

Pasquale De Luca



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Current Position: tecnologo III° livello

Current Affiliation:

Section Research Infrastructures for Marine Biological Resources

Education/Training/Experience

| Institute and Location | Degree / Function | Year | Field of Study |
|--|--------------------------|-------------|-----------------------|
| Facoltà di Scienze MMFFNN, Corso di Laurea in Scienze Biologiche, Dip. Di Genetica | Master (Laurea) | 1987-1992 | Molecular Genetics |

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| Facoltà di Scienze MMFFNN, Dip. Di Genetica | AIRC fellowship | 1994-1996 | Transcription Regulation |
| Facoltà di Scienze MMFFNN, Corso di Laurea in Scienze Biologiche, Dip. Di Genetica | Ph.D. | 1996-1999 | Transcription Regulation |
| European Institute of Oncology | Guest and Postdoc | 1997-2000 | Molecular biology of Promyelocytic leukemia |
| BioGeM SCaRL | Tecnologo | 2001-2004 | Gene Expression Service |
| Stazione Zoologica Anton Dohrn, Napoli, Italy | Tecnologo | 2004- present | Molecular Biology, Functional genomics and protein production |

Other

COURSES

June 2018 – Strategic Management course at Stazione Zoologica Napoli

June 6/8 2017 - Theoretical course “Bioinformatics for core facility managers” at EMBL-EBI Hinxton (UK)

March 29/30 2016 – Theoretical and practical course on the “Ion PGM Dx system operational” held by Thermo Fisher Scientific in BioGeM.

January 7/16 2009 – Course “Fondamenti di gestione della qualità nelle strutture di ricerca”, held by the Centro Qualità di Ateneo dell’Università degli studi del Sannio in BioGeM.

March 20/21 2008 – Theoretical and practical course on the real time PCR ABI Prism 7900 and data analysis in Rome

August 1/4 2006 - Theoretical and practical course “A joint EMBL/Ambion practical course on miRNA profiling” at EMBL (Heidelberg).

January 16/20 2006 – Workshop “New Year Genboree in Naples” at the Stazione Zoologica Anton Dohrn in Naples, Italy

October 17/19 2005 – Theoretical course “1st EUGENE2 training course” in Naples, Italy.

June 8/11 2004 - Theoretical and practical course “Gene Spring Workshop” at University “La Sapienza” (Rome).

May 22/24 2002 - Theoretical and practical course “Biomek FX Training” at the Beckman lab in Munich.

July 23/August 12 1997 – Theoretical and practical course “Eukaryotic Gene Expression” at Cold Spring Harbor Laboratories (NY).

INVITED SPEAKER

October 24 2002 – Speaker at the Amersham “MegaBACE user meeting” in Paris.

May 7 2003 – Speaker at the Beckman “From automation to richer biological information” at IFOM (Milan).

May 27 2003 – Speaker at the Istituto Regina Elena in Rome

September 18/28 2003 Teacher at the EMBO course on Deciphering Chromosomes By Chromatin Immunoprecipitation at IGB (Naples).

November 26 2003 – Teacher at the Course “Biotechnologie: principi metodologici e applicazioni nell’invecchiamento” at Università’ di Ancona.

January 28 2004 – Teacher at the Course “Bioinformatica II” at Corso di Laurea specialistica in Biotechnologie Industriali, Facoltà’ di Scienze MM. FF. NN. Univerita’ di Padova.

March 11 2004 – Teacher at the Master in Bioinformatica at Università’ di Urbino

May, September, December 2004, 2005 and 2006 – Teacher at the Biorad “Corso di Tecniche di microarray e Real Time PCR” at Seconda Università’ di Napoli.

September 6 2004 – Speaker at the NETTAB 2004 satellite event “Workshop on theory and practice on Gene-Array Technology” at University of Camerino.

September 24 2004 – Teacher at the Course “Fondamenti di Bioinformatica” at Istituto Superiore di Sanita’ (Rome).

Students’ Supervision

Supervisor of 32 Master degree students

Projects

ExPO: Exploring the biotechnological potential of marine organisms, Premiale SZN 2016, co-coordinator.

Preclinical development of new therapies and innovative strategies for the production of molecules with pharmacological activity, PON03 2013, participant.

Set up of industrial production of a recombinant protein for human therapeutical applications – a project for BioGeM and an industrial Tunisian partner, 2012, scientific responsible

PON Infrastrutture for the construction of the Protein Factory, FP7-FESR, 2009, scientific responsible

SENSOR – Sviluppo di biosensori per la valutazione della contaminazione delle acque e dei suoli, Regione Campania 2013, participant.

Modelli innovativi di riparazione e rigenerazione di tessuti in traumi ortopedici, MERIT 2011, participant

Identificazione di biomarcatori e sviluppo di metodi diagnostici e terapeutici nel campo dell’oncologia e della biologia vascolare, PON01 2010, participant.

MIDTAL – Microarrays for the detection of toxic algae, FP7, 2008, participant

Set up of a Molecular Biology infrastructure for the Qatar Foundation, 2006, scientific responsible

Nuovi approcci integrati per l’identificazione di geni bersaglio in genomi eucarioti, FIRB 2002, participant.

Publications

Author of 38 publications on ISI-journals (h index: 22)

Peer-reviewed publications

1. Russo MT, Vitale L, Entrambasaguas Monsell L, Anestis K, Fattorini N, Romano F, Minucci C, De Luca P, Biffali E, Vyverman W, Sanges R, Montresor M, Ferrante MI. Identification of the sex determination mechanism in diatoms. Submitted to Nature Communications (2018)
2. Iacomino G, Russo P, Marena P, Lauria F, Venezia A, Ahrens W, De Henauw S, De Luca P, Foraita R, Günther K, Lissner L, Molnár D, Moreno LA, Tornaritis M, Veidebaum T, Siani A. Circulating microRNAs expression profiles are associated with early childhood obesity: results of the I.Family Study. Submitted to Clinical Epigenetics (2018)
3. Annona G, Caccavale F, Pascual-Anaya J, Kuratani S, De Luca P, Palumbo A, D'Aniello S. Nitric Oxide regulates mouth development in amphioxus. Scientific Report Aug 16;7(1):8432. doi: 10.1038/s41598-017-08157-w (2017)
4. Liso A, Castellani S, Massenzio F, Trotta R, Pucciarini A, Bigerna B, De Luca P, Zoppoli P, Castiglione F, Palumbo MC, Stracci F, Landriscina M, Specchia G, Leon Bach, Falini B. Human monocyte-derived dendritic cells exposed to hyperthermia show a distinct gene expression profile and selective upregulation of IGFBP6. Oncotarget, Jun 1;8(37):60826-60840. doi: 10.18632/oncotarget.18338. eCollection 2017 Sep 22 (2017).
5. Iacomino G, Russo P, Stilitani I, Lauria F, Marena P, Ahrens W, De Luca P, Siani A. Circulating microRNAs are deregulated in overweight/obese children: preliminary results of the I. Family study. Gene and Nutrition 11:7 (2016).
6. Cozzolino M, Ciatelli A, Fortino V, Guarino F, Tagliaferri R, Castiglione S, De Luca P, Napolitano F, Celia G, Iannotti S, Raiconi G, Rossi K, Rossi E. The Mind-Body Healing Experience (MHE) Is associated with Gene Expression in Human Leukocytes. International Journal of Physical and Social Sciences, 5, 1-31, ISSN: 2249-5894 (2015).
7. Cozzolino M, Tagliaferri R, Castiglione S, Fortino V, Ciatelli A, Guarino F, Napolitano F, Raiconi G, Celia G, De Luca P, Fusco F, Rossi K, Rossi E, Iannotti S. The Creative Psychosocial and Cultural Genomic Healing Experience: A new top-down epigenomic psychotherapeutic protocol. The International Journal of Psychosocial and Cultural Genomics, Consciousness & Health Research, 1, 18-26, ISSN: 2421-2199 (2015).
8. Porreca I, D'Angelo F, Gentilcore D, Carchia E, Amoresano A, Affuso A, Ceccarelli M, De Luca P, Esposito L, Guadagno FM, Mallardo M, Nardone A, Maccarone S, Pane F, Scarfò M, Sordino P, De Felice M. & C. Ambrosino. Cross-species toxicogenomic analyses and phenotypic anchoring in response to groundwater low-level pollution. BMC Genomics 15: 1067 (2014)
9. Dattolo E, Ruocco M, Brunet C, Lorenti M, Lauritano C, D'Esposito D, De Luca P, Sanges R, Mazzuca S & G. Procaccini. Response of the seagrass Posidonia oceanica to different light environments: Insights from a combined molecular and photo-physiological study. Mar Environ Res. Aug 1. pii: S0141-1136(14)00137-8. doi: 10.1016/j.marenvres.2014.07.010 (2014).
10. Marotta P, Amendola E, Scarfò M, De Luca P, Zoppoli P, Amoresano A, De Felice M & R. Di Lauro. The paired box transcription factor Pax8 is essential for function and survival of adult thyroid cells. Mol Cell Endocrinol. Aug 12;396(1-2):26-36 (2014).
11. Granese B, Scala I, Spatuzza C, Valentino A, Coletta M, Vacca RA, De Luca P & G. Andria. Validation of microarray data in human lymphoblasts shows a role of the ubiquitin-proteasome

system and NF- κ B in the pathogenesis of Down syndrome. *BMC Medical Genomics* **5**, 6-24 (2013).

12. Barra L, Aiese Cigliano R, Cremona G, De Luca P, Zoppoli P, Bressan R, Consiglio FM, Conicella C. Transcription profiling of laser microdissected microsporocytes in *Arabidopsis* mutant (*Atmcc1*) with enhanced histone acetylation. *J. Plant Biology* **55**, 281-289 (2012).
13. Fagman H, Amendola E, Parrillo L, Zoppoli P, Marotta P, Scarfò M, De Luca P, de Carvalho DP, Ceccarelli M, De Felice M & R. Di Lauro. Gene expression profiling at early organogenesis reveals both common and diverse mechanisms in foregut patterning. *Dev. Biol.* **359**, 163-175 (2011).
14. Mancini R, Giarnieri E, De Vitis C, Malanga D, Roscilli G, Noto A, Marra E, Laudanna C, Zoppoli P, De Luca P, Affuso A, Ruco L, Di Napoli A, Mesiti G, Aurisicchio L, Ricci A, Mariotta S, Pisani L, Andreotti C, Viglietto G, Rendina EA, Giovagnoli MR, Ciliberto G. Spheres derived from lung adenocarcinoma pleural effusions: give molecular characterization and tumor engraftment. *Plos One* **6**(7): e21320 (2011).
15. Silberschmidt D, Rodriguez-Mallon A, Mithbaokar P, Cali G, Amendola E, Sanges R, Zannini MS, Scarfò M, De Luca P, Nitsch L, Di Lauro R. & M. De Felice. In vivo role of different domains and of phosphorylation in the transcription factor Nkx2-1. *BMC Dev. Biol.* **11** (2011).
16. Frezzetti D, De Menna M, Zoppoli P, Guerra C, Ferraro A, Bello AM, De Luca P, Calabrese C, Fusco A, Ceccarelli M, Zollo M, Barbacid M, Di Lauro R. & G. De Vita. Upregulation of miR-21 by Ras in vivo and its role in tumor growth. *Oncogene* **30**, 275-286 (2011).
17. Forte A, Finicelli M, De Luca P, Nordstrom I, Onorati F, Quarto C, Santè P, Renzulli A, Galderisi U, Berrino L, De Feo M, Hellstrand P, Rossi F, Cotrufo M, Cascino A. & M. Cipollaro. Injury to rat carotids causes time-dependent changes in gene expression in controlateral uninjured arteries. *Clinical Science* **116**, 125-36 (2009).
18. Giliberto L, Zhou D, Weldon R, Tamagno E, De Luca P, Tabaton M. & L. D'Adamio. Evidence that the Amyloid beta Precursor Protein-intracellular domain lowers the stress threshold of neurons and has a "regulated" transcriptional role. *Molecular Neurodegeneration* **3**:12 (2008).
19. Papparini A, Rossi P, Gianfranceschi G, Brugaletta V, Falsaperla R, De Luca P. & V. Romano Spica. No evidence of major transcriptional changes in the brain of mice exposed to 1800 Mhz GSM signal. *Bioelectromagnetics* **29**, 312-323 (2008).
20. Forte A, Finicelli M, De Luca P, Quarto C, Onorati F, Santè P, Renzulli A, Galderisi U, Berrino L, De Feo M, Rossi F, Cotrufo M, Cascino A. & M. Cipollaro. Expression profiles in surgically-induced carotid stenosis: A combined transcriptomic and proteomic investigation. *J. Cellular and Molecular Medicine* **12**, 1956-1973 (2008).
21. Lian Z, De Luca P. & A. Di Cristofano. Gene expression analysis reveals a signature of estrogen receptor activation upon loss of Pten in a mouse model of endometrial cancer. *J. Cellular Physiology* **208** (2), 255-266 (2006).
22. Amendola E, De Luca P, Macchia PE, Terracciano D, Rosica A, Chiappetta G, Kimura S, Mansouri A, Affuso A, Arra C, Macchia V, Di Lauro R. & M. De Felice. A mouse model

demonstrates a multigenic origin of congenital hypothyroidism. *Endocrinology* **146**, 5038-5047 (2005).

23. Quaglino E, Rolla S, Iezzi M, Spadaro M, Musiani P, De Giovanni C, Lollini PL, Lanzardo S, Forni G, Sanges R, Crispi S, De Luca P, Calogero R. & F. Cavallo. Concordant morphological and gene expression data show that a vaccine halts HER2/neu preneoplastic lesions. *The Journal of Clinical Investigation* **113**, 709-717 (2004).
24. Fanelli M, Fantozzi A, De Luca P, Capodrossi S, Matsusawa S, Lazar MA, Pelicci PG & S. Minucci. The coiled coil domain is the structural determinant for SIAH-mediated degradation of PML and other TRIM proteins by the proteasome. *The Journal of Biological Chemistry* **279**, 5374-5379 (2004).
25. Pagliuca A, Gallo P, De Luca P & L. Lania. Class A HLH proteins are positive regulators of several CDK-inhibitors promoter activity and negatively affect cell growth. *Cancer Res.* **60**, 1376-1382 (2000).
26. Minucci S, Maccarana M, Cioce M, De Luca P, Gelmetti V, Segalla S, Di Croce L, Giavara S, Matteucci C, Gobbi A, Bianchini A, Colombo E, Schiavoni I, Badaracco G, Hu X, Lazar, M., Landsberger N, Nervi C & P. G. Pelicci. Oligomerization of RAR and AML1 transcription factors as a novel mechanism of oncogenic activation. *Mol. Cell* **5**, 811-820 (2000).
27. Sala A, Saitta B, De Luca P, Cervellera MN, Casella I, Lewis RB, Watson R & C. Peschle. B-MYB transactivates its own promoter through Sp1-binding sites. *Oncogene* **18**, 1333-1339 (1999).
28. Majello B, Napolitano G, De Luca P & L. Lania. Recruitment of human TBP selectively activates RNA polymerase II TATA-dependent promoters. *The Journal of Biological Chemistry* **273**, 16509-16516 (1998).
29. De Luca P, Majello B & L. Lania. Retinoblastoma protein tethered to promoter DNA represses TBP-mediated transcription. *J. Cellular Biochemistry* **70**(2), 281-287 (1998).
30. Lania L, De Luca P, & B. Majello. Negative and positive transcriptional control during cell proliferation. *The International Journal of Oncology* **11**, 359-363 (1997).
31. Lania L, Majello B and P. De Luca. Transcriptional regulation by the Sp family proteins. *The International Journal of Biochemistry and Cell Biology* **12**, 1313-1323 (1997).
32. Majello B, De Luca P & L. Lania. Sp3 is a bifunctional transcription regulator with modular independent activation and repression domains. *The Journal of Biological Chemistry* **272**, 4021-4026 (1997).
33. De Luca P, Majello B & L. Lania. Sp3 represses transcription when tethered to promoter DNA or targeted to promoter proximal RNA. *The Journal of Biological Chemistry* **271**, 8533-8536 (1996).
34. Majello B, De Luca P, Suske G & L. Lania. Differential transcriptional regulation of c-myc promoter through the same DNA binding sites targeted by Sp1-like proteins. *Oncogene* **10**, 1841-1848 (1995).

35. Soravia E, Grebe A, De Luca P, Helin K, Suh TT, Degen JL & F. Blasi. A conserved TATA-less proximal promoter drives basal transcription from the Urokinase-type plasminogen activator receptor gene. *Blood* **86**, 624-635 (1995).
36. Majello B, De Luca P, Hagen G, Suske G & L. Lania. Different members of the Sp1 multigene family exert opposite transcriptional regulation of the long terminal repeat of HIV-1. *Nucleic Acids Res.* **22**, 4914-4921 (1994).
37. Pengue G, Calabrò V, Cannada-Bartoli P, De Luca P, Esposito T, Taillon-Miller P, LaForgia S, Druck T, Huebner K, D'Urso M & L. Lania. YAC-assisted cloning of transcribed sequences from the human chromosome 3p21 region. *Human Molecular Genetics*, **2**, 791-796 (1993).
38. Lanfrancone L, Pengue G, Pandolfi PP, Salcini AE, Giacomuzzi A, Longo L, Donti E, De Luca P, La Mantia G, Pelicci PG & L. Lania. Structural and functional organization of the HF.10 human zinc finger gene (ZNF35) located on chromosome 3p21-22. *Genomics*, **12**, 720-728 (1992).