

CURRICULUM VITAE

Claudia Fumarola

CURRENT POSITION

Since 12/2001

Laboratory technical officer – Scientific area

Università di Parma, Dipartimento di Medicina e Chirurgia, Laboratorio di Oncologia Sperimentale, Via Volturno, 39 43125 Parma, Italia

EDUCATION

03/2002

PhD in Biology and Molecular Pathology

Università degli Studi di Parma, Dipartimento di Medicina Sperimentale, Sezione di Patologia Molecolare ed Immunologia

03/1998

Qualification to the profession of biologist

Università degli Studi di Parma, Facoltà di Scienze Matematiche Fisiche e Naturali

03/1997

Master Degree in Biological Sciences (Score 110/110 cum laude)

Università degli Studi di Parma, Facoltà di Scienze Matematiche Fisiche e Naturali

WORK EXPERIENCE

Activities and responsibilities

Pre-clinical scientific research in the field of Biology and Molecular Pathology; translational research in Oncology

Since 2009

Laboratory Technical Supervisor of Laboratorio di Oncologia Sperimentale, Dipartimento di Medicina e Chirurgia, Università di Parma

Since 2003

Technical Manager of Radioisotope Laboratory, Laboratorio di Oncologia Sperimentale, Dipartimento di Medicina e Chirurgia, Università di Parma

INTERNATIONAL WORK EXPERIENCE

01/06/2022

Centro Andaluz de Biología Molecular y Medicina Regenerativa (CABIMER), Sevilla (Spain)

Member of the International PhD Committee for the evaluation of the PhD thesis “Role of FLIP and REDD1 in the control of tumor cell fate under endoplasmic reticulum stress” by Rocio Molina

08/09/2009 - 20/09/2009

University Department of Medical Oncology, Cancer and Hematology Centre, Churchill Hospital, Oxford (UK), Laboratory directed by Prof. Adrian L. Harris

Learning of methods for studying the response of tumor cells to hypoxia

21/06/2009 - 05/07/2009

The Breakthrough Breast Cancer Research Centre, Institute of Cancer Research, London (UK), Laboratory directed by Dr. Lesley-Ann Martin

Study of the mechanisms of resistance to the anti-hormone therapy in estrogen receptor-positive breast cancer in vitro

15/04/2006 - 31/01/2007

01/07/2007 - 30/09/2007

18/10/2008 - 26/10/2008

Centro Andaluz de Biología del Desarrollo (CABD), CSIC – Universidad Pablo de Olavide; Centro Andaluz de Biología Molecular y Medicina Regenerativa (CABIMER), Sevilla (Spain), Laboratory “Señalización en la muerte celular” directed by Prof. A. Lopez-Rivas
Study of the role of AMPK in TRAIL-induced apoptosis and autophagy in epithelial cells and breast cancer cells

TEACHING ACTIVITY

Since 2009	Subject expert (MED04 – General Pathology)
Since 2016	Tutor on internship training programmes in Hematological, Neoplastic, and Infectious Diseases, Università di Parma
Since 2001	Tutor on internship training programmes for students enrolled on the Degree Courses in Medicine and Surgery, Biological Sciences, Pharmaceutical Chemistry and Technology, Pharmacy, Università di Parma
2003 - 2014	Tutor to doctoral students of the PhD Course in Molecular Biology and Pathology, Università di Parma
2002 - 2013	Alternate member of Examination Commissions of the Courses of General Pathology and Immunology at Department of Medicine and Surgery and Department of Food and Drug Sciences, Università di Parma
2000 -2011	Teaching activity in the Course of General Pathology - Degree Courses in Medicine and Surgery, Nursing and Midwifery Sciences, Biomedical Laboratory Technics, and Graduate Schools of Clinical Biochemistry, Oncology, Hematology, Università di Parma
2004 - 2008	Optional courses on “Apoptosis and Immune System” associated to the Course of Immunology - Degree Course in Medicine and Surgery, Università di Parma

TRAINING COURSES

21-22-24/09/2020	DEPArray™ FFPE Training, Menarini Silicon Biosystems, Azienda Ospedaliero-Universitaria di Parma, Parma
05/07/2019	MACS Immuno-oncology day “New frontiers in cancer immunotherapy”, Miltenyi Biotec, Torino
16/03/2017	“Metabolomics Seminar”, Agilent Technologies, Parma
07/05/2013	“Personalizzare la terapia farmacologica mediante farmacogenetica”, Azienda Ospedaliero-Universitaria di Parma, Parma
26/03/2012	“Principi di citofluorimetria e tecnologie applicate”, Miltenyi Biotec, Parma
2002-2011	“Radioisotopi e radioprotezione”, Università degli Studi di Parma, Parma
27/10/2010	"The Hypoxic microenvironment of solid tumors, therapeutic opportunities and challenges", PBI International, Milano
30/01/2009	6ª UNISTEM Day “Terapia genica e cellule staminali”, Milano
20/06/2008	5ª UNISTEM Day “Le Cellule Staminali Tumorali”, Milano
14/12/2005	“Focus sulle biotecnologie: RNA interference, Real-time PCR”, LAB.E.U.T.A., Milano
17-21/06/2002	“Metodi e tecnologie citometriche”, Dipartimento di Biologia Animale, Università degli Studi di Pavia, Pavia
03-05/06/1998	2° “Apoptosi” Course, Associazione di Biologia Cellulare e Differenziamento (ABCD), Università degli Studi de L’Aquila, L’Aquila
25-27/05/1997	“Apoptosi” Course, Associazione di Biologia Cellulare e Differenziamento (ABCD), Università degli Studi de L’Aquila, L’Aquila

SCIENTIFIC ACTIVITY

Research activity

Since 2007	Translational research in the field of Oncology, with aspects of technological-applicative innovation (development of new therapeutic strategies based on molecular target agents and on immunotherapy for the treatment of Ewing sarcoma, malignant pleural mesothelioma, hepatocarcinoma, breast, renal and lung carcinoma in cell models in vitro and in in vivo animal models). Study of the mechanisms of intrinsic and acquired resistance to drug treatments.
2006 - 2010	Study of the role of AMPK in TRAIL-induced apoptosis and autophagy in epithelial cells and breast cancer cells.
2001 - 2005	Study of the role of mTOR in the apoptotic process in leukemic cells.
2003 - 2007	Study of the role of the tumor suppressors FHIT e p53 in lung cancer cells.
2005 - 2006	Study of the adaptive response to stress induced by iperosmolarity and

	electromagnetic radiation in cell models.
1997 - 2005	Study of the molecular mechanisms associated with the induction of apoptosis under conditions of nutrient shortage in lymphoma and leukemic cells.
Since 2000	Flow cytometry Manager for Laboratorio di Oncologia Sperimentale, Dipartimento di Medicina e Chirurgia, Università di Parma
Collaborations with international journals	
Peer reviewer	American Journal of Pathology, Biochimica et Biophysica Acta, Biochemical Pharmacology, Cancer Letters, Cells, DNA & Cell Biology, Endocrine-related cancer, Experimental and Clinical Cancer Research, European Journal of Applied Physiology, Food & Chemical Toxicology, Frontiers in Oncology, Frontiers in Pharmacology, International Journal of Molecular Sciences, International Journal of Cancer, Journal of Hematology & Oncology, Molecules, Neoplasia, Oncotarget, PlosOne, Therapeutic Advances in Respiratory Disease
Associate Editor	Frontiers in Oncology and Frontiers in Pharmacology - Pharmacology of Anti-Cancer Drugs
Participation to research projects	
2026 - 2027	"Valutazione dell'efficacia della combinazione dell'inibitore CDK4/6 abemaciclib con terapie anti-angiogeniche in modelli preclinici di sarcoma di Ewing", funded by Associazione Noi per Loro onlus, Pama, PI R. Alfieri
2023 - 2025	"Evaluation of the efficacy of CDK4/6-Cyclin inhibitors in preclinical models of Ewing's sarcoma", funded by Associazione Noi per Loro onlus, Parma, PI S. La Monica.
2019 - 2022	"Axit Study - Treatment sequence after AXitinib-based Immuno-Therapeutic combination in Renal Cell Carcinoma: searching for hints from preclinical settings", funded by Pfizer, PI P.G. Petronini
2018 - 2021	"SequENCe Study - Sequential Exposure to Tyrosine Kinase Inhibitors and Nivolumab in Renal Cell Carcinoma", funded by Novartis Farma, PI M. Bersanelli
2018 - 2022	"Beyond third-generation TKI in EGFR mutated NSCLC: resistance mechanisms, novel combinations and synthesis of new agents", funded by AIRC IG, PI M. Tiseo
2018 - 2021	"New therapeutic strategies for hepatocarcinoma", funded by Associazione Noi per Loro onlus, Parma, PI G. Digiacomo
2019 - 2020	"Preclinical evaluation of mechanisms of intrinsic resistance to osimertinib", funded by International AstraZeneca Global, PI R. Alfieri
2016 - 2020	"Caratterizzazione molecolare e nuovi approcci terapeutici nel trattamento del mesotelioma pleurico", funded by Associazione Augusto per la Vita (Novellara, RE) and Associazione Volontaria Promozione Ricerca Tumori - A.VO.PRO.RI.T., Parma, PI P.G. Petronini
2015	"Studio preclinico: valutazione dell'associazione di palbociclib e chemioterapia in linee cellulari di carcinoma della mammella HER-2 negative", funded by Associazione per la Ricerca in Campo Oncologico - A.R.C.O., Cremona, PI P.G. Petronini
2014 - 2016	"Novel molecularly targeted approaches in the treatment of Squamous Cell Cancer of the Lung", funded by AIRC IG, PI A. Ardizzoni
2014 - 2016	"Anti-tumor activity and molecular mechanisms of NVP-BGJ398 in NSCLC: studies in vitro and in xenotransplanted nude mice", funded by Novartis Farma, PI P.G. Petronini
2013 - 2015	"Integration of gefitinib and conventional chemotherapy in preventing or retarding the acquisition of gefitinib resistance in NSCLC cell lines", funded by AstraZeneca S.p.A., PI R. Alfieri
2012 - 2013	"Does the maintenance of gefitinib exert a benefit in NSCLC cell lines become resistant after a prolonged gefitinib treatment?" funded by Astrazeneca S.p.A., PI R. Alfieri
2012 - 2013	"Effect of BKM120 and BYL719 alone or in combination with EGFR TK inhibitors in NSCLC cell lines", funded by Novartis Farma, PI P.G. Petronini
2011 - 2012	"Effetto dell'ipossia sulla risposta di cellule di carcinoma della mammella al trattamento con inibitori aromatatici", funded by Novartis Farma, PI P.G. Petronini
2010 - 2011	"Characterization of gefitinib uptake, metabolism and efflux in NSCLC cell lines to

2008 - 2010	overcome gefitinib resistance", funded by AstraZeneca S.p.A., PI P.G. Petronini "Differential expression of ErbB family tyrosine kinase receptor and sensitivity to letrozole in breast cancer cell lines in vitro", funded by Novartis Farma, PI P.G. Petronini
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Awards

2009

Winner of a fellowship of The Korner Travelling Fellowship Fund (University of Sussex, Brighton, UK) intended to finance a research visit to Laboratories in the U.K. or Republic of Ireland

**Member of the Organizing
Committee of Scientific
Conferences**

- Convegno "Apoptosi 2000", Università degli Studi di Parma, Parma, 30/03/2000
- Convegno "Apoptosi 1998", Università degli Studi di Parma, Parma, 19/11/1998
- Convegno "Apoptosi 1997", Università degli Studi di Parma, Parma, 13/11/1997

Scientific Conferences

Participation to more than 60 International and National Conferences and Meetings (13 as a speaker).

Last Conference talk: “Metabolic effects of the CDK4/6 inhibitor palbociclib alone or in combined treatments in cancer cells”, European Organisation for Research and Treatment of Cancer - Pharmacology and Molecular Mechanisms (EORTC-PAMM) Virtual Meeting 21-22 April 2021

PERSONAL SKILLS AND COMPETENCES

Mother tongue

Italian

Other languages
(self-assessment)

Understanding

Speaking

Written

Listening

Reading

Speaking Interaction

Spoken
Production

English

B2

C1

B2

B2

C1

Spanish

C1

C1

C1

B2

B2

SCIENTIFIC PUBLICATIONS

Bibliometric indexes

(from Journal Citation Reports e Scopus, 09.07.26)

Publications on International Journals (ISI) with impact factor: 59

H-index = 33

Total Citations: 3,223

Publications on international books

Fumarola C. (2014) Endocrine Therapy in Breast Cancer. In: Schwab M. (eds) Encyclopedia of Cancer. Springer, Berlin, Heidelberg. https://doi.org/10.1007/978-3-662-46875-3_7152

Translation of scientific texts

Alfieri R. & **Fumarola C.** (2006) Il recettore dei linfociti T (TCR), capitolo 13, Immunologia, Infezione, Immunità, Piccin, edizione italiana a cura di Santoni A., titolo originale Immunology, Infection, and Immunity a cura di Pier G.B., Lycazak J.B., Wetzler L.M.