Curriculum Vitae

Personal informations

First name(s) / Surname(s) E-mail

Emanuele Salvatore Scarpa

I emanuele.scarpa@uniurb.it

Education and training

Dates Title of qualification awarded Name and type of organization 1/10/2008-20/06/2012 PhD University of Siena, Siena, Italy

High school diploma (100/100)

Liceo Scientifico "G.Marconi" Pesaro (PU), Italy

Dates Title of qualification awarded Name and type of organization

July 2008 Certified Biologist Board Examination University of Ancona, Ancona, Italy

Dates 2005-2008

Title of qualification awardedMaster Degree in Biological Sciences, Biomethodologies trend (110/110 cum laude)Name and type of organizationFaculty of Science, University of Ancona, Ancona, Italy

Dates 2002

Title of qualification awarded Name and type of organization

2002-2005 Bachelor of Science in Biological Sciences (110/110 cum laude) University of Ancona, Ancona, Italy

Dates 2002

Title of qualification awarded Name and type of organization

Research Experience

August 2019- Present day	Research fellow at the Laboratory of Prof. Mauro Magnani in the Department of Biomolecular Sciences, University of Urbino "Carlo Bo", Urbino (PU)
Main focus of the research activity	Experimental research on the use of nanoparticles-loaded red blood cells for biomedical applications in the European Project "MAGnetic Particle Imaging for the Treatment and Imaging of Stroke (MAGneTISe)"
August 2017- July 2019	Research fellow at the Laboratory of Prof. Marzia Bianchi in the Department of Biomolecular Sciences, University of Urbino "Carlo Bo", Urbino (PU).
Main focus of the research activity	Experimental research on the role of the Ubiquitin genes and of the markers of the ubiquitin-proteasome pathway in carcinogenetic processes, focusing on YY1, HSF1, SP1, β -catenin.
March 2015- June 2017	Research Fellow at the Laboratory of Prof. Paolino Ninfali in the Department of Biomolecular Sciences, University of Urbino "Carlo Bo", Urbino (PU).
Main focus of the research activity	Experimental research on phytochemicals cytotoxicity in human cancer cell lines and study of the molecular biology mechanisms of these cytotoxic effects
October 2012-October 2014	Post-doctoral Fellow at the Laboratory of G-protein mediated signaling, Consorzio Mario Negri Sud, S. Maria Imbaro (CH).
Main focus of the research activity	Experimental research on PARPs/ARTDs-mediated ADP ribosylation reactions and their role in the carcinogenetic processes
October 2008-June 2012	PhD Fellow at the Laboratory of Molecular Biology (Supervisor: Prof. Enrico Bertoli) in University of Ancona, in parternship with the University of Siena.

Main focus of the research activity NQO1 post translational modifications in cancer and CoQ10 involvement in human health

University Thesis Project at the Laboratory of Molecular Biology, Faculty of Science, 2007-2008 University of Ancona, Ancona, Italy

Main focus of the research activity Thesis title: "Cloning of MAZ isoforms".

Skills and competences

Technical skillsPhytochemical analysis:
Polyphenols, flavonoids and vegetables GSH level evaluation.
Molecular Biology techniques:
DNA/RNA extraction, cloning techniques, RT, RTqPCR,
RFLP.
Analysis of proteins:
Western blot analysis, Affinity chromatography techniques,
Proteasome mediated degradation assay, Caspase activity assays, Usp2 digestion assay.
Cellular biology:
Cell culture techniques, Transfections, RNA interference,
Immunofluorescence techniques, Sulforhodamine B and MTS cytotoxicity assays, DCFH-
DA assay.

Language skills English (Preliminay English Test)

Scientific Publications 1) The Ubiquitin Gene Expression Pattern and Sensitivity to UBB and UBC Knockdown Differentiate Primary 23132/87 and Metastatic MKN45 Gastric Cancer Cells Scarpa ES, Tasini F, Crinelli R, Ceccarini C, Magnani M.

IJMS; 2020; Jul. doi: 10.3390/ijms21155435.

2) Development of long circulating magnetic particle imaging tracers: use of novel magnetic nanoparticles and entrapment into human erythrocytes

Antonelli A, Szwargulski P, **Scarpa ES**, Thieben F, Cordula G, Ambrosi G, Guidi L, Ludewig P, Knopp T, Magnani M. Nanomedicine (Lond).; 2020; Apr. doi: 10.2217/nnm-2019-0449.

3) A negative feedback mechanism links UBC gene expression to ubiquitin levels by affecting RNA splicing rather than transcription Bianchi M, Crinelli R, Giacomini E, Carloni E, Radici L, Scarpa ES, Tasini F, Magnani M.

Sci Rep; 2019; Dec. doi: 10.1038/s41598-019-54973-7.

4) A Combination of Moringin and Avenanthramide 2f Inhibits the Proliferation of Hep3B Liver Cancer Cells Inducing Intrinsic and Extrinsic Apoptosis

Antonini E, Iori R, Ninfali P, **Scarpa ES**. *Nutr Cancer;* 2018; Sep. doi: 10.1080/01635581.2018.1497672.

5) Natural and synthetic avenanthramides activate caspases 2,8,3 and downregulate hTERT, MDR1 and COX-2 genes in CaCo-2 and Hep3B cancer cells

Scarpa ES, Mari M, Antonini E, Palma F, Ninfali P. Food Funct; 2018; May. doi: 10.1039/c7fo01804e.

6)ARTD10/PARP10 induces ADP-ribosylation of GAPDH and recruits GAPDH into cytosolic membrane-free cell bodies when overexpressed in mammalian cells

Mayo E, Fabrizio G, **Scarpa ES**, Stilla A, Dani N, Chiacchiera F, Kleine H, Attanasio F, Lüscher B, Di Girolamo M. *Challenges*; 2018; May. doi.org/10.3390/challe9010022.

7) C-Glycosyl Flavonoids from Beta vulgaris Cicla and Betalains from Beta vulgaris rubra: Antioxidant, Anticancer and Antiinflammatory Activities-A Review

Ninfali P, Antonini E, Frati A, Scarpa ES.

Phytother Res; 2017; May. doi: 10.1002/ptr.5819.

8)Antiproliferative activity of vitexin-2-O-xyloside and avenanthramides on CaCo-2 and HepG2 cancer cells occurs through apoptosis induction and reduction of pro-survival mechanisms

Scarpa ES, Antonini E, Palma F, Mari M, Ninfali P. *Eur J Nutr*, 2017; Mar. doi: 10.1007/s00394-017-1418-y.

9) Betalains increase vitexin-2-O-xyloside cytotoxicity in CaCo-2 cancer cells

Farabegoli F, **Scarpa ES**, Frati A, Serafini G, Papi A, Spisni E, Antonini E, Benedetti S, Ninfali P.

Food Chem; 2017; Mar. doi: 10.1016/j.foodchem.2016.09.112.

10) Betacyanins enhance vitexin-2-O-xyloside mediated inhibition of proliferation of T24 bladder cancer cells

Scarpa ES, Emanuelli M, Frati A, Pozzi V, Antonini E, Diamantini G, Di Ruscio G, Sartini D, Armeni T, Palma F, Ninfali P. *Food Funct; 2016;* Dec. doi: 10.1039/c6fo01130f

11)Quantity and quality of secoiridoids and lignans in extra virgin olive oils: the effect of two- and three-way decanters on Leccino and Raggiola olive cultivars

Antonini E, Farina A, **Scarpa ES**, Frati A, Ninfali P. *Int J Food Sci Nutr; 2016*; Dec. doi: 10.3109/09637486.2015.1121473.

12)Phytochemicals as Innovative Therapeutic Tools against Cancer Stem Cells

Scarpa ES, Ninfali P. *IJMS*; 2015; Jul. doi: 10.3390/ijms160715727.

13)State of the art of protein mono-ADP-ribosylation: biological role and therapeutic potential

Fabrizio G, **Scarpa ES**, Di Girolamo M. *Front Biosci (Landmark Ed.)*; 2015; Jan. doi: 10.2741/4316.

14) NAD+-Dependent Enzymes at the Endoplasmic Reticulum

Di Girolamo M, Fabrizio G, **Scarpa ES**, Di Paola S. *Curr Top Med Chem*; 2013; doi: 10.2174/15680266113136660214.

15)A role of intracellular mono-ADP-ribosylation in cancer biology Scarpa ES, Fabrizio G, Di Girolamo M. *FEBS J*; 2013; Aug. doi: 10.1111/febs.12290.

16)ATP independent proteasomal degradation of NQO1 in BL cell lines Scarpa ES, Bonfili L, Eleuteri AM, La Teana A, Brugè F, Bertoli E, Littarru GP, Cacciamani T. *Biochimie*; 2012; May. doi: 10.1016/j.biochi.2012.02.014.

17)Olive oil supplemented with Coenzyme Q10: effect on plasma and lipoprotein oxidative status

Brugè F, Bacchetti T, Principi F, **Scarpa ES**, Littarru GP, Tiano L. *Biofactors*; 2012; May-Jun. doi: 10.1002/biof.1015.

Poster and Oral Presentations 1) Poster entitled "Characterization of the Ubiquitin System and Pro-Survival Role of UBB and UBC in 23132/87 and MKN-45 Gastric Cancer Cells" Tagini E Searce ES Diapahi M Concerning C Magnani M

Tasini F, **Scarpa ES**, Bianchi M, Ceccarini C, Magnani M. 60° SIB National Meeting, September 2019, Lecce, Italy.

2) Poster entitled "Synthetic and Natural Avenanthramides from Oat: Antioxidant, Anti-proliferative and Anti-inflammatory Activities" Antonini E, Scarpa ES, Mari M, Ninfali P. 59° SIB National Meeting, September 2017, Caserta, Italy.

3) Poster entitled "Natural extracts from the genus Beta and their cytotoxic activity on T24 human bladder cancer cells"

Emanuelli M, Frati A, Di Ruscio G, **Scarpa ES**, Pozzi V, Giuliante R, Sartini D, Ninfali P

58° SIB National Meeting, September 2015, Urbino, Italy.

4) Oral presentation entitled "Phytochemicals from the genus Beta and their cytotoxic activity on CaCo-2 colon cancer cells"

Frati A, Farabegoli F, Papi A, **Scarpa ES**, Serafini G, Benedetti S, Ninfali P 58° National Meeting of SIB, September 2015, Urbino, Italy.

5) Oral presentation entitled "Role of ARTD15-mediated Karyopherin-β1 mono-ADP ribosylation in Nucleo-cytoplasmic trafficking" Scarpa ES, Di Girolamo M

XXV Italian Meeting "ADP-Ribosylation Reactions", May-June 2013, Pavia, Italy.

6) Poster entitled "20S proteasomal degradation of NQO1 in BL cell lines"

Scarpa ES, Bonfili L, Eleuteri AM, La Teana A, Brugè F, Bertoli E, Littarru G, Cacciamani T

Second International Conference on Environmental Stressors in Biology and Medicine, October 2011, Siena, Italy.