Luciano Di Croce, Ph.D.
Centre de Regulacio Genomica - CRG
Aiguader, 88 - Barcelona 08003, Spain
Tel.: + 34 93 3160 132
e-mail: luciano.dicroce@crg.es

PERSONAL

Citizenship	Italian
Birth date	11 April, 1969
Language proficiency	English, Spanish, and Italian

EDUCATION

1992-1996	University of Rome "*La Sapienza*" PhD in Cell Biology *cum laude* Title: "Estrogen influence on cholesterol metabolism"
1988-1992	University of Rome "*La Sapienza*" Bachelor's degree in Biology Awarded the score 110/110 and *honours*.

WORK EXPERIENCE

2021- present	Coordinator of the 'Gene Regulation, Stem Cells, and Cancer' program
2012-2021	Chair of the Graduate Program at Center for Genomic Regulation
2012-present	Senior group leader at Center for Genomic Regulation (CRG), Barcelona, Spain and ICREA Research Professor
2003-2011	Group leader at CRG, Barcelona, Spain and ICREA Research Professor
2000-2003	Senior post-doctoral research position in the laboratory of Molecular Oncology, European Institute of Oncology, Milan, Italy
1996-1999	Post-doctoral research position in the laboratory of Molecular, Biology and Oncology, Philipps-University, Marburg, Germany
1993	Post-graduate research in the Department of Cell. Biol. Development, University of Rome "La Sapienza", Italy
Sept. 1993-Jan. 1994	Research internship in the laboratory of Molecular Pathology University of Naples "Federico II", Italy

AWARDS AND HONOURS

Invited speaker at more than 200 international conferences and seminars.

Selected honours and awards

2022	Editor for *Current Opinion in Genetics & Development* issue on *Cancer Epigenome*
Since 2022	Member for SAB of GENYO (Centre for Genomics and Oncological Research, Granada)
Since 2020	Member for Academic Council of *Barcelona Institute of Science and Technology* – "Dolors Aleu Graduate Center"
Since 2020	Member for SAB of ABCAM Biotech, Cambridge, UK
2018-2022	Coordinator of the EU2020-funded Collaborative project "*ChromDesign*"
Since 2018	Member for SAB of CEINGE Institute, Naples, Italy
Since 2017	External faculty of the PhD programme in "*Complex Systems for Quantitative Biomedicine*" Turin, Italy
2017	Editor for Epigenomes journal issue on "*Polycomb and Trithorax Group of Proteins in Development and Disease*"
2017-2025	ERC Panel Member for the Starting Grant (StG)

Since 2016	Invited professor and co-organizer of the Cold Spring Harbour Laboratories Summer course on *Chromatin, Epigenetics and Transcription* (3 weeks)
Since 2016	Editorial Board of *Cancer Epigenetics* journal
Since 2016	Editorial Board of *Epigenomes* journal
2016	Editor for *Current Opinion in Genetics & Development* issue on *Cancer Epigenome*
2016	Member for SAB of the *Keystone Symposia*
Since 2015	Associate Editor of *Science Advances*
2015	Editor for the *FEBS* Special Issue on *"Epigenetics"*
2014	Member of the evaluation panel of Institute of Human Genetics (IGH), Montpellier
2013	Elected EMBO Member
Since 2013	Editorial Board of *Molecular and Cellular Biology* journal
2011-2016	Coordinator of the EU-funded Collaborative project "*4DCellFate*"
2006	Silver medal from the President of the Italian Republic
2004	Awarded Acad. Natl. Lincei Prize
2003	Awarded ICREA Research Professor position
2001	Awarded European Hematology Association Prize

Conferences and Courses organized

2023 Co-organized the Keystone Symposium on *Chromatin and Epigenetics*, Colorado, USA
2022 Co-organized the 3rd *FUSION Epigenetics Conference*, Cancun, Mexico
2021 Organized the *ChromDesign* meeting, Montpellier, France
2021 Co-organized the Keystone Symposium on *Epigenetics, Chromatin Architecture, Development and Disease*, USA
2020 Co-organized the *2nd Epigenetics Conference*, Nassau, Bahamas
2019 Organized the *ChromDesign* meeting, Copenhagen, Denmark
2018 Co-organized the *Epigenetics: from mechanisms to disease*, Cancun, Mexico
2017 Co-organized the *Epigenetics in Clinical and Translational Research*, Helsinki, Finland
2017 Co-organized the course on *CRISPR/Cas9Tool: From Gene to function*, Barcelona
2016 Co-organized the ABCAM Meeting on *Stem Cell and Higher-Order Chromatin Structure*, Taormina, Italy
2016 Co-organized the *Chromatin and the Environment* Summer School, Spetses, Greece
2016 Co-organized the Keystone Symposium on *Chromatin & Epigenetics*, Canada
2015 Co-organized *Coding and non-coding functions of the genome*, Barcelona, Spain
2015 Co-organized *EACR Basic Epigenetic Mechanisms in Cancer*, Berlin, Germany
2015 Organized the Cell Journal Symposium on *Stem Cell Epigenetics*, Sitges, Spain
2015 Co-organized the FASEB meeting on *Transcription, Chromatin and Epigenetics*, Miami, USA
2014 Co-organized the *EpiGeneSys* meeting, Barcelona, Spain
2013 Co-organized the *Chromatin and Systems Biology* Summer School, Spetses, Greece
2013 Organized *Epigenetics in Cancer: From Bench to Computer*, CRG, Barcelona
2012 Co-organized the *Chromosomes, Stem Cell and Disease* meeting, CRG, Barcelona
2009 Co-organized the *Stem Cell, Differentiation, and Cancer* meeting, CRG, Barcelona
2003 Co-organized the *Cell Reprogramming and Epigenetic* meeting, in Barcelona

Selected invitations to speak at conferences *(since 2014)*

2022

- Epigenetics and Cancer Symposium (Miami, USA) – November 2022
- "*Epigenetics and Epigenomics in Health and Disease*", Brussels, Belgium, November 2022
- FASEB meeting on "*Chromatin and aging*", Sicily, Italy, September 2021
- Lecture at "*Helmholtz Sumer School on Chromatin Biology*" Munich, Germany, August 20221
- "*Frontiers in Stem Cell Epigenetics*", Milan, Italy – July 2021
- *FUSION: From Mechanisms to Disease* Conference, Cancun, Mexico – May 2022
- *Keystone symposium on Epigenetics, Chromatin, and Disease* ,USA – February 2022

2021

- IGH Annual Workshop in "Epigenetics", Montpellier, France, November 2021

- "*Epigenetic Mechanisms & Human Disease Meeting*", USA, October 2021
- EMBL Conference: Chromatin and Epigenetics, Heidelberg, Germany – May 2021
- Virtual symposium on "*Epigenetics in Cancer*", Brunel University London, May 2021
- *"Epigenetics and signalling in stem cells"*", University of Varna, Bulgaria, April 2021

2020

- *Keystone symposium on Cancer Epigenetics in Therapy* (Colorado, USA)
- *FUSION: From Mechanisms to Disease* Conference (Nassau, Bahamas) – March 2020
- *Epigenetic Pathways and Human Disease* Conference (Chania, Crete) – April 2020
- *EMBL Conference: Transcription and Chromatin* (Heidelberg, Germany) – August 2020
- Epigenetics and Cancer Symposium (Miami, USA) – November 2020

2019

- *Cell* journals Symposia on *Transcription, Development, and Disease* (Chicago, USA)
- *Abcam Epigenetics Conference* (Taipei, Taiwan)
- Keynote speaker at *Epigenetics and Bioengineering* (Barcelona, Spain)

2018

- EMBO Meeting on From Epigenome towards Epitranscriptome (Capri, Italy)
- Stem cell Epigenetics FEBS (Prague, Czech Republic)
- Fusion Meeting on *Epigenetics: From Mechanisms to Disease* (Cancun, Mexico)
- Keystone Symposia on *Cancer Epigenetics* (Colorado, USA)

2017

- Chromosome Structure and Epigenetic modifications FEBS (Jerusalem, Israel)
- ABCAM Epigenetic Regulatory Pathways (Seoul, South Korea)
- Cancer Genetics and Epigenetics Gordon Research Conference (Barga, Italy)
- Keystone Symposia on *Epigenetics and Human Disease* (Seattle, Washington, USA)

2016

- *Cancer Epigenetics* Symposium (Miami, USA)
- ABCAM Meeting on *Stem Cell and Higher-Order Chromatin Structure* (Taormina, Italy)
- *Chromatin and the Environment* Summer School (Spetses, Greece)
- Frontiers in Molecular Biology (Napoli, Italy)
- Cold Spring Harbor Asia meeting on *Chromatin, Epigenetics and Transcription* (Suzhou, China)
- *Biological and Clinical Frontiers in Epigenetics* (San Juan, Puerto Rico)
- 12th Course on Epigenetics (Paris, France)
- Keystone Symposia on *Chromatin and Epigenetics* (Whistler, British Columbia, Canada)
- Keystone Symposium on *Noncoding RNAs in Health and Disease* (Santa Fe, New Mexico, USA)

2015

- ABCAM meeting on *Chromatin: Structure and Function* (Grand Cayman Island)
- *Basic Epigenetic Mechanisms in Cancer* (Max Plank Institute, Berlin, Germany)
- *Coding and non-coding functions of the genome* (CosmoCaixa, Barcelona, Spain)
- Keynote Speaker at ABCAM Meeting *Chromatin Snapshot* (Boston, USA)
- Cell Symposia: *Stem Cell Epigenetics* (Sitges, Spain)
- *The Eukaryotic Gene Expression Course* (Spring Harbor Laboratory, New York, USA)
- FASEB meeting on *Transcription, Chromatin, and Epigenetics* (West Palm Beach, Florida, USA)
- EU-LIFE Scientific Workshop: *Epigenetics and Disease* (BRIC, Copenhagen, Denmark)
- Keystone Symposium on *Epigenetics and Cancer* (Colorado, USA)
- Epigenesys Annual Meeting (CRG, Barcelona, Spain)

2014

- Miami *Epigenetics & Cancer* Symposium (University of Miami, Miami, USA)
- EMBO 50th Anniversary Members Meeting 2014 (EMBL, Heidelberg, Germany)
- 11th EMBL Conference: *Transcription and Chromatin* (EMBL, Heidelberg, Germany)
- FASEB meeting on *Biological Methylation: Regulation of Chromatin, Epigenetics, and Disease* (Nassau, Bahamas)

Referee for the following journals

Science, Science Advances, Nature, Cell, Cancer Cell, Cell Stem Cell, Molecular Cell, Cell Reports, Nature Medicine, Nature Cell Biology, Genes & Development, Nature Structural Mol Biology, Nature Communications, eLIfe, EMBO Journal, EMBO Reports, PLOS Genetics, Mol. Cell. Biol, Genome Research, Cancer Research, Hum Mol Gen, Oncogene, Nucleic Acid Research …

Reviewer for the following funding associations

ERC (EU), AICR (UK), HFSP (EU), AIRC (Italian), ANEP and MEC (Spanish), FONCyT (Argentinean), ARC (French), NWO (Dutch), Swiss National Science Foundation, Leukaemia & Lymphoma Research (UK)

Member of the following societies

European Molecular Biology Organization (EMBO)
European Hematology Association (EHA)
American Association Cancer Research (AACR)

LAB MEMBERS

Post-docs

Sergi Aranda
Pau Pascual Garcia
Cecilia Ballare
François Le Dily
Enrique Blanco (Computer Scientist)

Technician

Arantxa Gutierrez

PhD Students

Gianni Paolo Gamarra Figueroa
Livia Condemi
Ivano Mocavini
Maria Micol Ruiz Paez

To date, several post-docs who have left my lab are now group leaders (in UK, Germany, Austria, Spain, and the USA). All are working at the interface between human disease and epigenetics. A further five former post-docs are performing a second post-doc.
All previous PhD students in my lab successfully accomplished their formation and have obtained internationally competitive post-doc fellowships to join prestigious European groups working in the field of transcription.

RECENT FUNDING

"*la Caixa*" Health Research in Oncology	2021-2023	420.000€
Spanish National grant (BFU)	2020-2023	447.700€
AECC	2021-2025	100.000€
CRG "Translational Call"	2020-2021	50.000€
EU H2020 "*EASI-Genomics*"	2020	53.000€
EU ITN "ChromDesign"	2018-2022	771.758€
Catalan regional grant (SGR)	2018-2021	42.000€
Spanish national grant (BFU)	2016-2019	484.000€
FUNDELA *Foundation*	2017-2018	30.000€
EU FP7 "4DCellFate"	2012-2016	2.207.396€
Vencer el Cancer (VEC)	2014- open	50.000€

Pending:

1) ERC Synergy Grant *"De-calibrating the compass of tumor cells"*, submitted November 2021
2) 'CaixaResearch Health' *"Artificial Intelligence analysis of Super Resolution microscopy images of chromatin to diagnosis pre-leukemia"*, submitted November 2021

Dissemination of results and teaching

In the past four years, I have been invited to numerous international meetings/symposia and seminars (> 200). As reported above, I also organized (and will organize) several international meetings.
I have been continuously involved in teaching at both undergraduate and master/PhD schools, including courses in Barcelona (CRG, UPF, UB, and UAB), Utrecht, Paris (*Curie* Institute), Turin, and Rome.
I was invited to CSH (USA) to give a 2-day lesson at the summer course on "*Chromatin, Epigenetics and Transcription*" in 2014 and 2015. Since 2016, I have been teaching and co-coordinating the course for its entire duration (3 weeks).

Collaborations

External

Salvador Aznar-Benitah (IRB, Barcelona): Chromatin changes during aging (Solá et al, ***Nature Aging****, submitted*)
Nogales Eva (UC Berkeley, US): Variation of PRC2 structure – *ongoing*
Zhouchun (Shane) Shang (MGI, BGI-Shenzhen, China): Mechanisms of leukemogenesis – *ongoing*
Laue Ernest (Cambridge, UK): Role of NuRD in chromatin topology (Basu et al, ***NSMB***, *in revision*)
Mora Jaume (Sant Joan de Deu Hospital): Oncohistone in pediatric cancer - *ongoing*
Peiro Sandra (Vall d'Hebron Hospital, Spain): Histone modification in cancer (***Nature Comm***, *in revision*)
Minucci Saverio (IEO, Milan): Chromatin factors in leukemia - *ongoing*

CRG Internal

Marti-Renom MA: Polycomb and chromatin architecture (Mas et al, ***Genes & Dev****, 2nd revision*)
Cosma Pia: Cell cycle and heterochromatin (Sebastian-Perez et al, ***Science Advances****, 2nd revision*)
Payer Berni: Role of EPOP during animal development – *ongoing*
Irimia Manuel: variation of PRC2 complex during differentiation– *ongoing*

Other activities at the CRG (2012-2022)

- Coordinator (together with F Gebauer) of the 'Gene regulation, Stem Cells and Cancer Program'
- Member of the Direction Board
- Chair, Graduate Committee (2009-2021)
- Chair, Administration Committee
- Co-Chair of the BiST Master in "*Multidisciplinary Research In Experimental Sciences*"
- Member of:
  - Biosecurity Committee
  - IT & Communication Committee
  - Genomics Facility Advisory Committee
  - Biomolecular Screening & Protein Technologies Facility Advisory Committee
  - PhD student interview panel
  - Several selection committees for CRG positions, including for Group Leader, Head of Human Resources, Training Manager, and Head of Core Facilities
  - 18 PhD thesis committees
  - The CRG Post-Doc Mentoring Program

PUBLICATIONS

1. Aranda S, Alcaine-Colet A, Ballaré C, Blanco E, Mocavini I, Sparavier A, Borràs E, Sabidó E, **Di Croce L**. Thymine DNA glycosylase (TDG) controls cell cycle–driven p53 transcriptional control in pluripotent cells. ***Nature Cell Biol,*** *submitted*.
2. Solá P, Mereu E, Bonjoch J, Casado M, Reina O, Blanco E, Esteller M, Heyn H, Di Croce L, Solanas G, Benitah SA. Local IL-17 orchestrates skin aging. ***Nature Aging***, submitted.
3. Basu S, Shukron O, Ponjavic A, Parruto P, Boucher W, Zhang W, Reynolds N, Lando D, Shah D, Sober LH, Jartseva A, Ragheb R, Cramard J, Floyd R, Brown G, Gor K, Balmer J, Drury TA, Carr AR, Needham L-M, Aubert A, Communie G, Morey L, Blanco E, Barber MA, Mohorianu I, Bartke T, Di Croce L, Berger I, Schaffitzel C, Lee SF, Stevens TJ, Klenerman D, Hendrich BD, Holcman D, Laue ED. Live-cell 3D single-molecule tracking reveals how NuRD modulates enhancer dynamics. ***Nature Struct. Mol. Biol,*** *2nd revision*.
4. Sebastian-Perez R, Aranda S, Nakagawa S, Pesaresi M, Di Vicino U, Aurelio Gomez-Garcia P, Alcoverro-Bertran M, Gomez-Vazquez JL, Borràs E, Sabidó E, **Di Croce L**, Cosma MP. Cell cycle arrest controls de novo heterochromatin formation in the transition from 2C-like state to pluripotency. ***Science Advances***, *2nd revision*.
5. Serra-Bardenys G, Tian T, Blanco E, Querol J, Pascual-Reguant L, Morancho B, Escorihuela M, Segura-Bayona S, Verde G, Aiese Cigliano R, Millanes-Romero A, Jerónimo C, Nuciforo P, Simonetti S, Viaplana C, Dienstmann R, Saura C, Peg V, Stracker T, Arribas J, Villanueva J, Di Croce L, García de Herreros A, Peiró S. Maintaining oxidized H3 in heterochromatin is required for the oncogenic capacity of triple-negative breast cancer cells. ***Nature Communications,*** *submitted*.
6. Aranda S and **Di Croce L**. Isolation of chromatin proteins by genome capture. Book chapter for: Polycomb Group Proteins: Methods and Protocols, *Second Edition*. Book series in Methods in Molecular Biology, *submitted*.
7. Blanco E, Ballaré C, **Di Croce L***, Aranda S*. Quantitative comparison of multiple chromatin immunoprecipitation-sequencing (ChIP-seq) experiments with spikChIP. Book chapter for: Computational Epigenomics and Epitranscriptomics. Book series in Methods in Molecular Biology, *submitted*. * = co-corresponding authors
8. García-Eguren G, González-Ramírez M, Vizán P, Giró O, Vega-Beyhart A, Boswell L, Mora M, Halperin I, Carmona F, Gracia M, Casals G, Squarcia M, Enseñat J, Vidal O, Di Croce L, Hanzu FA (2022). Glucocorticoid-induced Fingerprints on Visceral Adipose Tissue Transcriptome and Epigenome. ***J Clin Endocrinol Metab,*** 107,150-166. *doi:10.1210/clinem/dgab662.*
9. Blanco E, González-Ramírez M, **Di Croce L** (2021) Productive visualization of high-throughput sequencing data using the SeqCode open portable platform. ***Scientific Reports***, *11,19545*.
10. González-Ramírez M, Ballare C, Mugianesi F, Beringer M, Santanach A, Blanco E, **Di Croce L** (2021) Differential contribution to gene expression prediction of histone modifications at enhancers or promoters. ***PloS Computational Biology***, *17, e1009368*.
11. Sreenivasan K, Rodríguez-delaRosa A, Kim J, Mesquita D, Segalés J, Arco PG, Espejo I, Ianni A, **Di Croce L**, Relaix F, Redondo JM, Braun T, Serrano AL, Perdiguero E, Muñoz-Cánoves P (2021) CHD4 ensures stem cell lineage fidelity during skeletal muscle regeneration. ***Stem Cell Reports***, 16, 2089-2098.
12. Blanco E, **Di Croce L***, Aranda S* (2021) SpikChIP: a novel computational methodology to compare multiple ChIP-seq using spike-in chromatin. ***NAR Genom Bioinform***. 3, lqab064. * = co-corresponding authors
13. García-Pérez R, Esteller-Cucala P, Mas G, Lobón I, Di Carlo V, Riera M, Kuhlwilm M, Navarro A, Blancher A, **Di Croce L**, Gómez-Skarmeta JL, Juan D, Marquès-Bonet T (2021) Epigenomic profiling of primate lymphoblastoid cell lines reveals the evolutionary patterns of epigenetic activities in gene regulatory

architectures. ***Nature Communications***, *12, 3116.*

14. García-Montolio M, Ballaré C, Blanco E, Gutiérrez A, Aranda S, Gómez A, Kok CH, Yeung DT, Hughes TP, Vizán P, **Di Croce L** (2021) Polycomb Factor PHF19 Controls Cell Growth and Differentiation Toward Erythroid Pathway in Chronic Myeloid Leukemia Cells. **Front Cell Dev Biol** *9, 655201*.

15. Vizán P, **Di Croce L***, Aranda S***** (2021) Functional and Pathological Roles of AHCY. **Front Cell Dev Biol** *9, 654344*. *** =** *co-corresponding authors*

16. Alcalá-Vida R, Garcia-Forn M, Castany-Pladevall C, Creus-Muncunill J, Ito Y, Blanco E, Golbano A, Crespí-Vázquez K, Parry A, Slater G, Samarajiwa S, Peiró S, **Di Croce L**, Narita M, Pérez-Navarro E (2021) Neuron-specific increase in lamin B1 disrupts nuclear function in Huntington's disease. ***EMBO Molecular Medicine,*** *13, e12105*.

17. Fico A, **Di Croce L,** Matarazzo MR (2020) Interplay between DNA and RNA Modifications: A Constantly Evolving Process. ***Epigenomes***, *4, 26*.

18. Espejo I, **Di Croce L*,** Aranda S***** (2020) The changing chromatome as a driver of disease: A panoramic view from different methodologies. ***BioEssays***, *42, e2000203.* *** =** *co-corresponding authors*

19. Sánchez-Molina S, Figuerola E, Blanco E, Sánchez M, Gómez S, Ballaré C, García-Domínguez DJ, Prada E, Hontecillas-Prieto L, Montero-Carcaboso Á, Tirado ÓM, de Álava E, Hernández-Muñoz I, Lavarino C, **Di Croce L***, Mora J*. (2020) RING1B recruits EWSR1-FLI1 and cooperates in the remodeling of chromatin necessary for Ewing sarcoma tumorigenesis. ***Science Advances***, *6, eaba3058.* *** =** *co-corresponding authors*

20. Mocavini I, **Di Croce L** (2020) RNA closing the Polycomb circle. ***Nature Genetics***, *52, 866-867*.

21. Vizán P, Gutiérrez A, Espejo I, García-Montolio M, Lange M, Carretero A, Lafzi A, de Andrés-Aguayo L, Blanco E, Thambyrajah R, Graf T, Heyn H, Bigas A, **Di Croce L**. (2020) The Polycomb-Associated Factor Phf19 Controls Hematopoietic Stem Cell Status and Differentiation. ***Science Advances***, *6, eabb2745*.

22. Aranda S and **Di Croce L.** (2020) The Pluripotent Cell Cycle. In: "*Stem Cell Epigenetics*" (Elsevier), *17, 115-130*.

23. Martone J, Lisi M, Castagnetti F, Rosa A, Di Carlo V, Blanco E, Setti A, Mariani D, Colantoni A, Santini T, perone L, **Di Croce L** and Bozzoni I. (2020) Inherited epigenetic repression of the Celf2a splicing factor mediates the amelioration of a Duchenne phenotype. ***EMBO Molecular Medicine****, 12, e12063*.

24. Jain P, Ballaré C, Blanco E, Vizán P, **Di Croce L**. (2020) PHF19 mediated regulation of proliferation and invasiveness in prostate cancer. ***eLife***, *9, e51373*.

25. Aranda S, Borràs E, Sabidó E, **Di Croce L.** (2020) Chromatin-bound proteome profiling by genome capture. ***STAR Protocols***, *1, e100014*.

26. Blanco E, González-Ramírez M, Alcaine-Colet A, Aranda S, **Di Croce L**. (2020) The Bivalent Genome: Characterization, Structure, and Regulation. ***Trends in Genetics***, *36,118-131*.

27. Chammas P, Mocavini I, **Di Croce L.** (2020) Engaging chromatin: PRC2 structure meets function. ***British Journal of Cancer***, *122, 315–328*.

28. Aranda S and **Di Croce L** (2019) Cancer epigenetics: Inhibitory protein puts a lid on an epigenetic marker. ***Nature***, *573, 38-39*.

29. Castaño J, Aranda S, Bueno C, Calero-Nieto FJ, Mejia-Ramirez E, Blanco E, Wang X, Prieto C, Zabaleta L, Rovira M, Göttgens B, **Di Croce L**, Menendez P, Raya A, Giorgetti A. (2019) GATA2 promotes hematopoietic development and represses cardiac differentiation of human mesoderm. ***Stem Cell Reports***, *13, 515-529.*

30. Ji Y, Fioravanti J, Zhu W, Wang H, Wu T, Hu J, Lacey NE, Gautam S, Le Gall JB, Yang X, Hocker JD, Escobar TM, He S, Dell'Orso S, Hawk NV, Kapoor V, Telford WG, **Di Croce L**, Muljo SA, Zhang Y, Sartorelli V, Gattinoni L (2019) miR-155 harnesses Phf19 to potentiate cancer immunotherapy through epigenetic reprogramming of CD8+ T cell fate. ***Nature Communications***, *10, 2157*.

31. Aranda S, Alcaine-Colet A, Blanco E, Borràs E, Caillot C, Sabidó E, **Di Croce L** (2019) Chromatin capture links the metabolic enzyme AHCY to stem cell proliferation. ***Science Advances***, *5, eaav244.*

32. Di Carlo V, Moncavini I, **Di Croce L** (2019) Polycomb complexes in normal and malignant hematopoiesis. ***J Cell Biology***, *218, 55-69*.

33. Mas G, Blanco E, Ballaré C, Sansó M, Spill YG, Hu D, Aoi Y, Le Dily F, Shilatifard A, Marti-Renom MA*, **Di Croce L*** (2018) Promoter bivalency favors an open architecture of the stem cell genome. ***Nature Genetics*****,** *50,1452-1462*. **** =*** *co-corresponding authors*

34. Sardina JL, Collombet S, Tian TV, Gómez A, Di Stefano B, Berenguer C, Brumbaugh J, Stadhouders R, Segura-Morales C, Gut M, Gut IG, Heath S, Aranda S, **Di Croce L**, Hochedlinger K, Thieffry D, Graf T (2018) Transcription factors drive Tet2-mediated enhancer demethylation to reprogram cell fate. ***Cell Stem Cell***, *23, 727-741*.

This manuscript is highlighted in:
The Battle between TET Proteins and DNA Methylation for the Right Cell: Trends in Cell Biol, 28, 973-975.

35. Pascual-Reguant L, Blanco E, Galan S, Le Dily F, Cuartero Y, Serra-Bardenys G, Di Carlo V, Iturbide A, Cebrià-Costa JP, Nonell L, de Herreros AG, **Di Croce L**, Marti-Renom MA, Peiró S (2018) Genome-wide mapping of lamin B1 reveals the existence of dynamic and functional euchromatin lamin B1 domains (eLADs) ***Nature Communications****, 9, 3420*.

36. Conway E, Jerman E, Healy E, Ito S, Holoch D, Oliviero G, Deevy O, Glancy E, Fitzpatrick DJ, Mucha M, Watson A, Rice AM, Chammas P, Huang C, Pratt-Kelly I, Koseki Y, Nakayama M, Ishikura T, Streubel G, Wynne K, Hokamp K, McLysaght A, Ciferri C, **Di Croce L**, Cagney G, Margueron R, Koseki H, Bracken AP (2018) A New Family of Vertebrate Specific Polycomb Proteins Encoded by the LCOR and LCORL Gene Loci Balance PRC2 Subtype Activities. **Molecular Cell**, *70, 408–421*.

37. Santanach A, Blanco E, Jiang H, Molloy KR, Sansó M, LaCava J, Morey L, **Di Croce L** (2017) The Polycomb group protein CBX6 is an essential regulator of embryonic stem cell identity. ***Nature Communications****, 8, 1235*.

38. Schuettengruber B, Bourbon HM, **Di Croce L***, Cavalli G* (2017) Genome Regulation by Polycomb and Trithorax. ***Cell****, 171, 34-57*. **** =*** *co-corresponding authors*

39. Stevens TJ, Lando D, Basu S, Atkinson LP, Cao Y, Lee SF, Leeb M, Wohlfahrt KJ, Boucher W, O'Shaughnessy-Kirwan A, Cramard J, Faure AJ, Ralser M, Blanco E, Morey L, Sansó M, Palayret MG, Lehner B, **Di Croce L**, Wutz A, Hendrich B, Klenerman D, Laue ED (2017) 3D structures of individual mammalian genomes studied by single-cell Hi-C. ***Nature,*** *544, 59-64*.

40. Hu D, Gao X, Cao K, Morgan MA, Mas G, Smith ER, Volk AG, Bartom ET, Crispino JD, **Di Croce L**, Shilatifard A (2017) Not All H3K4 Methylations Are Created Equal: Mll2/COMPASS Dependency in Primordial Germ Cell Specification. ***Molecular Cell,*** *65, 460-75.*

41. Pascual G, Avgustinova A, Mejetta S, Martín M, Castellanos A, Attolini CS, Berenguer A, Prats N, Toll A, Hueto JA, Bescós C, **Di Croce L**, Benitah SA (2017) Targeting metastasis stem cells through the fatty acid receptor CD36. ***Nature,*** *541, 41-45.*

42. Beringer M, Pisano P, Di Carlo V, Blanco E, Chammas P, Vizán P, Gutiérrez A, Aranda S, Payer B, Wierer M, **Di Croce L** (2016) EPOP Functionally Links Elongin and Polycomb in Pluripotent Stem Cells. ***Molecular Cell,*** *64, 645-58.*

This manuscript was featured on the cover of Mol Cell and highlighted in:
The Dual Role of EPOP and Elongin BC in Controlling Transcriptional Activity. *Mol Cell*, 64, 637-38.

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