

Curriculum vitae

PERSONAL INFORMATION



Dr. Mariarosaria Conte

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Sex: F | Date of birth: 22/08/1980 | Nationality: Italian

WORK EXPERIENCE

CURRENT POSITION

RTDA
University University of Campania "L. Vanvitelli"
Department of Precision Medicine
Researcher
Institute IRCCS SDN Institute for Diagnostic and Nuclear Research

FROM 1/03/2016 TO 30/06/2019

Activity and responsibilities

Study of the role played by chromatin modifiers in carcinogenesis and the identification of new epigenetic drugs able to restore epigenetic aberrations in cancer

FROM 1/11/2014 TO 31/10/2016

Research fellow
University University of Campania "Luigi Vanvitelli "
Department of Biochemistry, Biophysics and General Pathology

Activity and responsibilities

Research activity on the function and action of epigenetic modulators as drugs against cancer and other human diseases founded under the PRIN 2012, for the scientific disciplinary sector SSD: MED / 04.

FROM 4/11/2013 TO 31/12/2013

Scholarship holder
University University of Campania "Luigi Vanvitelli "
Department of Biochemistry, Biophysics and General Pathology/Membership at Siena Biotech
Training project concerning new epigenetic drugs against cancer, neurodegeneration and cardiovascular diseases

Activity and responsibilities

FROM 1/12/2010 TO 28/02/2014

Research fellow
University University of Campania "Luigi Vanvitelli "
Characterization of new chromatin immunoprecipitation methods for the study of transcription factors with high-throughput techniques "

Activity and responsibilities

FROM 1/12/ 2007 TO 30/11/2010

PhD student in Pathology of cellular signal transduction
University University of Campania "Luigi Vanvitelli "
Department of Biochemistry, Biophysics and General Pathology
HDAC2 gene silencing study in the U937 acute myeloid leukemia

Activity and responsibilities

FROM 1/06/2007 TO 30/11/2007

Scholarship holder
University University of Campania "Luigi Vanvitelli "
Department of Biochemistry, Biophysics and General Pathology
Study of the role of chromatin remodeling in leukaemia: "Characterization of target gene alterations and the action of epigenetic modulators ". The activity carried out was in the context of the development of specific constructs for gene delivery in hematopoietic cells

Activity and responsibilities

EDUCATION AND TRAINING

28/05/2014 Specific training course for workers. Course carried out in collaboration with EBSiL - Bilateral Body for Safety at Work of SMEs –Category ATECO K. Napoli

14/05/2014 General training course for workers. Course carried out in collaboration with EBSiL - Bilateral Body for Safety at Work of SMEs –Category ATECO K. Napoli

20/12/2010

PhD in Pathology of cellular signal transduction
University Second University of Naples
Thesis title "Role of silencing the gene encoding HDAC2 in the U937 acute myeloid leukemia line"
Generation of Retroviruses, especially Lentiviruses, as vectors for the expression of transgenes (EPITRON grant)

FROM 1/03/2007 TO 31/03/2007

Institute IGBMC (Genetic and Molecular and Cellular Biology of Strasbourg)
Registration in the Professional Register of Biologists - Section A No. 058368
Professional qualification of biologist section

12/09/2007
2007

University of Naples "Federico II.

25/10/2006

Degree in Biological Sciences

University

University of Naples "Federico II".

Experimental thesis in
Thesis title

Molecular Biology
Effect of histone deacetylase inhibitors on the regulation of TRAIL gene expression and on the induction of apoptosis in leukemic cells

SCIENTIFIC PRODUCTION

1. Benedetti, R., Bajardi, F., Capozziello, S., Carafa, V., **Conte, M.**, Del Sorbo, M.R., Nebbioso, A., Singh, M., Stunnenberg, H.G., Valadan, M., Altucci, L., Altucci, C. Different Approaches to Unveil Biomolecule Configurations and Their Mutual Interactions. *Analytical Letters*. 2020(*in press*)
2. Miceli M, Cutignano A, **Conte M**, Ummarino R, Romanelli A, Ruvo M, Leone M, Mercurio FA, Doti N, Manzo G, Altucci L, Ianora A. Monocacylglycerides from the Diatom *Skeletonema marinoi* Induce Selective Cell Death in Cancer Cells. *Mar Drugs*. 2019 Nov 1
3. **Conte M**, Dell'Aversana C, Sgueglia G, Carissimo A, Altucci L. HDAC2-dependent miRNA signature in acute myeloid leukemia. *FEBS Lett*. 2019 Jun 29.
4. Carmela Dell'Aversana, Federica Sarno, **Mariarosaria Conte**, Cristina Giorgio, and Lucia Altucci. *Advanced Assays in Epigenetics*. Springer Nature Switzerland AG 2019. **Book chapter ahead of print**
5. De Simone A, La Pietra V, Betari N, Petragliani N, **Conte M**, Daniele S, Pietrobono D, Martini C, Petralia S, Casadei R, Davani L, Frabetti F, Russomanno P, Novellino E, Montanari S, Tumiatti V, Ballerini P, Sarno F, Nebbioso A, Altucci L, Monti B, Andrisano V, Milelli A (2019). Discovery of the First-in-Class GSK-3 β /HDAC Dual Inhibitor as Disease-Modifying Agent to Combat Alzheimer's Disease. *ACS MEDICINAL CHEMISTRY LETTERS*
6. Brindisi M, Ulivieri C, Alfano G, Gemma S, de Asís Balaguer F, Khan T, Grillo A, Chemi G, Menchon G, Prota AE, Olieric N, Lucena-Agell D, Barasoain I, Diaz JF, Nebbioso A, **Conte M**, Lopresti L, Magnano S, Amet R, Kinsella P, Zisterer DM, Ibrahim O, O'Sullivan J, Morbidelli L, Spaccapelo R, Baldari C, Butini S, Novellino E, Campiani G, Altucci L. (2019). Structure-activity relationships, biological evaluation and structural studies of novel pyrrolonaphthoxazepines as antitumor agents. *EUROPEAN JOURNAL OF MEDICINAL CHEMISTRY*
7. Illiano M, **Conte M**, Sapio L, Nebbioso A, Spina A, Altucci L, Naviglio S (2018). Forskolin sensitizes human acute myeloid leukemia cells to H3K27me3/2 demethylases GSKJ4 inhibitor via Protein Kinase A. *FRONTIERS IN PHARMACOLOGY*
8. Singh AA, Petraglia F, Nebbioso A, Yi G, **Conte M**, Valente S, Mandoli A, Scisciola L, Lindeboom R, Kerstens H, Janssen-Megens EM, Pourfarzad F, Habibi E, Berentsen K, Kim B, Logie C, Heath S, Wierenga ATJ, Clarke L, Flicek P, Jansen JH, Kuijpers T, Yaspo ML, Valle VD, Bernard O, Gut I, Vellenga E, Stunnenberg HG, Mai A, Altucci L. (2018). Multi-omics profiling reveals a distinctive epigenome signature for high-risk acute promyelocytic leukemia *ONCOTARGET*
9. Petraglia F, Singh AA, Carafa V, Nebbioso A, **Conte M**, Scisciola L, Valente S, Baldi A, Mandoli A, Petrizzi VB, Ingenito C, De Falco S, Cicatiello V, Apicella I, Janssen-Megens EM, Kim B, Yi G, Logie C, Heath S, Ruvo M, Wierenga ATJ, Flicek P, Yaspo ML, Della Valle V, Bernard O, Tomassi S, Novellino E, Feoli A, Sbardella G, Gut I, ... (2018). Combined HAT/EZH2 modulation leads to cancer-selective cell death.. *ONCOTARGET*
10. **Conte M**, De Palma R, Altucci L (2018). HDAC inhibitors as epigenetic regulators for cancer immunotherapy.. *THE INTERNATIONAL JOURNAL OF BIOCHEMISTRY & CELL BIOLOGY*
11. Basso M, Chen HH, Tripathy D, **Conte M**, Apperley KYP, De Simone A, Keillor JW, Ratan R, Nebbioso A, Sarno F, Altucci L, Milelli A (2018). Designing Dual Transglutaminase 2/Histone Deacetylase Inhibitors Effective at Halting Neuronal Death. *CHEMMEDCHEM*
12. Nebbioso A, Benedetti R, **Conte M**, Carafa V, De Bellis F, Shaik J, Matarese F, Della Ventura B, Gesuele F, Velotta R, Martens JHA, Stunnenberg HG, Altucci C, Altucci L (2017). Time-resolved analysis of DNA-protein interactions in living cells by UV laser pulses. *SCIENTIFIC REPORTS*
13. Bilancio A, Bontempo P, Di Donato M, **Conte M**, Giovannelli P, Altucci L, Migliaccio A, Castoria G (2017). Bisphenol a induces cell cycle arrest in primary and prostate cancer cells through EGFR/ERK/p53 signaling pathway activation. *ONCOTARGET*
14. Kaur J, Vergara A, Rossi M, Gravagnuolo AM, Valadan M, Corrado F, **Conte M**, Gesuele F, Giardina P, Altucci C (2017). Electrostatically driven scalable synthesis of MoS $_2$ -graphene hybrid films assisted by hydrophobins. *RSC ADVANCES*
15. Nebbioso A, Carafa V, **Conte M**, Tambaro FP, Abbondanza C, Martens J, Nees M, Benedetti R, Pallavicini I, Minucci S, Garcia-Manero G, Iovino F, Lania G, Ingenito C, Belsito Petrizzi V, Stunnenberg HG, Altucci L (2017). C-Myc modulation and acetylation is a key HDAC inhibitor target in cancer. *CLINICAL CANCER RESEARCH*
16. Benedetti R, **Conte M**, Iside C, Altucci L (2015). Epigenetic-based therapy: From single- to multi-target approaches.. *THE INTERNATIONAL JOURNAL OF BIOCHEMISTRY & CELL BIOLOGY*
17. Benedetti R, **Conte M**, Altucci L (2015). Targeting Histone Deacetylases in Diseases: Where Are We?. *ANTIOXIDANTS & REDOX SIGNALING*
18. D'Amato L, Dell'Aversana C, **Conte M**, Ciotta A, Scisciola L, Carissimo A, Nebbioso A, Altucci L (2015). ARHGEF3 controls HDACi-induced differentiation via RhoA-dependent pathways in acute myeloid leukemias. *EPIGENETICS*
19. Nebbioso A, Benedetti R, **Conte M**, Iside C, Altucci L (2015). Genetic mutations in epigenetic modifiers as therapeutic targets in acute myeloid leukemia. *EXPERT OPINION ON THERAPEUTIC TARGETS*
20. **Conte M**, Dell'Aversana C, Benedetti R, Petraglia F, Carissimo A, Petrizzi VB, D'Arco AM, Abbondanza C, Nebbioso A, Altucci L (2015). HDAC2 deregulation in tumorigenesis is causally connected to repression of immune modulation and defense escape. *ONCOTARGET*
21. De Bellis F, Carafa V, **Conte M**, Rotili D, Petraglia F, Matarese F, François KJ, Ablain J, Valente S, Castellano R, Goubard A, Collette Y, Mandoli A, Martens JH, de Thé H, Nebbioso A, Mai A, Stunnenberg HG, Altucci L (2014). Context-selective death of acute myeloid leukemia cells triggered by the novel hybrid retinoid-HDAC inhibitor MC2392.. *CANCER RESEARCH*
22. Lenoci A, Tomassi S, **Conte M**, Benedetti R, Rodriguez V, Carradori S, Secci D, Castellano S, Sbardella G, Filetici P, Novellino E, Altucci L, Rotili D, Mai A (2014). Quinoline-Based p300 Histone Acetyltransferase Inhibitors with Pro-apoptotic Activity in Human Leukemia U937 Cells. *CHEMMEDCHEM*
23. Rotili D, Tomassi S, **Conte M**, Benedetti R, Tortorici M, Ciossani G, Valente S, Marrocco B, Labella D, Novellino E, Mattevi A, Altucci L, Tumber A, Yapp C, King ON, Hopkinson RJ, Kawamura A, Schofield CJ, Mai A (2014). Pan-histone demethylase inhibitors simultaneously targeting Jumonji C and lysine-specific demethylases display high anticancer activities.. *JOURNAL OF MEDICINAL CHEMISTRY*
24. **Conte M**, Altucci L (2014). Functions, aberrations, and advances for chromatin modulation in cancer. *CANCER TREATMENT AND RESEARCH*
25. Benedetti R, **Conte M**, Carafa V, Della Ventura B, Altucci C, Velotta R, Stunnenberg HG, Altucci L, Nebbioso A (2014). Analysis of Chromatin-Nuclear Receptor Interactions by Laser-Chromatin Immunoprecipitation. *METHODS IN MOLECULAR BIOLOGY*, vol. 1204
26. Lepore I, Dell'Aversana C, Pilyugin M, **Conte M**, Nebbioso A, De Bellis F, Tambaro FP, Izzo T, Garcia-Manero G, Ferrara F, Irminger-Finger I, Altucci L (2013). HDAC inhibitors repress BARD1 isoform expression in acute myeloid leukemia cells via activation of miR- 19a and/or b. *PLOS ONE*
27. Bontempo P, Rigano D, Doto A, Formisano C, **Conte M**, Nebbioso A, Carafa V, Caserta G, Sica V, Molinari AM, Altucci L (2013). *Genista sessilifolia* DC. extracts induce apoptosis across a range of cancer cell lines. *CELL PROLIFERATION*
28. Pereira R, Benedetti R, Pérez-Rodríguez S, Nebbioso A, García-Rodríguez J, Carafa V, Stuhldreier M, **Conte M**, Rodríguez-Barrios F, Stunnenberg HG, Gronemeyer H, Altucci L, de Lera AR (2012). Indole-derived psammaphin A analogues as epigenetic modulators with multiple inhibitory activities.. *JOURNAL OF MEDICINAL CHEMISTRY*
29. **Conte M**, Altucci L (2012). Molecular pathways: the complexity of the epigenome in cancer and recent clinical advances. *CLINICAL CANCER RESEARCH*, ISSN: 1078-0432 Valente S, **Conte M**, Tardugno M, Nebbioso A, Tinari G, Altucci L, Mai A (2012). Developing novel non-hydroxamate histone deacetylase inhibitors: The chelidamide warhead. *MEDCHEMCOMM*
30. Altucci C, Nebbioso A, Benedetti R, Esposito R, Carafa V, **Conte M**, Micciarelli M, Altucci L, Velotta R (2012). Nonlinear protein - nucleic acid crosslinking induced by femtosecond UV laser pulses in living cells. *LASER PHYSICS LETTERS*
31. Valente S, Tardugno M, **Conte M**, Cirilli R, Perrone A, Ragno R, Simeoni S, Tramontano A, Massa S, Nebbioso A, Miceli M, Franci G, Brosch G, Altucci L, Mai A (2011). Novel cinnamyl hydroxamides and 2-aminoanilides as histone deacetylase inhibitors: apoptotic induction and cytodifferentiation activity. *CHEMMEDCHEM*
32. Valente S, **Conte M**, Tardugno M, Massa S, Nebbioso A, Altucci L, Mai A (2009). Pyrrole- Based Hydroxamates and 2-Aminoanilides: Histone Deacetylase Inhibition and Cellular Activities. *CHEMMEDCHEM*
33. Bontempo P, Mita L, Doto A, Miceli M, Nebbioso A, Lepore I, Franci G L, Menafra R, Carafa V, **Conte M**, De Bellis F, Manzo F, Di Cerbo V, Benedetti R, D'Amato L, Marino M, Bolli A, Del Pozzo G, Diano N, Portaccio M, Mita G D, Vietri M T, Cioffi M, Nola E, Dell'Aversana C, Sica V, Molinari A M, Altucci L (2009). Molecular analysis of the apoptotic effects of BPA in acute myeloid leukemia cells. *JOURNAL OF TRANSLATIONAL MEDICINE*
34. Nebbioso A, Manzo F, Miceli M, **Conte M**, Manente L, Baldi A, De Luca A, Rotili D, Valente S, Mai A, Usiello A, Gronemeyer H, Altucci L. (2009). Selective

- class II HDAC inhibitors impair myogenesis by modulating the stability and activity of HDAC-MEF2 complexes. . EMBO REPORTS
35. Manzo F, Nebbioso A, Miceli M, **Conte M**, De Bellis F, Carafa V, Franci G, Tambaro FP, Altucci L. TNF-related apoptosis-inducing ligand: signalling of a 'smart' molecule. *Int J Biochem Cell Biol*. 2009 Mar Epub 2007 Dec 28. Review.
 36. Souto JA, **Conte M**, Alvarez R, Nebbioso A, Carafa V, Altucci L, de Lera AR. Synthesis of benzamides related to anacardic acid and their histone acetyltransferase (HAT) inhibitory activities. *ChemMedChem*. 2008 Sep;3
 37. Bontempo P, Mita L, Miceli M, Doto A, Nebbioso A, De Bellis F, **Conte M**, Minichiello A, Manzo F, Carafa V, Basile A, Rigano D, Sorbo S, Castaldo Cobiانشi R, Schiavone EM, Ferrara F, De Simone M, Vietri M, Cioffi M, Sica V, Bresciani F, de Lera AR, Altucci L, Molinari AM. Feijoa sellowiana derived natural Flavone exerts anti-cancer action displaying HDAC inhibitory activities. *Int J Biochem Cell Biol*. 2007;39(10):1902-14. Epub 2007 May
 38. Mai A, Valente S, Cheng D, Perrone A, Ragno R, Simeoni S, Sbardella G, Brosch G, Nebbioso A, **Conte M**, Altucci L, Bedford MT. Synthesis and biological validation of novel synthetic histone/protein methyltransferase inhibitors. *ChemMedChem*. 2007 Jul;2(7)
- Source: Scopus: Author ID: 20336605000 <http://orcid.org/0000-0002-3622-1476> h-index: 15 Total citations: 754**

NATIONAL AND INTERNATIONAL CONGRESSES / SEMINARS

- 1st International and 32nd Annual Conference of Italian Association of Cell Cultures (AICC)- From Single Gene Analysis to Single Cell Profiling: A New Era for Genomic Medicine. Università Magna Græcia, October 1st - 2nd, 2019 Catanzaro, Italy- **Poster Presentation:** "HDAC2 DEREGULATION IN AML TUMORIGENESIS"
- Elsevier on Campus @ University of Campania "Luigi Vanvitelli" -University of Campania "Luigi Vanvitelli", on 27th February, 2019
- Cancer Epigenetic Therapies: new targets, new combinations and link to immunotherapy. 5-6 July 2018, Naples, Italy- University of Campania "L. Vanvitelli".
- Second Conference "HDAC inhibitors: lesson learned and challenges for the future", Naples June 30- July 1, 2016
- **Selected speaker** at: Meeting Chromatin, epigenome and drug discovery, Naples 21-23 march 2016 Scientific conference SIPMeT: "Meeting our young scientists". **Oral presentation**. September 11- 12/2015-Alba (CN)
- EPIGENETIC BLUEPRINT joint symposium: "Exploring the Epigenome in Health and Disease". Rome on October 1st at CNR Headquarters
- COST ACTION SeqAHEAD: Next Generation Sequencing Data Analysis Workshop: Translating emerging seq-based technologies into integrated biomedical approaches. 23-24 June 2014, Naples 18th Euroconference on Apoptosis. 1-4 september 2010, Ghent, Belgium and 7th Training course on "Concepts and Methods in Programmed Cell Death. 1-4 september 2010, Ghent, Belgium: **abstract presentation:** "Role of the silencing of genes that encode for HDAC1 and HDAC2 in the cell line of acute myeloid leukaemia U937"
- Scientific days - Second University of Naples July 2010: "Role of silencing the coding genes for HDAC1 and HDAC2 in the U937 acute myeloid leukemia line Seminar Workshop technology 454. Second University of Naples, 11 march, 2009
- Technical Seminar Real Time PCR. Second University of Naples, 25th november, 2008
- Scientific days - Second University of Naples, July 2008 - Role of silencing the genes encoding for HDAC1 and HDAC2 in some human cancer cell lines
- International meeting on cell stress and apoptosis - Grand Hotel Salerno -Salerno. July 3rd -4th, 2008.
- Meeting "Epigenetics and new therapies in cancer", Angela Nebbioso, Marco Miceli, Floriana De Bellis, **Mariarosaria Conte**, Fabio Manzo, Vincenzo Carafa, Francesco Paolo Tambaro, GianLuigi Franci, Ilaria Lepore, Vincenzo Di Cerbo and Lucia Altucci. Madrid 2007
- Scientific days - Second University of Naples 3-6 July 2006 Induction of tumor-selective apoptosis by histone deacetylase inhibitors in acute myeloid leukemia cells
- Convergence of Multiple Cancer-Selective Signaling Pathways and Epigenetic Drugs on TRAIL. EPITRON BRAINSTORMING meeting. Ischia May 23-25, 2006;
- Training Camp for Young Investigators: "Molecular Biology meets Physics and Chemistry: Novel approaches and ideas to combat disease". Ischia, Italia. (speaker "HDAC's induce TRAIL"). **Oral presentation**. 2006(24-26/5).
- Meeting "Epigenetic targets in chemotherapy". Salerno, Italy, 29/09/2006.
- "Apoptosis: basic concepts and application". Salerno, Italia. 23-24/6/2005.
- "Stem cells in the third millennium: current and future medical applications" 16th November 2005 CEINGE Advanced Biotechnologies

SCIENTIFIC COMPETENCE

- Screening and identification of epigenetic compounds and hybrid drugs in tumor and normal systems; identification of deregulation concerning the genome and epigenome of cancer; molecular mechanisms of miRNAs in the epigenetic regulation of cancer; characterization of molecular processes and related alterations responsible for pathogenesis and tumor progression; ChIP; Study and creation of genetically engineered models to reproduce HDAC-defected cancer models in particular, of HDAC2 (loss, gain of function and mutation); transient and stable cloning in tumor and normal models; epigenetic therapy of the HDAC2 gene in colon cancer; molecular characterization of HDAC2 aberrations related to the immune system in leukemia and solid tumors; Cancer immunoeediting;; Study of DNA and protein interactions in cells using UV laser pulses
- **Reviewer activity:** Reviewer of the scientific journal: *The International Journal of Biochemistry & Cell Biology*; *Clinical Epigenetics*; *Translational Cancer Research*; *Diseases*
- **Editorial activity:** Guest Associate Editor for Medicinal and Pharmaceutical: *Frontiers*
- **Member of scientific society:** Società Italiana di Patologia e Medicina Traslazionale (SIPMET); Associazione Italiana per le Colture Cellulari (AICC)

PERSONAL SKILLS

Mother tongue	Italian				
Other language(s)	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	B1	C1	C1	B1	C1
Spanish	A1	A1	A1	A1	A1

Digital skills

SELF-ASSESSMENT

<i>Information processing</i>	<i>Communication</i>	<i>Content creation</i>	<i>Safety</i>	<i>Problem solving</i>
<i>Independent user</i>	<i>Independent user</i>	<i>Independent user</i>	<i>Independent user</i>	<i>Independent user</i>

European Computer Driving License

- good command of word processor, spread sheet, presentation software; good command of Illustrator, Photoshop

Driving licence

B

The undersigned is aware that, pursuant to art. 26 of law 15/68, false declarations, false documents and the use of false documents are punished under the penal code and special laws. Furthermore, the undersigned authorizes the processing of personal data, in accordance with the provisions of Law

Dr. Mariarosaria Conte