

PUBLICATIONS IN PEER REVIEWED INTERNATIONAL JOURNALS

Updated publication list at:

ORCID ID: 0000-0002-9811-3753 (<http://orcid.org/0000-0002-9811-3753>)

Google Scholar user ID: IY9HtQ4AAAAJ (<https://scholar.google.it/citations?user=IY9HtQ4AAAAJ>)

RESEARCH ARTICLES arising from work as a PI - SENIOR AUTHOR (LAST/CORRESPONDING)

1. Pal K, Forcato M, Jost D, Sexton T, Vaillant C, Salviato E, Mazza EMC, Lugli E, Cavalli G, **Ferrari F**. Global chromatin conformation differences in the *Drosophila* dosage compensated chromosome X. *Nature Communications* 2019 Nov 25;10(1):5355.
2. Pal K, Tagliaferri I, Livi CM, **Ferrari F**. HiCBricks: building blocks for efficient handling of large Hi-C datasets. *Bioinformatics*. 2019 Nov 7. pii: btz808.
3. Forcato M, Nicoletti C, Pal K, Livi CM, **Ferrari F***, Bicciato S*. Comparison of computational methods for the analysis of Hi-C data. *Nature Methods*, 2017 Jul; 14(7):679-685. (* co-corresponding/co-last authors)
4. Puccio S, Grillo G, Liciulli F, Severgnini M, Liuni S, Bicciato S, De Bellis G, **Ferrari F***, Peano C*. WoPPER: Webserver for Position Related data analysis of gene Expression in Prokaryotes. *Nucleic Acids Res.*, 2017 July 3; 45(W1):W109–115. Epub 2017 Apr 29 (* co-corresponding/co-last authors)

REVIEW MATERIAL arising from work as a PI - SENIOR AUTHOR

5. Hariprakash JM, **Ferrari F**. Computational biology solutions to identify enhancers-target gene pairs. *Comput Struct Biotechnol J*. 2019 Jun 14;17:821-831.
6. Pal K, Forcato M*, **Ferrari F***. Hi-C analysis: from data generation to integration (Review article) *Biophysical Reviews*, 2018 Dec 20 [Epub ahead of print]. doi: 10.1007/s12551-018-0489-1. (* co-corresponding/co-last authors)

OTHER RESEARCH ARTICLES arising from work as a PI

7. Atashpaz S, Samadi Shams S, Gonzalez JM, Sebestyén E, Arghavanifard N, Gnocchi A, Albers E, Minardi S, Faga G, Soffientini P, Allievi E, Cancila V, Bachi A, Fernández-Capetillo Ó, Tripodo C, **Ferrari F**, López-Contreras AJ, Costanzo V. ATR expands embryonic stem cell fate potential in response to replication stress. *Elife*. 2020 Mar 12;9. pii: e54756
8. Bianchi A, Mozzetta C, Pegoli G, Lucini F, Valsoni S, Rosti V, Petrini C, Cortesi A, Gregoretti F, Antonelli L, Oliva G, De Bardi M, Rizzi R, Bodega B, Pasini D, **Ferrari F**, Bearzi C, Lanzuolo C. Dysfunctional polycomb transcriptional repression contributes to Lamin A/C dependent muscular dystrophy. *J Clin Invest*. 2020 May 1;130(5):2408-2421.
9. De Simone G, Mazza EMC, Cassotta A, Davydov AN, Kuka M, Zanon V, De Paoli F, Scamardella E, Metsger M, Roberto A, Pilipow K, Colombo FS, Tenedini E, Tagliafico E, Gattinoni L, Mavilio D, Peano C, Price DA, Singh SP, Farber JM, Serra V, Cucca F, **Ferrari F**, Orrù V, Fiorillo E, Iannaccone M, Chudakov DM, Sallusto F, Lugli E. CXCR3 Identifies Human Naive CD8(+) T Cells with Enhanced Effector Differentiation Potential. *J Immunol*. 2019 Dec 15;203(12):3179-3189.
10. Brummelman J, Mazza EMC, Alvisi G, Colombo FS, Grilli A, Mikulak J, Mavilio D, Alloisio M, **Ferrari F**, Lopci E, Novellis P, Veronesi G, Lugli E. High-dimensional single cell analysis identifies stem-like cytotoxic CD8(+) T cells infiltrating human tumors. *J Exp Med*. 2018 Oct 1;215(10):2520-2535.

RESEARCH ARTICLES arising from PhD and postdoctoral work - LEAD AUTHOR

11. De Los Angeles A*, **Ferrari F***, Fujiwara Y, Mathieu R, Lee S, Lee S, Tu H, Ross S, Chou S, Nguyen M, Wu Z, Theunissen TW, Powell BE, Imsoonthornruksa S, Chen J, Borkent M, Krupalnik V, Lujan E, Wernig M, Hanna JH, Hochedlinger K, Pei D, Jaenisch R, Deng H, Orkin SH, Park PJ, Daley GQ. Failure to Replicate the STAP Cell Phenomenon. *Nature*, 2015 Sep 24;525(7570):E6-9. (* equal contribution)
12. Biagioli M*, **Ferrari F***, Mendenhall EM, Zhang Y, Erdin S, Vijayvargia R, Vallabh SM, Solomos N, Manavalan P, Ragavendran A, Ozsolak F, Lee JM, Talkowski ME, Gusella JF, MacDonald ME, Park PJ, Seong IS. Htt CAG repeat expansion confers pleiotropic gains of mutant huntingtin function in chromatin regulation. *Hum Mol Genet.*, 2015 May 1;24(9):2442-57. Epub 2015 Jan 8. (* equal contribution)
13. **Ferrari F***, Plachetka A*, Alekseyenko AA*, Jung YL, Ozsolak F, Kharchenko PV, Park PJ, Kuroda MI. "Jumpstart and gain" model for dosage compensation in *Drosophila* based on direct sequencing of nascent transcripts. *Cell Reports*, 2013 Nov 14;5(3):629-636 (* equal contribution)

14. Apostolou E*, **Ferrari F***, Walsh RM, Bar-Nur O, Stadtfeld M, Cheloufi S, Stuart HT, Polo JM, Ohsumi TK, Borowsky ML, Kharchenko PV, Park PJ, Hochedlinger K. Genome-wide interactions of the *Nanog* locus in pluripotency, differentiation and cellular reprogramming. *Cell Stem Cell*, 2013 Jun 6;12(6):699-712. (* equal contribution).
(This article was featured in a *Cell Stem Cell* "Preview" editorial commentary: "The 3D genome shapes up for pluripotency" published in the same journal issue, and it was also included among *Cell Stem Cell* 2013 highlights - <http://www.cell.com/cell-stem-cell/annual-highlights>)
15. **Ferrari F***, Jung YL*, Kharchenko PV, Plachetka A, Alekseyenko AA, Kuroda MI, Park PJ. Comment on "Drosophila dosage compensation involves enhanced Pol II recruitment to male X-linked promoters". *Science*, 2013 Apr 19;340(6130):273. (* equal contribution) (technical comment article: i.e. reanalysis challenging previous publication)
16. **Ferrari F**, Solari A, Battaglia C, Bicciato S. PREDA: an R-package to identify regional variations in genomic data. *Bioinformatics*. 2011 Sep 1;27(17):2446-7.
17. Coppe A*, **Ferrari F***, Bisognin A, Danieli GA, Ferrari S, Bicciato S, Bortoluzzi S. Motif discovery in promoters of genes co-localized and co-expressed during myeloid cells differentiation. *Nucleic Acids Res.* 2009; 37(2):533-49. Epub 2008 Dec 5. (*equal contribution).
18. **Ferrari F**, Bortoluzzi S, Coppe A, Sirota A, Safran M, Shmoish M, Ferrari S, Lancet D, Danieli GA, Bicciato S. Novel definition files for human GeneChips based on GeneAnnot. *BMC Bioinformatics*. 2007 Nov 15;8:446
19. **Ferrari F**, Bortoluzzi S, Coppe A, Basso D, Bicciato S, Zini R, Gemelli C, Danieli GA, Ferrari S. Genomic expression during human myelopoiesis. *BMC Genomics*. 2007 Aug 3;8(1):264

REVIEW MATERIAL arising from postdoctoral work - LEAD AUTHOR

20. **Ferrari F**, Alekseyenko AA, Park PJ, Kuroda MI. Transcriptional control of a whole chromosome: emerging models for the molecular basis of dosage compensation. (Review article) *Nature Structural and Molecular Biology*, 2014 Feb;21(2):118-25.
21. **Ferrari F***, Apostolou E*, Park PJ, Hochedlinger K. Rearranging the chromatin for pluripotency. *Cell Cycle*, 2014 January 15; 13(2):167-168 Epub 2013, Nov 15 (editorial commentary) (* equal contribution)

OTHER SELECTED ARTICLES arising from PhD and postdoctoral work

22. Day DS, Zhang B, Stevens SM, **Ferrari F**, Larschan EN, Park PJ, Pu WT. Comprehensive analysis of promoter-proximal RNA polymerase II pausing across mammalian cell types. *Genome Biol.* 2016 Jun 3;17(1):120.
23. Cheloufi S, Elling U, Hopfgartner B, Jung YL, Murn J, Ninova M, Hubmann M, Badeaux AI, Euong Ang C, Tenen D, Wesche DJ, Abazova N, Hogue M, Tasdemir N, Brumbaugh J, Rathert P, Jude J, **Ferrari F**, Blanco A, Fellner M, Wenzel D, Zinner M, Vidal SE, Bell O, Stadtfeld M, Chang HY, Almouzni G, Lowe SW, Rinn J, Wernig M, Aravin A, Shi Y, Park PJ, Penninger JM, Zuber J, Hochedlinger K. The histone chaperone CAF-1 safeguards somatic cell identity. *Nature* 2015 Dec 10;528(7581):218-24.
24. Choi J, Lee S, Mallard W, Clement K, Malagoli-Tagliazucchi G, Lim H, Choi IY, **Ferrari F**, Tsankov AM, Pop R, Lee G, Rinn JL, Meissner A, Park PJ, Hochedlinger K. A comparison of genetically matched cell lines reveals the equivalence of human iPSCs and ESCs. *Nat Biotechnol.* 2015 Nov;33(11):1173-81.
25. De Los Angeles A, **Ferrari F**, Xi R, Fujiwara Y, Benvenisty N, Deng H, Hochedlinger K, Jaenisch R, Lee S, Leitch HG, Lensch MW, Lujan E, Pei D, Rossant J, Wernig M, Park PJ, Daley GQ. Hallmarks of Pluripotency. (Review article) *Nature* 2015 Sep 23;525(7570):469-78.
26. Ho J, Jung Y, Liu T, Alver B, Lee S, Ikegami K, Sohn K, Minoda A, Tolstorukov M, Appert A, Parker S, Gu T, Kundaje A, Riddle N, Bishop E, Egelhofer T, Hu S, Alekseyenko A, Rechtsteiner A, Asker D, Belsky J, Bowman S, Chen Q, Chen R, Day D, Dong Y, Dosé A, Duan X, Epstein C, Ercan S, Feingold E, **Ferrari F**, Garrigues J, Gehlenborg N, Good P, Haseley P, He D, Herrmann M, Hoffman M, Jeffers T, Kharchenko P, Kolasinska-Zwiercz P, Kotwaliwale C, Kumar N, Langley S, Larschan E, Latorre I, Libbrecht M, Lin X, Park R, Pazin M, Pham H, Plachetka A, Qin B, Schwartz Y, Shores N, Stempor P, Vielle A, Wang C, Whittle C, Xue H, Kingston R, Kim J, Bernstein B, Dernburg A, Pirrotta V, Kuroda M, Noble W, Tullius T, Kellis M, MacAlpine D, Strome S, Elgin S, Liu X, Lieb J, Ahringer J, Karpen G, Park PJ. Comparative analysis of metazoan chromatin organization. *Nature* 2014, Aug 28;512(7515):449-52.

27. Jung YL, Luquette LJ, Ho JW, **Ferrari F**, Tolstorukov M, Minoda A, Issner R, Epstein C, Karpen G, Kuroda MI, Park PJ. Impact of sequencing depth in ChIP-seq experiments. *Nucleic Acids Res.* 2014 May; 42(9):e74, Epub 2014 March 5.
28. Tzatsos A, Paskaleva P*, **Ferrari F***, Deshpande V, Stoykova S, Contino G, Wong K, Lan F, Trojer P, Park PJ, Bardeesy N. KDM2B promotes pancreatic cancer via Polycomb-dependent and -independent transcriptional programs, *Journal of Clinical Investigation*, 2013 Feb 1;123(2):727-39.
29. Stadtfeld M*, Apostolou E*, **Ferrari F**, Choi J, Walsh RM, Chen T, Ooi SS, Kim SY, Bestor TH, Shioda T, Park PJ, Hochedlinger K. Ascorbic acid prevents loss of Dlk1-Dio3 imprinting and facilitates generation of all-iPS cell mice from terminally differentiated B cells. *Nat Genet.* 2012 Mar 4;44(4):398-405, S1-2.
30. Agnelli L*, Forcato M*, **Ferrari F**, Tuana G, Todoerti K, Walker BA, Morgan GJ, Lombardi L, Biciato S, Neri A. The reconstruction of transcriptional networks reveals critical genes with implications for clinical outcome of multiple myeloma. *Clin Cancer Res.* 2011 Dec 1;17(23):7402-12.
31. Gurumurthy S, Xie S.Z., Alagesan B, Kim J, Yusuf R.Z., Saez B, Tzatsos A, Oszolak F, Milos P, **Ferrari F**, Park P.J., Shirihai O, Scadden D.T., and Bardeesy N. Lkb1 regulates stem cell quiescence, energy metabolism, and cell survival in the hematopoietic system. *Nature.* 2010 Dec 2;468(7324):659-63.
32. Mosca L, Fabris S, Lionetti M, Todoerti K, Agnelli L, Morabito F, Cutrona G, Andronache A, Matis S, **Ferrari F**, Gentile M, Spriano M, Callea V, Festini G, Molica S, Lambertenghi Delilieri G, Biciato S, Ferrarini M and Neri A. Integrative genomics analyses reveal molecularly distinct subgroups of B-cell chronic lymphocytic leukemia patients with 13q14 deletion, *Clin Cancer Res.* 2010 Dec 1;16(23):5641-53. Epub 2010 Oct 14.
33. Martello G, Rosato A, **Ferrari F**, Manfrin A, Cordenonsi M, Dupont S, Enzo E, Guzzardo V, Rondina M, Spruce T, Parenti AR, Daidone MG, Biciato S and Piccolo S. A microRNA targeting Dicer for metastasis control, *Cell* 2010 Jun 25; 141(7):1195-207.
34. Biciato S, Spinelli R, Zampieri M, Mangano E, **Ferrari F**, Beltrame L, Cifola I, Peano C, Solari A, Battaglia C. A computational procedure to identify significant overlap of differentially expressed and genomic imbalanced regions in cancers datasets. *Nucleic Acids Res.* 2009; 37(15):5057-70.

OTHER RESEARCH ARTICLES arising from PhD and postdoctoral work

35. Zini R, Norfo R, **Ferrari F**, Bianchi E, Salati S, Pennucci V, Sacchi G, Carboni C, Ceccherelli GB, Tagliafico E, Ferrari S, Manfredini R, AGIMM Investigators. Valproic acid triggers erythro/megakaryocyte lineage decision through induction of GFI1B and MLLT3 expression. *Exp Hematol.* 2012 Dec;40(12):1043-1054.e6.
36. Benatti C, Valensisi C, Blom JM, Alboni S, Montanari C, **Ferrari F**, Tagliafico E, Mendlewicz J, Brunello N, Tascetta F. Transcriptional profiles underlying vulnerability and resilience in rats exposed to an acute unavoidable stress. *J Neurosci Res.*, 2012 Nov;90(11):2103-15.
37. Cheli S, François S, Bodega B, **Ferrari F**, Tenedini E, Roncaglia E, Ferrari S, Ginelli E, Meneveri R. Expression profiling of FSHD-1 and FSHD-2 cells during myogenic differentiation evidences common and distinctive gene dysregulation patterns. *PLoS One.* 2011;6(6):e20966.
38. Tenedini E, Roncaglia E, **Ferrari F**, Orlandi C, Bianchi E, Biciato S, Tagliafico E and Ferrari S. Integrated analysis of microRNA and mRNA expression profiles in physiological myelopoiesis: role of hsa-mir-299-5p in CD34+ progenitor cells commitment. *Cell Death and Disease* 2010 Feb 18; 1: e28.
39. Carata E*, Peano C*, Tredici SM, **Ferrari F**, Talà A, Corti G, Biciato S, De Bellis G and Alifano P. Phenotypes and gene expression profiles of *Saccharopolyspora erythraea* rifampicin-resistant (rif) mutants affected in erythromycin production. *Microb Cell Fact.* 2009; 8:182009.
40. Bisognin A, Coppe A, **Ferrari F**, Risso D, Romualdi C, Biciato S, Bortoluzzi S. A-MADMAN: annotation-based microarray data meta-analysis tool. *BMC Bioinformatics* 2009 Jun 29, 10:201.
41. Aprile A, Mastrangelo AM, De Leonardis AM, Galiba G, Roncaglia E, **Ferrari F**, De Bellis L, Turchi L, Giuliano G, Cattivelli L. Transcriptional profiling in response to terminal drought stress reveals differential responses along the wheat genome. *BMC Genomics.* 2009 Jun 24; 10:279.
42. Albertazzi G, Milc J, Caffagni A, Francia E, Roncaglia E, **Ferrari F**, Tagliafico E, Stefani E, Pecchioni N. Gene expression in grapevine cultivars in response to BOIS NOIR phytoplasma. *Plant Science* 2009; 176(6):792-804.

43. Lymboussaki A, Gemelli C, Testa A, Facchini G, **Ferrari F**, Mavilio F, Grande A. PPAR $\{\delta\}$ is a ligand dependent negative regulator of Vitamin D3 induced monocyte differentiation. *Carcinogenesis*. 2009 Feb;30(2):230-7. Epub 2008 Dec 4.
44. Gemelli C, Orlandi C, Marani TZ, Martello A, Vignudelli T, **Ferrari F**, Montanari M, Parenti S, Testa A, Grande A, Ferrari S. The Vitamin D3/Hox-A10 Pathway Supports MafB Function during the Monocyte Differentiation of Human CD34+ Hemopoietic Progenitors. *J Immunol*. 2008; 181(8):5660-72.
45. Peano C, Bicciato S, Corti G, **Ferrari F**, Rizzi E, Bonnal RJ, Bordoni R, Albertini A, Bernardi LR, Donadio S, De Bellis G. Complete gene expression profiling of *Saccharopolyspora erythraea* using GeneChip DNA microarrays. *Microb Cell Fact*. 2007 Nov 26;6:37
46. Magnoni C, Tenedini E, **Ferrari F**, Benassi L, Bernardi C, Gualdi G, Bertazzoni G, Roncaglia E, Fantoni L, Manfredini R, Bicciato S, Ferrari S, Giannetti A, Tagliafico E. Transcriptional profiles in melanocytes from clinically unaffected skin distinguish the neoplastic growth pattern in patients with melanoma. *Br J Dermatol*. 2007; 156(1):62-71
47. Tagliafico E, Tenedini E, Manfredini R, Grande A, **Ferrari F**, Roncaglia E, Bicciato S, Zini R, Salati S, Bianchi E, Gemelli C, Montanari M, Vignudelli T, Zanocco-Marani T, Parenti S, Paolucci P, Martinelli G, Piccaluga PP, Baccarani M, Specchia G, Torelli U, Ferrari S. Identification of a molecular signature predictive of sensitivity to differentiation induction in acute myeloid leukemia. *Leukemia*. 2006; 20(10):1751-8. [Epub 2006 Aug 17]

CONFERENCE ARTICLES PUBLISHED IN PEER REVIEWED JOURNALS

48. Biasiolo M*, Forcato M*, Possamai L, **Ferrari F**, Agnelli L, Lionetti M, Todoerti K, Neri A, Marchiori M, Bortoluzzi S, Bicciato S. Critical Analysis of Transcriptional and Post-transcriptional Regulatory Networks in Multiple Myeloma. *Pacific Symposium on Biocomputing (PSB) 2010*. January 4-8, 2010. Big Island of Hawaii, USA.
49. Haisheng Nie, Pieter BT Neerincx, Jan van der Poel, **Francesco Ferrari**, Silvio Bicciato, Jack AM Leunissen, Martien AM Groenen. Microarray data mining using Bioconductor packages. *BMC Proceedings 2009*, 3(Suppl 4):S9 (16 July 2009)
50. Jakob Hedegaard, Cristina Arce, Silvio Bicciato, Agnès Bonnet, Bart Buitenhuis, Melania Collado-Romero, Lene N Conley, Magali SanCristobal, **Francesco Ferrari**, Juan J Garrido, Martien AM Groenen, Henrik Hornshøj, Ina Hulsegge, Li Jiang, Ángeles Jiménez-Marín, Arun Kommadath, Sandrine Lagarrigue, Jack AM Leunissen, Laurence Liaubet, Pieter BT Neerincx, Haisheng Nie, Jan van der Poel, Dennis Prickett, María Ramirez-Boo, Johanna MJ Rebel, Christèle Robert-Granié, Axel Skarman, Mari A Smits, Peter Sørensen, Gwenola Tosser-Klopp, Michael Watson. Methods for interpreting lists of affected genes obtained in a DNA microarray experiment. *BMC Proceedings 2009*, 3(Suppl 4):S5 (16 July 2009)