



CURRICULUM DIDATTICO-SCIENTIFICO DEL PROF. ANGELO AQUINO

DATI PERSONALI

Nome e Cognome: Angelo Aquino

Luogo e data di nascita: Cosenza il 07/08/1955

ATTUALE POSIZIONE: Professore Associato di Farmacologia

Dipartimento: Medicina dei Sistemi

Indirizzo: Via Montpellier 1, 00136, Roma. Edificio F sud, piano 0, Stanza F28

Numero studio: +390672596328

E-mail: angelo.aquino@uniroma2.it

Orario ricevimento: tutti i giorni previo appuntamento

Settore scientifico-disciplinare: BIO/14



ATTIVITA' DIDATTICA - SCIENTIFICA

Titoli accademici e di studio:

1982 Vincitore di concorso pubblico per un assegno di formazione professionale del C.N.R., (legge n.285) nel settore Biologico-Medico, che ha svolto presso l'Università di Roma "Tor Vergata"(1982-1991); **1984. Laurea in Medicina e Chirurgia** (110/110 e Lode), Università "La Sapienza" Roma; **1984. Abilitazione Professione Medico Chirurgo**, presso l'Università degli Studi di Pisa; **1987. Specializzazione in Oncologia** (70/70 e lode), Università di Roma "Tor Vergata"; **1991-1995. Collaboratore Tecnico (VII livello)**, presso il Dipartimento di Medicina Sperimentale e Scienze Biochimiche. Università di Roma "Tor Vergata". **1995-2004. Ricercatore Universitario SSD BIO/14 (Farmacologia)** Facoltà di Medicina e Chirurgia, Università di Roma "Tor Vergata"; **2004. Professore Associato SSD BIO/14 (Farmacologia)** Facoltà di Medicina e Chirurgia dell'Università degli Studi di Roma "Tor Vergata", Dipartimento di Medicina dei Sistemi.

Formazione post-laurea presso istituzioni italiane ed estere ed incarichi professionali

1986-87. "Guest Research" presso il laboratorio di "Biological Chemistry" National Cancer Institute (NCI), National Institutes of Health, Bethesda (NIH), Maryland, USA; **1987 Graduate School**, (corso): Molecular and cellular mechanism of immunity. Foundation for Advanced Education in the Science (FAES) al National Institutes of Health; **1987-90 "Fogarty Visiting Fellow"** presso il Laboratorio di "Biological Chemistry" NCI, NIH, Bethesda, Maryland, USA; **1988 Graduate School**, (corso): Recombinant DNA methodology. Foundation for Advanced Education in the Science (FAES) al National Institutes of Health. Bethesda, Maryland, USA; **1999-2002. Membro, in qualità di Farmacologo, del Comitato Etico** per le Sperimentazioni Cliniche dei Farmaci presso l'azienda USL Roma H; **2004 Membro del Comitato Etico IRCCS San Raffaele Pisana**; **2014-oggi. Componente del Nucleo di Valutazione** dell'Università della Calabria.

Attività didattica. Insegnamento di Farmacologia nel Corso di Laurea in Medicina e Chirurgia e nei corsi di Laurea Magistrali. 1998- 2007. Corso di Laurea in Medicina e Chirurgia. Università Campus Biomedico di Roma; **2008-13. Corso di Laurea in Odontoiatria e Protesi Dentaria.** Università Cattolica "Nostra Signora del Buon Consiglio" di Tirana –Albania; **2008-presente. Corso di Laurea in Medicina e Chirurgia.** Università Cattolica "Nostra Signora del Buon Consiglio" di Tirana –Albania; **2001-presente. Corso di Laurea Magistrale in Scienza della Nutrizione Umana.** Università di Roma "Tor Vergata". **2006-presente. Corso di Laurea Magistrale in Scienze delle Professioni Sanitarie Tecniche Diagnostiche.** Università di Roma "Tor Vergata"; **2015-16. Corso di Laurea in "Medicine and Surgery"** in lingua inglese. Università di Roma Tor Vergata. **2019-20. Corso di Laurea in Biotecnologie Mediche.** Università di Roma "Tor Vergata". **Insegnamento di Farmacologia nei corsi di Laurea triennale**

1993-2002. Corso di Laurea in Infermieristica. Università di Roma "Tor Vergata", sede di Roma e di Sora, **1998-2002. Corso di Laurea in Podologia.** Università di Roma "Tor Vergata". **2001- presente.**

Corso di Laurea in Dietistica. Università di Roma "Tor Vergata"; **2012-presente. Corso di Laurea in Tecniche Diagnostiche di Laboratorio Biomedico.** Università di Roma "Tor Vergata. **Insegnamento di Farmacologia nelle Scuole di Specializzazioni** Dermatologia e Venereologia, Oncologia, Urologia, Scienza dell'alimentazione, Otorinolaringoiatria, Odontoiatria Pediatrica. Università di Roma "Tor Vergata".

Finanziamenti e premi ricevuti per attività di ricerca: 2000-2010-Responsabile scientifico di Unità di Ricerca, Progetti di Ricerca di Ateneo (quota 60% MIUR) Università di Roma "Tor Vergata" Modulazione Farmacologica di Antigeni Tumore-Associati (annuale); **2003-04-Responsabile Scientifico dell'unità di ricerca del PRIN (MIUR)** dal titolo "Bv8 in cellule tumorali umane: livelli di espressione ed eventuale controllo farmacologico della biosintesi e rilascio extracellulare"(Biennale); 2008-10 **Coordinatore Scientifico del Programma di ricerca scientifico di rilevante interesse Nazionale:"** Ruolo del rimodellamento antigenico farmaco-indotto nella chemio-immunoterapia dei tumori dell'apparato digerente.(biennale)

Attività di ricerca: 15 pubblicazioni selezionate

- 1) **Aquino, A.**.... Glazer, R.I.: Role of protein kinase C in phosphorylation of vinculin in adriamycin-resistant HL60 leukemia cells. *Cancer Res.* 48:3324-3329, 1988.
- 2) **Aquino, A.**.... De Vecchis. L.: Effect of the combined treatment with 5-fluorouracil, γ -interferon or folinic acid on carcinoembryonic antigen expression in colon cancer cells. *Clinical Cancer Res.*4:2473-2481, 1998.
- 3) **Aquino, A.**....Graziani, G.: Treatment of peripheral blood with staurosporine increases detection of circulating carcinoembryonic antigen positive tumor cells. *Int. J. Cancer.* 100:119-121, 2002.
- 4) **Aquino, A.**.... Bonmassar, E.: Drug-induced increase of carcinoembryonic antigen expression in cancer cells. *Pharmacol. Res.* 49:383-96, 2004.
- 5) Prete, SP..... **Aquino A.**: Combined effects of protein kinase inhibitors and 5-fluorouracil on CEA expression in human colon cancer cells. *Pharmacol. Res.* 52:167-73, 2005.
- 6) Correale P, Cusi MG, Tsang KY, Del Vecchio MT, Marsili S, La Placa M, Intrivici C, **Aquino A**, ... Chemo-Immunotherapy of Metastatic Colorectal Carcinoma With Gemcitabine Plus FOLFOX 4 Followed by Subcutaneous Granulocyte Macrophage Colony-Stimulating Factor and Interleukin-2 Induces Strong Immunologic and Antitumor Activity in Metastatic Colon Cancer Patients. *J Clin Oncol* 23:8950-8. 2005.
- 7) Correale P...**Aquino A**, Bonmassar E, Giorgi G, Francini G, Cusi MG. 5-fluorouracil-based chemotherapy enhances the antitumor activity of a thymidylate synthase-directed polyepitopic peptide vaccine. *J Natl Cancer Inst.* 97:1437-45. 2005
- 8) Prete S.P....**Aquino A**. Combined effects of 5-fluorouracil, folinic acid and oxaliplatin on the expression of carcinoembryonic antigen in human colon cancer cells: pharmacological basis to develop an active antitumor immunochemotherapy. *J Exp Clin Cancer Res.* 27:5, pp1-7. 2008
- 9) Bonmassar L...**Aquino A**. Detection of Circulating Tumor Cells Is Improved by Drug-induced Antigen Up-regulation: Preclinical and Clinical Studies. *Anticancer Res.* 30:4721-30. 2010.
- 10) **Aquino A.**...,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.* Volume 2011 Article ID 790460, 27 pages. 2011.
- 11) Bonmassar L... **Aquino A**. Triazene Compounds in the Treatment of Acute Myeloid Leukemia: a Short Review and a Case Report. *Curr. Med. Chem.* 20(19):2389-401. 2013
- 12) Torino F... **Aquino A**. Circulating tumor cells in colorectal cancer patients. *Cancer Treat Rev.* 39:759-772. 2013.
- 13) Cioccoloni G ...**Aquino A**. Influence of fatty acid synthase inhibitor orlistat on the DNA repair enzyme O6-methylguanine-DNA methyltransferase in human normal or malignant cells in vitro. *Int J Oncol.* 47: 764-772. 2015.
- 14) Franzese O, Torino F, Fuggetta M.P, **Aquino A.**..., D'Atri S. Tumor immunotherapy: drug-induced neoantigens (xenogenization) and immune checkpoint inhibitors. *Oncotarget.* 6:41641-41669.2017.
- 15) Franzese O, Battaini F, Graziani G, Tentori L, Barbaccia ML, **Aquino A** ...Torino F. Drug-induced xenogenization of tumors: a possible role in the immune control of malignant cell growth in the brain? *Pharmacol. Res.* 131 (2018) 1–6

ACADEMIC AND SCIENTIFIC CURRICULUM OF PROF. ANGELO AQUINO

PERSONAL DATA

Name and Surname: Angelo Aquino

Place and date of birth: 07/08/1955

CURRENT POSITION: Associate Professor of Pharmacology

Department: Systems Medicine

Address: University of Rome Tor Vergata, Via Montpellier1,
Building F south, floor 0, room F28

Phone number: +39-0672596328;

E-mail: angelo.aquino@uniroma2.it

Consulting hours: all days by schedule

Italian Ministry of Education Academic-Scientific sector:

Pharmacology BIO/14



SCIENTIFIC AND DIDACTIC ACTIVITY

Education and academic positions:

1982-1991. Fellowship of the National Council of Research. (Roma-Italy); **1984. M.D. Degree in Medicine** (110/110 cum Laude), University of Rome "La Sapienza". **1984. Qualification as Medical Doctor**, University of Pisa. **1987. Specialist in Oncology** (70/70 cum Laude), University of Rome "Tor Vergata". **1991-95. Researcher associate** at the Department of Experimental Medicine and Biochemical Science. Chair of Pharmacology. School of Medicine. University of Roma, Tor Vergata; **1995-2004 Assistant Professor** at the Department Neuroscience. Chair of Pharmacology. School of Medicine. University of Roma, Tor Vergata; **2004-today, Associate Professor of Pharmacology** at the Department of Systems Medicine, Chair of Pharmacology. School of Medicine. University of Roma, Tor Vergata

Professional and didactic activities in Italian and Foreign Institutions:

1986-87. Guest research at the Laboratory of Biological Chemistry, National Cancer Institute, National Institutes of Health, Bethesda, Maryland, USA; **1987. Graduate School at NIH (FAES):** Molecular and cellular mechanism of immunity. (Bethesda, MD); **1987-90 Fogarty Visiting Fellow** at the Laboratory of Biological Chemistry, National Cancer Institute, National Institutes of Health, Bethesda, Maryland, USA. (Supervisor Dr Robert I Glazer); **1988. Graduate School at NIH (FAES):** Recombinant DNA methodology. (Bethesda MD); **1999-2002. Component of Ethic Committee** for Clinical Evaluation of Drugs, "Azienda ASL Roma H"; **2004. Component of Ethic Committee** for Clinical Evaluation of Drugs, IRCCS San Raffaele Pisana; **2014- Component of the Board of Evaluation "Nucleo di Valutazione"** at University of Calabria.

Teaching activity of Pharmacology: **1998-2007 School of Medicine at University, Rome "Campus Bio-Medico"; 2009-13. School of Dentistry and Dental Prosthesis, Catholic University "Our Lady of Good Counsel" of Tirana (Albany); 2001- today. Degree course in Science of Human Nutrition, University of Rome "Tor Vergata"; 2006-today. Degree course in Health Professions of Technical Sciences (diagnostic) University of Roma "Tor Vergata"; 2015-16 School of Medicine (English Courses) University of Rome "Tor Vergata"; 2008-today, School of Medicine at Catholic University "Our Lady of Good Counsel" of Tirane (Albany); 2019-20, Degree course in Medical Biotechnologies, University of Roma "Tor Vergata". **1993-2002. Degree course in nursing science, University of Roma "Tor Vergata; 2012-today. Degree course in Biomedical Laboratory techniques,; University of Roma "Tor Vergata; 2001-today. degree course in Dietetics, University of Roma "Tor Vergata; 1998-2002 degree course in Podiatry, University of Roma "Tor Vergata; Residency in Oncology,****

Awards and funding:

2000-2010. Responsible of a research unit within the projects supported by University of Rome "Tor Vergata "Drug-induced tumor associated antigen expression in cancer cells". **2003-04 Scientific responsible of Research Unit** of the "Program of Relevant National interest" (PRIN) "BV8 in human cancer cells: levels of expression and possible pharmacological control of its biosynthesis and shedding" funded by the Italian Research Ministry (MIUR); **2004-05 Component of Research Unit** " Antitumor immuno-chemotherapy: antigen remodeling and silencing of th2-type responses. PRIN, granted by MIUR; **2008-10 National Scientific Coordinator of the "Program of Relevant National interest" (PRIN)**, on "Role of drug-induced antigen remodeling in the chemo-immunotherapy of digestive tract malignancies", funded by MIUR

Research activity: 15 most significant publications

- 1) **Aquino, A.**.... Glazer, R.I.: Role of protein kinase C in phosphorylation of vinculin in adriamycin-resistant HL60 leukemia cells. *Cancer Res.* 48:3324-3329, 1988.
- 2) **Aquino, A.**.... De Vecchis. L.: Effect of the combined treatment with 5-fluorouracil, γ -interferon or folinic acid on carcinoembryonic antigen expression in colon cancer cells. *Clinical Cancer Res.*4:2473-2481, 1998.
- 3) **Aquino, A.**....Graziani, G.: Treatment of peripheral blood with staurosporine increases detection of circulating carcinoembryonic antigen positive tumor cells. *Int. J. Cancer.* 100:119-121, 2002.
- 4) **Aquino, A.**.... Bonmassar, E.: Drug-induced increase of carcinoembryonic antigen expression in cancer cells. *Pharmacol. Res.* 49:383-96, 2004.
- 5) Prete, SP..... **Aquino A.**: Combined effects of protein kinase inhibitors and 5-fluorouracil on CEA expression in human colon cancer cells. *Pharmacol. Res.* 52:167-73, 2005.
- 6) Correale P, Cusi MG, Tsang KY, Del Vecchio MT, Marsili S, La Placa M, Intrivici C, **Aquino A**, ... Chemo-Immunotherapy of Metastatic Colorectal Carcinoma With Gemcitabine Plus FOLFOX 4 Followed by Subcutaneous Granulocyte Macrophage Colony-Stimulating Factor and Interleukin-2 Induces Strong Immunologic and Antitumor Activity in Metastatic Colon Cancer Patients. *J Clin Oncol* 23:8950-8. 2005.
- 7) Correale P...**Aquino A**, Bonmassar E, Giorgi G, Francini G, Cusi MG. 5-fluorouracil-based chemotherapy enhances the antitumor activity of a thymidylate synthase-directed polyepitopic peptide vaccine. *J Natl Cancer Inst.* 97:1437-45. 2005
- 8) Prete S.P....**Aquino A**. Combined effects of 5-fluorouracil, folinic acid and oxaliplatin on the expression of carcinoembryonic antigen in human colon cancer cells: pharmacological basis to develop an active antitumor immunochemotherapy. *J Exp Clin Cancer Res.* 27:5, pp1-7. 2008
- 9) Bonmassar L...**Aquino A**. Detection of Circulating Tumor Cells Is Improved by Drug-induced Antigen Up-regulation: Preclinical and Clinical Studies. *Anticancer Res.* 30:4721-30. 2010.
- 10) **Aquino A.**....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.* Volume 2011 Article ID 790460, 27 pages. 2011.
- 11) Bonmassar L... **Aquino A**. Triazene Compounds in the Treatment of Acute Myeloid Leukemia: a Short Review and a Case Report. *Curr. Med. Chem.* 20(19):2389-401. 2013
- 12) Torino F... **Aquino A**. Circulating tumor cells in colorectal cancer patients. *Cancer Treat Rev.* 39:759-772. 2013.
- 13) Cioccoloni G ...**Aquino A**. Influence of fatty acid synthase inhibitor orlistat on the DNA repair enzyme O6-methylguanine-DNA methyltransferase in human normal or malignant cells in vitro. *Int J Oncol.* 47: 764-772. 2015.
- 14) Franzese O, Torino F, Fuggetta M.P, **Aquino A.**...., D' Atri S. Tumor immunotherapy: drug-induced neoantigens (xenogenization) and immune checkpoint inhibitors. *Oncotarget.* 6:41641-41669.2017.
- 15) Franzese O, Battaini F, Graziani G, Tentori L, Barbaccia ML, **Aquino A** ...Torino F. Drug-induced xenogenization of tumors: a possible role in the immune control of malignant cell growth in the brain? *Pharmacol. Res.* 131 (2018) 1–6