

CURRICULUM VITAE

Prof. Michele Navarra

Place and date of birth: Messina (Italy) 30 August 1968.
Position: Associate professor in Pharmacology at the Faculty of Pharmacy of the University of Messina (Italy).

Education:

12/11/1990 Laurea (BSc) in Pharmacy at the University of Messina (Italy), summa cum laude.
15/12/1994 Specialization in Pharmacognosy at the University of Messina (Italy), with the highest mark.

Professional experience

1991 – 1993 Post graduated fellowship at the Pharmaco-Biological Department of the Messina University (Italy).
1994 - 1996 Fellowship at the Department of Experimental Medicine and Biochemical Sciences of the University of Rome “Tor Vergata” (Italy).
Nov.1999/July 2002 Externship at the Laboratory of Biochemistry and Molecular Biology of the Institut de Biologia Fonamental “Vicent Villar i Palasi”, Universitat Autonoma de Barcelona (Spain).

Award and Fellowship

1988-‘89-’90 Scholarships awarded by Opera Universitaria, University of Messina (Italy) for best examination performances.
1991-1992 Post graduated fellowship awarded by the Messina County Government.
1999 Externship for “Short Term Mobility” awarded by the National Research Council (CNR, Italy).
08/10/1999 “Analossilaos” award for young scientific researcher.
2000 Externship for “Short Term Mobility” awarded by the National Research Council (CNR, Italy).
2001 Externship by the Italian Toxicological Society (SITOX).
2002 Externship by Consejo Superior de Investigaciones Cientificas (CSIC, Spain).

Academic activities

3/9/’96 - 13/1/’98 Assistant professor in Pharmacology at the Faculty of Pharmacy of the University of Reggio Calabria (Italy).
13/1/’98 - 11/10/’06 Assistant professor in Pharmacology at the Faculty of Pharmacy of the University “Magna Græcia” of Catanzaro (Italy).
11/10/’06 - Associate professor in Pharmacology at the Faculty of Pharmacy of the University of Messina (Italy).

Grant

1994 – 1999 Experimental model development of in vivo and in vitro for the characterization of novel therapeutic strategy in neurodegenerative disease supported by the European Fund for Regional Development (POP 94/99, Calabria Region, Italy).
1995 – 2005 several National Program on AIDS (VIII, IX, I, II, IV, V) funded by Ministry of health.
1998 – 1999 Role of interleukin 1-beta in neuronal toxicity induced by gp120 supported by the Italian Ministry for University and Scientific Research (PRIN).

- 2000 – 2003 Regulation of astroglial soluble guanylyl cyclase by inflammatory agents. Mechanism and functional implications supported by the Ministerio de Ciencia y Tecnologia, Spain.
- 2000 – 2006 Experimental study on the neurobiological properties provide by the bergamot essential oil, financed by Calabria Region (POR Calabria 2000–2006).
- 2004 – 2005 Study of the neuroprotective profile of the essential oil of bergamot (*Citrus bergamia* Risso) and its fractions in human cells of neuroectodermal origin exposed in vitro to excitotoxic stimuli, supported by the Italian Ministry for University and Scientific Research (PRIN).
- 2007 – 2008 Antiproliferative effects of pyrazolo-pyrimidine derivates on human neuroblastoma cells, supported by Fondazione Banco di Sicilia (principal investigator).

Main scientific interest

Research activity is focused on the mechanisms underline the cell death.

Scientific Societies Membership

- 1997 - Italian Pharmacological Society
 1997 - Italian Toxicological Society
 2003 - Italian Society for Neurosciences
 2003 - Italian Pharmacognosy Society

SCIENTIFIC PUBLICATIONS

prof. Michele Navarra

Aiello C.M., Donato-Alessi G., **Navarra M.**, Procopio A., Rescifina A. and Romeo R. (1993). γ and δ -lactams synthesized by nitron-intramolecular cycloaddition. XXI National Congress of the Organic Chemistry Section of the Italian Chemistry Society. Palermo, Italy, September 28 – October 2 , 1993. Abstract book: 100.

Corasaniti M.T., Tartaglia R.L., **Navarra M.**, Melino G., Nisticò G. and Finazzi-Agrò A. (1994). CHP100 neuroepithelioma cell death induced by N-methyl-D-aspartate involves nitric oxide. Meeting of the Italian Biochemical Society on "Biochemistry of activation, growth and differentiation". Florence, Italy, June 24, 1994. Ital. J. Biochem., 3/95: 153A.

Bagetta G., Corasaniti M.T., **Navarra M.**, Palma E. and Nisticò G. (1994). Role of nitric oxide in the mechanisms of neurodegeneration. VII Congress of the European College of Neuropsychopharmacology. Jerusalem, Israel, October 16-21, 1994. Eur. Neuropsychopharmacol., 4 (3): 9–10.

Corasaniti M.T., Melino G., Tartaglia R.L., **Navarra M.**, Marra R., Finazzi-Agrò A. and Nisticò G. (1994). Role of nitric oxide in cell death mechanisms induced by gp120 in human neuroblastoma cell culture. Meeting of the Italian Society for Neurosciences on "Neurodegeneration Models: Basic Mechanisms and Clinical Perspectives". Bari, Italy, December 2–3, 1994. Abstract book: 22.

Corasaniti M.T., Melino G., Tartaglia R.L., **Navarra M.**, Finazzi-Agrò A. and Nisticò G. (1994). Involvement of nitric oxide in the mechanisms of HIV-1 gp120-induced death of CHP100 human neuroblastoma cells. Pol. J. Pharmacol., 46 (4): 268.

Corasaniti M.T., Melino G., **Navarra M.**, Marra R., Finazzi-Agrò A. and Nisticò G. (1995). Sodium nitroprusside and S-nitroso-penicillamine, two nitric oxide-donors, produce death of NADPH-diaphorase positive human BMEL melanoma cells in culture. Pharmacol. Commun. 5: 203–211.

Corasaniti M.T., Melino G., **Navarra M.**, Marra R., Finazzi-Agrò A. and Nisticò G. (1995). Evidence that nitric oxide and prostaglandins are involved in the mechanism of HIV-1 gp120 induced death of human neuroblastoma cells in culture. First EPHAR Congress. Milan, Italy, June 16–19, 1995. *Pharm. Res.*, 31 (Suppl.): 59.

Corasaniti M.T., Paoletti A.M., **Navarra M.**, Palma E. and Nisticò G. (1995). Systemic administration of pramiracetam increases nitric oxide synthase activity in the cerebral cortex of rat. *Funct. Neurol.*, 10: 151–155.

Bagetta G., Corasaniti M.T., Berliocchi L., **Navarra M.**, Finazzi-Agrò A. and Nisticò G. (1995). HIV-1 gp120 produces DNA fragmentation in the cerebral cortex of rat. *Biochem. Biophys. Res. Commun.*, 211: 130–136.

Corasaniti M.T., Melino G., **Navarra M.**, Marra R., Nisticò G. and Finazzi-Agrò A. (1995). HIV-1 gp120-induced death of human neuroblastoma cells involves NMDA receptor activation and prostaglandins. Eighth research project on AIDS (1995). Rome, Italy, May 29 – June 2, 1995. Progress Report: 193.

Navarra M., Corasaniti M. T., Marra R., Gurrieri P., Melino G., Nisticò G. and Finazzi-Agrò A. (1996). Cell death induced by NMDA and gp120 in human neuroblastoma cells. Meeting of the Italian Biochemical Society on "Biochemistry of activation, growth and differentiation". Rome, Italy, May 24, 1996. Abstracts book: 24–25.

Corasaniti M.T., Melino G., **Navarra M.**, Garaci E., Finazzi-Agrò A. and Nisticò G. (1995). Death of cultured human neuroblastoma cells induced by HIV-1 gp120 is prevented by NMDA receptor antagonists and inhibitors of nitric oxide synthase and cyclooxygenase. *Neurodegeneration*, 4: 315–321.

Melino G., Corasaniti M.T., **Navarra M.**, Nisticò G. and Finazzi-Agrò A. (1996). Role of nitric oxide, prostaglandins and calpain in the mechanisms of neurotoxicity induced by the HIV-1 coat protein gp120 in human neuroblastoma cell culture. II International Praelios Symposium Nitric Oxide and the Cell: Proliferation, Differentiation and Death. Vibo Valentia, Italy, September 15–17, 1996. Abstracts book: 63.

Corasaniti M. T., **Navarra M.**, Catani M. V., Melino G., Nisticò G. and Finazzi-Agrò A. (1996). NMDA and HIV-1 coat protein, gp120, produce necrotic but not apoptotic cell death in human CHP100 neuroblastoma cultures via a mechanism involving calpain. *Biochem. Biophys. Res. Commun.*, 229: 299–304.

Corasaniti M.T., **Navarra M.**, Catani M.V., Melino G., Nisticò G. and Finazzi-Agrò A. (1996). HIV-1 coat protein, gp120 produces necrotic but not apoptotic cell death in human neuroblastoma cultures: protection by calpain protease inhibitors. Ninth research project on AIDS (1996). Rome, Italy, January 13–17, 1997. Progress Report: 164.

Navarra M., Corasaniti M. T., Marra R., Gurrieri P., Melino G., Nisticò G. and Finazzi-Agrò A. (1997). Death of cultured human neuroblastoma cells induced by NMDA and gp120. *Ital. J. Biochem.*, 46: 83–84.

Corasaniti M.T., **Navarra M.**, Catani M.V., Melino G., Nisticò G. and Finazzi-Agrò A. (1997). Inhibitors of calpain rescue human neuroblastoma cultures from HIV-1 gp120-induced cytotoxicity. XXVIII National Congress of the Italian Pharmacological Society, Bari, Italy, April 30 – May 3, 1997. *Pharm. Res.*, 35 (Suppl.): 31.

Melino G., Bernassola F., Catani V., Rossi A., **Navarra M.** and Corasaniti M.T. (1997). gp120 toxicity in neuroblastoma cells: involvement of Ca⁺⁺ and S-nitrosylation. First European Conference on Calcium Signalling in the cell nucleus. Vibo Valentia, Italy, October 4–8, 1997. Abstracts book: 87.

Corasaniti M. T., **Navarra M.**, Nisticò S., Rotiroti D., Maccarrone M., Melino G. and Finazzi-Agrò A. (1998). Requirement for membrane lipid peroxidation in HIV-1 gp120-induced neuroblastoma cell death. *Biochem. Biophys. Res. Commun.*, 246: 686–689.

Corasaniti M.T., **Navarra M.**, Maccarrone M., Nisticò S., Rotiroti D. and Finazzi-Agrò A. (1998). HIV-1 gp120-induced membrane lipid peroxidation and death of neuroblastoma cells is reduced by U-74389G. 6th Joint Meeting of the Italian, Hungarian and Polish Pharmacological Societies. Pisa, Italy, May 14–16, 1998. Abstracts book: 36.

Maccarrone M., **Navarra M.**, Corasaniti M.T., Nisticò G. and Finazzi-Agrò A. (1998). Activation of the arachidonate cascade mediates cytotoxicity of HIV-1 coat protein gp120. The National research program on AIDS (1997). Rome, Italy, June 22–26, 1998. Progress Report: 61.

Corasaniti M.T., **Navarra M.**, Maccarrone M., Catani M.V., Melino G., Nisticò G. and Finazzi-Agrò A. (1998). HIV-1 gp120-induced membrane lipid peroxidation and death of neuroblastoma cells is reduced by U-74389G. The National research program on AIDS (1997). Rome, Italy, June 22–26, 1998. Progress Report: 62.

Maccarrone M., **Navarra M.**, Corasaniti M. T., Nisticò G. and Finazzi-Agrò A. (1998). Cytotoxic effect of HIV-1 coat glycoprotein gp120 on human neuroblastoma CHP100 cells involves activation of the arachidonate cascade. *Biochem. J.*, 333: 45–49.

Navarra M., Romano C., Rotiroti D. and Di Renzo G. (1998). Effects of ethanol on cytotoxicity induced by NMDA and gp120 *in vitro*. *Chemistry Frontiers: Chemistry and Medicine*. Cosenza, Italy, December 4–5, 1998. Abstract book: 55.

Corasaniti M.T., **Navarra M.**, Catani M.V., Melino G., Nisticò G. and Finazzi-Agrò A. (1998). Mechanisms of neurotoxicity induced by the HIV-1 coat protein, gp120, in human neuroblastoma cells in culture. In "Nitric oxide and the cells. Proliferation, differentiation and death". Portland Press Proceedings, London. (Moncada S., Nisticò G., Bagetta G., Higgs E.A. eds.), pp. 157–169.

Navarra M., Romano C., Rotiroti D. and Di Renzo G. (1999). Effects of ethanol exposure on neuroblastoma cell death induced by NMDA and gp120. Joint Meeting of the French and Italian Pharmacological Societies. Nantes, France, March 15–17, 1999. Abstracts book: 117.

Corasaniti M.T., Maccarrone M., Strongoli M.C., **Navarra M.**, Colica C., Rotiroti D. and Bagetta G. (1999). Apoptosis induced by gp120 in the brain cortex of rat is minimized by the 21-aminosteroid, U74389G and by NMDA receptor antagonists. XXIX National Congress of the Italian Pharmacological Society. Florence, Italy, June 20–23, 1999. *Pharm. Res.*, 39 (Suppl.): 34.

Corasaniti M.T., Catani M.V., **Navarra M.**, Strongoli M.C., Melino G., Nisticò G. and Finazzi-Agrò A. (1999). HIV-1 gp120-induced death of human neuroblastoma cells in culture involves CXCR4 and CCR5 chemokine receptors. Second National program on AIDS (1998). Rome, Italy, July 12–16, 1999. Progress Report: 93.

Navarra M., Romano C., Amantea D., Rotiroti D. and Di Renzo G. (1999). Ethanol exposure modifies the cytotoxic effect induced by gp120 in neuroblastoma cells. VIII National Congress of Italian Society for Neurosciences. Rome, Italy, September 26–29, 1999. *Neurosci. Lett.*, 52 (Suppl.): 54.

Corasaniti M.T., Catani M.V., **Navarra M.**, Di Renzo G., Melino G., Finazzi-Agrò A. and Nisticò G. (1999). Evidence for a role of CXCR4 and CCR5 chemokine receptors in HIV-1 gp120 coat protein induced death of human neuroblastoma cells in culture. VIII National Congress of Italian Society for Neurosciences. Rome, Italy, September 26–29, 1999. *Neurosci. Lett.*, 52 (Suppl.): 56.

Corasaniti M.T., Catani M.V., **Navarra M.**, Di Renzo G., Melino G., Finazzi-Agrò A. and Nisticò G. (1999). Evidence for a role of CXCR4 and CCR5 chemokine receptors in HIV-1 gp120 coat protein induced death of human neuroblastoma cells in culture. XII National Congress of Italian Society for Toxicology. Bologna, Italy, February 23–26, 2000. Abstract book: 40.

Catani M.V., Corasaniti M.V., **Navarra M.**, Nisticò G., Finazzi-Agrò A. and Melino G. (2000). gp120 induces death of human neuroblastoma cells through the CXCR4 and CCR5 chemokine receptors. *J. Neurochem.*, 74: 2373–2379.

Navarra M., Romano C., Pelaia G., Rotiroti D. and Di Renzo G. (2000). Ethanol exposure inhibits the cytotoxic effect induced by gp120 in neuroblastoma cells. XXXVIII European Congress of Toxicology. London, New England, September 17–20, 2000. *Toxicol. Lett.*, 116 (Suppl.): 71.

Corasaniti M.T., Strongoli M.C., Bilotta A., **Navarra M.**, Finazzi-Agrò A. and Di Renzo G. (2000). Evidence for a role of IL-1 β in HIV-1 gp120 induced death of human neuroblastoma cells. Immunopharmacology and Immunotherapy today. A joint meeting of the International Society of Immunopharmacology and the Italian Association of Immunopharmacology. Florence, Italy, November 10–11 2000. *J. Chemother.*, 12 (Suppl. 6): p. 93.

Navarra M., Bilotta A., Rotiroti D. and Di Renzo G. (2000). The protective effect of ethanol against gp120-induced cytotoxicity involves the inhibition of a Ca²⁺ activated NO/cGMP pathway. Joint Meeting of the British and Italian Pharmacological Societies. Birmingham, New England, December 18–21, 2000. *Br. J. Pharmacol.*, 133 (Suppl.): 230 P.

Navarra M., Romano C., Lorenzon T., Rotiroti D. and Di Renzo G. (2001). Ethanol exposure inhibits the cytotoxic effect induced by gp120 in neuroblastoma cells. *J. Neurosci. Res.*, 65 (4): 354–361.

Corasaniti M.T., Bilotta A., Strongoli M.C., **Navarra M.**, Bagetta G. and Di Renzo G. (2001). HIV-1 coat protein gp120 stimulates interleukin-1 β secretion from human neuroblastoma cells: evidence for a role in the mechanism of cell death. *Br. J. Pharmacol.*, 134 (6): 1344–1350.

Corasaniti M.T., Bilotta A., Strongoli M.C., **Navarra M.**, Rotiroti D., Di Renzo G. (2001). Human neuroblastoma cell death by HIV-1 gp120 implicates IL-1 β -induced enhancement of COX-2 expression. XXX National Congress of the Italian Pharmacological Society. Genova, Italy, May 30 – 2 June 2001. Pharm. Res., 43 (Suppl.), p. 54.

Navarra M., Pedraza C.E., Sardón T., Baltrons M.A. and García A. (2002). HIV-1 coat protein gp120 decreases NO-dependent cGMP accumulation in rat brain astrocytes by increasing phosphodiesterase-5 activity. V European Meeting on Glial Cell Function in Health and Disease. Rome, Italy, May 21–25, 2002. Glia (Suppl.), S 28.

Russo R., **Navarra M.**, Rotiroti D. and Di Renzo D. (2002). Studies on the possible role played by Protein Tyrosine Kinases in cell death induced by gp120 in CHP100 neuroblastoma cells. VI workshop on apoptosis in biology and medicine: role of proinflammatory and chemotactic cytokines in normal and pathological brain. Vibo Valentia, Italy, May, 25–29, 2002. Abstract book: 62.

Navarra M., Pedraza C.E., Sardón T., Baltrons M.A. and García A. (2002). HIV-1 coat protein gp120 decreases NO-dependent cGMP accumulation in rat brain glial cultures. VI workshop on apoptosis in biology and medicine: role of proinflammatory and chemotactic cytokines in normal and pathological brain. Vibo Valentia, Italy, May 25–29, 2002. Abstract book: 38.

Maccarrone M., **Navarra M.**, Catani M.V., Corasaniti M.T., Bagetta G. and Finazzi-Agrò A. (2002). Cholesterol-dependent modulation of the toxicity of HIV-1 coat protein gp120 in human neuroblastoma cells. J. Neurochem., 82: 1444-1452.

Navarra M., Baltrons M.A., Rotiroti D. and García A. (2003). HIV-1 coat protein gp120 stimulates microglia proliferation and decreases NO-dependent cyclic GMP accumulation in glial cultures. XIII National Congress of Italian Society for Toxicology. Urbino, Italy, January 22–25, 2003. Abstract book, p. 102.

Baltrons M.A., Pedraza C., Sardón T., **Navarra M.** and García A. (2003). Regulation of NO-dependent cyclic GMP formation by inflammatory agents in neural cells. Tox. Lett., 139 (2-3): 191-198.

Russo R., **Navarra M.**, Rotiroti D. and Di Renzo D. (2003). Evidence for a role of Protein Tyrosine Kinases in cell death induced by gp120 in CHP100 neuroblastoma cells. Tox. Lett., 139 (2-3): 207-211.

Russo R., **Navarra M.**, Bellizzi C. and Corasaniti M.T. (2003). Evidence that 17 β -estradiol prevents death of SH-SY5Y human neuroblastoma cells induced by HIV-1 gp120: reversal by tamoxifen and ICI 182,78. VII workshop on apoptosis in biology and medicine: basic and therapeutic aspects of brain ischemia. Cosenza, Italy, April 29–30, 2003. Abstract book, p. 30-31.

Bagetta G., **Navarra M.**, Russo R., Corasaniti M.T. (2003). Caspase 1 inhibitors reduce cytochrome c translocation but not enhancement of IL-1 β caused by the HIV-1 gp120 in the neocortex of rat. XXXI National Congress of the Italian Pharmacological Society. Trieste, Italy, June 26–29, 2003. Abstract book, p. 6.

Navarra M., Pedraza C.E., Sardón T., Baltrons M.A., García A. (2003). HIV-1 coat protein gp120 decreases NO-dependent cGMP accumulation in rat brain astrocytes by increasing phosphodiesterase 5 activity. International Symposium on Nitric Oxide - Cyclic GMP signal transduction in brain. Valencia, Spain, November 23–25, 2003. Abstract book, p. 53.

Bagetta G., **Navarra M.**, Russo R., Corasaniti M.T. (2003). Caspase 1 inhibitors reduce cytochrome C translocation but not enhancement of IL-1 beta by HIV-1 gp120 in the neocortex of rat. International Society for Neurosciences meeting 2003. J. Neurochem., 87. p. 153.

Morrone LA, Rombola L, Nisticò R, Russo R, **Navarra M.**, Bagetta G, Corasaniti MT. (2003). Terpenes and bergapten contribute to neurochemical changes yielded in the rat hippocampus by the essential oil of bergamot. International Society for Neurosciences meeting 2003. J. Neurochem., 87. p. 46.

Navarra M., Baltrons M.A., Sardón T., Pedraza C.E., García A. (2004). HIV-1 coat protein gp120 decreases NO-dependent cyclic GMP accumulation in rat brain rat brain astroglia by increasing cyclic GMP phosphodiesterase activity. Neurochem. Int., 45 (6): 937-946.

Russo R., **Navarra M.**, Maiuolo J., Rotiroti D., Corasaniti M.T. (2004). Receptor-mediated mechanisms, but not free radical scavenging properties, mediate neuroprotection by 17 β -estradiol in SH-SY5Y neuroblastoma cells exposed to HIV-1 gp120 in vitro. First international Porto Pirogós conference on advances in neuroscience. Vibo Valentia, Italy, September 22–25, 2004. Abstract book, p. 26.

Navarra M., Maiuolo J., Spagnolo P., Rotiroti D., Bagetta G., Corasaniti M.T. (2004). The essential oil of bergamot protects SH-SY5Y neuroblastoma cells from NMDA-induced cytotoxicity. First international Porto Pirog conference on advances in neuroscience. Vibo Valentia, Italy, September 22–25, 2004. Abstract book, p. 38.

Russo R., **Navarra M.**, Maiuolo J., Bagetta G., Corasaniti M.T. (2004). Receptor-activated mechanisms mediate 17 β -estradiol neuroprotection in neuroblastoma cells exposed to gp120. Winter meeting of the British Pharmacological Society. Newcastle, Great Britain, December 14–16, 2004. Abstract book, P 058.

Navarra M., Maiuolo J., Russo R., Bagetta G., Corasaniti M.T. (2004). Evidence to implicate monoterpene hydrocarbons in the neuroprotection afforded by bergamot essential oil *in vitro*. Winter meeting of the British Pharmacological Society. Newcastle, Great Britain, December 14–16, 2004. Abstract book, P 059.

Navarra M., Maiuolo J., Russo R., Maida S., Rotiroti D., Bagetta G., Corasaniti M.T. (2005). Neuroprotection by bergamot essential oil in vitro: implication of monoterpene hydrocarbons. VIII workshop on apoptosis in biology and medicine: plasticity in pain and death. Vibo Valentia, Italy, May 25–26, 2005.

Navarra M., Maiuolo J., Russo R., Maida S., Rotiroti D., Bagetta G., Corasaniti M.T. (2005). Neuroprotection by bergamot essential oil in vitro: implication of monoterpene hydrocarbons. XXXII National Congress of the Italian Pharmacological Society, Naples, Italy, June 1-4, 2005. Abstract book, p. 221.

Russo R., **Navarra M.**, Maiuolo J., Rotiroti D., Bagetta G., Corasaniti M.T. (2005). 17 β -estradiol protects SH-SY5Y cells against HIV-1gp120-induced cell death: evidence for a role of estrogen receptors. *Neurotoxicology*, 26 (5): 905-913.

Navarra M., Maiuolo J., Rotiroti D., Corasaniti M.T. (2005). The essential oil of bergamot exerts neuroprotective effects in excitotoxicity in vitro. 1nd Workshop on “Herbal drugs: from basic research to possible applications in medicine” Vibo Valentia, Italy, July 8, 2005. Abstract book, L17.

Maiuolo J., Maida S., **Navarra M.**, Bagetta G., Corasaniti M.T. (2006). Mechanisms underlying neuroprotection afforded by bergamot essential oil (BEO) against NMDA-induced cell death in vitro. VIII workshop on apoptosis in biology and medicine: neuroinflammation in neuronal death and repair. Vibo Valentia, Italy, September 13-16, 2006. Abstract book, p. 28-29.

Cosco D., **Navarra M.**, Calvagno M.G., Paolino D., Muzzalupo R., Picci N., Fresta M. (2007). Antitumoral effect of 5-fluorouracil loaded new bola-form niosomes. 3rd Pharmaceutical Sciences World Congress (PSWC). Amsterdam, The Netherlands, 22-25 Aprile 2007.

Navarra M., Celano M., Schenone S., Botta M., Bramanti P., Russo D. (2007). Antiproliferative effects of pyrazolo-pyrimidine -type inhibitors of Src family tyrosine kinases derivatives on human neuroblastoma cells. XXXIII National Congress of the Italian Pharmacological Society, Cagliari, Italy. 6-9 Giugno 2007.

Celano M., Donato C., **Navarra M.**, Alcaro S., Schenone S., Procopio S., Varano E., Botta M., Fresta M., Russo D. (2007). Effects of liposome-encapsulated pyrazol-pyrimidine derivate on the growth of human thyroid carcinoma cells. XXXIII National Congress of the Italian Pharmacological Society. Cagliari, Italy, 6-9 Giugno 2007.

Maida S., Fratto V., **Navarra M.**, Bagetta G., Corasaniti M.T. (2007). Evidence to implicate phosho-AKT (P-AKT) in the mechanisms underlying neuroprotection afforded by the bergamot essential oil against excitotoxicity in vitro. XXXIII National Congress of the Italian Pharmacological Society. Cagliari, Italy, 6-9 Giugno 2007.

Corasaniti M.T., Maiuolo J., Maida S., Fratto V., **Navarra M.**, Russo R., Amantea D., Morrone L.A., Bagetta G., (2007). Cell signaling pathways in the mechanisms of neuroprotection afforded by bergamot essential oil against NMDA-induced cell death in vitro. *Br J Pharmacol.* 151(4): 518-29.

Celano M., Donato C., **Navarra M.**, Brullo C., Botta G., Botta M., Fresta M., Filetti S., Russo D. (2007). Antiproliferative effects of two pyrazol-pyrimidine derivatives on human anaplastic thyroid cancer cells. 32° National Congress of the Italian Endocrinological Society. Verona, Italy, 13-16 Giugno 2007.

Navarra M., Celano M., Maiuolo J., Schenone S., Botta M., Bramanti P., Russo D. (2007). Mechanisms of the antiproliferative effects afforded by novel pyrazolo-pyrimidine derivatives on human neuroblastoma cells. National Congress of Italian Society for Neurosciences. Verona, Italy, 27–30 Settembre 2007.

Morisi R., Celano M., Tosi E., Schenone S., **Navarra M.**, Ferretti E., Costante G., Durante C., Botta G., D'Agostino M., Brullo C., Filetti S., Botta M., Russo D. (2007). Growth inhibition of medullary thyroid carcinoma cells by pyrazolo-pyrimidine derivatives. *J. Endocrinol. Invest.*, 30 (10): RC31-34.

Navarra M., Micali S., Lepore S., Cesinaro A., Sighinolfi M.C., Fianza F., De Gaetani C., Bianchi G., Russo D. (2007). Expression Of the Sodium/Iodide Symporter In Prostate Cells: A Novel Target For Radioiodine-Based Treatment Of Prostate Cancer? 44th Congress of the European Societies of Toxicology. Amsterdam, The Netherlands, 7-10 October 2007. *Tox. lett.*, 172S: Z29.

Celano M., Donato C., **Navarra M.**, Alcaro S., Schenone S., Procopio S., Varano E., Botta M., Fresta M., Russo D. (2007). Cytotoxic effects of pyrazolo-pyrimidine derivative encapsulated in liposome-carrier in human thyroid carcinoma cells. 44th Congress of the European Societies of Toxicology. Amsterdam, The Netherlands, 7-10 October 2007. *Tox. lett.*, 172S: Z15.

Navarra M., Celano M., Maiuolo J., Schenone S., Botta M., Bramanti P., Russo D. (2007). Antiproliferative effects of pyrazolo-pyrimidine derivatives on human neuroblastoma cells . 44th Congress of the European Societies of Toxicology. Amsterdam, The Netherlands, 7-10 October 2007. *Tox. lett.*, 172S: Z28.

Morandi B., Bramanti P., Bonaccorsi I., Montalto E., Oliveri D., Pezzino G., **Navarra M.**, Ferlazzo G. (2008). Role of natural killer cells in the pathogenesis and progression of multiple sclerosis. *Pharmacol. Res.*, 57 (1): 1–5.

Celano M., Schenone S., **Navarra M.**, Cosco D., Brullo C., Varano E., Alcaro S., Ferretti E., Botta G., Filetti S., Fresta M., Botta M., Russo D. (2008). Cytotoxic effects of a novel pyrazolopyrimidine derivative entrapped in liposomes in anaplastic thyroid cancer cells in vitro and in xenograft tumors in vivo. *Endocr. Relat. Cancer.*, 15(2): 499-510.

Trapasso E., Celia C., Cosco D., **Navarra M.**, Cilurzo F., Fresta M., Paolino D. Khellin-loaded ethosomes® and transfersomes®: Innovative topical devices for the treatment of vitiligo. Ftomed 2008: III° Congresso intersocietà sulle piante medicinali. Salerno 25-27 giugno 2008. Abstract book pag. 141 bis.

Ursino M.R., Messina C., **Navarra M.**, Santulli A., Mondello M.R. Antiproliferative activity of Citrus bergamia juice and essential oil on HepG2 cell lines. Ftomed 2008: III° Congresso intersocietà sulle piante medicinali. Salerno 25-27 giugno 2008. Abstract book pag. 41.

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