

EUROPEAN
CURRICULUM VITAE
FORMAT



PERSONAL INFORMATION

Name	LANZUOLO, CHIARA
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PEC	chiara.lanzuolo@pec.it
Nationality	Italian
Date of birth	20 FEBRUARY 1975

WORK EXPERIENCE

- Dates (from – to) September 2015-present
 - Name and address of employer Fondazione INGM – Istituto Nazionale Genetica Molecolare
Milano, Italy.
 - Type of business or sector Non-profit Research Institution
 - Occupation or position held **Head of Chromatin and Nuclear Architecture Unit**
 - Main activities and responsibilities Role of Lamin A/C in epigenetic control of transcription, interplay with PcG proteins, muscle differentiation
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- Dates (from – to) September 2018-present
 - Name and address of employer CNR-Institute of Biomedical Technologies, Milan, Italy
 - Type of business or sector Non-profit Research Institution
 - Occupation or position held **CNR-Researcher III level, permanent position**
 - Main activities and responsibilities Role of Lamin A/C in epigenetic control of transcription, interplay with PcG proteins, muscle differentiation
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- Dates (from – to) December 2013-September 2018
 - Name and address of employer CNR-Institute of Cell Biology and Neurobiology, Rome, Italy
 - Type of business or sector Non-profit Research Institution
 - Occupation or position held **CNR-Researcher III level, permanent position**
 - Main activities and responsibilities Role of Lamin A/C in epigenetic control of transcription, interplay with PcG proteins, muscle differentiation
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- Dates (from – to) 2012-2015
 - Name and address of employer CNR-Institute of Cell Biology and Neurobiology, Rome, Italy
 - Type of business or sector Non-profit Research Institution
 - Occupation or position held **CNR-Researcher II Level** and Junior group leader as recipient of a starting grant from the Italian Ministry of Research and University
 - Main activities and responsibilities Role of Lamin A/C in epigenetic control of transcription, interplay with PcG proteins, muscle differentiation
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- Dates (from – to) 2009-2012
 - Name and address of employer CNR-Institute of Cell Biology and Neurobiology, Rome, Italy

<ul style="list-style-type: none"> • Type of business or sector • Occupation or position held • Main activities and responsibilities 	<p>Non-profit Research Institution <u>CNR-Researcher III level, fixed term</u> Epigenetic inheritance during the cell cycle.</p>
<ul style="list-style-type: none"> • Dates (from – to) • Name and address of employer <ul style="list-style-type: none"> • Type of business or sector • Occupation or position held • Main activities and responsibilities 	<p>2002-2008 Dr. Valerio Orlando' s laboratory, Telethon Foundation, Naples, Italy Non-profit Research Institution Post Doc Chromatin higher order structures, gene regulation. Function of the PcG regulated chromosomal loops in transcription</p>
<ul style="list-style-type: none"> • Dates (from – to) • Name and address of employer <ul style="list-style-type: none"> • Type of business or sector • Occupation or position held • Main activities and responsibilities 	<p>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</p>
<ul style="list-style-type: none"> • Dates (from – to) • Name and address of employer <ul style="list-style-type: none"> • Type of business or sector • Occupation or position held • Main activities and responsibilities 	<p>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.</p>
<ul style="list-style-type: none"> • Dates (from – to) • Name and address of employer <ul style="list-style-type: none"> • Type of business or sector • Occupation or position held • Main activities and responsibilities 	<p>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</p>
<ul style="list-style-type: none"> • Dates (from – to) • Name and address of employer <ul style="list-style-type: none"> • Type of business or sector • Occupation or position held • Main activities and responsibilities 	<p>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</p>
<ul style="list-style-type: none"> • Dates (from – to) • Name and address of employer <ul style="list-style-type: none"> • Type of business or sector • Occupation or position held • Main activities and responsibilities 	<p>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</p>

EDUCATION AND TRAINING

<ul style="list-style-type: none"> • Dates (from – to) • Name and type of organisation • Title of qualification awarded 	<p>2017-2023 Italian Ministry of Research and University (MIUR) Abilitazione Scientifica Nazionale-II level- Genetics-05/I1</p>
<ul style="list-style-type: none"> • Dates (from – to) • Name and type of organisation • Title of qualification awarded 	<p>2017-2023 Italian Ministry of Research and University (MIUR) Abilitazione Scientifica Nazionale-II level- Applied Biology-05/F1</p>
<ul style="list-style-type: none"> • Dates (from – to) • Name and type of organisation • Title of qualification awarded 	<p>2017-2023 Italian Ministry of Research and University (MIUR) Abilitazione Scientifica Nazionale-II level- Molecular Biology-05/E2</p>
<ul style="list-style-type: none"> • Dates (from – to) • Name and type of organisation • Principal occupational • Title of qualification awarded 	<p>1998-2002 Ecole Normale Superieure Lyon, France and University of Naples, Italy Ph.D. thesis Ph.D.</p>
<ul style="list-style-type: none"> • Dates (from – to) • Name and type of organisation • Principal occupational • Title of qualification awarded 	<p>1993-1998 University of Naples, Italy Undergraduate studies in Biological Science Degree in Biological Science, 110/110 cum laude</p>

CAREER BREAKS

<ul style="list-style-type: none"> • Dates (from – to) • Justification 	<p>12/2012-10/2013 High-risk pregnancy/Maternal leave</p>
<ul style="list-style-type: none"> • Dates (from – to) • Justification 	<p>10/2009-07/2010 High-risk pregnancy/Maternal leave</p>
<ul style="list-style-type: none"> • Dates (from – to) • Justification 	<p>06/2003-01/2004 High-risk pregnancy/Maternal leave</p>

MOTHER TONGUE ITALIAN

OTHER LANGUAGES

<ul style="list-style-type: none"> • Reading skills • Writing skills • Verbal skills 	<p>ENGLISH EXCELLENT EXCELLENT EXCELLENT</p>
<ul style="list-style-type: none"> • Reading skills • Writing skills • Verbal skills 	<p>FRENCH GOOD BASIC GOOD</p>

AWARDED GRANTS

- Dates (from – to) 2018-2021
- Name of the organization Cariplo Foundation
 - Call identifier **Ricerca malattie invecchiamento-2017-0649**
- Title of the project Dissecting the role of heterochromatin conformation in age-related sarcopenia and frailty
- Amount founded 193.650 €

- Dates (from – to) 2017-2018
- Name of the organization Italian Ministry of Research and University (MIUR)
 - Call identifier **Interomics Flagship Project**
- Title of the project Deciphering the role of heterochromatin conformation in prostate cancer progression
- Amount founded 45.000 €

- 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)
- Amount founded 59.600 €

- 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
- Amount founded 225.000 €

- 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)
- Amount founded 357.613 €

- 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
- Amount founded 287.000 €

- 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
- Amount founded 850.400 €

INVITED PRESENTATION
(including only personal invitations)

- Year
 - **Meeting**
 - Location
 - Title of the talk

 - **Meeting**
 - Location
 - Title of the talk

 - Year
 - **Meeting**
 - Location
 - Title of the talk

 - **Meeting**
 - Location
 - Title of the talk

 - Year
 - **Institute**
 - Location
 - Title of the talk

 - **Institute**
 - Location
 - Title of the talk

 - **Institute**
 - Location
 - Title of the talk

 - **Meeting**
 - Location
 - Title of the talk

 - **Meeting**
 - Location
 - Title of the talk
- 2019**
9th Nuclear Envelope Disease and Chromatin Organization meeting and 3rd International Meeting on Laminopathies joint conference
London, England, September 2-5
TBD
- Myogenesis Gordon Research Conference
Lucca, Italy, June 9-14
Lamin A/C safeguards Polycomb-mediated epigenetic control of muscle stem cells identity and regenerative capacity
- 2018**
International Meeting of the German Society for Cell Biology (DGZ)
Postam, Germany, July 25-28
Dysfunctional programming of muscle stem cells in Emery Dreifuss Muscular Dystrophy (EDMD)
- Berlin Meeting on Myogenesis and Muscle Disease
Berlin, Germany, April 23-27
Chromatin landscapes define dysfunctional programming of muscle stem cells in Emery Dreifuss Muscular Dystrophy
- 2017**
Ceinge Institute
Naples, Nov 8
Dysfunctional chromatin landscapes in laminopathies
- Università degli studi di Napoli Federico II
Naples, Nov 7
Dysfunctional chromatin landscapes in laminopathies
- Institute for Research on Cancer and Aging (IRCAN)
Nice, France, April 12
Dysfunction of muscle stem cells as a determinant of Emery Dreifuss Muscular Dystrophy (EDMD)
- International Meeting on Laminopathies
Bologna April 6-8
Dysfunction of muscle stem cells as a determinant of Emery Dreifuss Muscular Dystrophy (EDMD)
- 1st qBio mini-Workshop
IFOM-IEO February 20-21
Nuclear architecture dynamics in biological processes and disease

<ul style="list-style-type: none"> • Year • Institute • Location • Title of the talk 	<p>2016 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"> • Meeting • Location • Title of the talk 	<p>12th 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"> • Meeting • Location • Title of the talk 	<p>Chromatin, epigenome & 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"> • Year • Institute • Location • Title of the talk 	<p>2015 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"> • Meeting • Location • Title of the talk 	<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"> • Meeting • Location • Title of the talk 	<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"> • Year • Institute • Location • Title of the talk 	<p>2014 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"> • Institute • Location • Title of the talk 	<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"> • Year • Meeting • Location • Title of the talk 	<p>2013 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"> • Institute • Location • Title of the talk 	<p>Institute of Protein Biochemistry, CNR Naples, Italy. June 14 Epigenetics and nuclear structures: The role of Lamin A in muscle differentiation</p>

- **Institute** | Institute of Molecular Biology and Pathology, CNR
- Location | Rome Italy. February 4
- Title of the talk | Epigenetics and nuclear structures: The role of Lamin A in muscle differentiation

- Year | **2012**
- **Meeting** | Joint meeting: PhD in Phylosophy, Torvergata and PhD in Cellular and Molecular Biology
- Location | Rome, Italy. October, 4
- Title of the talk | Biodiversity as human genome interpretation

- **Institute** | European laboratory of Non-Linear Spectroscopy, LENS
- Location | Florence, Italy. July, 3
- Title of the talk | Epigenetics in disease and cancer

- **Institute** | Institute of Genetics and Biophysics, CNR
- Location | Naples, Italy. January, 30
- Title of the talk | The inheritance of epigenetic signatures during DNA replication

- Year | **2011**
- **Institute** | Institute of Cellular Biology, CNR
- Location | Rome, Italy. November 15
- Title of the talk | The inheritance of epigenetic signatures during DNA replication

- Year | **2010**
- **Meeting** | Tecnologie emergenti per la Genomica funzionale
- Location | Rome, Italy. November 22
- Title of the talk | Methods for chromatin tridimensional analysis

- Year | **2009**
- **Institute** | University of Naples "Federico II"
- Location | Naples, Italy. April 7
- Title of the talk | Mechanisms for the maintenance of epigenetic signatures through DNA replication

- **Meeting** | First ROC international Workshop on chromatin immunoprecipitation related Techniques
- Location | Rome, Italy. November 11
- Title of the talk | Nuclear organization and epigenetic networks

ORGANIZATION OF SCIENTIFIC MEETINGS

- Year | **2017**
- Meeting | International Meeting of Laminopathies
- Location | Bologna, April, 6-8

- Year | **2017**

• Meeting	Unistem Day 2017
• Location	INGM, Milan, March, 17
• Year	2016
• Meeting	Le potenzialità dell'epigenetica nella cura delle malattie rare
• Location	Padova October, 26
• Year	2015
• 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	2014
• 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, Nature Communications, Genome Research, Experimental Cell Research, Epigenetics & Chromatin, PNAS, NAR, PLoS-ONE, PLoS Genetics, Scientific Reports, Faseb J, BJMMR, JOCES, IJMS, Cells.

funding agencies: The French Muscular Dystrophy Association (AFM-Téléthon), The Austrian Science Fund (FWF), Canadian NSERC Discovery Grant proposal, Agence nationale de la recherche (ANR)

Invited Editor

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

Special issue in "Methods in Molecular Biology" by Springer "Capturing Chromosome Conformation", May 2019

List of publications as corresponding Author.

1. Bianchi A, Manti PG, Lucini F and **Lanzuolo C**
"Mechanotransduction, nuclear architecture and epigenetics in Emery Dreifuss Muscular Dystrophy: tous pour un, un pour tous."
Nucleus 2018; Jan 1: 276-290
2. Marasca F, Marullo F and **Lanzuolo C**
"Determination of PcG proteins nuclear compartmentalization through chromatin fractionation procedure"
Methods Mol Biol. 2016; 1480:167-80
3. Marullo F., Cesarini E., Antonelli L., Gregoretto 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
4. **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

5. Cesarini E, Mozzetta C, Marullo F, Gregoretti F, Gargiulo A, Columbaro M., Cortesi A, Antonelli L, Di Pelino S, Squarzoni 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 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/>)

6. 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

7. **Lanzuolo C** and Orlando V

"Memories from the Polycomb group of proteins" *Annu Rev Genet* 2012;46:561-89. [review]

8. **Lanzuolo C**

"Epigenetic alterations in muscular disorders" *Comp funct genomics* 2012; 2012:256892. [review]

9. **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.

10. **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. Bernasconi P, Carboni N, Ricci G, Siciliano G, Politano L, Maggi L, Mongini T, Vercelli L, Rodolico C, Biagini E, Boriani G, Ruggiero L, Santoro L, Schena E, Prencipe S, Evangelisti C, Pegoraro E, Morandi L, Columbaro M, **Lanzuolo C**, Sabatelli P, Cavalcante P, Cappelletti C, Bonne G, Muchir A, Lattanzi G. "Elevated TGF β 2 serum levels in Emery-Dreifuss Muscular Dystrophy: Implications for myocyte and tenocyte differentiation and fibrogenic processes" *Nucleus* 2018 Jan 1: 292-304
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 Struct Mol Biol.* 2017 May 24 : 444-452
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

Total number of papers : 19

Total IF :122,361

Number of papers as First, Last, or Corresponding Author (all journals) : 14

Active IF : 94,496

H index : 10

Total number of papers in the last 5 years (2012-2017) : 12

Total IF : 64,226

Number of papers as First, Last, or Corresponding Author (all journals) : 9

Active IF : 46,864

Presto il consenso al trattamento dei dati personali ivi contenuti.

Milano, 28 Febbraio 2017

Firma