

# **Curriculum Vitae**



**FALBO Lucia,**

Birth: 7 December 1985

Citizenship: Italian

Position: Postdoctoral Researcher

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## **Education**

### **February 2011 – February 2015**

PhD in Medical Biotechnology - Supervisor: Prof. Francesco Saverio Costanzo

“Magna Graecia” University of Catanzaro – Faculty of Medicine and Surgery – Catanzaro – Italy

“Chromatin remodeling factor SSRP1 regulates DNA replication origin distribution and cellular reprogramming”.

### **December 2008 – October 2010**

Master Degree in Medical Biotechnology - Supervisor: Dr. Concetta Maria Faniello

“Magna Graecia” University of Catanzaro - Faculty of Medicine and Surgery – Catanzaro – Italy.

”Phosphorylation of MLH1, induced by doxorubicin, modifies cell cycle progression”.

Final result: 110/110 with honours

### **April 2008 – December 2008**

Master in Molecular Medicine and Biotechnology - Supervisor: Dr. Concetta Maria Faniello

“Magna Graecia” University of Catanzaro – Faculty of Medicine and Surgery – Catanzaro – Italy.

“Cellular mechanisms of tumor suppression by retinoblastoma gene”.

Final result: 70/70 with honours

### **September 2004 – October 2007**

Bachelor’s Degree in Biotechnology - Supervisor: Prof. Francesco Saverio Costanzo

“Magna Graecia” University of Catanzaro – Faculty of Medicine and Surgery – Catanzaro – Italy.

”Analysis of serum proteome in FAP patients”.

Final result: 108/110

## **Research Experiences**

### **June 2017 - Current**

AIRC postdoctoral fellowship - Supervisor: Dr. Vincenzo Costanzo

The FIRC Institute of Molecular Oncology Foundation, Milan, Italy

DNA Metabolism Laboratory

*Understanding molecular mechanisms maintaining centromeric DNA stability*

### **February 2015 – May 2017**

Postdoctoral fellowship - Supervisor: Dr. Vincenzo Costanzo  
The FIRC Institute of Molecular Oncology Foundation, Milan, Italy  
DNA Metabolism Laboratory  
*Functional characterization of FACT complex*

#### **March 2013 – February 2015**

Visiting PhD student - Supervisor: Dr. Vincenzo Costanzo  
FIRC Institute of Molecular Oncology Foundation, Milan, Italy  
DNA Metabolism Laboratory  
*SSRP1 regulates nuclear reprogramming*

#### **January 2012 – February 2013**

Visiting PhD student - Supervisor: Dr. Vincenzo Costanzo  
London Research Institute - Cancer research UK  
Clare Hall Laboratories, Department of Genome Stability  
*Identification of new factors involved in DNA replication.*

#### **October 2010 – January 2011**

Research Fellow - Supervisor: Prof. Francesco Saverio Costanzo  
“Magna Graecia” University of Catanzaro - Department of Experimental and Clinical Medicine  
Molecular Oncology Laboratory 1

- *Negative transcriptional regulation of the human periostin gene by YingYang-1 transcription factor*
- *Proteomic analysis of Hferritin gene silencing in a human metastatic melanoma cell line.*

#### **December 2008 – October 2010**

Undergraduate student - Supervisor: Prof. Francesco Saverio Costanzo  
“Magna Graecia” University of Catanzaro - Department of Experimental and Clinical Medicine  
Molecular Oncology Laboratory 1  
*Role of BRCA1 in the DNA damage response*

#### **September 2006 – October 2007**

Undergraduate student - Supervisor: Prof. Francesco Saverio Costanzo  
“Magna Graecia” University of Catanzaro - Department of Experimental and Clinical Medicine  
Molecular Oncology Laboratory 1  
*A proteomics approach to identify changes in protein profiles in serum of FAP patients.*

#### **Technical skills and competence:**

##### **Culture of several cell lines, primary cells and relative assays:**

Primary and cancer cells cultures  
Cell proliferation Assay / Cell Adhesion Assay / Cell Invasion Assay  
Plasmid Transfection and Lentiviral/Retroviral infection / Lentiviral and Retroviral Particles Preparation  
Reprogramming

##### **Biochemistry techniques:**

Total protein and subcellular fractions extraction  
Protein Electrophoresis, Silver, Coomassie and Ponceau staining  
Western blot, Immunoprecipitation and Co-Immunoprecipitation, Chromatin IP  
*In vitro Kinase Assay / Luciferase assay*

Production and purification of recombinant protein in bacteria and in eukaryotic cells  
Knocking down of protein expression in eukaryotic cells by shRNA and siRNA  
Pull down Assay

#### **Molecular Biology:**

DNA and RNA extraction / DNA cloning  
Nucleic Acids electrophoresis  
PCR, RT-PCR  
Southern and Northern Blot / Electrophoretic Mobility Shift Assay  
Use of vectors of expression in eukaryotic and bacterial systems (plasmid vectors, retroviral and lentiviral vectors)  
Use of siRNA-expressing vectors for gene knock-down

#### **Xenopus System:**

*Xenopus laevis* cell-free egg extract system generation and manipulation  
Replication Assay / Chromatin Binding / DNA combing  
*In vitro* fertilization

FACS acquisition and analysis

Confocal Microscopy acquisition and analysis

Bioinformatics Tools: Bioedit, Blast, Fasta33, ClustalX, SnapGene, Primer3 Input, Gene Jokey, Image J

#### **Publications:**

- E. Raspelli, **L. Falbo**, V. Costanzo. "Xenopus egg extract to study regulation of genome-wide and locus-specific DNA replication" - Genesis. 2017 Jan 17.
- F. Romeo, **L. Falbo**, V. Costanzo. "Replication, checkpoint suppression and structure of centromeric DNA" - Nucleus. 2016 Nov;7(6):540-546.
- M. Di Sanzo, M. Gaspari, R. Misaggi, F. Romeo, **L. Falbo**, C. De Marco, V. Agosti, B. Quaresima, T. Barni, G. Viglietto, M.R. Larsen, G. Cuda, F. Costanzo, M.C Faniello. "H ferritin gene silencing in a human metastatic melanoma cell line: a proteomic analysis" - J Proteome Res. 2011 Dec 2;10(12):5444-53.
- F. Romeo, **L. Falbo**, M. Di Sanzo, R. Misaggi, M.C. Faniello, G. Viglietto, G. Cuda, F. Costanzo, B. Quaresima. "BRCA1 is required for hMLH1 stabilization following doxorubicin-induced DNA damage" - Int J of Biochem & Cell Biol. – Int J Biochem Cell Biol. 2011 Dec;43(12):1754-63.
- F. Romeo, **L. Falbo**, M. Di Sanzo, R. Misaggi, M.C. Faniello, T. Barni, G. Cuda, G. Viglietto, C. Santoro, B. Quaresima, F. Costanzo. "Negative transcriptional regulation of the human periostin gene by YingYang-1 transcription factor" - Gene. 2011 Nov 10;487(2):129-34.

#### **Conferences and Workshops:**

Bologna, 11-13 June 2019 **SIBBM 2019 – Frontiers in Molecular Biology** – Nucleic acid immunity: from cellular mechanisms to new technologies

- *Epigenetic control of DNA replication origin assembly regulates vertebrate development and nuclear reprogramming.*

**L. Falbo**, F. Romeo, V. Costanzo.

Kyllini, Greece 17-21 September 2018 **EMBO Workshop "DNA Replication, Chromosome Segregation and Fate decisions"**

- *Epigenetic regulation of replication origins.*

**L. Falbo**, E. Raspelli, F. Romeo, V. Costanzo.

Rome, 20-22 June 2018 **SIBBM 2018 – Frontiers in Molecular Biology** – When and where: temporal and spatial regulation of biological processes

- *Epigenetic regulation of eukaryotic DNA replication origins.*

**L. Falbo**, Erica Raspelli, F. Romeo, V. Costanzo.

Milano, 14-16 June 2017 **SIBBM 2017 – Frontiers in Molecular Biology** – From Single Cells to 3D-Cell Culture

Napoli, 16-18 June 2016 **SIBBM 2016 – Frontiers in Molecular Biology** – From Single Cells Analysis to Precision Medicine

Pesaro, 10-12 October 2013 **Joint National Ph.D. Meeting 2013**

- *Identification of novel factors regulating vertebrate DNA replication.*

**L. Falbo**, F. S. Costanzo, V. Costanzo.

Torino, 25-30 June 2011 **36<sup>th</sup> FEBS Congress**

- *Transcriptional regulation of POSTN gene expression by YY1 and BRCA1.*

**L. Falbo**, F. Romeo, M. Di Sanzo, R. Misaggi, G. Cuda, M. C. Faniello, B. Quaresima and F. Costanzo.

- *The proteome of the FHC silenced cell: in vitro and in vivo analysis.*

R. Misaggi, M. Di Sanzo, M. Gaspari, F. Romeo, **L. Falbo**, G. Cuda, B. Quaresima, M. C. Faniello, F. Costanzo.

Catanzaro, 21 June 2011 - “HCV domani: proiezioni in clinica, diagnostica, terapia.”

Praga, 4-9 July 2009 **34<sup>rd</sup> FEBS Congress**

- *Transcriptional regulation of H-Ferritin gene after TSH stimulation: NF-Y/p300 complex.*

M. Di Sanzo, F. Romeo, G. Epifanio, E Arcuri, B.M. D'Alessandro, **L. Falbo**, R. Sottile, B. Quaresima, MC. Faniello, F. Costanzo.

Catanzaro, 10 June 2009 - “Biotecnologie e Medicina”, sponsored by Merck Serono

**Scientific Memberships:** SIBBM