

Curriculum Vitae

Personal information

First name/ Surname **Ferdinando Di Cunto**
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Nationality Italian

Date of birth 20/12/1969

Gender Male

Work experience

Dates	1996-1997
Occupation or position held	Research fellow
Main activities and responsibilities	Research activity
Name and address of employer	Massachusetts General Hospital, Boston, Massachusetts, USA
Type of business or sector	Biomedical Research
Dates	1999-2005
Occupation or position held	Researcher (Molecular Biology)
Main activities and responsibilities	Research and teaching
Name and address of employer	University of Torino, Italy
Type of business or sector	Biomedical Research
Dates	2005-2011
Occupation or position held	Associate Professor (Molecular Biology)
Main activities and responsibilities	Research and teaching in Molecular and Computational biology
Name and address of employer	University of Torino, Italy
Type of business or sector	Biomedical Research
Dates	2011-present
Occupation or position held	Full Professor (Molecular Biology)
Main activities and responsibilities	Research and teaching in Molecular and Computational biology

Name and address of employer University of Torino, Italy
Type of business or sector Biomedical Research

Education and training

Dates July 1994

Title of qualification awarded MD degree (Medicine and Surgery)
Principal subjects/occupational skills covered Medicine

Name and type of organisation providing education and training University of Torino

Dates February 2001

Title of qualification awarded PhD in "Human Biology, molecular and cellular bases"
Principal subjects/occupational skills covered Biomedical research

Name and type of organisation providing education and training University of Torino

Personal skills and competences

Mother tongue(s) Italian

Other language(s)

Self-assessment
European level (*)

English

French

Understanding		Speaking		Writing
Listening	Reading	Spoken interaction	Spoken production	
C2	C2	C2	C2	C2
B1	B1	B1	B1	B1

(*) [Common European Framework of Reference for Languages](#)

Research interests

1. Study of cytokinesis and of neuronal differentiation during development of the Central Nervous System.
2. Study of the molecular bases of microcephalies
3. Development of computational approaches for the annotation of gene function

Publications

1. Bergo A, Strollo M, Gai M, Barbiero I, Stefanelli G, Sertic S, Cobolli Gigli C, Di Cunto F, Kilstrup-Nielsen C, Landsberger N. (2015). Methyl-CpG binding protein 2 (MeCP2) localizes at the centrosome and is required for proper mitotic spindle organization. *J Biol Chem* 290:3223-3237.
2. Berto, G. E., Iobbi, C., Camera, P., Scarpa, E., Iampietro, C., Bianchi, F., Gai, M., Sgrò, F., Cristofani, F., Gärtner, A., Dotti, C. G., and Di Cunto, F. (2014). The DCR protein TTC3 affects differentiation and Golgi compactness in neurons through specific actin-regulating pathways. *PLoS One* 9:e93721.
3. Repetto, D., Camera, P., Melani, R., Morello, N., Russo, I., Calcagno, E., Tomasoni, R., Bianchi, F., Berto, G., Giustetto, M., Berardi, N., Pizzorusso, T., Matteoli, M., Di Stefano, P., Missler, M., Turco, E., Di Cunto, F., and Defilippi, P. (2014). p140Cap regulates memory and synaptic plasticity through Src- and CitN-mediated actin reorganization. *Journal of Neuroscience*, 34(4):1542-53.
4. Di Gregorio, E., Bianchi, F. T., Schiavi, A., Chiotto, A. M., Rolando, M., Verdun di Cantogno, L., Grosso, E., Cavalieri, S., Calcia, A., Lacerenza, D., Zuffardi, O., Retta, S. F., Stevanin, G., Marelli, C., Durr, A., Forlani, S., Chelly, J., Montarolo, F., Tempia, F., Beggs, H. E., Reed, R., Squadrone, S., Abete, M. C., Brussino, A., Ventura, N., Di Cunto, F., and Brusco, A. (2013). A de novo X;8 translocation creates a PTK2-THOC2 gene fusion with THOC2 expression knockdown in a patient with psychomotor retardation and congenital cerebellar hypoplasia. *J Med Genet* 50, 543-551.
5. Fagoonee, S., Bearzi, C., Di Cunto, F., Clohessy, J. G., Rizzi, R., Reschke, M., Tolosano, E., Provero, P., Pandolfi, P. P., Silengo, L., and Altruda, F. (2013). The RNA Binding Protein ESRP1 Fine-Tunes the Expression of Pluripotency-Related Factors in Mouse Embryonic Stem Cells. *PLoS ONE* 8, e72300.
6. Molineris, I., Ala, U., Provero, P., and Di Cunto, F. (2013). Drug repositioning for orphan genetic diseases through Conserved Anticoexpressed Gene Clusters (CAGCs). *BMC Bioinformatics* 14, 288.
7. Pavan, S., Musiani, D., Torchiario, E., Migliardi, G., Gai, M., Di Cunto, F., Erriquez, J., Olivero, M., and Di Renzo, M. F. (2013). HSP27 is required for invasion and metastasis triggered by hepatocyte growth factor. *Int J Cancer*.
8. Piro, R. M., Molineris, I., Di Cunto, F., Eils, R., and Konig, R. (2013). Disease-gene discovery by integration of 3D gene expression and transcription factor binding affinities. *Bioinformatics* 29, 468-475.
9. Spaccarotella, E., Pellegrino, E., Ferracin, M., Ferreri, C., Cuccuru, G., Liu, C., Iqbal, J., Cantarella, D., Taulli, R., Provero, P., Di Cunto, F., Medico, E., Negrini, M., Chan, W. C., Inghirami, G., and Piva, R. (2013). STAT3-mediated activation of microRNA cluster 17~92 promotes proliferation and survival of ALK positive anaplastic large cell lymphoma. *Haematologica*.
10. Ugolotti, R., Mesejo, P., Zongaro, S., Bardoni, B., Berto, G., Bianchi, F., Molineris, I., Giacobini, M., Cagnoni, S., and Di Cunto, F. (2013). Visual Search of Neuropil-Enriched RNAs from Brain In Situ Hybridization Data through the Image Analysis Pipeline Hippo-ATESC. *PLoS ONE* 8, e74481.
11. Piro, R. M., and Di Cunto, F. (2012a). Computational approaches to disease-gene prediction: rationale, classification and successes. *Febs J* 279, 678-696.
12. Piro, R. M., Molineris, I., Ala, U., and Di Cunto, F. (2012b). Evaluation of candidate genes from orphan FEB and GEFS+ loci by analysis of human brain gene expression atlases. *PLoS ONE* 6, e23149.
13. Bosio, Y., Berto, G., Camera, P., Bianchi, F., Ambrogio, C., Claus, P., and Di Cunto, F. (2012). PPP4R2 regulates neuronal cell differentiation and survival, functionally cooperating with SMN. *Eur J Cell Biol* 91, 662-674.
14. Lembo, A., Di Cunto, F., and Provero, P. (2012). Shortening of 3'UTRs correlates with poor prognosis in breast and lung cancer. *PLoS ONE* 7, e31129.

15. Bosio Y, Berto G, Camera P, Bianchi F, Ambrogio C, Claus P, Di Cunto F. 2012. PPP4R2 regulates neuronal cell differentiation and survival, functionally cooperating with SMN. *European Journal of Cell Biology* In Press.
16. Piro RM, Di Cunto F. 2012. Computational approaches to disease gene prediction: rationale, classification and successes. *Febs J*.
17. Tay Y, Kats L, Salmena L, Weiss D, Tan SM, Ala U, Karreth F, Poliseno L, Provero P, Di Cunto F, Lieberman J, Rigoutsos I, Pandolfi PP. 2011. Coding-Independent Regulation of the Tumor Suppressor PTEN by Competing Endogenous mRNAs. *Cell* 147:344-357.
18. Bianchi FT, Camera P, Ala U, Imperiale D, Migheli A, Boda E, Tempia F, Berto G, Bosio Y, Oddo S, LaFerla FM, Taraglio S, Dotti CG, Di Cunto F. 2011. The collagen chaperone HSP47 is a new interactor of APP that affects the levels of extracellular beta-amyloid peptides. *PLoS One* 6:e22370.
19. Gai M, Camera P, Dema A, Bianchi F, Berto G, Scarpa E, Germena G, Di Cunto F. 2011. Citron kinase controls abscission through RhoA and Anillin. *Mol Biol Cell*.
20. Piro R, Molineris I, Ala U, Di Cunto F. 2011. Evaluation of candidate genes from orphan FEB and GEFS+ loci by analysis of human brain gene expression atlases.
21. Piro RM, Ala U, Molineris I, Grassi E, Bracco C, Perego GP, Provero P, Di Cunto F. 2011. An atlas of tissue-specific conserved coexpression for functional annotation and disease gene prediction. *Eur J Hum Genet*.
22. Damasco, C., Lembo, A., Somma, M. P., Gatti, M., Di Cunto, F., and Provero, P. (2011). A Signature Inferred from Drosophila Mitotic Genes Predicts Survival of Breast Cancer Patients. *PLoS ONE* 6, e14737.
23. Molineris, I., Grassi, E., Ala, U., Di Cunto, F., and Provero, P. (2011). Evolution of promoter affinity for transcription factors in the human lineage. *Mol Biol Evol*.
24. Amoresano, A., Di Costanzo, A., Leo, G., Di Cunto, F., La Mantia, G., Guerrini, L., and Calabro, V. (2010). Identification of DeltaNp63alpha protein interactions by mass spectrometry. *J Proteome Res* 9, 2042-2048.
25. Forlani, G., Giarda, E., Ala, U., Di Cunto, F., Salani, M., Tupler, R., Kilstrup-Nielsen, C., and Landsberger, N. (2010). The MeCP2/YY1 interaction regulates ANT1 expression at 4q35: novel hints for Rett syndrome pathogenesis. *Hum Mol Genet* 19, 3114-3123.
26. Molineris, I., Sales, G., Bianchi, F., Di Cunto, F., and Caselle, M. (2010). A new approach for the identification of processed pseudogenes. *J Comput Biol* 17, 755-765.
27. Piro, R. M., Molineris, I., Ala, U., Provero, P., and Di Cunto, F. (2010). Candidate gene prioritization based on spatially mapped gene expression: an application to XLMR. *Bioinformatics* 26, i618-624.
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29. Muzzi, P., Camera, P., Di Cunto, F., and Vercelli, A. (2009). Deletion of the citron kinase gene selectively affects the number and distribution of interneurons in barrelfield cortex. *J Comp Neurol* 513, 249-264.
30. Schiavone, D., Dewilde, S., Vallania, F., Turkson, J., Di Cunto, F., and Poli, V. (2009). The RhoU/Wrch1 Rho GTPase gene is a common transcriptional target of both the gp130/STAT3 and Wnt-1 pathways. *Biochem J* 421, 283-292.

31. Ala, U., Piro, R. M., Grassi, E., Damasco, C., Silengo, L., Oti, M., Provero, P., and Di Cunto, F. (2008). Prediction of human disease genes by human-mouse conserved coexpression analysis. *PLoS Comput Biol* 4, e1000043.
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33. Camera, P., Schubert, V., Pellegrino, M., Berto, G., Vercelli, A., Muzzi, P., Hirsch, E., Altruda, F., Dotti, C. G., and Di Cunto, F. (2008). The RhoA-associated protein Citron-N controls dendritic spine maintenance by interacting with spine-associated Golgi compartments. *EMBO Rep* 9, 384-392.
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35. Miozzi, L., Piro, R. M., Rosa, F., Ala, U., Silengo, L., Di Cunto, F., and Provero, P. (2008). Functional Annotation and Identification of Candidate Disease Genes by Computational Analysis of Normal Tissue Gene Expression Data. *PLoS ONE* 3, e2439.
36. Berto, G., Camera, P., Fusco, C., Imarisio, S., Ambrogio, C., Chiarle, R., Silengo, L., and Di Cunto, F. (2007). The Down syndrome critical region protein TTC3 inhibits neuronal differentiation via RhoA and Citron kinase. *J Cell Sci* 120, 1859-1867.
37. Fagoonee S, Di Cunto F, Vozzi D, Volinia S, Pellegrino M, Gasparini P, Silengo L, Altruda F, Tolosano E. Microarray and large-scale in silico--based identification of genes functionally related to Haptoglobin and/or Hemopexin. *DNA Cell Biol.* 25, 323-30 ,2006
38. Olivero M, Ruggiero T, Saviozzi S, Rasola A, Coltella N, Crispi S, Di Cunto F, Calogero R, Di Renzo MF. Genes regulated by hepatocyte growth factor as targets to sensitize ovarian cancer cells to cisplatin. *Mol Cancer Ther.* 5,1126-35, 2006
39. Cora, D., Herrmann, C., Dieterich, C., Di Cunto, F., Provero, P. & Caselle, M. Ab initio identification of putative human transcription factor binding sites by comparative genomics. *BMC Bioinformatics* 6, 110, 2005.
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44. Di Cunto, F., Ferrara, L., Curtetti, R., Imarisio, S., Guazzone, S., Broccoli, V., Bulfone, A., Altruda, F., Vercelli, A. & Silengo, L. Role of citron kinase in dendritic morphogenesis of cortical neurons. *Brain Res. Bull.* 6612, 1-9, 2003.
45. Camera, P., Da Silva, J. S., Griffiths, G., Giuffrida, M. G., Ferrara, L., Schubert, V., Imarisio, S., Silengo, L., Dotti, C. G. & Di Cunto, F. Citron-N is a neuronal Rho-associated protein involved in Golgi organization through actin cytoskeleton regulation. *Nature Cell Biology* 5, 1071-1078, 2003.

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50. Di Cunto, F., Topley, G., Calautti, E., Hsiao, J., Ong, L., Seth, P. K. & Dotto, G. P. Inhibitory function of p21Cip1/WAF1 in differentiation of primary mouse keratinocytes independent of cell cycle control. *Science* 280, 1069-1072, 1998.
51. Di Cunto, F., Calautti, E., Hsiao, J., Ong, L., Topley, G., Turco, E. & Dotto, G. P. Citron rho-interacting kinase, a novel tissue-specific ser/thr kinase encompassing the Rho-Rac-binding protein Citron. *J Biol Chem* 273, 29706-29711, 1998.
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53. Escherick, J. S., Di Cunto, F., Flanders, K. C., Missero, C. & Dotto, G. P. Transforming growth factor beta 1 induction is associated with transforming growth factors beta 2 and beta 3 down-modulation in 12-O-tetradecanoylphorbol-13-acetate-induced skin hyperplasia. *Cancer Res* 53, 5517-5522., 1993

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