PERSONAL INFORMATION

Dott.ssa Rosaria Benedetti

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Sex F | Date of birth 21/10/1984 | Nationality Italiana | C.F. BNDRSR84R61F839V

CURRENT POSITION RTDA
TITOLO DI STUDIO Biologist, Pathologist, PhD
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JOB EXPERIENCES and FORMATION

21/10/2029 RTDA in General Pathology at the University of Campania "Luigi Vanvitelli"

2017-2021 Specialization school in Clinical **B**iochemistry and Clinical Pathology
Università degli Studi della Campania "L. Vanvitelli" - Dipartimento di Medicina di Precisione

Ottobre 2018 Honorary Fellow in General Pathology
Università degli Studi della Campania "Luigi Vavitelli", Scuola di Medicina e Chirurgia, Corsi di Laurea in Odontoiatria e Protesi Dentaria

2012 to 2018 Research associate
Università degli Studi della Campania "L. Vanvitelli" - Dipartimento di Biochimica, Biofisica e Patologia Generale

13/01/2012 PhD in Biotechnology
University of Napoli Federico II

2008 to 2011 PhD fellow in Biochemistry
University of Napoli Federico II

1/03/2009 - 31/03/2009 Fixed-term contract
In collaboration with CNISM (National Interuniversity Consortium for the Physical Sciences of Matter)

2006-2008 Master degree in Molecular and Industrial Biotechnology
University of Napoli Federico II ottenuta con votazione 110/110 cum laude and honourable mention

2003-2006 Degree in Biotechnology for Products and Processes
University of Napoli Federico II 110/110 cum laude

1998-2003 high school diploma (classical studies)
Liceo "A. Genovesi" di Napoli con votazione 93/100

PERSONAL SKILLS

Biology, Clinical Pathology, Epigenetics, Chemistry, Biotechnology, Physics, Proteomics, Systems Biology, Calculus Theory, in vitro assays development, cell-based assays, structural proteomics and recombinant biotechnology, fermentation, analytical chemistry, bio-reaction, Bioinformatics

Mother tongue: Italian

Other languages

UNDERSTANDING		SPEAKING		WRITING
Listening	Reading	Spoken interaction	Spoken production	
English C1/C2	C1/C2	C1/C2	C1/C2	C1/C2

Other languages

UNDERSTANDING		SPEAKING		WRITING
Listening	Reading	Spoken interaction	Spoken production	
Spanish B1/B2	A1/A2	B1/B2	B1/B2	A1/A2

Digital skills

SELF-ASSESSMENT				
Information processing	Communication	Content creation	Safety	Problem solving
Proficient user	Proficient user	Proficient user	Proficient user	Proficient user

Job-related skills: Epigenetic regulations in solid and haematological cancers. Ability to conduct in fluorescence and radioactive in vitro assays on the main epigenetic enzymes (HDACs, SIRTs, KDMs, DNMTs, HATs). Epigenetics drug discovery screenings. Skills in the basic techniques of molecular and cellular biology, in particular, all those methods for the manipulation, the characterization and the use of DNA, RNA and proteins, ChIP, micro-arrays, fluorescence microscopy, high throughput screening. Excellent skills in the field of cell cultures of both eukaryotes and prokaryotic (flow cytometry and management of fermentation processes in pilot/industrial scale): proliferation assay, morphological assays, migration and differentiation evaluation. In-depth knowledge of laser systems and pulsed lasers (Nd-glass laser) and the interaction between laser radiation and biological systems. Specific knowledge in the field of proteomics and instrumentation normally worked in proteomic research, including: HPLC systems, affinity chromatography and MALDI TOF. NGS technologies and “omic” analysis.Excellent computer skills (Microsoft applications and Microsoft Office, especially Excel and Access, and browse Internet). Excellent management of ability to browse bioinformatics tools (interrogation of databases, modeling, use of the software). Excellent knowledge of graphics programs (Photoshop, Illustrator, ImageJ).

ADDITIONAL INFORMATION

Pubblications

- 25 pubblications https://www.ncbi.nlm.nih.gov/pubmed/?term=Rosaria+Benedetti Scopus Author ID: 31567489500
  Unicampania academic home-page: https://iris.unicampania.it/browse?type=author&order=ASC&rpp=20&authority=rp11808#.Xj04HzFKiM8

R. Benedetti, F. Bajardi, S. Capozziello, V. Carafa, M. Conte, M. R. Del Sorbo, A. Nebbioso, M. Singh, H. G. Stunnenberg, M. Valadan, L. Altucci & C. Altucci (2020) Different Approaches to Unveil Biomolecule Configurations and Their Mutual Interactions, Analytical Letters, DOI: 10.1080/00032719.2020.1716241

Benedetti R, Dell'Aversana C, De Marchi T, et al. Inhibition of Histone Demethylases LSD1 and UTX Regulates ERα Signaling in Breast Cancer. Cancers (Basel). 2019;11(12):2027. Published 2019 Dec 16. doi:10.3390/cancers11122027

Benedetti R, Altucci L. I BET on anti-FGFR to fight cancer resistance. EMBO Mol Med. 2019 Feb;11(2). pii: e10116. doi: 10.15252/emmm.201810116. PubMed PMID: 30610114; PubMed Central PMCID: PMC6365924.

Kaur J, Singh M, Dell'Aversana C, **Benedetti R**, Giardina P, Rossi M, Valadan M,Vergara A, Cutarelli A, Montone AMI, Altucci L, Corrado F, Nebbioso A, Altucci C. Biological interactions of biocompatible and water-dispersed MoS(2) nanosheets with bacteria and human cells. Sci Rep. 2018 Nov 6;8(1):16386. doi:10.1038/s41598-018-34679-y. PubMed PMID: 30401943; PubMed Central PMCID:

PMC6219585.

Benedetti R, Dell'Aversana C, Giorgio C, Astorri R, Altucci L. Breast Cancer Vaccines: New Insights. Front Endocrinol (Lausanne). 2017 Oct 13;8:270. doi: 10.3389/fendo.2017.00270. eCollection 2017. Review. PubMed PMID: 29081765.

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. Time-resolved analysis of DNA-protein interactions in living cells by UV laser pulses. Sci Rep. 2017 Sep 15;7(1):11725. doi: 10.1038/s41598-017-12010-5. PubMed PMID: 28916762

Madia VN, **Benedetti R**, Barreca ML, Ngo L, Pescatori L, Messore A, Pupo G, Saccoliti F, Valente S, Mai A, Scipione L, Zheng YG, Tintori C, Botta M, Cecchetti V, Altucci L, Di Santo R, Costi R. Structure-Activity Relationships on Cinnamoyl Derivatives as Inhibitors of p300 Histone Acetyltransferase. ChemMedChem. 2017 Aug 22;12(16):1359-1368. doi: 10.1002/cmdc.201700040. Epub 2017Apr 12. PubMed PMID: 28346821.

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. c-Myc Modulation and Acetylation Is a Key HDAC Inhibitor Target in Cancer. Clin Cancer Res. 2017 May 15;23(10):2542-2555. doi: 10.1158/1078-0432.CCR-15-2388. Epub 2016 Jun 29. PubMedPMID: 27358484.

Benedetti R, Conte M, Iside C, Altucci L. Epigenetic-based therapy: From single- to multi-target approaches. Int J Biochem Cell Biol. 2015 Dec;69:121-31. doi: 10.1016/j.biocel.2015.10.016. Epub 2015 Oct 19. Review. PubMed PMID: 26494003.

Nebbioso A, **Benedetti R**, Conte M, Iside C, Altucci L. Genetic mutations in epigenetic modifiers as therapeutic targets in acute myeloid leukemia. Expert Opin Ther Targets. 2015;19(9):1187-202. doi: 10.1517/14728222.2015.1051728. Epub 2015 May 30. Review. PubMed PMID: 26028314.

Conte M, Dell'Aversana C, **Benedetti R**, Petraglia F, Carissimo A, Petrizzi VB, D'Arco AM, Abbondanza C, Nebbioso A, Altucci L. HDAC2 deregulation in tumorigenesis is causally connected to repression of immune modulation and defense escape. Oncotarget. 2015 Jan 20;6(2):886-901. PubMed PMID: 25473896;
PubMed Central PMCID: PMC4359263.

Benedetti R, Conte M, Carafa V, Della Ventura B, Altucci C, Velotta R, Stunnenberg HG, Altucci L, Nebbioso A. Analysis of chromatin-nuclear receptor interactions by laser-chromatin immunoprecipitation. Methods Mol Biol. 2014;1204:25-34. doi: 10.1007/978-1-4939-1346-6_3. PubMed PMID: 25182758.

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. Quinoline-based p300 histone acetyltransferase inhibitors with pro-apoptotic activity in human leukemia U937 cells. ChemMedChem. 2014 Mar;9(3):542-8. doi:
10.1002/cmdc.201300536. Epub 2014 Feb 6. PubMed PMID: 24504685.

Benedetti R, Conte M, Altucci L. Targeting Histone Deacetylases in Diseases: Where Are We? Antioxid Redox Signal. 2015 Jul 1;23(1):99-126. doi: 10.1089/ars.2013.5776. Epub 2014 Mar 6. Review. PubMed PMID: 24382114; PubMed.

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. Pan-histone demethylase inhibitors simultaneously targeting Jumonji C and lysine-specific demethylases display high anticancer activities. J Med Chem. 2014 Jan 9;57(1):42-55. doi:

10.1021/jm4012802. Epub 2013 Dec 19. PubMed PMID: 24325601.

Habibi E, Brinkman AB, Arand J, Kroeze LI, Kerstens HH, Matarese F, Lepikhov K, Gut M, Brun-Heath I, Hubner NC, **Benedetti R**, Altucci L, Jansen JH, Walter J, Gut IG, Marks H, Stunnenberg HG. Whole-genome bisulfite sequencing of two distinct interconvertible DNA methylomes of mouse embryonic stem cells. Cell Stem Cell. 2013 Sep 5;13(3):360-9. doi: 10.1016/j.stem.2013.06.002. Epub 2013 Jul 11. PubMed PMID: 23850244.

Valente S, Trisciuoglio D, Tardugno M, **Benedetti R**, Labella D, Secci D, Mercurio C, Boggio R, Tomassi S, Di Maro S, Novellino E, Altucci L, Del Bufalo D, Mai A, Cosconati S. tert-Butylcarbamate-containing histone deacetylase inhibitors: apoptosis induction, cytodifferentiation, and antiproliferative activities in cancer cells. ChemMedChem. 2013 May;8(5):800-11. doi: 10.1002/cmdc.201300005. Epub 2013 Mar 25. PubMed PMID: 23526814.

Nebbioso A, Carafa V, **Benedetti R**, Altucci L. Trials with 'epigenetic' drugs: an update. Mol Oncol. 2012 Dec;6(6):657-82. doi: 10.1016/j.molonc.2012.09.004. Epub 2012 Oct 6. Review. PubMed PMID: 23103179; PubMed Central PMCID: PMC5528349.

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. Indole-derived psammaplin A analogues as epigenetic modulators with multiple inhibitory activities. J Med Chem. 2012 Nov 26;55(22):9467-91. doi: 10.1021/jm300618u. Epub 2012 Oct 17. PubMed PMID: 23030799.

Bontempo P, Doto A, Miceli M, Mita L, **Benedetti R**, Nebbioso A, Veglione M, Rigano D, Cioffi M, Sica V, Molinari AM, Altucci L. Psidium guajava L. anti-neoplastic effects: induction of apoptosis and cell differentiation. Cell Prolif. 2012 Feb;45(1):22-31. doi: 10.1111/j.1365-2184.2011.00797.x. Epub 2011 Dec 16. PubMed PMID: 22172154.

Milite C, Castellano S, **Benedetti R**, Tosco A, Ciliberti C, Vicidomini C, Boully L, Franci G, Altucci L, Mai A, Sbardella G. Modulation of the activity of histone acetyltransferases by long chain alkylidenemalonates (LoCAMs). Bioorg Med Chem. 2011 Jun 15;19(12):3690-701. doi: 10.1016/j.bmc.2011.01.013. Epub 2011 Jan 14. PubMed PMID: 21292492.

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, ISSN: 1612-2011

García J, Franci G, Pereira R, **Benedetti R**, Nebbioso A, Rodríguez-Barrios F, Gronemeyer H, Altucci L, de Lera AR. Epigenetic profiling of the antitumor natural product psammaplin A and its analogues. Bioorg Med Chem. 2011 Jun 15;19(12):3637-49. doi: 10.1016/j.bmc.2010.12.026. Epub 2010 Dec 15. PubMed PMID: 21215647.

Souto JA, **Benedetti R**, Otto K, Miceli M, Alvarez R, Altucci L, de Lera AR. New anacardic acid-inspired benzamides: histone lysine acetyltransferase activators. ChemMedChem. 2010 Sep 3;5(9):1530-40. doi: 10.1002/cmdc.201000158.
PubMed PMID: 20683922.

Bontempo P, Mita L, Doto A, Miceli M, Nebbioso A, Lepore I, Franci G, 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 GD, Vietri MT, Cioffi M, Nola E, Dell'aversana C, Sica V, Molinari AM, Altucci L. Molecular analysis of the apoptotic effects of BPA in acute myeloid leukemia cells. J Transl Med. 2009 Jun 18;7:48. doi: 10.1186/1479-5876-7-48. PubMed PMID: 19538739.

Courses
And scientific meeting

- Selected speaker at 1st International and 32nd Annual Conference of Italian Association of Cell Cultures (AICC), 1-2/10/2019
- Selected speaker MuTaLig and Epigenetic Chemical Biology: Joint CM1406/CA15135

Scientific Workshop

- Selected speaker at the meeting BLUEPRINT / IHEC, Brussels, September 8-9, 2016
- Selected speaker at the 3rd Joint Meeting of Pathology and Laboratory Medicine, Montesilvano (PE) , Italy, October 4th – 6th 2016.
- Second Conference “HDAC inhibitors: lesson learned and challenges for the future”, Naples June 30-July 1,2016
- **Local organizer of meeting “Frontiers in Molecular Biology”, Naples 16-18 June 2016**
- Invited speaker at: Meeting Chromatin, epigenome and drug discovery, Naples 21-23 march 2016
- Invited speaker at COST ACTION SeqAHEAD: Next Generation Sequencing Data Analysis Workshop: Translating emerging seq-based technologies into integrated biomedical approaches. 23-24 June 2014, Naples
- EPIGEN ET BLUEPRINT joint symposium: “ Exploring the Epigenome in Health and Disease”. Rome on October 1st at CNR Headquarters 2014
- Selected speaker at SLAS 2013, conference and practical course, Orlando, U.S.A from 11-01-2013 to 16-01-2013
- Invited speaker at COST meeting in University Of Salerno, Italy from 04-11-2012 to 06-11-2012
- Practical course and conference “Bioinformatics and High Throughput Sequencing” 2011, Pasteur Institute, Paris 22/3/2011
- Practical course and conference “Concepts and Methods in Programmed Cell Death”, ECDO Organization (European Cell Death Organization), in Belgium, Ghent 1-4/9/2010
- Selected speaker at the International Workshop "Chromatin remodeling and human disease” Rome, Regina Elena Institute, 3-4/12/2009

Honours and awards

- **Pandolfi 2019 scientific prize** from Società Italiana di Patologia SIPmeT
- **Tony B. scientific prize in January 2013, Orlando, USA**
- Honorary Fellow in General Pathology 2018

Memberships

- Editorial Board Member of Clinical Epigenetics
- Editorial Board member of Global Journal of Cancer Therapy
- BMC Genetics reviewer 2014-2019
- Clinical Epigenetics reviewer 2015-2019