. Vernole P., Tedeschi B., Tentori L., Levati L., Argentin G., Cicchetti R., Forini O., **Graziani G.**, D'Atri S. Role of the mismatch repair system and p53 in the clastogenicity and cytotoxicity induced by bleomycin. *Mutation Research/ Fundamental and Molecular Mechanisms of Mutagenesis* 594:63-77, 2006.
81. **Graziani G.**, Ferrandina G., Pozzoli G., Vergati M., Muzi A., Legge F., Tentori L., Scambia G., Navarra P. Corticotrophin-releasing hormone receptor-1 in human endometrial cancer. *Oncology Reports* 15:375-379, 2006.
82. Tentori L., Leonetti C., Scarsella M., Muzi A., Mazzon E., Vergati M., Forini O., Lapidus R., Xu W., Dorio A.S., Zhang J., Cuzzocrea S., **Graziani G.** Inhibition of poly(ADP-ribose) polymerase prevents irinotecan-induced intestinal damage and enhances irinotecan/temozolomide efficacy against colon carcinoma. *The FASEB Journal* 20:1709-1711; full-length article online E1024-36, 2006.
83. **Graziani G.**, Tentori L., Muzi A., Vergati M., Tringali G., Pozzoli G., Navarra P. Evidence that corticotropin-releasing hormone inhibits cell growth of human breast cancer cells via the activation of CRH-R1 receptor subtype. *Molecular and Cellular Endocrinology* 264:44-49, 2007.
84. Prete S.P., Giuliani A., D'Atri S., **Graziani G.**, Balduzzi A., Oggioni M.R., Iona E., Girolomoni G., Bonmassar L., Romani L., Franzese O. BCG-infected adherent mononuclear cells release cytokines that regulate group 1 CD1 molecule expression. *International Immunopharmacology* 7:321-332, 2007.
85. Tentori L., **Graziani G.** Doping with growth hormone/IGF-1, anabolic steroids or erythropoietin: is there a cancer risk? *Pharmacological Research* 55:359-369, 2007.
86. Tentori L., Lacial P.M., Muzi A., Dorio A.S., Leonetti C., Scarsella M., Ruffini F., Xu W., Mine W., Stoppacciaro A., Colarossi C., Wang Z.-Q., Zhang J., **Graziani G.** Poly(ADP-ribose) polymerase (PARP) inhibition or PARP-1 gene deletion reduces angiogenesis. *European Journal of Cancer* 43:2124-2133, 2007.
87. Iacopino F., Urbano R., **Graziani G.**, Muzi A., Navarra P., Sica G. Valproic acid activity in androgen-sensitive and -insensitive human prostate cancer cells. *International Journal of Oncology* 32:1293-1303, 2008.
88. Tentori L., Muzi A., Dorio A.S., Bultrini S., Mazzon E., Lacial P.M., Shah G.M., Zhang J., Navarra P., Nocentini G., Cuzzocrea S., **Graziani G.** Stable depletion of poly (ADP-ribose) polymerase-1 reduces in vivo melanoma growth and increases chemosensitivity. *European Journal of Cancer* 44:1302-1314, 2008.

89. Tentori L., Dorio A.S., Muzi A., Lacal P.M., Ruffini F., Navarra P., **Graziani G.** The integrin antagonist cilengitide increases the antitumor activity of temozolomide against malignant melanoma. *Oncology Reports* 19:1039-1043, 2008.
90. Lacal P.M., Morea V., Ruffini F., Orecchia A., Failla C.M., Dorio A.S., Soro S., Tentori L., Zambruno G., **Graziani G.**, Tramontano A., D'Atri S. Inhibition of endothelial cell migration and angiogenesis by a vascular endothelial growth factor receptor-1 derived peptide. *European Journal of Cancer* 44:1914-1921, 2008.
91. Tentori L., **Graziani G.** Recent approaches to improve the antitumor efficacy of temozolomide. *Current Medicinal Chemistry* 16:245-257, 2009.
92. Lacal P.M., Tentori L., Muzi A., Ruffini F., Dorio A.S., Xu W., Arcelli D., Zhang J., **Graziani G.** Pharmacological inhibition of poly(ADP-ribose) polymerase activity down-regulates the expression of syndecan-4 and Id-1 in endothelial cells. *International Journal of Oncology* 34:861-872, 2009.
93. Vernole P., Muzi A., Volpi A., Dorio A.S., Terrinoni A., Shah G.M., **Graziani G.** Inhibition of homologous recombination by treatment with BVDU (brivudin) or by RAD51 silencing increases chromosomal damage induced by bleomycin in mismatch repair-deficient tumour cells. *Mutation Research/Fundamental and Molecular Mechanisms of Mutagenesis* 664:39-47, 2009.
94. Fiorani P., Tesaro C, Mancini G, Chillemi G, D'Annessa I, **Graziani G.**, Tentori L, Muzi A. and Desideri A. Evidence of the crucial role of the linker domain on the catalytic activity of human topoisomerase I by experimental and simulative characterization of the Lys681Ala mutant. *Nucleic Acids Research* 37:6849-6858, 2009.
95. Tentori L., Muzi A., Dorio A.S., Scarsella M., Leonetti C., Shah G.M., Xu W., Camaioni E., Gold B., Pellicciari R., Dantzer F., Zhang J., **Graziani G.** Pharmacological inhibition of poly(ADP-ribose) polymerase (PARP) activity in PARP-1 silenced tumour cells increases chemosensitivity to temozolomide and to a N3-adenine selective methylating agent. *Current Cancer Drug Targets* 10:368-383, 2010.
96. Salvati E., Scarsella M., Porru M., Rizzo A., Iachettini S., Tentori L., **Graziani G.**, D'Incalci M., Stevens M.F., Orlandi A., Passeri D., Gilson E., Zupi G., Leonetti C., Biroccio A. PARP1 is activated at telomeres upon G4 stabilization: possible target for telomere-based therapy. *Oncogene* 29:6280-6293, 2010.
97. Bonmassar L. , Fossile E., Scoppola A., **Graziani G.**, Prete S.P., Formica V., Cappelletti D., De Vecchis L., Cardillo A., Concolino F., D'Atri S., Balduzzi A., Torino F., Caporaso P., Greiner J.W., Bonmassar E., Roselli M., Aquino A. Detection of circulating tumor cells is improved by drug-induced antigen up-regulation: preclinical and clinical studies. *Anticancer Research* 30:4721-4730, 2010.
98. D'Onofrio G., Tramontano F., Dorio A.S., Muzi A., Maselli V., Fulgione D., **Graziani G.**, Malanga M., Quesada P. Poly(ADP-ribose) polymerase signaling of topoisomerase 1-dependent DNA damage in carcinoma cells. *Biochemical Pharmacology* 81:194-202, 2011.
99. Levati L., Ruffini F., Muzi A., Umezawa K., **Graziani G.**, D'Atri S., Lacal P.M. The Placenta Growth Factor induces melanoma resistance to temozolomide through a mechanism that involves the activation of the transcription factor NF- $\kappa$ B *International Journal of Oncology* 38:241-247, 2011.
100. Tentori L., Dorio A.S., Mazzon E., Muzi A., Sau A., Cuzzocrea S., Vernole P., Federici G., Caccuri A.M., **Graziani G.** The glutathione transferase inhibitor 6-(7-nitro-2,1,3-benzoxadiazol-4-ylthio)hexanol (NBDHEX) increases temozolomide efficacy against malignant melanoma. *European Journal of Cancer* 47:1219-1230, 2011.
101. Ruffini F., Failla C.M., Orecchia A., Bani M.R., Dorio A.S., Fortes C., Zambruno G., **Graziani G.**, Giavazzi R., D'Atri S., Lacal P.M. Expression of the soluble vascular endothelial growth factor receptor-1 in cutaneous melanoma: role in tumour progression. *British Journal of Dermatology* 164:1061-1070, 2011.
102. Aquino A., **Graziani G.**, Franzese O., Prete S.P., Bonmassar E., Bonmassar L., D'Atri S. Exogenous control of the expression of group I CD1 molecules competent for presentation of microbial nonpeptide antigens to human T lymphocytes. *Clinical and Developmental Immunology* 2011:790460, 2011.
103. Vernole P., Muzi A., Volpi A., Terrinoni A., Dorio A.S., Tentori L., Shah G.M., **Graziani G.** Common fragile sites in colon cancer cell lines: Role of mismatch repair, RAD51 and poly(ADP ribose) polymerase-1. *Mutation Research/Fundamental and Molecular Mechanisms of Mutagenesis* 712:40-48, 2011.
104. **Graziani G.**, Tentori L., Navarra P. Ipilimumab: A novel immunostimulatory monoclonal antibody for the treatment of cancer. *Pharmacological Research* 65:9-22, 2012.
105. Leonetti C., Biroccio A., **Graziani G.**, Tentori L. Targeted Therapy for Brain Tumours: Role of PARP Inhibitors. *Current Cancer Drug Targets* 12:218-36, 2012.
106. Cavallo F., **Graziani G.**, Antinozzi C., Feldman D.R., Houldsworth J., Bos G.J., Chaganti R.S.K., Moynahan M.E., Jasin M., Barchi M. Reduced proficiency in homologous recombination underlies the high sensitivity of Embryonal Carcinoma Testicular Germ Cell Tumors to cisplatin and poly (ADP-ribose) polymerase inhibition. *Plos ONE* 7:e51563, 2012.
107. Caporali S., Levati L., **Graziani G.**, Muzi A., Atzori M.G., Bonmassar E., Palmieri G., Ascierio P.A., D'Atri S. NF-kappaB is activated in response to temozolomide in an AKT-dependent manner and confers protection against the growth suppressive effect of the drug. *Journal of Translational Medicine* 10:252, 2012.
108. Tentori L., Leonetti C., Muzi A., Dorio A.S., Porru M., Dolci S., Campolo F., Vernole P., Lacal P.M., Praz F., **Graziani G.** Influence of MLH1 on colon cancer sensitivity to poly(ADP-ribose) polymerase (PARP) inhibitor combined with irinotecan. *International Journal of Oncology* 43:210-218, 2013.

109. Tentori L., Muzi A., Dorio A.S., Dolci S., Campolo F., Vernole P., Lacial P.M., Praz F., **Graziani G.** MSH3 expression does not influence the sensitivity of colon cancer HCT116 cells to oxaliplatin and poly(ADP-ribose) polymerase (PARP) inhibitor as monotherapy or in combination. *Cancer Chemotherapy and Pharmacology* 72:117-125, 2013.
110. Ruffini F., Tentori L., Dorio A.S., Arcelli D., d'Amati G., **Graziani G.**, D'Atri S., Lacial P.M. Platelet derived growth factor C and calpain-3 are modulators of human melanoma cell invasive capability. *Oncology Reports* 30:2887-96, 2013.
111. Martire S., Fuso A., Rotili D., Tempera I., Giordano C., De Zottis I., Muzi A., Vernole P., **Graziani G.**, Lococo E., Faraldi M., Maras B., Scarpa S., Mosca L., d'Erme M. PARP-1 modulates Amyloid Beta peptide-induced neuronal damage. *Plos ONE* 8:e72169, 2013.
112. Lacial P.M., Petrillo M.G., Ruffini F., Muzi A., Bianchini R., Ronchetti S., Migliorati G., Riccardi C., **Graziani G.\***, Nocentini G\*. Glucocorticoid-induced tumor necrosis factor receptor family-related ligand triggering upregulates vascular cell adhesion molecule-1 and intercellular adhesion molecule-1 and promotes leukocyte adhesion. *The Journal of Pharmacology and Experimental Therapeutics* 347:164-172, 2013. \*equally contributing authors
113. Shah G.M., Robu M., Purohit N.K., Rajawat J., Tentori L., **Graziani G.** PARP Inhibitors in Cancer Therapy: Magic Bullets but Moving Targets. *Frontiers in Oncology* 3:279, 2013.
114. Tentori L., Lacial P.M., **Graziani G.** Challenging resistance mechanisms to therapies for metastatic melanoma. *Trends in Pharmacological Sciences* 34:656-666, 2013.
115. Tentori L., Ricci-Vitiani L., Muzi A., Ciccarone F., Pelacchi F., Calabrese R., Runci D., Pallini R., Caiafa P., **Graziani G.** Pharmacological inhibition of poly(ADP-ribose) polymerase-1 modulates resistance of human glioblastoma stem cells to temozolomide. *BMC Cancer* 14:151, 2014.
116. Tesaro C.\*, **Graziani G.\***, Arnò B., Zuccaro L., Muzi A., D'Annessa I., Santori E., Tentori L., Leonetti C., Fiorani P., Desideri A. Mutations of human DNA topoisomerase I at poly(ADP-ribose) binding sites: modulation of camptothecin activity by ADP-ribose polymers. *Journal of Experimental & Clinical Cancer Research* 33:71, 2014. \*equally contributing authors
117. Ruffini F., **Graziani G.**, Levati L., Tentori L., D'Atri S., Lacial P.M. Cilengitide down-modulates invasiveness and vasculogenic mimicry of neuropilin-1 expressing melanoma cells through the inhibition of  $\alpha\beta 5$  integrin. *International Journal of Cancer* 136:E545-58, 2015.
118. Faraoni I., Compagnone M., Lavorgna S., Angelini D.F., Cencioni M.T., Piras E., Panetta P., Ottone T., Dolci S., Venditti A., **Graziani G.\***, Lo-Coco F.\* BRCA1, PARP1 and  $\gamma$ H2AX in Acute Myeloid Leukemia: Role as Biomarkers of Response to the PARP Inhibitor Olaparib. *Biochimica et Biophysica Acta – Molecular Basis of Disease* 1852:462-72, 2015. \*equally contributing authors
119. **Graziani G.**, Artuso S., De Luca A., Muzi A., Rotili D., Scimeca M., Atzori M.G., Ceci C., Mai A., Leonetti C., Levati L., Bonanno E., Tentori L., Caccuri A.M. A new water soluble MAPK activator exerts antitumor activity in melanoma cells resistant to the BRAF inhibitor vemurafenib. *Biochemical Pharmacology* 95:16-27, 2015.
120. **Graziani G.**, Lacial P.M. Neuropilin-1 as Therapeutic Target for Malignant Melanoma. *Frontiers in Oncology* 5:125, 2015.
121. Minotti G, Graziani G, Delogu G. Editorial. *Chemotherapy* 61:1-2, 2016.
122. Pagani E., Ruffini F., Antonini Cappellini G., Scoppola A., Fortes C., Marchetti P., **Graziani G.**, D'Atri S., Lacial P.M. Placenta growth factor and neuropilin-1 collaborate in promoting melanoma aggressiveness. *International Journal of Oncology* 48:1581-9, 2016.
123. Eskilsson E., Rosland G.V., Talasila K.M., Knappskog S., Keunen O., Sottoriva A., Foerster S., Solecki G., Taxt T., Jirik R., Fritah S., Harter P.N., Vålke K., Al Hossain J., Joseph J.V., Jahedi R., Saed H.S., Piccirillo S.G., Spiteri I., Euskirchen P., **Graziani G.**, Daubon T., Lund-Johansen M., Enger P.Ø., Winkler F., Ritter C.A., Niclou S.P., Watts C., Bjerkvig R., Miletic H. EGFRvIII mutations can emerge as late and heterogeneous events in glioblastoma development and promote angiogenesis through Src activation. *Neuro Oncology* 18: 1644-55, 2016.
124. **Graziani G.**, Ruffini F., Tentori L., Scimeca M., Dorio A.S., Atzori M.G., Failla C.M., Morea M., Bonanno E., D'Atri S., Lacial P.M. Antitumor activity of a novel anti-vascular endothelial growth factor receptor-1 monoclonal antibody that does not interfere with ligand binding. *Oncotarget* 7:72868-72885, 2016.
125. Ceci C, Tentori L, Atzori MG, Lacial PM, Bonanno E, Scimeca M, Cicconi R, Mattei M, de Martino MG, Vespasiani G, Miano R, **Graziani G.** Ellagic Acid Inhibits Bladder Cancer Invasiveness and In Vivo Tumor Growth. *Nutrients* 8, pii: E744, 2016.
126. Dello Russo C., Lisi L., Tentori L., Navarra P., **Graziani G.**, Combs C.K. Exploiting Microglial Functions for the Treatment of Glioblastoma. *Current Cancer Drug Targets* 17:267-281, 2017.
127. Cesarini V., Martini M., Ricci Vitiani L., Gravina G.L., Di Agostino S., **Graziani G.**, D'Alessandris Q.G., Pallini R., Larocca L.M., Rossi P., Jannini E.A., Dolci S. Type 5 phosphodiesterase regulates glioblastoma multiforme aggressiveness and clinical outcome. *Oncotarget* 8:13223-13239, 2017.
128. Noguera N.I., Pelosi E., Angelini D.F., Piredda M.L., Guerrera G., Piras E., Battistini L., Massai L., Berardi A., Catalano G., Cicconi L., Castelli G., D'Angiò A., Pasquini L., **Graziani G.**, Fioritoni G., Voso M.T., Mastrangelo D., Testa U., Lo-Coco F. High-dose ascorbate and arsenic trioxide selectively kill acute myeloid leukemia and acute promyelocytic leukemia blasts in vitro. *Oncotarget* 8:32550-32565, 2017.



129. Salvati E., Botta L., Amato J., Di Leva F., Zizza P., Gioiello A., Pagano B., **Graziani G.**, Tarsounas M., Randazzo A., Novellino E., Biroccio A., Cosconati S. Lead Discovery of Dual G-Quadruplex Stabilizers and Poly(ADP-ribose) Polymerases (PARPs) Inhibitors: A New Avenue in Anticancer Treatment. *Journal of Medicinal Chemistry* 60:3626-3635, 2017.
130. De Domenico E., D'Arcangelo G., Faraoni I., Palmieri M., Tancredi V., **Graziani G.**, Grimaldi P., Tentori L. Modulation of GDF11 expression and synaptic plasticity by age and training. *Oncotarget* 8:57991-58002, 2017.
131. Atzori MG, Tentori L, Ruffini F, Ceci C, Lisi L, Bonanno E, Scimeca M, Eskilsson E, Daubon T, Miletic H, Ricci Vitiani L, Pallini R, Navarra P, Bjerkvig R, D'Atri S, Lacal PM, **Graziani G.** The anti-vascular endothelial growth factor receptor-1 monoclonal antibody D16F7 inhibits invasiveness of human glioblastoma and glioblastoma stem cells. *Journal of Experimental and Clinical Cancer Research* 36:106, 2017.
132. Lisi L., **Graziani G.**, Navarra P. Macrophages/microglia in glioblastoma: a Zelig-like story of changing phenotypes. *Translational Cancer Research* 6 (Suppl 6):S1101-S1103, 2017.
133. Ruffini F., Levati L., **Graziani G.**, Caporali S., Atzori M.G., D'Atri S., Lacal P.M. Platelet-derived growth factor-C promotes human melanoma aggressiveness through activation of neuropilin-1. *Oncotarget* 8:66833-66848, 2017.
134. Eskilsson E., Gro V.R., Solecki G., Wang Q., Harter P.N., **Graziani G.**, Verhaak R.G.W., Winkler F., Bjerkvig R., Miletic H. EGFR heterogeneity and implications for therapeutic intervention in glioblastoma. *Neuro-Oncology* 20:743-752, 2018.
135. Atzori MG, Tentori L, Ruffini F, Ceci C, Bonanno E, Scimeca M, Lacal P.M., **Graziani G.** The anti-vascular endothelial growth factor receptor-1 monoclonal antibody D16F7 inhibits glioma growth and angiogenesis in vivo. *Journal of Pharmacology and Experimental Therapeutics* 364:77-86, 2018.
136. Lacal PM, Atzori MG, Ruffini F, Tentori L, **Graziani G.** Poly(ADP-ribose) polymerase inhibitor olaparib hampers placental growth factor-driven activation of myelomonocytic cells. *Oncology Reports* 39:2261-2269, 2018.
137. Franzese O, Barbaccia ML, Bonmassar E, **Graziani G.** Detrimental and beneficial effects of antiretroviral therapy on HIV-associated immunosenescence. *Chemotherapy* 63:64-75, 2018.
138. Franzese O, Battaini F, **Graziani G.**, Tentori L, Barbaccia ML, Aquino A, Roselli M, Fuggetta MP, Bonmassar E, Torino F. Drug-induced xenogenization of tumors: A possible role in the immune control of malignant cell growth in the brain? *Pharmacological Research* 131:1-6, 2018.
139. Faraoni I, Aloisio F, De Gabrieli A, Irno Consalvo M, Lavorgna S, Voso MT, Lo-Coco F, **Graziani G.** The poly(ADP-ribose) polymerase inhibitor olaparib induces up-regulation of death receptors in primary acute myeloid leukemia blasts by NF- $\kappa$ B activation. *Cancer Letters* 423:127-138, 2018.
140. Lacal PM, **Graziani G.** Therapeutic implication of vascular endothelial growth factor receptor-1 (VEGFR-1) targeting in cancer cells and tumor microenvironment by competitive and non-competitive inhibitors. *Pharmacological Research* 13:97-107, 2018.
141. Ceci C, Lacal PM, Tentori L, De Martino MG, Miano R, **Graziani G.** Experimental Evidence of the Antitumor, Antimetastatic and Antiangiogenic Activity of Ellagic Acid. *Nutrients* 10(11). pii: E1756, 2018.
142. Faraoni I and **Graziani G.** Role of BRCA Mutations in Cancer Treatment with Poly(ADP-ribose) Polymerase (PARP) Inhibitors. *Cancers* 10,487, 2018.
143. Faraoni I, Giansanti M, Voso MT, Lo-Coco F, **Graziani G.** Targeting ADP-ribosylation by PARP inhibitors in acute myeloid leukaemia and related disorders. *Biochemical Pharmacology* 167:133-148, 2019.
144. Tundo GR\*, Sbardella D, Lacal PM, **Graziani G.\***, Marini S. On the Horizon: Targeting Next-Generation Immune Checkpoints for Cancer Treatment. *Chemotherapy* 64:62-80, 2019. \*Co-corresponding author
145. Faraoni I, Consalvo MI, Aloisio F, Fabiani E, Giansanti M, Di Cristino F, Falconi G, Tentori L, Di Veroli A, Curzi P, Maurillo L, Niscola P, Lo-Coco F, **Graziani G.\***, Voso MT\* Cytotoxicity and Differentiating Effect of the Poly(ADP-Ribose) Polymerase Inhibitor Olaparib in Myelodysplastic Syndromes\**equally contributing authors* *Cancers* 11: E1373, 2019.
146. Sciarretta F, Fulci C, Palumbo C, Rotili D, Tentori L, **Graziani G.**, Caccuri AM. Effects of glutathione transferase-targeting nitrobenzoxadiazole compounds in relation to PD-L1 status in human melanoma cells. *Chemotherapy* 64, 138-145, 2019.
147. Atzori MG, Ceci C, Ruffini F, Trapani M, Barbaccia ML, Tentori L, D'Atri S, Lacal PM, **Graziani G.** Role of VEGFR-1 in melanoma acquired resistance to the BRAF inhibitor vemurafenib. *Journal of Cellular and Molecular Medicine* 24:465-475, 2020.
148. Lisi L, Chiavari M, Ciotti GMP, Lacal PM, Navarra P, **Graziani G.** DNA Inhibitors for the Treatment of Brain Tumors. *Expert Opinion on Drug Metabolism and Toxicology* 16:195-20, 2020.
149. Ceci C, Atzori MG, Lacal PM, **Graziani G.** Role of VEGFs/VEGFR-1 interplay in modulating tumor invasion: experimental evidence in different metastatic cancer models. *International Journal of Molecular Sciences* 21:1388, 2020.
150. Lisi L, Ciotti GMP, Chiavari M, Ruffini F, Lacal PM, **Graziani G.\***, Navarra P. Vascular endothelial growth factor receptor 1 in glioblastoma-associated microglia/macrophages. *Oncology Reports* 43:2083-2092, 2020. \*Corresponding author
151. Sbardella D., Tundo G.R., Cunsolo V., Grasso G., Cascella R., Caputo V., Santoro A.M., Milardi D., Pecorelli A., Ciaccio C., Di Pierro D., Leoncini S., Campagnolo L., Pironi V., Oddone F., Manni P., Foti S., Giardina E., De Felice C., Hayek J., Curatolo P., Galasso C., Valacchi G., Coletta M., **Graziani G.**, Marini S. Defective

- proteasome biogenesis into skin fibroblasts isolated from Rett syndrome subjects with MeCP2 non-sense mutations. *Biochimica et Biophysica Acta - Molecular Basis of Disease* 1866:165793, 2020.
152. Lacial PM, Atzori MG, Ruffini F, Scimeca M, Bonanno E, Cicconi R, Mattei M, Bernardini R, D'Atri S, Tentori L, **Graziani G**. Targeting the vascular endothelial growth factor receptor-1 by the monoclonal antibody D16F7 to increase the activity of immune checkpoint inhibitors against cutaneous melanoma. *Pharmacological Research* 159:104957, 2020.
  153. Ceci C.\*, **Graziani G.\***, Faraoni I., Cacciotti I. Strategies to improve ellagic acid bioavailability: from natural or semisynthetic derivatives to nanotechnological approaches based on innovative carriers. *Nanotechnology* 31:382001, 2020. *\*equally contributing authors*
  154. Tundo G.R.\*, Sbardella D., Santoro A.M., Coletta A., Oddone F., Grasso G., Milardi D., Lacial P., Marini S., Purrello P., **Graziani G.\***, Coletta M\*. The proteasome as a druggable target with multiple therapeutic potentialities: Cutting and non-cutting edges. *Pharmacology & Therapeutics* 213:107579, 2020. *\*Corresponding authors*
  155. Lisi L., Lacial P.M., Barbaccia M.L., **Graziani G**. Approaching Coronavirus Disease 2019: mechanisms of action of repurposed drugs with potential activity against SARS-CoV-2. *Biochemical Pharmacology* 180:114169, 2020.
  156. Chiavari M., Ciotti G.M.P., Canonico F., Altieri F., Lacial P.M., **Graziani G.\***, Navarra P.i, Lisi L. PDIA3 expression in glioblastoma modulates macrophage/microglia pro-tumor activation. *International Journal of Molecular Medicine* 21:8214, 2020\**Corresponding author*
  157. Ceci C. Atzori M.G., Lacial P.M., **Graziani G**. Targeting tumor-associated macrophages to increase the efficacy of immune checkpoint inhibitors: a glimpse into novel therapeutic approaches for metastatic melanoma. *Cancers* 12:3401, 2020.
  158. Franzese O., Di Francesco A.M., Meco D., **Graziani G.**, Cusano G., Riccardi R., Ruggiero A. hTERT transduction extends the lifespan of primary pediatric low-grade glioma cells while preserving the biological response to NGF. *Pathology & Oncology Research* 27:612375, 2021.
  159. Bavetta M., Silvaggio D., Campione E., Sollena P., Formica V., Coletta D., **Graziani G.**, Pucci Romano M.C., Roselli M., Peris K., Bianchi L. The Effects of Association of Topical Polydatin Improves the Preemptive Systemic Treatment on EGFR Inhibitors Cutaneous Adverse Reactions. *Journal of Clinical Medicine* 10:466, 2021.
  160. Giansanti M., Karimi T., Faraoni I., **Graziani G**. High-Dose Vitamin C: Preclinical Evidence for Tailoring Treatment in Cancer Patients. *Cancers (Basel)* 13:1428, 2021.
  161. Giansanti M., De Gabrieli A., Prete S.P., Ottone T., Divona M.D., Karimi T., Ciccarone F., Voso M.T., **Graziani G.\***, Faraoni I.\* Poly (ADP-ribose) polymerase inhibitors for arsenic trioxide-resistant acute promyelocytic leukemia: synergistic in vitro antitumor effects with hypomethylating agents or high-dose vitamin C. *Journal of Pharmacology and Experimental Therapeutics* 377:385-397, 2021. *\*equally contributing authors*
  162. Amin A., Farrukh A., Murali C., Soleimani A., Praz F., **Graziani G.**, Brim H., Ashktorab H. Saffron and its major ingredients effect on colon cancer cells with mismatch repair deficiency and microsatellite instability. *Molecules* 26:3855, 2021.
  163. Tundo G.R., Sbardella D., Oddone F., Kucraieva A., Lacial P.M., Belogurov A., **Graziani G.\***, Marini S. At the Cutting Edge against Cancer: a Perspective on Immuno-proteasome and Immune Checkpoints Modulation as a potential therapeutic intervention *Cancers* 13:4852, 2021 *\*corresponding author*.
  164. Micheli L., Parisio C., Lucarini E., Vona A., Toti A., Pacini A., Mello T., Boccella S., Ricciardi F., Maione S., **Graziani G.\***, Lacial P.M., Failli P., Ghelardini C., Di Cesare Mannelli L. VEGF-A/VEGFR-1 signalling and chemotherapy-induced neuropathic pain: therapeutic potential of a novel anti-VEGFR-1 monoclonal antibody. *Journal of Experimental & Clinical Cancer Research* 40:320, 2021\**corresponding author*.
  165. Lisi L., Lacial P.M., Martire M., Navarra P., **Graziani G**. Clinical experience with CTLA-4 blockade for cancer immunotherapy: From the monospecific monoclonal antibody ipilimumab to probodies and bispecific molecules targeting the tumor microenvironment. *Pharmacological Research* 175:105997, 2022.
  166. Ceci C., Lacial P.M., **Graziani G**. Antibody-drug conjugates: Resurgent anticancer agents with multi-targeted therapeutic potential. *Pharmacology & Therapeutics* 236:108106, 2022.
  167. Tundo G.R., Sbardella D., Oddone F., Grasso G., Marini S., Atzori M.G., Santoro A.M., Milardi D., Bellia F., Macari G., Polticelli F., **Graziani G.**, Cascio P., Parravano M.C., Coletta M. Insulin-degrading enzyme is a non proteasomal target of carfilzomib and affects the 20s proteasome inhibition by the drug. *Biomolecules* 12:315, 2022.
  168. **Graziani G.**, Lisi L., Tentori L., Navarra P. Monoclonal Antibodies to CTLA-4 with Focus on Ipilimumab. *Experientia Supplementum* 113:295-350, 2022.
  169. Sbardella D., Tundo G.R., Mecchia A., Palumbo C., Atzori M.G., Levati L., Boccaccini A., Caccuri A.M., Cascio P., Lacial P.M., **Graziani G.**, Varano M., Coletta M., Parravano M. A novel and atypical NF-KB pro-inflammatory program regulated by a CamKII-proteasome axis is involved in the early activation of Muller glia by high glucose. *Cell Bioscience* 12:108, 2022.
  170. Franzese O., **Graziani G**. Role of PARP inhibitors in cancer immunotherapy: potential friends to immune activating molecules and foes to immune checkpoints. *Cancers* 14:5633, 2022.

171. Atzori M.G., Ceci C., Ruffini F., Scimeca M., Cicconi R., Mattei M., Lacial P.M., **Graziani G.** The anti-vascular endothelial growth factor receptor 1 (VEGFR-1) D16F7 monoclonal antibody inhibits melanoma adhesion to soluble VEGFR-1 and tissue invasion in response to placenta growth factor. *Cancers* 14:5578, 2022.
172. Tundo G.R., Cascio P., Milardi D., Santoro A.M., **Graziani G.**, Lacial P.M., Bocedi A., Oddone F., Parravano M., Coletta A., Coletta M., Sbardella D. Targeting immunoproteasome in neurodegeneration: a glance to the future. *Pharmacology & Therapeutics* 241:108329, 2023.
173. García-Chico C., López-Ortiz S., Peñín-Grandes S., Pinto-Fraga J., Valenzuela P.L., Emanuele E., Ceci C., **Graziani G.**, Fiuza-Luces C., Lista S., Lucia A., Santos-Lozano A. Physical Exercise and the Hallmarks of Breast Cancer: A Narrative Review. *Cancers* 15:324, 2023.
174. Maresca C., Dello Stritto A., D'Angelo C., Petti E., Rizzo A., Vertecchi E., Berardinelli F., Bonanni L., Sgura A., Antoccia A., **Graziani G.**, Biroccio A., Salvati E. PARP1 allows proper telomere replication through TRF1 poly (ADP-ribosylation) and helicase recruitment. *Communications Biology* 6:234, 2023.
175. Ruffini F., Ceci C., Atzori M.G., Caporali S., Levati L., Bonmassar L., Cappellini G.C.A., D'Atri S., **Graziani G.\***, Lacial P.M.\* Targeting of PDGF-C/NRP-1 autocrine loop as a new strategy for counteracting the invasiveness of melanoma resistant to BRAF inhibitors. *Pharmacological Research* 2023 192:106782. *\*equally contributing authors.*
176. Boccaccini A, Cavaterra D, Carnevale C, Tanga L, Marini S, Bocedi A, Lacial PM, Manni G, **Graziani G.**, Sbardella D, Tundo GR. Novel frontiers in neuroprotective therapies in glaucoma: Molecular and clinical aspects. *Molecular Aspects of Medicine* 2023 Nov 23;94:101225.
177. Ceci C, García-Chico C, Atzori MG, Miguel Lacial P, Lista S, Santos-Lozano A, **Graziani G\***, Pinto-Fraga J. Impact of Physical Exercise on Melanoma Hallmarks: Current Status of Preclinical and Clinical Research. *Journal of Cancer* 2024; 15:1-19. *\*Corresponding author*
178. Ceci C, Lacial PM, Barbaccia ML, Mercuri NB, Graziani G\*, Ledonne A. The VEGFs/VEGFRs system in Alzheimer's and Parkinson's diseases: Pathophysiological roles and therapeutic implications. *Pharmacological Research* 2024;201:107101. *\*Corresponding author*

#### **Book chapters**

1. **Graziani G.**, Grandori C., Macchi B., Pastore S., Bonmassar E., Giuliani-Bonmassar A. Interferon-mediated regulation of the target structures of normal or lymphoma cells. In Aaronson, S. A., Frati, L., Verna, R. (Eds.): *Genetic and Phenotypic Markers of Tumors*, pg. 199-210, Plenum Press, New York, 1984.
2. Aquino A., Roselli M., Munziata C., **Graziani G.**, De Vecchis L. Attività "in vitro" dell'Interferon sulla funzione NK in presenza di 5-Fluorouracile e Acido Folinico. In: De Lorenzo A., Ceccanti M., Chiarioni T., Gasbarrini G. (Eds.): *Neoplasie del tratto gastroenterico. Prevenzione, diagnosi e basi razionali della terapia*. pg. 99-102, Editrice Compositori, Bologna, 1987.
3. Grandori C., **Graziani G.**, Perno F.C., D'Onofrio C., Bonmassar E. Immunopharmacology studies related to *in vitro* infection with HTLV-I. In: Poplack, D.G., Massimo L. and Cornaglia-Ferraris, P. (Eds.): *The Role of Pharmacology in Pediatric Oncology*. pg. 309-319, M. Nijoff and W. Jurk, Publishers, The Hague (Netherlands), 1987.
4. **Graziani G.**, Ron D., Srivastava S., Eva A. Expression of human *dbl*-oncogene and proto-oncogene products in insect cells using a baculo-virus vector. In: Asherson, J., Colizzi, V., Marini, S., Pugliese, O. *Annali Istituto Superiore di Sanità Roma*, Vol.27, N.1: 115-122, 1991.
5. **Graziani G.**, D'Atri S., Giuliani A., Franchi A., Piccioni D., Papa G., Bonmassar E. Cancer immunochemotherapy: preliminary studies with triazene compounds. In: "Combination Therapies 2" (A.L. Goldstein and E. Garaci eds.), pg. 135-147, Plenum Press, New York, 1993.
6. Faraoni I., Turriziani M., Masci G., De Vecchis, Shay J.S., Bonmassar E., **Graziani G.** Decline in telomerase activity as a measure of tumor cell killing by antineoplastic agents in vitro. in "The Year Book of Oncology", pg. 13-14, Ed. Ozols R.F., Mosby, 1998.
7. D'Onofrio C., **Graziani G.**, Bonmassar E. Farmaci immunomodulanti: immunostimolazione. In: Trattato Farmaci e Terapia, Immunofarmacologia e farmaci delle risposte infiammatorie. Cap 13, pag 177-195 UTET Torino 2002 (Ed. Di Rosa M., Fioretti M.C., Marcolongo F.R., Rugarli C.).
8. **Graziani G.** Principi di Chemioterapia, Volume 3, pg. 2695-2714, Cap. 236, Trattato di Medicina Interna Gasbarrini G., Ed. Verduci 2011.
9. **Graziani G.**, Tentori L., Navarra P. Monoclonal antibodies to CTLA-4 with focus on ipilimumab. In: *Interaction of Immune and Cancer Cells*, Magdalena Klink, Ed. Springer, Vienna, 2013; pages: 233-258.
10. **Graziani G.** Nuovi antitumorali per la *targeted therapy*: pro e contro. In: Appunti di farmacologia dei sistemi. p. 37-62 UniversItalia; Roma, 2014. ISBN: 978-88-6507-674-3.
11. **Graziani G.** Risorse economiche, compatibilità cliniche, libertà prescrittiva. In: I farmaci e le sfide di una medicina a misura di paziente. p. 193-208 UniversItalia; Roma, 2015. ISBN 978-88-6507-844-0

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