

CV: Claudio Pisano, PhD

EDUCATION

- 1990** **PhD in Genetic and Molecular Biology, “Centro di Genetica Evoluzionistica” – National Research Council (C.N.R.), Dept. of Genetics and Molecular Biology - University of Rome “La Sapienza” Rome (1985-1990)**
- 1984** **Master Degree in Biology**
University “Federico II”, Naples, Italy.

POSITIONS/CHRONOLOGY

From 2013: Director of Medicinal Investigational Research (MIR), Biogem, Ariano Irpino, Italy

This position gathered the following responsibilities/activities :

- Leading of the reorganization of the Department by focusing on: **quality research, improvement**, self responsibility in the overall team work, hiring new employees with innovative skills, increase of national and international collaborations.
- Induction and investigation on new research projects
- Increase in revenue from scientific collaborations offered as a service (CRO activities) to Academia and Companies

From 1998 to 2012: Director of Oncology Department , Sigma Tau, Pomezia, Italy

From 1997: Director of the Cellular Physiopathology Department, Sigma Tau, Pomezia, Italy

- 1984-1990** **Research contract at “Centro di Genetica Evoluzionistica” – National Research Council (C.N.R.), Dept. of Genetics and Molecular Biology - University of Rome “La Sapienza” Rome (1985-1990)**
- 09/1990-12/1996** **Staff research scientist at “Centro di Genetica Evoluzionistica” – National Research Council (C.N.R.), Dept. of Genetics and Molecular Biology - University “La Sapienza”, Rome**

RESEARCH/RESULTS

As MIR Director (2015)

Main results:

- The department has reached an organization in which everybody has clear responsibilities and in which all aspects of management have clear referents.
- The quality and productivity of the research has been implemented
- The revenue coming from research service activities for academia or pharmaceutical companies has been increased by 10 times

As the Director of Oncology Department

From 1998 to 2012. Main results:

- ALC (acetylcarnitine) as an enhancer of gene expression in transfected cell: PATENT GENERATION .
- ALC and their derivatives as protective agents against peripheral neuropathy and bone marrow injury induced by antitumor drugs and characterization of their mechanism of action (These studies have led to Clinical Investigation: ALC is currently in Phase III of Clinical Trial in NSCLC in combination with cisplatin).
- Identification and development on new nanoparticle as vehicle for drugs and gene delivery (These studies have led to the Phase II of Clinical Trial for topic delivery of PG's).
- Screening , Hit and Head selection of new molecules for their anti-tumor and/or anti-angiogenic activity.Molecular characterization of mechanism of action and efficacy.
- Preclinical development of Drug candidates

These studies have led to investigate in several clinical trials the selected molecules having the most appropriate and specific pharmacological profile. In particular:

- **Gimatecan (Phase III, ovarian cancer):** Gimatecan has been the object of a commercial agreement with Novartis for its Clinical Development.
- **Namitecan (Phase II, cervix , H&N and neuroblastoma cancers)**

- **Adarotene (Phase I)- suggested indication in Phase II :** Ovarian cancer in combination with Platins/taxanes
- **SST0001 (Phase I-II, Multiple Myeloma)**
 - New patents generation
 - Papers on these topics have been published in peer reviewed International Journals

As a Investigator at the Genetic and Molecular Biology, “*Centro di Genetica Evoluzionistica*” – National Research Council (C.N.R.), Dept. of Genetics and Molecular Biology - University of Rome “La Sapienza” Rome (1985-1996)

- Studies on specific genes/mechanisms/protein controlling the transition between the transcribed “euchromatin” and the transcriptional “inactive” heterochromatin in *Drosophila melanogaster*.
- Characterization of multiple protein-binding elements of mouse CpG island .
- Papers on these topics have been published in peer reviewed International Journals In a year of activities:

ACADEMIC APPOINTMENTS AND ADDITIONAL PROFESSIONAL ACTIVITIES:

In 2014, MIUR has granted to Dr. Pisano of “ Abilitazione Scientifica Nazionale di Professore I Fascia per gli insegnamenti di Biologia Molecolare (05/E2) e Biochimica Generale e Biochimica Clinica (05/E1).

Previously: Annual Contract as Professor for teaching “Pharmacogenomics” at the University of Sannio, Faculty of Biology (2003-2007) and “Pharmacology” at the University “ La Sapienza “ Rome, Faculty of Medicine (2008-2010), Italy, “Introduction to Science and Genetic Technology” at Biogem Campus (2014) (Faculty of Biology of Università degli Studi di Bari Aldo Moro, Università degli Studi di Foggia, Università degli Studi di Napoli Federico II, Università degli Studi del Sannio). In addition to his scientific activity, Dr. Pisano has been supervisor/tutor of students for Degree and PhD Thesis.

Invited speaker to several international meetings; **reviewer** for different scientific **journals** (i.e. Cancer Research, Molecular Cancer Therapeutics, European Journal of Cancer, Journal of Medicinal Chemistry, etc); **Invited as scientific expert at European Commission for “HEALTH” Projects (several times).**

LANGUAGES

Italian (mother tongue)
English (fluent)

PUBLICATIONS:

1. Basma H, Ghayad SE, Rammal G, Mancinelli A, Harajly M, Ghamloush , Dweik L, El-Eit R, Zalzali H, Rabeh W, Pisano C, Darwiche N, Saab R .The synthetic retinoid ST1926 as a novel therapeutic agent in rhabdomyosarcoma. *Int J Cancer*. 2015 Oct 9. doi: 10.1002/ijc.29886. [Epub ahead of print]
2. Musso L, Cincinelli R, Zuco V, Zunino F, Nurisso A, Cuendet M, Giannini G, Vesci L, Pisano C, Dallavalle S. Investigation on the ZBG-functionality of phenyl-4-yl-acrylohydroxamic acid derivatives as histone deacetylase inhibitors. *Bioorg Med Chem Lett*. 2015 Oct 15;25(20):4457-60
3. Nasr RR, Hmadi RA, El-Eit RM, Iskandarani AN, Jabbour MN, Zaatari GS, Mahon FX, Pisano CC, Darwiche ND. ST1926, an orally active synthetic retinoid, induces apoptosis in chronic myeloid leukemia cells and prolongs survival in a murine model. *Int J Cancer*. 2015 Aug 1;137(3):698-709
4. Hiba El Hajj, Bariaa Khalil, Botheina Ghandour, Rihab Nasr, Sharif Shahine, Akram Ghantous, Rana Abdel-Samad, Ansam Sinjab, Hideki Hasegawa, Mark Jabbour, William W Hall, Ghazi Zaatari, Ghassan Dbaibo, Claudio Pisano, Ali Bazarbachi, and Nadine Darwiche Pre-clinical efficacy of the synthetic retinoid ST1926 for treating adult T cell leukemia/lymphoma . *Blood*. 2014 Sep 25;124(13):2072-80
5. Taddei M, Ferrini S, Giannotti L, Corsi M, Manetti F, Giannini G, Vesci L, Milazzo FM, Alloatti D, Guglielmi MB, Castorina M, Cervoni ML, Barbarino M, Foderà R, Carollo V, Pisano C, Armaroli S, Cabri W. Synthesis and evaluation of new Hsp90 inhibitors based on a 1,4,5-trisubstituted 1,2,3-triazole scaffold. *J Med Chem*. 2014 Mar 27;57(6):2258-74.
6. Pisano C, Vlodaysky I, Ilan N, Zunino F. The potential of heparanase as a therapeutic target in cancer. *Biochem Pharmacol*. 2014 May 1;89(1):12-9.
7. Cincinelli R, Musso L, Merlini L, Giannini G, Vesci L, Milazzo FM, Carenini N, Perego P, Penco S, Artali R, Zunino F, Pisano C, Dallavalle S. 7-Azaindole-1-carboxamides as a new class of PARP-1 inhibitors. *Bioorg Med Chem*. 2014 Feb 1;22(3):1089-103.

8. De Cesare M1, Lauricella C, Veronese SM, Cominetti D, Pisano C, Zunino F, Zaffaroni N, Zuco V. Synergistic antitumor activity of cetuximab and namitecan in human squamous cell carcinoma models relies on cooperative inhibition of EGFR expression and depends on high EGFR gene copy number. *Clin Cancer Res.* 2014 Feb 15;20(4):995-1006.
9. Cross-Knorr S, Lu S, Perez K, Guevara S, Brilliant K, Pisano C, Quesenberry PJ, Resnick MB, Chatterjee D. RKIP phosphorylation and STAT3 activation is inhibited by oxaliplatin and camptothecin and are associated with poor prognosis in stage II colon cancer patients. *BMC Cancer.* 2013 Oct 8;13:463. doi: 10.1186/1471-2407-13-463. PMID:24098947
10. Cassinelli G, Lanzi C, Tortoreto M, Cominetti D, Petrangolini G, Favini E, Zaffaroni N, Pisano C, Penco S, Vlodaysky I, Zunino F. Antitumor efficacy of the heparanase inhibitor SST0001 alone and in combination with antiangiogenic agents in the treatment of human pediatric sarcoma models. *Biochem Pharmacol.* 2013 May 15;85(10):1424-32. doi: 10.1016/j.bcp.2013.02.023.
11. Dal Piaz F, Vassallo A, Temraz A, Cotugno R, Belisario MA, Bifulco G, Chini MG, Pisano C, De Tommasi N, Braca A. A chemical-biological study reveals C9-type iridoids as novel heat shock protein 90 (Hsp90) inhibitors. *J Med Chem.* 2013 Feb 28;56(4):1583-95. doi: 10.1021/jm301398y. Epub 2013 Feb 18.
12. Fratelli M, Fisher JN, Paroni G, Di Francesco AM, Pierri F, Pisano C, Godl K, Marx S, Tebbe A, Valli C, Gianni M, Stravalaci M, Gobbi M, Terao M, Garattini E. New insights into the molecular mechanisms underlying sensitivity/resistance to the atypical retinoid ST1926 in acute myeloid leukaemia cells: the role of histone H2A.Z, cAMP-dependent protein kinase A and the proteasome. *Eur J Cancer.* 2013 Apr;49(6):1491-500. doi: 10.1016/j.ejca.2012.11.013.
13. Meco D, Di Francesco AM, Cusano G, Bucci F, Pierri F, Patriarca V, Torella AR, Pisano C, Riccardi R. Preclinical evaluation of the novel 7-substituted camptothecin Namitecan (ST1968) in paediatric tumour models. *Cancer Chemother Pharmacol.* 2012 Dec;70(6):811-22. doi: 10.1007/s00280-012-1973-0. PMID:23007316
14. Alloatti D, Giannini G, Vesci L, Castorina M, Pisano C, Badaloni E, Cabri W. Camptothecins in tumor homing via an RGD sequence mimetic. *Bioorg Med Chem Lett.* 2012 Oct 15;22(20):6509-12. doi: 10.1016/j.bmcl.2012.07.061. PMID: 22959246
15. Dal Piaz F, Vassallo A, Chini MG, Cordero FM, Cardona F, **Pisano C**, Bifulco G, De Tommasi N, Brandi A. Natural iminosugar (+)-lentiginosine inhibits ATPase and chaperone activity of hsp90. *PLoS One.* 2012;7(8):e43316. Epub 2012 Aug 20.
16. Odorisio T, De Luca N, Vesci L, Luisi PL, Stano P, Zambruno G, **Pisano C**. The atypical retinoid E-3-(3'-Adamantan-1-yl-4'-methoxybiphenyl-4-yl)-2-propenoic acid (ST1898) displays comedolytic activity in the rhino mouse model. *Eur J Dermatol.* 2012 Jul-Aug;22(4):505-11.
17. Bargiotti A, Musso L, Dallavalle S, Merlini L, Gallo G, Ciacci A, Giannini G, Cabri W, Penco S, Vesci L, Castorina M, Milazzo FM, Cervoni ML, Barbarino M, **Pisano C**,

- Giommarelli C, Zuco V, De Cesare M, Zunino F. Isoxazolo(aza)naphthoquinones: a new class of cytotoxic Hsp90 inhibitors. *Eur J Med Chem.* 2012 Jul;53:64-75. Epub 2012 Mar 28.
18. Cassinelli G, Zuco V, Petrangolini G, De Cesare M, Tortoreto M, Lanzi C, Cominetti D, Zaffaroni N, Orlandi A, Passeri D, Meco D, Di Francesco AM, Riccardi R, Bucci F, **Pisano C**, Zunino F. The curative efficacy of namitecan (ST1968) in preclinical models of pediatric sarcoma is associated with antiangiogenic effects. *Biochem Pharmacol.* 2012 Jul 15;84(2):163-71. Epub 2012 Apr 13.
 19. Giannini G, Brunetti T, Battistuzzi G, Alloatti D, Quattrocio G, Cima MG, Merlini L, Dallavalle S, Cincinelli R, Nannei R, Vesce L, Bucci F, Foderà R, Guglielmi MB, **Pisano C**, Cabri W. New retinoid derivatives as back-ups of Adarotene. *Bioorg Med Chem.* 2012 Apr 1;20(7):2405-15. Epub 2012 Feb 6
 20. Piaz FD, Malafronte N, Romano A, Gallotta D, Belisario MA, Bifulco G, Gualtieri MJ, Sanogo R, Tommasi ND, **Pisano C**. Structural characterization of tetranortriterpenes from *Pseudocedrela kotschy* and *Trichilia emetica* and study of their activity towards the chaperone Hsp90. *Phytochemistry.* 2012 Mar;75:78-89. Epub 2012 Jan 4
 21. Gil N, Goldberg R, Neuman T, Garsen M, Zcharia E, Rubinstein AM, van Kuppevelt T, Meirovitz A, **Pisano C**, Li JP, van der Vlag J, Vlodaysky I, Elkin M Heparanase is essential for the development of diabetic nephropathy in mice. *Diabetes.* 2012 Jan;61(1):208-16. Epub 2011 Nov 21.
 22. Zuco V, De Cesare M, Cincinelli R, Nannei R, **Pisano C**, Zaffaroni N, Zunino F. *PLoS One.* 2011;6(12):e29085. Synergistic antitumor effects of novel HDAC inhibitors and paclitaxel in vitro and in vivo. Epub 2011 Dec 14
 23. Baruchello R, Simoni D, Grisolia G, Barbato G, Marchetti P, Rondanin R, Mangiola S, Giannini G, Brunetti T, Alloatti D, Gallo G, Ciacci A, Vesce L, Castorina M, Milazzo FM, Cervoni ML, Guglielmi MB, Barbarino M, Foderà R, **Pisano C**, Cabri W. Novel 3,4-isoxazolidiamides as potent inhibitors of chaperone heat shock protein 90. *J Med Chem.* 2011 Dec 22;54(24):8592-604. Epub 2011 Nov 23.
 24. Vlodaysky I, Beckhove P, Lerner I, **Pisano C**, Meirovitz A, Ilan N, Elkin M. Significance of Heparanase in Cancer and Inflammation. *Cancer Microenviron.* 2011 Aug 3. [Epub ahead of print]
 25. Purushothaman A, Hurst DR, **Pisano C**, Mizumoto S, Sugahara K, Sanderson RD. Heparanase-mediated loss of nuclear syndecan-1 enhances histone acetyltransferase (HAT) activity to promote expression of genes that drive an aggressive tumor phenotype. *J Biol Chem.* 2011 Sep 2;286(35):30377-83. Epub 2011 Jul 11.
 26. Di Francesco AM, Ubezio P, Torella AR, Meco D, Pierri F, Barone G, Cusano G, **Pisano C**, D'Incalci M, Riccardi R. Enhanced cell cycle perturbation and apoptosis mediate the synergistic effects of ST1926 and ATRA in neuroblastoma preclinical models. *Invest New Drugs.* 2011 Jun 3. [Epub ahead of print]
 27. Tarallo V, Lepore L, Marcellini M, Dal Piaz F, Tudisco L, Ponticelli S, Wendelboe Lund F, Roepstorff P, Orlandi A, **Pisano C**, De Tommasi N, De Falco S. The biflavonoid Amentoflavone inhibits neovascularization preventing the activity of pro-angiogenic vascular endothelial growth factors. *J Biol Chem.* 2011 Apr 6. [Epub ahead of print]

28. Meirovitz A, Hermano E, Lerner I, Zcharia E, **Pisano C**, Peretz T, Elkin M. Role of heparanase in radiation-enhanced invasiveness of pancreatic carcinoma. *Cancer Res.* 2011 Apr 1;71(7):2772-
29. Biroccio A, Porru M, Rizzo A, Salvati E, D'Angelo C, Orlandi A, Passeri D, Franceschin M, Stevens MF, Gilson E, Beretta G, Zupi G, **Pisano C**, Zunino F, Leonetti C. DNA Damage Persistence as Determinant of Tumor Sensitivity to the Combination of Topo I Inhibitors and Telomere-Targeting Agents. *Clin Cancer Res.* 2011 Apr 15;17(8):2227-2236. Epub 2011 Feb 25.
30. Ritchie JP, Ramani VC, Ren Y, Naggi A, Torri G, Casu B, Penco S, **Pisano C**, Carminati P, Tortoreto M, Zunino F, Vlodavsky I, Sanderson RD, Yang Y. SST0001, a chemically modified heparin, inhibits myeloma growth and angiogenesis via disruption of the heparanase/syndecan-1 axis. *Clin Cancer Res.* 2011 Mar 15;17(6):1382-93. Epub 2011 Jan 21.
31. Auzzas L, Larsson A, Matera R, Baraldi A, Deschênes-Simard B, Giannini G, Cabri W, Battistuzzi G, Gallo G, Ciacci A, Vesci L, **Pisano C**, Hanessian S. *Non-Natural Macrocyclic Inhibitors of Histone Deacetylases: Design, Synthesis, and Activity.* *J Med Chem.* 2010 Nov 12.
32. Shafat I, Ben-Arush MW, Issakov J, Meller I, Naroditsky I, Tortoreto M, Cassinelli G, Lanzi C, **Pisano C**, Ilan N, Vlodavsky I, Zunino F. Preclinical and clinical significance of heparanase in Ewing's sarcoma. *J Cell Mol Med.* 2010 Oct 3. doi: 10.1111/j.1582-4934.2010.01190.x. [Epub ahead of print]
33. Dal Pozzo A, Esposito E, Ni M, Muzi L, **Pisano C**, Bucci F, Vesci L, Castorina M, Penco S. *Conjugates of a Novel 7-Substituted Camptothecin with RGD-Peptides as $\alpha(v)\beta(3)$ Integrin Ligands: An Approach to Tumor-Targeted Therapy.* *Bioconjug Chem.* 2010 Nov 17;21(11):1956-67. Epub 2010 Oct 15.
34. Congiu C, Onnis V, Vesci L, Castorina M, **Pisano C**. *Synthesis and in vitro antitumor activity of new 4,5-dihydropyrazole derivatives.* *Bioorg Med Chem.* 2010 Sep 1;18(17):6238-48. Epub 2010 Aug 9.
35. Musso L, Dallavalle S, Merlini L, Bava A, Nasini G, Penco S, Giannini G, Giommarelli C, De Cesare A, Zuco V, Vesci L, **Pisano C**, Dal Piaz F, De Tommasi N, Zunino F. *Natural and semisynthetic azaphilones as a new scaffold for Hsp90 inhibitors.* *Bioorg Med Chem.* 2010 Aug 15;18(16):6031-43. Epub 2010 Jul 1.
36. **Pisano C**, Vesci L, Milazzo FM, Guglielmi MB, Foderà R, Barbarino M, D'Incalci M, Zucchetti M, Petrangolini G, Tortoreto M, Perego P, Zuco V, Orlandi A, Passeri D, Carminati P, Cavazza C, Zunino F. *Metabolic approach to the enhancement of antitumor effect of chemotherapy: a key role of acetyl-L-carnitine.* *Clin Cancer Res.* 2010 Aug 1;16(15):3944-53. Epub 2010 Jun 18.
37. Dal Piaz F, Tosco A, Eletto D, Piccinelli AL, Moltedo O, Franceschelli S, Sbardella G, Remondelli P, Rastrelli L, Vesci L, **Pisano C**, De Tommasi N. *The identification of a novel natural activator of p300 histone acetyltransferase provides new insights into the modulation mechanism of this enzyme.* *Chembiochem.* 2010 Apr 12;11(6):818-27.

38. Oussedik K, François JC, Halby L, Senamaud-Beaufort C, Toutirais G, Dallavalle S, Pommier Y, **Pisano C**, Arimondo PB. *Sequence-specific targeting of IGF-I and IGF-IR genes by camptothecins*. FASEB J. 2010 Jul;24(7):2235-44. Epub 2010 Feb 23.
39. Tarallo V, Vesce L, Capasso O, Esposito MT, Riccioni T, Pastore L, Orlandi A, **Pisano C**, De Falco S. *A Placental Growth Factor Variant Unable to Recognize Vascular Endothelial Growth Factor (VEGF) Receptor-1 Inhibits VEGF-Dependent Tumor Angiogenesis via Heterodimerization*. Cancer Res. 2010 Mar 1;70(5):1804-13.
40. Zuco V, Supino R, Favini E, Tortoreto M, Cincinelli R, Croce AC, Bucci F, **Pisano C**, Zunino F. *Efficacy of ST1968 (namitecan) on a topotecan-resistant squamous cell carcinoma*. Biochem Pharmacol. 2010 Feb 15; 79 (4): 535-541.
41. Stasi MA, Scioli MG, Arcuri G, Mattera GG, Lombardo K, Marcellini M, Riccioni T, De Falco S, **Pisano C**, Spagnoli LG, Borsini F, Orlandi A. *Propionyl-L-Carnitine Improves Postischemic Blood Flow Recovery and Arteriogenic Revascularization and Reduces Endothelial NADPH-Oxidase 4-Mediated Superoxide Production*. Arterioscler Thromb Vasc Biol. 2010 Feb 5.
42. Frapolli R, Zucchetti M, Sessa C, Marsoni S, Viganò L, Locatelli A, Rulli E, Compagnoni A, Bello E, **Pisano C**, Carminati P, D'Incalci M. *Clinical pharmacokinetics of the new oral camptothecin gimatecan: The inter-patient variability is related to alpha(1)-acid glycoprotein plasma levels*. Eur J Cancer. 2010 Feb;46(3):505-516.
43. Dal Pozzo A, Ni MH, Esposito E, Dallavalle S, Musso L, Bargiotti A, **Pisano C**, Vesce L, Bucci F, Castorina M, Foderà R, Giannini G, Aulicino C, Penco S. *Novel tumor-targeted RGD peptide-camptothecin conjugates: synthesis and biological evaluation*. Bioorg Med Chem. 2010 Jan 1;18(1):64-72.
44. Giommarelli C, Zuco V, Favini E, **Pisano C**, Dal Piaz F, De Tommasi N, Zunino F. *The enhancement of antiproliferative and proapoptotic activity of HDAC inhibitors by curcumin is mediated by Hsp90 inhibition*. Cell Mol Life Sci. 2010 Mar;67(6):995-1004.
45. Zucchetti M, Meco D, Di Francesco AM, Servidei T, Patriarca V, Cusano G, D'Incalci M, Forestieri D, **Pisano C**, Riccardi R. *Antitumor activity and pharmacokinetics of oral gimatecan on pediatric cancer xenografts*. Cancer Chemother Pharmacol. 2009 Dec 20. [Epub ahead of print]
46. G. Giannini, M. Marzi, M.D. Marzo, G. Battistuzzi, R. Pezzi, T. Brunetti, W. Cabri, L. Vesce, C. **Pisano**. *Exploring bis-(indolyl)methane moiety as an alternative and innovative CAP group in the design of histone deacetylase (HDAC) inhibitors*. Bioorg & Med Chem Lett. 2009 May 15;19(10):2840-3.
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51. Vekhoff P, Ceccaldi A, Polverari D, Pylouster J, **Pisano C**, Arimondo PB. *Triplex Formation on DNA Targets: How To Choose the Oligonucleotide*. Biochemistry 2008 Oct 28.
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- biological activity of fluorinated combretastatin analogues. Synthesis and biological activity of fluorinated combretastatin analogues.* J Med Chem. 2008 May 8;51(9):2708-21.
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Mutagenesis, Vol. 6, 2001

List of granted patents:

(more than 20 new patent application that are under examination are not reported)

1. *Derivatives of partially desulphated glycosaminoglycans endowed with antiangiogenic activity and devoid of anticoagulating effect.*

Inventor: CASU Benito; GIANNINI Giuseppe; NAGGI Annamaria; PENCO Sergio; PISANO, Claudio; TORRI

Giangiaco. PN: EP1268558 Priority date: 24-gen-2001

2. *COMPOSITIONS USEFUL FOR THE TREATMENT OF PATHOLOGIES RESPONDING TO THE ACTIVATION OF PPAR-GAMMA RECEPTOR.*

Inventor: PISANO CLAUDIO; RICCONI TERESA. PN: EP1368025; US2004241228 Priority date: 2001-03-16

3. *METHOD FOR INCREASING THE GENE EXPRESSION OF TRANSFECTED GENES.*

Inventor: PISANO CLAUDIO. PN: EP1257658; US2005124570; Priority date: 2000-02-17

4. *7-Polyaminoalkyl(oxy)iminomethylcamptothecins bearing protective groups*

Inventor: GIANNINI GIUSEPPE; PISANO CLAUDIO. PN: US2007043067 ; Priority date: 2003-07-14

5. *RETINOID DERIVATIVES WITH ANTIANGIOGENIC, ANTITUMOR AND PROAPOPTOTIC ACTIVITIES.*

Inventor: MERLINI L ; DALLAVALLE S ; PENCO SERGIO ; GIANNINI G ; PISANO C [IT]; VESCI L. PN:

EP1412317; US2004235757 ; Priority date 2004-04-28

6. *Camptothecins with a modified lactone ring.*

Inventor: MARZI, MAURO, ; MARASTONI, ELENA, ; PENCO, SERGIO, ; PISANO, CLAUDIO, ; TINTI, MARIA

ORNELLA, ; VESCI, LOREDANA, ; ZUNINO, FRANCO, ; VERGANI, DOMENICO, ; CABRI, WALTER, ;
ALPEGIANI, MARCO, ; PATRICIO, MARTIN, ; DANELLI, TAMARA. PN:
EP1719775;US2005154003 Prioritydate:2002-05-31
7.CYCLOPEPTIDE DERIVATIVES WITH ANTI-INTEGRIN ACTIVITY
Inventor: DAL POZZO ALMA; PENCO SERGIO; GIANNINI GIUSEPPE; TINTI MARIA
ORNELLA ; PISANO
CLAUDIO; VESCI LOREDANA; NI MING HONG.
PN:EP1751176; Priority date:2004-05-13
8.DERIVATIVES OF PARTIALLY DESULPHATED GLYCOSAMINOGLYCANS AS
HEPARANASE INHIBITORS,
ENDOWED WITH ANTIANGIOGENIC ACTIVITY AND DEVOID OF ANTICOAGULATING
EFFECT
Inventor: CASU B; TORRI G; NAGGI A; GIANNINI GIUSEPPE; PISANO CLAUDIO; PENCO
SERGIO. PN:EP1427427; US2006172968; Priority date: 2001-09-12
9.7-T-Butoxyiminomethylcamptothecin Conjugated in Position 20 With Integrin Antagonists.
Inventor: PISANO CLAUDIO; GIANNINI GIUSEPPE; VESCI LOREDANA; ALLOATTI
DOMENICO ; PENCO
SERGIO; DAL POZZO ALMA; MINGHONG NI; DALLAVALLE SABRINA ; MERLINI LUCIO.
PN: US2007225311;N. Progr. 9132
Priority date:2004-05-13
10.CAMPTOTHECINS CONJUGATED IN POSITION 7 TO CYCLIC PEPTIDES AS
CYTOSTATIC AGENTS
Inventor: DAL POZZO ALMA; PENCO SERGIO ; MERLINI LUCIO ; GIANNINI GIUSEPPE ;
TINTI MARIA
ORNELLA; PISANO CLAUDIO ; ZUNINO FRANCO ; ALLOATTI DOMENICO ; VESCI
LOREDANA; DALLAVALLE
SABRINA; NI MING HONG [IT]PN:EP1753776; US2008033003; Priority date:2004-05-13
11.FLUORO-ALKYL-CYCLOPEPTIDE DERIVATIVES HAVING ANTI-INTEGRIN ACTIVITY.
Inventor: DAL POZZO ALMA; GIANNINI G; PISANO C
PN:EP1539803 Priority date:2002-07-29
12.TRICYCLIC DERIVATIVES OF INDOLE WITH ANTIANGIOGENIC ACTIVITY
Inventor:GIANNINI, GIUSEPPE, ; MARZI, MAURO, ; TINTI, MARIA ORNELLA, ; PISANO,
CLAUDIO. PN:
EP1343789; US2004034052 Priority date: 2000-11-03
13.Bis-heterocyclic compounds with antitumour and chemosensitising activity.
Inventor: GIANNINI GIUSEPPE, ; MARZI MAURO, ; TINTI MARIA ORNELLA, ; PISANO
CLAUDIO, ; MORETTI
GIAN PIERO, ; MINETTI PATRIZIA, ; GARATTINI ENRICO, ; PENCO SERGIO. PN:
US2004053987;Prioritydate:2000-11-03
14.COMBINATIONS OF THERAPEUTIC AGENTS FOR TREATING CANCER
Inventor:ZAKNOEN, SARA, ; WOO, MARGARET MA, ; VERSACE, RICHARD WILLIAM, ;
PISANO, CLAUDIO, ;
VESCI, LOREDANA. PN:EP1827437;Priority date: 2004-12-15
15.Perfluorinated esters of alkanoyl L-carnitine for the preparation of cationic lipids for the
intracellular
delivery of pharmacologically active compounds Inventor: SANTANIELLO MOSI, ; CRITELLI
LUCIA, ;
SCAFETTA NAZARENO, ; CIMA MARIA GRAZIA, ; TINTI MARIA ORNELLA, ; PISANO
CLAUDIO, ; PUCCI
ANDREA.
PN:US6476243;Priority date:1998-05-06

16.ACETYL-L-CARNITINE FOR THE PREVENTION AND/OR TREATMENT OF PERIPHERAL NEUROPATHIES

INDUCED BY THALIDOMIDE .

Inventor:CAVAZZA, C,;PISANO,C, ;VESCI, L. PN:EP1562577;Priority date:2002-11-13

17.7-Imino derivatives of camptothecin having antitumor activity

Inventor:DALLAVALLE SABRINA, ; PENCO SERGIO,;PISANO CLAUDIO,; ZUNINO FRANCO PN: US2006167033;Priority date:2003-03-17

18.Use of esters of L-carnitine or alkanoyl L-carnitines as cationic lipids for the intracellular delivery of pharmacologically active compounds

Inventor: PISANO, CLAUDIO, ; TINTI, MARIA ORNELLA, ; SANTANIELLO, MOSE, ; CRITELLI, LUCIANA, ;

SALVATORI, GIOVANNI. PN: EP1426044;US2005079209 ;Priority date:1999-04-13

19.Cinnamic, Phenylpropionic and Phenylpropanoic Acid Derivatives Useful as Anti-Tumor Agents. Inventor: PISANO CLAUDIO, ; BATTISTUZZI GIANFRANCO, ; DI MARZO MARIA, ; GIANNINI GIUSEPPE, ;

MARZI MAURO, ; VESCI LOREDANA, ; ZUNINO FRANCO, ; PEZZI RICARDO, ; PEZZI RICCARDO. PN:US2008194659;Priority date:2005-06-10

20.Indole Derivatives Having Antitumor Activity

Inventor: PISANO CLAUDIO, ; BATTISTUZZI GIANFRANCO, ; DI MARZO MARIA, ; GIANNINI GIUSEPPE, ;MARZI MAURO, ; VESCI LOREDANA, ; ZUNINO FRANCO.

PN: US2008207729;Priority date:2005-06-10

21.BIPHENYL AND NAPHTHYL-PHENYL HYDROXAMIC ACID DERIVATIVES

Inventor: PISANO, CLAUDIO, ; GIANNINI, GIUSEPPE, ; VESCI, LOREDANA, ; ZUNINO, FRANCO, ;DALLAVALLE, SABRINA, ; MERLINI, LUCIO, ; PENCO, SERGIO

N. Progr. 913206/11/2012 17:00 PN:EP1896399 ;Priority date:2005-06-28

22.Use of Adamantyl Methoxydiphenyl Propenoic Acid For the Treatment of Acne

Inventor:PISANO CLAUDIO, ;VESCI LOREDANA. PN:US2008153916;Priority date:2005-05-20

23.TREATMENT OF DRUG-RESISTANT TUMORS

Inventor:PISANO, CLAUDIO, ; VESCI, LOREDANA.PN: EP1962850;US2008312265 Priority date:2005-12-21