

Curriculum Vitae Europass

Personal information

Name Francesca Bufalieri

Citizen Italian

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Mother tongue Italian

Other language English

Understanding		Speaking		Writing
Listening	Reading	Spoken interaction	Spoken production	
B2	B2	B2	B2	B2

Levels: A1/A2: Basic user - B1/B2: Independent user – C1/C2 Proficient user
Common European Framework of Reference for Languages

Education	
2000 / 2001	High school graduation (grade 75/100), Scientific high school, "Ettore Majorana", Guidonia, Rome
2001/ 2010	Beachelor degree in Biology (grade 99/110), " Sapienza" University, Rome.
2011/2013	Graduate degree (110/110 cum laude) in Genomic Biotechnology, " Sapienza" University, Rome
October 2013 / October 2016	PhD Student in Molecular Medicine, Dept. Molecular Medicine, Lab of Molecular Oncology "A. Gulino", " Sapienza" University, Rome.
March 2017/Present	PostDoc at the Dept. Molecular Medicine, Lab of Molecular Oncology "A.Gulino", "Sapienza" University, Rome:"
Technical skills	<ul style="list-style-type: none"> - Cell culture manipulation: adherent and suspension cells, stem cells, primary culture from mouse and human tissue. - Transfection of nucleic acids - Luciferase assay - Extraction of RNA, DNA and proteins - Western Blot: immunoprecipitation (IP), Protein-protein interaction, Subcellular fractionation; Northern Blot - Classical PCR and Real Time PCR - Bioinformatic analisys - Microbiology: liquid and solid culture of bacterias, isolation and transformation, mini- and maxi- prep; preparation and purification of adenoviruses, work in class III laboratory. - Vector design: primers design, digestions, ligations, cloning - Microscopy: fluorecence and light microscopy - Immunofluorescence, immunohistochemistry - Proliferative, clonogenic and apoptosis tests: MTT, BrdU, Colony assay, Tunel - Mouse model manipulation
Research fields	<ul style="list-style-type: none"> - Study of molecular mechanisms involved in HH-dependent medulloblastoma tumorigenesis - Identification and characterization of novel small molecules inhibiting Hedgehog pathway <i>in vitro</i> and <i>in vivo</i> - Study of new molecular mechanisms involved in GB tumorigenesis
Seminars, Conferences and Courses	<ul style="list-style-type: none"> - FISV, Federazione Italiana Scienze della vita, University of Rome "Sapienza", 24-27 September, 2012 Oral Presentation: "The trascrptioinal response of mammalian cancer cells to irradiation is dominated by a cell cycle signature which is strongly attenuated in non-cancer cells and tissues" - Course "Scienza degli animali da laboratorio", University of Rome "Sapienza", 10-11 December, 2014 - SIPMET Young Scientists Meeting, Alba (CN), 11-12 September, 2015 Poster:" ERAP1 is a novel drug target in the oncogenic Hedgehog signaling pathway" - ABCD National Ph.D Meeting, Salerno, 7-9 April, 2016. Poster:" ERAP1 is a novel drug target in the oncogenic Hedgehog signaling pathway"

- **FISV, Federazione Italiana Scienze della vita**, University of Rome “Sapienza”, 20-23 September, 2016
Oral Presentation: “ERAP1 is a novel drug target in the oncogenic Hedgehog signaling pathway”
- **SIPMeT Young Meeting**, 13-14 September, 2019 Plesso Didattico Morgagni, Università degli Studi di Firenze
Poster: “ERAP1 promotes the Hedgehog signaling and medulloblastoma development by controlling β TrCP/USP47 axis”
- **61st Annual Meeting of The Italian Cancer Society** Naples, 6-8 November 2019
Oral presentation: “ERAP1 promotes the Hedgehog signaling and medulloblastoma development by controlling β TrCP/USP47 axis”
- **Course “Scienza degli animali da laboratorio”, felasa (Federation of European Laboratory Animal Science Associations)**. 2,3,4 and 9,10, 11 December, Centro Europeo di Ricerca sul Cervello (C.E.R.C.), Rome

Publications

- **The SHH/GLI signaling pathway: a therapeutic target for medulloblastoma**
Ludovica Lospinoso Severini, Francesca Ghirga , [Francesca Bufalieri](#) ,Deborah Quaglio , Paola Infante, Lucia Di Marcotullio
Expert Opin Ther Targets 2020 Sep 29;1-23
- **DUBs Activating the Hedgehog Signaling Pathway: A Promising Therapeutic Target in Cancer**
[Francesca Bufalieri](#), Ludovica Lospinoso Severini, Miriam Caimano, Paola Infante, Lucia Di Marcotullio
Cancers (Basel) 2020 Jun; 12(6): 1518
- **Dual SMO/BRAF Inhibition by Flavonolignans from *Silybum marianum***
Antonia Diukendjieva, Maya M. Zaharieva, Mattia Mori, Petko Alov, Ivanka Tsakovska, Tania Pencheva, Hristo Najdenski, Vladimir Křen, Chiara Felici, [Francesca Bufalieri](#), Lucia Di Marcotullio, Bruno Botta, Maurizio Botta, Ilza Pajeva
Antioxidants (Basel) 2020 May; 9(5): 384.
- **The RNA-Binding Ubiquitin Ligase MEX3A Affects Glioblastoma Tumorigenesis by Inducing Ubiquitylation and Degradation of RIG-I**
[Francesca Bufalieri](#), Miriam Caimano, Ludovica Lospinoso Severini, Irene Basili, Francesco Paglia, Luigi Sampirisi, Elena Loricchio, Marialaura Petroni, Gianluca Canettieri, Antonio Santoro, Luca D'Angelo, Paola Infante, Lucia Di Marcotullio
Cancers (Basel) 2020 Feb; 12(2): 321.
- **A Smo/Gli Multitarget Hedgehog Pathway Inhibitor Impairs Tumor Growth**
Lospinoso Severini L., Quaglio D., Basili I., Ghirga F., [Bufalieri F.](#), Caimano M., Balducci S., Moretti M., Romeo I., Loricchio E., Maroder M., Botta B., Mori M., Infante P., Di Marcotullio L.
Cancers (Basel). 2019 Oct 9;11(10).
- **ERAP1 promotes Hedgehog-dependent tumorigenesis by controlling USP47-mediated degradation of β -TrCP**
[Francesca Bufalieri](#), Paola Infante, Flavia Bernardi, Miriam Caimano, Paolo Romania, Marta Moretti, Ludovica Lospinoso Severini, Julie Talbot, Ombretta Melaiu, Mirella Tanori, Laura Di Magno, Diana Bellavia Stéphanie Puget, Enrico De Smaele, Gianluca Canettieri, Daniele Guardavaccaro, Luca Busino, Angelo Peschiaroli, Simonetta Pazzaglia, Giuseppe Giannini, Gerry Melino, Franco Locatelli, Alberto Gulino, Olivier Ayrault, Doriana Fruci & Lucia Di Marcotullio.
Nat Commun. (2019) ;10(1):3304
- **Itch/ β -arrestin2-dependent non-proteolytic ubiquitylation of SuFu controls Hedgehog signalling and medulloblastoma tumorigenesis**
Paola Infante, Roberta Faedda, Flavia Bernardi, [Francesca Bufalieri](#), Ludovica Lospinoso Severini, Romina Alfonsi, Daniela Mazzà, Mariangela Siler, Sonia Coni, Agnese Po, Marialaura Petroni, Elisabetta Ferretti, Mattia Mori, Enrico De Smaele, Gianluca Canettieri, Carlo Capalbo, Marella Maroder, Isabella Screpanti, Marcel Kool6, Stefan M. Pfister, Daniele Guardavaccaro, Alberto Gulino & Lucia Di Marcotullio.
Nat Commun. (2018). 9 (1): 976.

- **Mam1 acts cooperatively with Gli proteins to regulate sonic hedgehog signaling pathway**
 Roberta Quaranta, Maria Pelullo, Sabrina Zema, Francesca Nardoza, Saula Checquolo, Dieter Matthias Lauer, Francesca Bufalieri, Rocco Palermo, Maria Pia Felli, Alessandra Vacca, Claudia Talora, Lucia Di Marcotullio, Isabella Screpanti & Diana Bellavia.
Cell Death and Disease, (2017). 8 (7), e2942.

- **Selective targeting of HDAC1/2 elicits anticancer effects through Gli1 acetylation in preclinical models of SHH Medulloblastoma**
 Sonia Coni, Anna Barbara Mancuso, Laura Di Magno, Giulia Sdruscia, Simona Manni, Silvia Maria Serrao, Dante Rotili, Eleonora Spiombi, Francesca Bufalieri, Maria Laura Petroni, Monika Kusio-Kobialka, Enrico De Smaele, Elisabetta Ferretti, Carlo Capalbo, Antonello Mai, Pawel Niewiadomski, Isabella Screpanti, Lucia Di Marcotullio & Gianluca Canettieri
Scientific Reports, (2017). 7,44079

- **An High-Throughput In Vivo Screening System to Select H3K4-Specific Histone Demethylase Inhibitors**
 Cecilia Mannironi, Marco Proietto, Francesca Bufalieri, Enrico Cundari, Angela Alagia, Svetlana Danovska, Teresa Rinaldi, Valeria Famiglioni, Antonio Coluccia, Giuseppe La Regina, Romano Silvestri & Rodolfo Negri
PLoS ONE, (2014). 9(1): e86002.

- **General features of the transcriptional response of mammalian cells to low- and high-LET irradiation**
 Nicoletta Giusti, Francesca Bufalieri, Valerio Licursi, Tiziana Castrignano, Mattia D'Antonio, Roberto Amendola & Rodolfo Negri
Rend. Fis. Acc. Lincei, (2014). 25 (Suppl 1):S69–S74

- **The transcriptional response of mammalian cancer cells to irradiation is dominated by a cell cycle signature which is strongly attenuated in non-cancer cells and tissues**
Francesca Bufalieri, Valerio Licursi, Mattia D'Antonio, Tiziana Castrignano, Roberto Amendola & Rodolfo Negri
International journal of radiation biology, (2012). 88(11): 822–829

Autorizzo il trattamento dei miei dati personali presenti nel curriculum vitae ai sensi del Decreto Legislativo 30 giugno 2003, n. 196 e del GDPR (Regolamento UE 2016/679).

Roma, 03/11/2020

Francesca Bufalieri