Curriculum Vitae

Personal informations

First name(s) / Surname(s) **Emanuele-Salvatore Scarpa**

Date and place of birth

Citizenship

Address

Telephone

E-mail

Education and training

Dates	1/10/2008-20/06/2012
Title of qualification awarded	PhD
Name and type of organization	University of Siena, Siena, Italy
Dates	July 2008
Title of qualification awarded	Certified Biologist Board Examination
Name and type of organization	University of Ancona, Ancona, Italy
Dates	2005-2008
Title of qualification awarded	Master Degree in Biological Sciences, Biomethodologies trend (110/110 cum laude)
Name and type of organization	Faculty of Science, University of Ancona, Ancona, Italy
Dates	2002-2005
Title of qualification awarded	Bachelor of Science in Biological Sciences (110/110 cum laude)
Name and type of organization	University of Ancona, Ancona, Italy
Dates	2002
Title of qualification awarded	High school diploma (100/100)
Name and type of organization	Liceo Scientifico "G.Marconi" Pesaro (PU), Italy

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, β-catenin, caspases
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

Funds: 1/06/2013-1/10/2014	Research fund holder for the Project "Strategie innovative per migliorare l'accesso di farmaci antitumorali nella massa tumorale" funded by "Fondazione Cassa di Risparmio della Provincia di Chieti (Carichieti)".
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 development and CoQ10 involvement in human health
2007-2008	University Thesis Project at the Laboratory of Molecular Biology, Faculty of Science, University of Ancona, Ancona, Italy
Main focus of the research activity	Thesis title: "Cloning of MAZ isoforms".

Teaching supports and Editor

January 2021-Present day	Editorial board member of "*Applied Sciences*" (IF: 2.474), indexed in the Science Citation Index Expanded (Web of Science), Scopus, Inspec (IET), for the section "Applied Biosciences and Bioengineering".
February 2019-March 2019	Teaching support for the Laboratory of Biotechnology II course of the degree program in Biotechnology (L-2) of University of Urbino Carlo Bo, Urbino (PU)
February 2018-March 2018	Teaching support for the Laboratory of Biotechnology II course of the degree program in Biotechnology (L-2) of University of Urbino Carlo Bo, Urbino (PU)

Skills and competences

Technical skills	Phytochemical analysis: Polyphenols and flavonoids evaluation assays Molecular Biology techniques: DNA/RNA extraction, cloning techniques, RT, RTqPCR, RFLP, Transfections, RNA interference. Analysis of proteins: Western blot analysis, Affinity chromatography techniques, Proteasome-mediated degradation assay, Caspase activity assays, Usp2 digestion assay. Cellular biology: Cell culture techniques, Immunofluorescence techniques, Sulforhodamine B and MTS cytotoxicity assays, DCFH-DA assay, Use of hypoxic chamber for hypoxic/anoxic treatments of cell lines; Encapsulation of nanoparticles into human red blood cells.
Language skills	English (Preliminay English Test)

Scientific Publications

1) Human Red Blood Cells Modulate Cytokine Expression in Monocytes/Macrophages Under Anoxic Conditions
Antonelli A, **Scarpa ES**, Magnani M.
Front Physiol; 2021, Feb. doi: 10.3389/fphys.2021.632682.

2) Encapsulation of new MPI tracer nanoparticles in the human red blood cells
Antonelli A, Szwargulski P, **Scarpa ES**, Cordula G, Guidi L, Ambrosi G, Knopp T, Magnani M.
IJMPI; 2020, Sep. doi: 10.18416/IJMPI.2020.2009001.

3) Antiviral properties of flavonoids and delivery strategies
Ninfali P, Antonelli A, Magnani M, **Scarpa ES.**
Nutrients; 2020, Aug. doi: 10.3390/nu12092534.

4) 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.

5) 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.

6) 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.

7) 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.

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; 2018, Jun. doi: 10.1007/s00394-017-1418-y.

9) 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.

10)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.

11) 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.

12) 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.

13) 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

14)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.

15)Phytochemicals as Innovative Therapeutic Tools against Cancer Stem Cells
Scarpa ES, Ninfali P.
IJMS; 2015, Jul. doi: 10.3390/ijms160715727.

16)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.

17) NAD+-Dependent Enzymes at the Endoplasmic Reticulum
Di Girolamo M, Fabrizio G, **Scarpa ES**, Di Paola S.
Curr Top Med Chem, 2013, Dec; doi: 10.2174/15680266113136660214.

18)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.

19)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.

20)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.

Poster and Oral Presentations

1) Poster entitled **"Ubiquitin expression and effects of downregulation of ubiquitin levels in primary and metastatic gastric cancer cells"**
Bianchi M, **Scarpa ES**, Tasini F, Crinelli R, Canonico B, Magnani M.
2021 Cold Spring Harbor meeting: Ubiquitins, Autophagy & Disease (Virtual), April 2021, Online:
https://meetings.cshl.edu/meetings.aspx?meet=ubiq&year=21

2) Poster entitled ***"Encapsulation of new MPI tracer nanoparticles in the human red blood cells"***
Antonelli A, Szwargulski PK, **Scarpa ES**, Grüttner C, Guidi L, Ambrosi G, Knopp T, Magnani M.
10th International Workshop on Magnetic Particle Imaging, September 2020, Online: www.iwmpi.org

3) Poster entitled ***"Characterization of the Ubiquitin System and Pro-Survival Role of UBB and UBC in 23132/87 and MKN-45 Gastric Cancer Cells"***
Tasini F, **Scarpa ES**, Bianchi M, Ceccarini C, Magnani M.
60° SIB National Meeting, September 2019, Lecce, Italy.

4) 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.

5) 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.

6) *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.

7) *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.

8) *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.