

EUROPEAN  
CURRICULUM VITAE  
FORMAT



PERSONAL INFORMATION

Name	LANZUOLO, CHIARA
Telephone	0200660216
E-mail	lanzuolo@cnr.it
PEC	chiara.lanzuolo@pec.it
Nationality	Italian

WORK EXPERIENCE

- |   |   |
|---|---|
| <ul style="list-style-type: none"><li>• Dates (from – to)</li><li>• Name and address of employer<ul style="list-style-type: none"><li>• Type of business or sector</li><li>• Occupation or position held</li></ul></li><li>• Main activities and responsibilities</li></ul> | <p>September 2015-present<br/>Fondazione INGM – Istituto Nazionale Genetica Molecolare<br/>Milano, Italy.<br/>Non-profit Research Institution<br/><b>Head of Chromatin and Nuclear Architecture Unit</b><br/>Role of Lamin A/C in epigenetic control of transcription, interplay with PcG proteins, muscle differentiation</p>  |
| <ul style="list-style-type: none"><li>• Dates (from – to)</li><li>• Name and address of employer<ul style="list-style-type: none"><li>• Type of business or sector</li><li>• Occupation or position held</li></ul></li><li>• Main activities and responsibilities</li></ul> | <p>December 2013-present<br/>CNR-Institute of Cell Biology and Neurobiology, Rome, Italy<br/>Non-profit Research Institution<br/><b>CNR-Researcher III level, permanent position</b><br/>Role of Lamin A/C in epigenetic control of transcription, interplay with PcG proteins, muscle differentiation</p>  |
| <ul style="list-style-type: none"><li>• Dates (from – to)</li><li>• Name and address of employer<ul style="list-style-type: none"><li>• Type of business or sector</li><li>• Occupation or position held</li></ul></li><li>• Main activities and responsibilities</li></ul> | <p>2012-2015<br/>CNR-Institute of Cell Biology and Neurobiology, Rome, Italy<br/>Non-profit Research Institution<br/><b>CNR-Researcher II Level</b> and Junior group leader as recipient of a starting grant from the Italian Ministry of Research and University<br/>Role of Lamin A/C in epigenetic control of transcription, interplay with PcG proteins, muscle differentiation</p> |
| <ul style="list-style-type: none"><li>• Dates (from – to)</li><li>• Name and address of employer<ul style="list-style-type: none"><li>• Type of business or sector</li><li>• Occupation or position held</li></ul></li><li>• Main activities and responsibilities</li></ul> | <p>2009-2012<br/>CNR-Institute of Cell Biology and Neurobiology, Rome, Italy<br/>Non-profit Research Institution<br/><b>CNR-Researcher III level, fixed term</b><br/>Epigenetic inheritance during the cell cycle.</p>  |
| <ul style="list-style-type: none"><li>• Dates (from – to)</li><li>• Name and address of employer<ul style="list-style-type: none"><li>• Type of business or sector</li><li>• Occupation or position held</li></ul></li></ul>  | <p>2002-2008<br/>Dr. Valerio Orlando' s laboratory, Telethon Foundation, Naples, Italy<br/>Non-profit Research Institution<br/>Post Doc</p>   |

- Main activities and responsibilities
  - Dates (from – to)
    - Name and address of employer
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      - Type of business or sector
      - Occupation or position held

Chromatin higher order structures, gene regulation. Function of the PcG regulated chromosomal loops in transcription

2007 (four months)

Collaboration with Dr Foiani, IFOM Fondazione Istituto FIRC di Oncologia Molecolare Milan, Italy

Non-profit Research Institution

Post Doc

DNA triple helix in transcriptional repression

2005 (one month)

Collaboration with Dr Dekker, University of Massachusetts Medical School Worcester, USA

Non-profit Research Institution

Post Doc

Chromatin higher order structures, gene regulation.

2000-2002

Dr. Eric Gilson' s laboratory, Ecole Normale Superieure Lyon, France

Non-profit Research Institution

PhD in cotutelle

Studies on EST2 and HTL1, two yeast genes that, in different ways, influence the chromosomal stability

1998-2000

Prof. John Finali Pulitzer' s laboratory, University of Naples, Italy

Non-profit Research Institution

PhD in cotutelle

Studies on EST2 and HTL1, two yeast genes that, in different ways, influence the chromosomal stability

1996-1998

Prof. John Finali Pulitzer' s laboratory, University of Naples, Italy

Non-profit Research Institution

Undergraduate student

Exploring Saccharomyces cerevisiae PET18 locus: identification of a new minigene involved in thermotolerance

## EDUCATION AND TRAINING

- Dates (from – to)
- Name and type of organisation
  - Principal occupational
- Title of qualification awarded

1998-2002

Ecole Normale Superieure Lyon, France and University of Naples, Italy

Ph.D. thesis

Ph.D.

- Dates (from – to)
- Name and type of organisation
  - Principal occupational
- Title of qualification awarded

1993-1998

University of Naples, Italy

Undergraduate studies in Biological Science

Degree in Biological Science, 110/110 cum laude

## AWARDED GRANTS

- Dates (from – to) 2017-2019
- Name of the organization AFM-Telethon
  - Call identifier **Research grant-21030**
  - Title of the project Deciphering the role of the heterochromatin conformation in Emery Dreifuss Muscular Dystrophy (EDMD)
  
- Dates (from – to) 2017-2020
- Name of the organization AIRC
  - Call identifier **My First AIRC Grant- MFAG18535**
  - Title of the project Deciphering the role of Polycomb bodies repositioning and heterochromatin conformation in prostate cancer progression
  
- Dates (from – to) 2016-2019
- Name of the organization Italian Ministry of Health (MoH)
  - Call identifier **Young Researcher program – Bando Ricerca Finalizzata 2013.**
  - Title of the project Role of Lamin A/C-Polycomb crosstalk in Emery-Dreifuss Muscular Dystrophy (EDMD)
  
- Dates (from – to) 2012-2015+3 year
- Name of the organization Italian Ministry of Research and University (MIUR)
  - Call identifier **Epigenomics Flagship Project**
  - Title of the project Epigenetic mechanisms in Hutchinson-Gilford progeria syndrome
  
- Dates (from – to) 2012-2015+2 year
- Name of the organization Italian Ministry of Research and University (MIUR)
  - Call identifier **Young Researcher program - FIRB 2010**
  - Title of the project Role of Polycomb mediated epigenetic signature in laminopathies: analysis by innovative genome wide technology and high-performance numerical algorithms for Live Cell Imaging

## INVITED PRESENTATION

(including only personal invitations)

- Year 2018
- **Meeting** Berlin Meeting on Myogenesis and Muscle Disease
- Location Berlin April 23-27
- Title of the talk TBD
  
- Year 2017
- **Institute** Institute for Research on Cancer and Aging (IRCAN)
- Location Nice, France, April 12
- Title of the talk Functional dysfunction of muscle stem cells as a determinant of Emery Dreifuss Muscular Dystrophy (EDMD)

<ul style="list-style-type: none"> <li>• <b>Meeting</b></li> <li>• Location</li> <li>• Title of the talk</li> </ul>	<p>International Meeting on Laminopathies Bologna April 6-8 Functional dysfunction of muscle stem cells as a determinant of Emery Dreifuss Muscular Dystrophy (EDMD)</p>
<ul style="list-style-type: none"> <li>• <b>Meeting</b></li> <li>• Location</li> <li>• Title of the talk</li> </ul>	<p>1st qBio mini-Workshop IFOM-IEO February 20-21 Nuclear architecture dynamics in biological processes and disease</p>
<ul style="list-style-type: none"> <li>• Year</li> <li>• <b>Institute</b></li> <li>• Location</li> <li>• Title of the talk</li> </ul>	<p><b>2016</b> Istituto Telethon di Genetica e Medicina (TIGEM) Pozzuoli, NA, Italy September 20 Impairment of nuclear architecture in Emery Dreifuss muscular dystrophy</p>
<ul style="list-style-type: none"> <li>• <b>Meeting</b></li> <li>• Location</li> <li>• Title of the talk</li> </ul>	<p>12<sup>th</sup> International Cell Biology Congress Prague, Czech Republic July 21-25 Impairment of LaminA/C-Polycomb crosstalk in Emery Dreifuss muscular dystrophy</p>
<ul style="list-style-type: none"> <li>• <b>Meeting</b></li> <li>• Location</li> <li>• Title of the talk</li> </ul>	<p>Chromatin, epigenome &amp; drug discovery: training school Seconda Università degli Studi di Napoli, Italy. March 21-23 Lamin A: a paradigm for translational epigenetic studies</p>
<ul style="list-style-type: none"> <li>• Year</li> <li>• <b>Institute</b></li> <li>• Location</li> <li>• Title of the talk</li> </ul>	<p><b>2015</b> Institut de Myologie Paris, France. June 8 The epigenetic role of Lamin A in muscle differentiation and disease</p>
<ul style="list-style-type: none"> <li>• <b>Meeting</b></li> <li>• Location</li> <li>• Title of the talk</li> </ul>	<p>Epigen Chromatin Seminars Naples, May 11 The epigenetic role of Lamin A/C in modulating Polycomb proteins nuclear architecture</p>
<ul style="list-style-type: none"> <li>• <b>Meeting</b></li> <li>• Location</li> <li>• Title of the talk</li> </ul>	<p>The first French-Italian meeting on Laminopathies Marseille, France. January 15-16 Impairment of LaminA/C-Polycomb crosstalk as a possible epigenetic cause of Emery Dreifuss Muscular Dystrophy (EDMD)</p>
<ul style="list-style-type: none"> <li>• Year</li> <li>• <b>Institute</b></li> <li>• Location</li> <li>• Title of the talk</li> </ul>	<p><b>2014</b> Fondazione Istituto Nazionale Genetica Molecolare (INGM) Milan, Italy. July The epigenetic role of Lamin A in muscle differentiation</p>
<ul style="list-style-type: none"> <li>• <b>Institute</b></li> <li>• Location</li> <li>• Title of the talk</li> </ul>	<p>Ceinge Institute Naples, Italy. February Epigenetics and nuclear structures: The role of Lamin A in muscle differentiation</p>
<ul style="list-style-type: none"> <li>• Year</li> </ul>	<p><b>2013</b></p>

<ul style="list-style-type: none"> <li>• <b>Meeting</b></li> <li>• Location</li> <li>• Title of the talk</li> </ul>	<p>FEBS Workshop: Translating Epigenomes into Function: a Next-generation Challenge for Human Disease Capri, Italy. October 13-16 The epigenetic aspect of nuclear Lamin A: a role in PcG mediated functions</p>
<ul style="list-style-type: none"> <li>• <b>Institute</b></li> <li>• Location</li> <li>• Title of the talk</li> </ul>	<p>Institute of Protein Biochemistry, CNR Naples, Italy. June 14 Epigenetics and nuclear structures: The role of Lamin A in muscle differentiation</p>
<ul style="list-style-type: none"> <li>• <b>Institute</b></li> <li>• Location</li> <li>• Title of the talk</li> </ul>	<p>Institute of Molecular Biology and Pathology, CNR Rome Italy. February 4 Epigenetics and nuclear structures: The role of Lamin A in muscle differentiation</p>
<ul style="list-style-type: none"> <li>• Year</li> <li>• <b>Meeting</b></li> <li>• Location</li> <li>• Title of the talk</li> </ul>	<p><b>2012</b> Joint meeting: PhD in Phylosophy, Torvergata and PhD in Cellular and Molecular Biology Rome, Italy. October, 4 Biodiversity as human genome interpretation</p>
<ul style="list-style-type: none"> <li>• <b>Institute</b></li> <li>• Location</li> <li>• Title of the talk</li> </ul>	<p>European laboratory of Non-Linear Spectroscopy, LENS Florence, Italy. July, 3 Epigenetics in disease and cancer</p>
<ul style="list-style-type: none"> <li>• <b>Institute</b></li> <li>• Location</li> <li>• Title of the talk</li> </ul>	<p>Institute of Genetics and Biophysics, CNR Naples, Italy. January, 30 The inheritance of epigenetic signatures during DNA replication</p>
<ul style="list-style-type: none"> <li>• Year</li> <li>• <b>Institute</b></li> <li>• Location</li> <li>• Title of the talk</li> </ul>	<p><b>2011</b> Institute of Cellular Biology, CNR Rome, Italy. November 15 The inheritance of epigenetic signatures during DNA replication</p>
<ul style="list-style-type: none"> <li>• Year</li> <li>• <b>Meeting</b></li> <li>• Location</li> <li>• Title of the talk</li> </ul>	<p><b>2010</b> Tecnologie emergenti per la Genomica funzionale Rome, Italy. November 22 Methods for chromatin tridimensional analysis</p>
<ul style="list-style-type: none"> <li>• Year</li> <li>• <b>Institute</b></li> <li>• Location</li> <li>• Title of the talk</li> </ul>	<p><b>2009</b> University of Naples "Federico II" Naples, Italy. April 7 Mechanisms for the maintenance of epigenetic signatures through DNA replication</p>
<ul style="list-style-type: none"> <li>• <b>Meeting</b></li> <li>• Location</li> <li>• Title of the talk</li> </ul>	<p>First ROC international Workshop on chromatin immunoprecipitation related Techniques Rome, Italy. November 11 Nuclear organization and epigenetic networks</p>

## ORGANIZATION OF SCIENTIFIC MEETINGS

• Year	<b>2017</b>
• Meeting	International Meeting of Laminopathies
• Location	Bologna, April, 6-8
• Year	<b>2016</b>
• Meeting	Le potenzialità dell'epigenetica nella cura delle malattie rare
• Location	Padova October, 26
• Year	<b>2015</b>
• Meeting	Epigen Chromatin Seminars: The use of imaging in epigenetic studies
• Location	Rome, November, 9
• Invited speakers	Maria Elena Torres Padilla, Jop Kind, Maria Matarazzo, Giovanni D'Angelo
• Year	<b>2014</b>
• Meeting	Epigen Chromatin Seminars: Epigenetics: from nuclear structure to cell fate
• Location	Rome, October, 29
• Invited speakers	Susan Gasser, Phil Avner, Marco Foiani, Pier Lorenzo Puri

### Editorial activity

#### Ad Hoc reviewer:

*peer-review journals:* JCB, Experimental Cell Research, Epigenetics & Chromatin, PNAS, PLoS-ONE, NAR, PLoS Genetics, Scientific Reports, BJMMR, JOCES, Cells.

*funding agencies:* The French Muscular Dystrophy Association (AFM-Téléthon), The Austrian Science Fund (FWF)

*Invited Editor* Special issue in "Methods in Molecular Biology" by Springer "The Polycomb group of proteins" N 1480. 2016

### Teaching

2016, 2017	Teacher in Nuclear architecture and transcription at Molecular Biology course, Faculty of Medical Biotechnologies and Molecular Medicine, University of Milan
2012,2013,2014	Teacher in epigenetics and cell differentiation at Cell differentiation course, Faculty of Science, University of Rome
2012	Teacher in epigenetics and cell differentiation at PhD course of Medical Genetics, Rome
2007	Teacher in epigenetics and cell differentiation at "Tasso" High School, Rome Teacher in EMBO Practical Course on Chromatin Immunoprecipitation & Related Techniques, Heidelberg
1999	Teacher in the course of Genetics of Microorganisms, Faculty of Sciences, University of Naples

### PhD students trained

- 1994-present - Supervisor of 6 undergraduate students and actually of two PhD student and 3 Post Doc.  
- Acted as jury member in two PhD thesis defenses in Milan and Rende, Italy.

### List of publications as corresponding Author.

1. Marasca F, Marullo F and **Lanzuolo C**  
"Determination of PcG proteins nuclear compartmentalization through chromatin fractionation procedure"  
*Methods Mol Biol.* 2016; 1480:167-80
  2. Marullo F., Cesarini E., Antonelli L., Gregoretti F., Oliva G. and **Lanzuolo C**  
" Nucleoplasmic Lamin A/C and Polycomb group of proteins: an evolutionarily conserved interplay "  
*Nucleus.* 2016 Mar 1: 1-9
  3. **Lanzuolo C**  
"Impairment of Lamin A/C-Polycomb crosstalk as a possible epigenetic cause of Emery Dreifuss Muscular Dystrophy (EDMD)"  
*Orphanet Journal of Rare Diseases.* 2015 Nov 11; 10(Suppl 2):O10
  4. Cesarini E, Mozzetta C, Marullo F, Gregoretti F, Gargiulo A, Columbaro M., Cortesi A, Antonelli L, Di Pelino S, Squarzone S, Palacios D, Zippo A, Bodega B, Oliva G and **Lanzuolo C**  
"Lamin A/C sustains PcG proteins architecture maintaining transcriptional repression at target genes"  
*J Cell Biol.* 2015 Nov 9;211(3):533-51  
**selected from the journal's editors for an interview**  
(<http://jcb.rupress.org/content/211/3/533/suppl/DC2>)
- commented in a a layman's summary in Atlas of Science:** Lanzuolo C "Control of cell identity by the nuclear architecture" (<http://atlasofscience.org/control-of-cell-identity-by-the-nuclear-architecture/>)
5. Bianchi A and **Lanzuolo C**  
"Into the chromatin world: Role of nuclear architecture in epigenome regulation"  
*AIMS Biophysics* 2015 Oct 27; 2(4): 585-612
  6. **Lanzuolo C** and Orlando V  
"Memories from the Polycomb group of proteins" *Annu Rev Genet* 2012;46:561-89. [review]
  7. **Lanzuolo C**  
"Epigenetic alterations in muscular disorders" *Comp funct genomics* 2012; 2012:256892. [review]
  8. **Lanzuolo C**, Lo Sardo F, Orlando V  
"Concerted epigenetic signatures inheritance at PcG targets through replication" *Cell Cycle* 2012 Apr 1;11(7):1296-300.
  9. **Lanzuolo C**, Lo Sardo F, Diamantini A, Orlando V.  
"PcG complexes set the stage for epigenetic inheritance of gene silencing in early S phase before replication" *PLoS Genet.* 2011 Nov;7(11):e1002370.

### List of publications as First Author.

1. Lo Sardo F\*, **Lanzuolo C**\*, Comoglio F, De Bardi M, Paro R, Orlando V  
"PcG mediated higher order chromatin structures modulate replication programs at the Drosophila BX-C"  
*PloS Genetics* 2013;9(2):e1003283 \* **These authors contributed equally**

2. **Lanzuolo C**, Roure V, Dekker J, Bantignies F, Orlando V.  
"Polycomb response elements mediate the formation of chromosome higher-order structures in the bithorax complex" *Nat Cell Biol.* 2007 Oct 9(10):1167-74
3. **Lanzuolo C** and Orlando V.  
"The function of the epigenome in cell reprogramming" *Cell Mol Life Sci*, 2007 May 64(9):1043-62 [review]
4. Eugster A\*, **Lanzuolo C\***, Bonneton M, Luciano P, Pollice A, Pulitzer JF, Stegberg E, Berthiau AS, Forstemann K, Corda Y, Lingner J, Geli V, Gilson E.  
"The finger subdomain of yeast telomerase cooperates with Pif1p to limit telomere elongation" *Nat Structl Mol Biol.* 2006 Aug 13(8):734-9. \* **These authors contributed equally**
5. **Lanzuolo C.**, Ederle S., Pollice A., Russo F., Storlazzi A. and Pulitzer J.F.  
"The HTL1 gene (YCR020W-b) of *Saccharomyces cerevisiae* is necessary for growth at 37°C, and for the conservation of chromosome stability and fertility" *Yeast* 2001 Oct 18 (14): 1317-1330

### Other publications

1. Bodega B, Marasca F, Ranzani V, Cherubini A, Della Valle F, Neguembor MV, Wassef M, Zippo A, **Lanzuolo C**, Pagani M and Orlando V  
" A cytosolic Ezh1 isoform modulates PRC2-Ezh1 epigenetic adaptive response in post-mitotic cells " *Nat Structl Mol Biol.* In press
2. Antonelli A, Gregoretti F, Cesarini E, **Lanzuolo C** and Oliva G  
"An Automatic Segmentation Method Combining an Active Contour Model and a Classification Technique for Detecting Polycomb-group Proteins in High-Throughput Microscopy Images" *Methods Mol Biol.* 2016; 1480:181-97
3. Cernilogar F.M., Burroughs A.M., **Lanzuolo C**, Breiling A., Imhof A., Orlando V  
"RNA-interference components are dispensable for transcriptional silencing of the *Drosophila* Bithorax-Complex" *PLoS One* 2013 Jun 13;8(6):e65740
4. De Zio D., Bordi M., Tino E., **Lanzuolo C**, Ferraro E., Mora E., Ciccocanti F., Fimia G.M., Orlando V., Cecconi F.  
"The DNA repair complex Ku70/86 modulates *Apaf1* expression upon DNA damage" *Cell Death Differ.* 2010 Oct 22: 516-527
5. Florio C, Moscariello M, Ederle S, Fasano R, **Lanzuolo C**, Pulitzer JF  
"A study of biochemical and functional interactions of Htl1p, a putative component of the *Saccharomyces cerevisiae*, Rsc chromatin-remodeling complex" *Gene* 2007 Jun 15; 395(1-2): 72-85

*Presto il consenso al trattamento dei dati personali ivi contenuti.*

*Milano, 07 Marzo 2017*

*Firma*

