



TO MAGNIFICO RETTORE OF UNIVERSITA' DEGLI STUDI DI MILANO

ID CODE 4905

I the undersigned asks to participate in the public selection, for qualifications and examinations, for the awarding of a type B fellowship at **Dipartimento di Oncologia ed Emato-Oncologia**

Scientist- in - charge: Prof. **Vincenzo COSTANZO**

**LUCIA FALBO**

**CURRICULUM VITAE**

## PERSONAL INFORMATION

Surname	FALBO
Name	LUCIA
Date of birth	07/12/1985

## PRESENT OCCUPATION

Appointment	Structure
POSTDOC	IFOM-THE FIRCI INSTITUTE FOR MOLECULAR ONCOLOGY

## EDUCATION AND TRAINING

Degree	Course of studies	University	year of achievement of the degree
Degree	Laurea Specialistica in BIOTECNOLOGIE MEDICHE, VETERINARIE e FARMACEUTICHE	Magna Græcia University of Catanzaro - Italy	2010
Specialization			
PhD	BIOTECNOLOGIE MEDICHE	Magna Græcia University of Catanzaro - Italy	2015
Master	BIOTECNOLOGIE e MEDICINA MOLECOLARE	Magna Græcia University of Catanzaro - Italy	2008
Degree of medical specialization			
Degree of European specialization			
Bachelor degree	Laurea Triennale in BIOTECNOLOGIE	Magna Græcia University of Catanzaro - Italy	2007

## REGISTRATION IN PROFESSIONAL ASSOCIATIONS



Date registration	of	Association	City

## FOREIGN LANGUAGES

Languages	level of knowledge
English	Fluent
French	Basic
Italian	Mother tongue

## AWARDS, ACKNOWLEDGEMENTS, SCHOLARSHIPS

Year	Description of award
2011	Winner of PhD Fellowship from Fondo Sociale Europeo - POR Calabria FSE 2007/2013
2017	Awarded of three-years AIRC fellowship - Codital 19444

## TRAINING OR RESEARCH ACTIVITY

<b>Research activity</b>	
05/2020 - Current	Post-doctoral Fellow, The FIRC Institute of Molecular Oncology Foundation, Milan, Italy - DNA Metabolism Laboratory. Supervisor: Prof. Vincenzo Costanzo
06/2017 - 05/2020	AIRC Post-doctoral Fellow, The FIRC Institute of Molecular Oncology Foundation, Milan, Italy - DNA Metabolism Laboratory. Supervisor: Prof. Vincenzo Costanzo
02/2015- 05/2017	Post-doctoral Fellow, The FIRC Institute of Molecular Oncology Foundation, Milan, Italy - DNA Metabolism Laboratory. Supervisor: Prof. Vincenzo Costanzo
03/2013 - 02/2015	Visiting PhD student - FSE Founded - The FIRC Institute of Molecular Oncology Foundation, Milan, Italy - DNA Metabolism Laboratory. Supervisor: Prof. Vincenzo Costanzo
01/2012 - 03/2013	Visiting PhD student - FSE Founded - Clare Hall Laboratories, Cancer Research UK, London, UK - Genome Stability Laboratory. Supervisor: Prof. Vincenzo Costanzo
02/2011 - 02/2015	PhD student - FSE Founded - PhD program in Medical Biotechnologies, Laboratory of molecular Oncology, Department of Experimental and Clinical Medicine - "Magna Graecia" University of Catanzaro - Supervisor: Prof. Francesco Saverio Costanzo
11/2010 - 01/2011	Research fellow, Laboratory of molecular Oncology, Department of Experimental and Clinical Medicine - "Magna Graecia" University of Catanzaro - Supervisor: Prof. Francesco Saverio Costanzo



12/2008 - 10/2010	MSc student, Laboratory of molecular Oncology, Department of Experimental and Clinical Medicine - "Magna Graecia" University of Catanzaro - Supervisor: Prof. Concetta Maria Faniello
09/2006 - 10/2007	Undergraduate student, Laboratory of molecular Oncology, Department of Experimental and Clinical Medicine - "Magna Graecia" University of Catanzaro - Supervisor: Prof. Francesco Saverio Costanzo

## PROJECT ACTIVITY

Year	Project
06/2020 - Current	- Metastasis as Mechano-disease. The FIRC Institute of Molecular Oncology Foundation, Milan, Italy - DNA Metabolism Laboratory.
06/2017 - 05/2020	- Understanding molecular mechanisms maintaining centromeric DNA stability. The FIRC Institute of Molecular Oncology Foundation, Milan, Italy - DNA Metabolism Laboratory.
02/2015 - 05/2017	- DNA replication and cell fate transition in early embryonic division and stem cells (Falbo et al, Nat Comm, 2020). The FIRC Institute of Molecular Oncology Foundation, Milan, Italy - DNA Metabolism Laboratory.
03/2013 - 02/2015	- Chromatin-Remodeling factor SSRP1 regulates DNA replication origin distribution and cellular reprogramming. The FIRC Institute of Molecular Oncology Foundation, Milan, Italy - DNA Metabolism Laboratory.
01/2012 - 02/2013	- The role of DNA repair proteins in the maintenance of genome stability during DNA replication. Clare Hall Laboratories - Department of Genome stability - Cancer research UK- London (UK)
10/2010 - 01/2011	- Transcription regulation of genes involved in neoplastic transformation (Romeo et al, Gene. 2011). - Role of Ferritin heavy chain (FHC) in tumor progression using a proteomic approach (Di Sanzo et al, J Proteome Res. 2011). Faculty of Medicine and Surgery - Catanzaro - Italy. Molecular Oncology Laboratory 3, Department of Experimental and Clinical Medicine.
12/2008 - 10/2010	- Role of BRCA1 in hMLH1 stabilization after DNA damage (Romeo et al, Int J Biochem Cell Biol. 2011). Faculty of Medicine and Surgery - Catanzaro - Italy. Molecular Oncology Laboratory 1, Department of Experimental and Clinical Medicine.
09/2006- 10/2007	- A proteomics approach to identify changes in protein profiles in serum of FAP patients. Faculty of Medicine and Surgery - Catanzaro - Italy. Molecular Oncology Laboratory 1, Department of Experimental and Clinical Medicine.

## PATENTS

Patent



## CONGRESSES AND SEMINARS

Data	Titolo	Sede
19 Jan 2021	Managing Research Data to unlock its full potential – Nature masterclasses	Web course
12-13 Febr. 2020	Stretching single DNA fibers by molecular combing. From hybridization-based mapping to analysis of DNA replication, damage and repair – Genomic Vision	Milano (Italy)
23 Sept. 2019	Effective collaboration in research – Nature masterclasses	Web course
02 Sept. 2019	Focus on Peer-review – Nature masterclasses	Web course
02 March 2019	Scientific writing and publishing – Nature masterclasses	Web course
11-13 June 2019	15 <sup>th</sup> SIBBM 2019 – Frontiers in Molecular Biology – Nucleic acid immunity: from cellular mechanisms to new technologies.	Bologna (Italy)
21 March 2019	Cancer-Related biobanks: a value for translational research and precision oncology	Milano (Italy)
17-21 Sept. 2018	EMBO Workshop "DNA Replication, Chromosome Segregation and Fate decisions"	Kyllini, Greece
20-22 June 2018	14 <sup>th</sup> SIBBM 2018 – Frontiers in Molecular Biology – When and where: temporal and spatial regulation of biological processes.	Roma (Italy)
3-4 May 2018	EMBL in Italy	Milano (Italy)
14-16 June 2017	13 <sup>th</sup> SIBBM 2017 – Frontiers in Molecular Biology – From Single Cells to 3D-Cell Culture	Milano (Italy)
27-28 Sept. 2016	Data Carpentry Workshop – IFOM Postdoc Association (IPA)	Milano (Italy)
16-18 June 2016	12 <sup>th</sup> SIBBM 2016 – Frontiers in Molecular Biology – From Single Cells Analysis to Precision Medicine	Napoli (Italy)
27-28 April 2016	Chromosome replication and segregation	Milano (Italy)
December 2015	Scientific writing course - IFOM Postdoc Association (IPA)	Milano (Italy)
29-30 June 2015	1 <sup>st</sup> Symposium IFOM-EMBL Monterotondo	Milano (Italy)
5 February 2015	1 <sup>st</sup> Symposium on genome stability IFOM-NUI Galway	Milano (Italy)
10-12 Oct 2013	Joint National Ph.D. Meeting 2013	Pesaro (Italy)
6 June 2013	Alpha technology application training	Milano (Italy)
21 June 2011	Workshop "HCV domani: proiezioni in clinica, diagnostica, terapia"	Catanzaro (Italy)
25-30 June 2011	36 <sup>th</sup> FEBS Congress	Torino (Italy)
4-9 July 2009	34 <sup>th</sup> FEBS Congress	Prague (Czech Republic)
10 June 2009	Corso residenziale Biotecnologie e Medicina, sponsored by Merck Serono	Catanzaro (Italy)

## PUBLICATIONS

Books
[title, place, publishing house, year ...]



<b>Articles in reviews</b>
“Epigenetic regulation of replication origin assembly: A role for histone H1 and chromatin remodeling factors” - BioEssays, 43, e202000181 (2021) <b>Falbo L.</b> and Costanzo V.
“SSRP1-mediated Histone H1 eviction promotes replication origin assembly and accelerated development” - Nat Commun. 2020 Mar 12;11(1):1345. <b>Falbo L.</b> , Raspelli E., Romeo F., Fiorani S., Casagrande F., Costa I., Parazzoli D., Pezzimenti F., Costanzo V.
“ <i>Xenopus</i> egg extract to study regulation of genome-wide and locus-specific DNA replication” - Genesis. 2017 Jan;55(1-2). Raspelli E., <b>Falbo L.</b> , Costanzo V.
“Replication, checkpoint suppression and structure of centromeric DNA” - Nucleus. 2016 Nov;7(6):540-546. Romeo F., <b>Falbo L.</b> , Costanzo V.
“H ferritin gene silencing in a human metastatic melanoma cell line: a proteomic analysis.” - J Proteome Res. 2011 Dec 2;10(12):5444-53. Di Sanzo M., Gaspari M., Misaggi R., Romeo F., <b>Falbo L.</b> , De Marco C., Agosti V., Quaresima B., Barni T., Viglietto G., Larsen M.R., Cuda G., Costanzo F., Faniello M.C.
“BRCA1 is required for hMLH1 stabilization following doxorubicin-induced DNA damage.” - Int J Biochem Cell Biol. 2011 Dec;43(12):1754-63. Romeo F., <b>Falbo L.</b> , Di Sanzo M., Misaggi R., Faniello M.C., Viglietto G., Cuda G., Costanzo F., Quaresima B.
“Negative transcriptional regulation of the human periostin gene by YingYang-1 transcription factor” - Gene. 2011 Nov 10;487(2):129-34. Romeo F., <b>Falbo L.</b> , Di Sanzo M., Misaggi R., Faniello M.C., Barni T., Cuda G., Viglietto G., Santoro C., Quaresima B. and Costanzo F.

<b>Congress proceedings</b>
Epigenetic control of DNA replication origin assembly regulates vertebrate development and nuclear reprogramming. <b>L. Falbo</b> , F. Romeo, V. Costanzo. <b>15<sup>th</sup> SIBBM 2019 - Frontiers in Molecular Biology - Nucleic acid immunity: from cellular mechanisms to new technologies</b> Bologna, 11-13 June 2019
Epigenetic regulation of replication origins. <b>L. Falbo</b> , E. Raspelli, F. Romeo, V. Costanzo. <b>EMBO Workshop "DNA Replication, Chromosome Segregation and Fate decisions"</b> Kyllini, Greece 17-21 September 2018
Epigenetic regulation of eukaryotic DNA replication origins. <b>L. Falbo</b> , Erica Raspelli, F. Romeo, V. Costanzo. <b>14<sup>th</sup> SIBBM 2018 - Frontiers in Molecular Biology - When and where: temporal and spatial regulation of biological processes</b> Rome, 20-22 June 2018 Flash Oral presentation



Epigenetic regulation of eukaryotic DNA replication origins. <b>L. Falbo</b> , Erica Raspelli, F. Romeo, V. Costanzo. <b>13<sup>th</sup> SIBBM 2017 - Frontiers in Molecular Biology - From Single Cells to 3D-Cell</b> Milano, 14-16 June 2017
- Transcriptional regulation of POSTN gene expression by YY1 and BRCA1 - <b>L. Falbo</b> , F. Romeo, M. Di Sanzo, R. Misaggi, G. Cuda, M. C. Faniello, B. Quaresima and F. Costanzo. - The proteome of the FHC silenced cell: <i>in vitro</i> and <i>in vivo</i> analysis - R. Misaggi, M. Di Sanzo, M. Gaspari, F. Romeo, <b>L. Falbo</b> , G. Cuda, B. Quaresima, M. C. Faniello, F. Costanzo. <b>36<sup>th</sup> FEBS Congress</b> Torino, 25-30 June 2011
- 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, <b>L. Falbo</b> , R. Sottile, B. Quaresima, M. C. Faniello, F. Costanzo. <b>34<sup>th</sup> FEBS Congress</b> Praga, 4-9 July 2009

OTHER INFORMATION

<b><i>Culture of several cell lines, primary cells and relative assays:</i></b> Human and mouse primary and cancer cells cultures, iPSC generation from human and mouse primary cells, Embryoid bodies generation and differentiation. Proliferation Assay, Adhesion Assay, Invasion Assay, Wound assay, Colony assay, Soft agar assay, Cytotoxicity assay. Plasmid Transfection and Lentiviral/Retroviral infection, Lentiviral and Retroviral Particles Preparation.
<b><i>Biochemistry techniques:</i></b> Protein extraction (Total and subcellular fractions), Protein electrophoresis and Western blot, Silver staining. Pull-down assay, Immunoprecipitation and Co-Immunoprecipitation, Chromatin IP, RNA pull-down and IP. <i>In vitro</i> Kinase Assay, <i>In vitro</i> Dephosphorylation Assay, <i>In vitro</i> Ubiquitination Assay, Luciferase assay, ATP Assay. Overexpression and purification of recombinant proteins in bacteria and in eukaryotic cells. Knockdown of protein expression in eukaryotic cells RNAi (shRNA/siRNA) and CRISPR gene editing. <i>Xenopus</i> cell-free system (extracts preparation and manipulation, <i>in vitro</i> DNA replication assay, chromatin binding assay, <i>in vitro</i> fertilization). DNA combing and fiber analysis.
<b><i>Molecular Biology techniques:</i></b> DNA, RNA and mtDNA sample preparation, handling and analysis. Nucleic Acids electrophoresis, PCR, RT-PCR and qPCR, site-directed Mutagenesis, Southern and Northern Blot, Electrophoretic Mobility Shift Assay, DNA cloning, DNA preparation from Bacterial culture, Fluorescence in situ hybridization (FISH), Co-FISH and IF-FISH.
<b><i>FACS assay:</i></b> Annexin/PI staining, Cell cycle analysis, BrdU/EdU staining.
<b><i>Imaging:</i></b> light microscopy, fluorescent microscopy.
<b><i>Bioinformatic Tools:</i></b> Bioedit, Blast, Fasta33, ClustalX, Primer3 Input, Gene Jokey, ImageJ/Fiji, FlowJo.
Steering Committee Italian Society of Biophysics and Molecular Biology ( <b>SIBBM</b> ) Reviewer for Journal of Experimental and Clinical Cancer Research ( <b>JECCR</b> ) and <b>BioEssays</b>

OTHER SKILLS.

Proven ability to design, execute and interpret critical experiments under minimal supervision. Excellent organization, planning experiments and problem-solving skills. Extensive experience of report writing and documentation of experiments. Presentation of data in laboratory and departmental meetings, seminars and scientific conventions. Experience in training of undergraduate and graduate students.



# UNIVERSITÀ DEGLI STUDI DI MILANO

Declarations given in the present curriculum must be considered released according to art. 46 and 47 of DPR n. 445/2000.

The present curriculum does not contain confidential and legal information according to art. 4, paragraph 1, points d) and e) of D.Lgs. 30.06.2003 n. 196.

Place and date: Milano, 24/02/2021

SIGNATURE  
*Luca Gallo*