

CURRICULUM VITAE ERICA PRANZINI 	
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PERSONAL INFORMATIONS	
Name and Surname	ERICA PRANZINI
Place and Date of Birth	Bagno a Ripoli (FIRENZE), Italy, 17/07/1991
Address (Residence)	Via Casanuova, 11- zipcode 50012, Bagno a Ripoli (FIRENZE), Italy
Phone	+39 347 1028717
E-mail	erica.pranzini@gmail.com ; erica.pranzini@unifi.it
Nationality	Italian

LANGUAGES				
	LANGUAGE	Italian	English	French
		Native language		
	Reading skills		B2-First Certificate in English (FCE)	B2
	Writing skills		B2-First Certificate in English (FCE)	B2
	Verbal skills		B2-First Certificate in English (FCE)	B2

EDUCATION	2020	Tutor in BIO-10 (" <i>Cultore della Materia</i> ") at the University of Florence
	2016 -2020	PhD in Biochemistry and Molecular Biology, University of Siena, discussing a thesis titled "Metabolic reprogramming of colorectal cancer cells resistant to 5-FU". Supervisor: Prof. Paolo Paoli (University of Florence) Date of dissertation: 24/02/2020
	2014-2016	Master's Degree in Biology applied to Biomedicine, University of Pisa, discussing an experimental thesis titled "mtROS scavenging reduces cisplatin-induced cell migration in triple negative breast cancer". Supervisors: Prof. Maria Grazia Tozzi (University of Pisa) and Dr. Paolo Porporato (Université catholique de Louvain). Final grade: 110/110 cum laude. Date of final dissertation: 24/10/2016
	2011-2014	Bachelor's Degree in Biology, University of Florence, discussing an experimental thesis titled "Effects of DASA-58 on metabolism and proliferation of colon carcinoma cells". Supervisor: Prof. Paolo Paoli. Final grade: 110/110 cum laude, with <i>encomium</i> . Date of final dissertation: 23/07/2014
	2010	Scientific High School Diploma, "P. Gobetti" high school, Bagno a Ripoli (FI). Final mark: 100/100.

RESEARCH ACTIVITY	2020-to date	Three years Fellowship awarded by FIRC-AIRC to carry out the research project "Metabolic adaptations driving epigenetics of 5 Fluorouracil-resistant colon cancer: the role of one-carbon metabolism" at the Department of "Biomedical Sciences, experimental and clinical" (University of Florence) under the supervision of Prof. Paola Chiarugi.
	2019	6 months as visiting PhD student at the Laboratory of Cellular Metabolism and Metabolic Regulation, VIB-KU Leuven Center for Cancer Biology, Leuven (Belgium) under the supervisor of prof. Sarah-Maria Fendt.
	2018	2 months as visiting PhD student at CRUK, Wolfson Wohl Cancer Research Centre, University of Glasgow (UK) under the supervision of prof. Oliver Maddocks.
	2016-2019	PhD in Biochemistry and Molecular Biology, University of Siena. Research activity held at the Department of "Biomedical Sciences, experimental and clinical" (University of Florence) investigating the role of metabolic reprogramming of drug-resistant colon cancer cells.
	2016	6 months of internship (Erasmus+ Traineeship) at the University of Louvain (UCL), Medical School, Pole of Pharmacology and Therapeutics-Brussels (Belgium), under the supervision of prof. Pierre Sonveaux.
	2013-2014	6 months of internship at the Department of "Biomedical Sciences, experimental and clinical" (University of Florence) under the supervision of Prof. Paolo Paoli.

PUBLICATIONS	<p>-"Metabolic Reprogramming in Anticancer Drug Resistance: A Focus on Amino Acids" Pranzini E., Pardella E., Paoli P., Fendt S.M., Taddei M.L.; Trends in Cancer (2021).</p> <p>-"Mitochondrial oxidative metabolism contributes to a cancer stem cell phenotype in cholangiocarcinoma" Raggi C., Taddei M.L., Sacco E., Navari N., Correnti M., Piombanti B., Pastore M., Campani C., Pranzini E., Iorio J., Lori G., Lottini T., Peano C., Cibella J., Lewinska M., Andersen J.B., Tommaso L., Luca Vigano, Di Maira G., Madiati S., Ramazzotti M., Orlandi I., Arcangeli A., Chiarugi P., Marra F.; Journal of Hepatology (2021).</p> <p>-"In Vivo Evidence for Serine Biosynthesis-Defined Sensitivity of Lung Metastasis, but Not of Primary Breast Tumors, to mTORC1 Inhibition" Rinaldi G., Pranzini E., Van Elsen J., Broekaert D., Funk C.M., Planque M., Doglioni G., Altea-Manzano P., Rossi M., Geldhof V., Thing Teoh S., Ross C., Hunter K.W., Lunt S.Y., Grünewald T.G.P., Fendt S.M.; Molecular Cell (2021).</p> <p>-"Role of tyrosine phosphorylation in modulating cancer cell metabolism." Taddei M.L., Pardella E., Pranzini E., Raugei G., Paoli P.; Biochimica et Biophysica Acta (BBA) - Reviews on Cancer (2020).</p> <p>-"Oncogenic Tyrosine Phosphatases: Novel Therapeutic Targets for Melanoma Treatment." Pardella E. †, Pranzini E. †, Leo A., Taddei M.L., Paoli P., Raugei G.; Cancers (2020). (†authors that equally contributed to the work).</p> <p>-"Stable Isotopes for Tracing Mammalian-Cell Metabolism in vivo." Fernández-García J., Altea-Manzano P., Pranzini E., Fendt S.M.; Trends in Biochemical Sciences (2020).</p> <p>-"miR-210-3p mediates metabolic adaptation and sustains DNA damage repair of resistant colon cancer cells to treatment with 5-</p>
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	<p>fluorouracil." <u>Pranzini E.</u>, Leo A., Rapizzi E., Ramazzotti M., Magherini F., Giovannelli L., Caselli A., Cirri P., Taddei ML., Paoli P.; Molecular Carcinogenesis (2019).</p> <p>-"Multiwalled Carbon Nanotubes for combination therapy: a biodistribution and efficacy pilot study." Biagiotti G., Pisaneschi F., Gammon S.T., Machetti F., Ligi M.C., Giambastiani G., Tuci G., Powell E., Piwnica-Worms H., <u>Pranzini E.</u>, Paoli P., Cicchi S., Piwnica-Worms D.; Journal of Materials Chemistry B (2019).</p> <p>-"LMW-PTP modulates glucose metabolism in cancer cells." Lori G., Gamberi T., Paoli P., Caselli A., <u>Pranzini E.</u>, Marzocchini R., Modesti A., Raugei G.; Biochimica et Biophysica Acta-General Subjects (2018).</p> <p>-"Metformin salts with oxidized multiwalled carbon nanotubes: In vitro biological activity and inhibition of CNT internalization." Biagiotti G., Ligi M.C., Fedeli S., <u>Pranzini E.</u>, Gamberi T., Cicchi S., Paoli P.; Journal of Drug Delivery Science and Technology (2018).</p> <p>-"Morin-dependent inhibition of low molecular weight protein tyrosine phosphatase (LMW-PTP) restores sensitivity to apoptosis during colon carcinogenesis: studies in vitro and in vivo, in an Apc-driven model of colon cancer." Lori G., Paoli P., Femia A.P., <u>Pranzini E.</u>, Caselli A., Tortora K., Romagnoli A., Raugei G., Caderni G.; Molecular carcinogenesis (2018).</p>
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HONORS AND AWARDS	<p>- "Francesca Martini" prize from NAnAOnlus for the best poster on cancer research at the "2021 annual SIBBM Seminar-Frontiers in Molecular Biology". June 2021</p> <p>-Three-years fellowship "Leonino Fontana Maria Lionello" (id. 24132) awarded by FIRC-AIRC. November 2019.</p> <p>-Travel award for the participation at the "61st Annual Meeting of the Italian Cancer Society - Naples, 6-8 November 2019" from the Italian Cancer Society. October 2019.</p>
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ORAL PRESENTATIONS	<p>- Seminar organized by the Scientific Committee of the DENOThe Center, titled " Stable-isotope measurements reveal a crucial role of one-carbon metabolism in sustaining 5-FU resistance "presented on October 30, 2019 at the University of Florence.</p> <p>-Seminar organized by the Biological Sciences and Molecular and Applied Biology of the University of Florence in the contest of monthly symposia "Biosaturdays". Oral presentation titled "Molecole naturali con attività chemio- e radio-sensibilizzante" presented on May 26, 2018 at the University of Florence.</p> <p>-PhD Day⁸ University of Florence, 24th May 2017. Oral presentation titled "Role of metabolic heterogeneity in cancer drug resistance".</p>
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CONFERENCES ATTENDED	<p>-"2021 annual SIBBM Seminar-Frontiers in Molecular Biology", Online, 7-10 June 2021. Poster presentation titled: "Serine metabolism reprogramming mediates 5-fluorouracil resistance in colorectal cancer by fueling nucleotide biosynthesis".</p> <p>-"Rising Stars of Cancer Metabolism and Signaling", webinar organized by the New York Academy of Science on 24 April 2021.</p>
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	<p>- 61st SIC Annual Meeting of the Italian Cancer Society “Precision Oncology: from myth to reality”, 6-8 November 2019, Naples. Poster presentation titled: “Metabolic pathways promoting colon cancer resistance to 5-Fluorouracil: the role of mitochondrial one-carbon metabolism”.</p> <p>- 30th Pezcoller Symposium “Overcoming the Innate Resistance of cancer to Therapy”, 25-26 June 2018, Trento. Poster presentation titled: “Metabolic pathways promoting colon cancer resistance to 5-Fluorouracil: the role of non-essential amino acids”.</p> <p>- PhD Day⁹ University of Florence, 31th May 2018. Poster presentation titled “Role of serine metabolism in 5-FU resistance”.</p> <p>-4th meeting of the International Society of Cancer Metabolism (ISCaM), 19-21 October 2017, Bertinoro (FC). Poster presentation titled “Role of miRNAs in metabolic plasticity correlated with 5-FU resistance in colon cancer cells”.</p> <p>-PhD Day⁸ University of Florence, 24th May 2017. Oral presentation titled “Role of metabolic heterogeneity in cancer drug resistance”.</p> <p>- EACR-AACR-SIC Special Conference on The Challenges of Optimizing Immuno and Targeted Therapies from Cancer Biology to the Clinic, 24-27 June 2017, Florence. Poster presentation titled “Role of miRNAs in metabolic plasticity correlated with 5-FU resistance in colon cancer cells”.</p>
ADDITIONAL COURSES	<p>-1st INTERNATINAL Workshop “Targeting the metabolic deregulation of cancer: a novel pharmacological approach” 7th March 2017, University of Padova, Department of Pharmaceutical and Pharmacological Sciences.</p>
TEACHING AND TUTORIAL ACTIVITIES	<p>-Co-tutor for bachelor’s degree in Biotechnology at the University of Florence for 3 candidates</p> <p>-Co-tutor for master’s degree in Medical and Pharmaceutical Biotechnology at the University of Florence for 4 candidates.</p>
WORKING EXPERIENCES	<p>-Three-years fellowship "Leonino Fontana Maria Lionello" (id. 24132) awarded by FIRC-AIRC for the period 2020-2023 at the Department of “Biomedical Sciences, experimental and clinical” (University of Florence).</p>

TECHNICAL SKILLS AND COMPETENCE	<p>Metabolic assays with radiolabeled compounds (cell up-take of ¹⁴C radiolabeled metabolites, CO₂ production, pentose-phosphate pathway flux assessment).</p> <ul style="list-style-type: none"> -Metabolic Extracellular Flux analysis (Agilent Seahorse XF Analyzer). -Metabolite extraction, Liquid/gas-chromatography mass spectrometry (LC/GC-MS) analysis and stable isotopes tracing experiments. <p>-Biochemical techniques: Electrophoresis, Western Blot, Bradford and BCA protein dosage, enzymatic activity assay.</p> <p>-Cell culture techniques: survival assays (Crystal Violet, MTT), cell migration/invasion assays (Boyden chamber assay, Scratch Wound Healing Assay), colony formation assay, Soft Agar assay, Zymography, proliferation assays (KI-67, CFSE), cell-cycle analysis (BrdU or PI assay), apoptosis analysis, comet assay, ROS detection assay (DCFH-DA, MitoSOX probes).</p> <ul style="list-style-type: none"> -Basic flow-cytometry analysis. -DNA and RNA extraction, Real Time PCR, siRNA/miR-mimic transfection. <p>-Experimentation on animal models: stabulation, care and experimentation on immunodeficient and immunocompetent mice, procedures related to preclinical studies on small rodents, such as cell inoculations, injections, autopsies and histological samples.</p> <ul style="list-style-type: none"> -Basic microbiological techniques.
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COMPUTER KNOWLEDGE	<ul style="list-style-type: none"> -MZ-mine software for mass spectrometry data processing -Graphing and statistics software: Origin Pro, GraphPad Prism -Windows operating systems Office (Word, Power Point, Excel)/Open Office -Picture editing software: GIMP, Photoshop, Inkscape
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ABROAD EXPERIENCES:	<ul style="list-style-type: none"> -6 months as visiting PhD student at the Laboratory of Cellular Metabolism and Metabolic Regulation, VIB-KU Leuven Center for Cancer Biology, Leuven (Belgium) under the supervisor of prof. Sarah-Maria Fendt. - 2 months as vising PhD student at CRUK, Wolfson Wohl Cancer Research Centre, University of Glasgow (UK) under the supervision of prof. Oliver Maddocks. -Erasmus+ Traineeship from February to July 2016, University of Louvain (UCL), Medical School Pole of Pharmacology and Therapeutics. Brussels (Belgium). -French course at "Ecole superieure de Francais Langue Etrangere. Pierre Overall", Paris, 2009.
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SOCIAL ACTIVITIES:	<ul style="list-style-type: none"> -Scouting activities (AGESCI) from 1999 to 2021, chief with second level degree (CFM); -Charity work at "Gruppo Elba" accompanying disabled persons on summer stay; -Charity work at "F.A.T.E" organization for the promotion of social activities;
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	-Charity work at "San Paolo" foster home, Fiesole (FI).
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DRIVING LICENCES	B Driving Licence
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