Donato Colangelo

Curriculum vitae

PERSONAL DATA

Birth place and date: San Lorenzo Maggiore (BN), 11.23.1966

Living in Novara, Italy

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BIO AND EDUCATION

1990: Degree in Biological Sciences (110/110 cum Laude), University of Turin
1994: Ph.D. in Chemotherapy, University of Milan

UNIVERSITY CAREER

2000-	Researcher – Aggregate Professor Pharmacology, University of Piemonte Orientale, Medical School, Department of Health Sciences
1999-2000	Research fellow, University of Piemonte Orientale
1996-1998	Ph.D. student, University of Milan
1995-1996	Research contract, Humboldt University, Polyclinic Charité, Berlin, Germany
1991-1992	Research fellow, Laboratory of Cancer Biology, School of Medicine, University of California, San Diego, UCSD, La Jolla, USA

UNIVERSITY POSITIONS

2016-	Member of the Disciplinary Commission, University of Piemonte Orientale
2015-	Member of the Commission for the Development of the Medical School, University of Piemonte Orientale
2004-2008	Member of the Commission for the Department Economic Programming and Survey, University of Piemonte Orientale
2003-	Coordinator of the integrated course "General Physiopathology and Therapeutic Treatments", School of Obstetrics, University of Piemonte Orientale
2016-	Coordinator of the integrated course "Molecular Therapy", School of Medical Biotechnology (delivered in English), University of Piemonte Orientale
2003-2012 e 2016-	Coordinator of the integrated course "Application of the diagnostic and therapeutic processes in Pediatrics", School of Pediatric Nurse, University of Piemonte Orientale

2016-	Coordinator of the integrated course “Principles in General Medicine”, School of Dentist Chair Assistant, University of Piemonte Orientale
2005-2008	Coordinator of the integrated course “Molecular Therapy”, School of Biotechnology, University of Piemonte Orientale

SCIENTIFIC POSITIONS

2013-	Expert Member of Pharmacology in the Ethycal Committee of the Hospital “SS. Antonio e Biagio e C. Arrigo”, Alessandria (AL)
2012-	Scientific Reviewer for MIUR and FIRB “Progetti Giovane” Included in REPRISE - Register of Expert Peer Reviewers for Italian Scientific Evaluation
2001-2006	Italian Scientific Member of the Management Committee COST Action B16, “Reversal of antibiotic resistance”

MAIN FIELDS OF INTEREST

1. Telomeres and Telomerase
2. Nanoparticle for drug delivery
3. Chemotherapy
4. Therapeutic Dietary Integration
5. Pharmacokinetics

CURRENT ISSUES OF RESEARCH

1. **Development of functionalized nanoparticles for the anticancer drug delivery**

Hydroxyapatite multifunctional nanoparticles have potential to target cancer tissues. Some nanoparticles, in fact, can selectively deliver antineoplastic drugs thanks to the functionalization with monoclonal antibodies that recognize some kind of tumors (bifunctional). Our group, in cooperation with several scientists, is studying their potential use in therapy, including pharmacokinetics and toxicology, both in animal and cell models.

2. **Characterization of AML and LAM tumors for a rational pharmacologic treatment**

Angiomyolipoma (AML) and lymphangioleiomyomatosis (LAM) are rare neoplastic mesenchimal pathologies, probably related and typically associated to the reproductive age of women. To date, the clinical evidences for the rational approach to these pathologies are limited. Our group, in cooperation with other scientists, is studying, both in cell lines and in cells derived from patients the cellular and molecular peculiarities to drive more effective drug treatments.

3. **Dietary antioxidant clovamide and curcumin as models for mesenchymal stem cells xenograft potential preservation**

The administration of mesenchymal stem cells has shown high potential for the regeneration of different tissues. Low engraftment is a limitation for their extensive in vivo use, likely due to the problematic site of engraftment, usually characterized by necrotic and oxidative microenvironment. Our group, in cooperation with other scientists, is studying the potential use of dietary supplements like curcumin or polyphenols as protective treatment for stem cells xenografts in murine models.

CURRENT FUNDED PROJECTS

PROGRAMME	FUNDED PROJECT
Fondi di Ateneo 2016-2018	Hydroxyapatite nanoparticles as multifunctional platforms for targeted delivery of hTERT siRNA to tumor cells
Compagnia di Sanpaolo 2015-2017	Bifunctional platinum(IV) complexes as antitumor prodrugs candidates – Co-investigator (PI Prof. Osella)

TOP FIVE PAPERS

1. Colangelo D, Ghiglia A, Viano I, Mahboobi H, Ghezzi A, Cassino C, Osella D. Might telomerase enzyme be a possible target for trans-Pt(II) complexes? J Inorg Biochem. 2004 Jan;98(1):61-7. PubMed PMID: 14659633
2. Oltolina F, Zamperone A, Colangelo D, Gregoletto L, Reano S, Pietronave S, Merlin S, Talmon M, Novelli E, Diena M, Nicoletti C, Musarò A, Filigheddu N, Follenzi A, Prat M. Human Cardiac Progenitor Spheroids Exhibit Enhanced Engraftment Potential. PLoS One 2015;10(9):e0137999.
3. Pietronave S, Zamperone A, Oltolina F, Colangelo D, Follenzi A, Novelli E, Diena M, Pavesi A, Consolo F, Fiore GB, Soncini M, Prat M. Monophasic and biphasic electrical stimulation induces a precardiac differentiation in progenitor cells isolated from human heart. Stem Cells Dev. 2014 Apr 15;23(8):888-98. doi: 10.1089/scd.2013.0375. Epub 2014 Jan 24. PubMed PMID: 24328510; PubMed Central PMCID: PMC3991992
4. Perego P, Caserini C, Gatti L, Carenini N, Romanelli S, Supino R, Colangelo D, Viano I, Leone R, Spinelli S, Pezzoni G, Manzotti C, Farrell N, Zunino F. A novel trinuclear platinum complex overcomes cisplatin resistance in an osteosarcoma cell system. Mol Pharmacol. 1999 Mar;55(3):528-34. Erratum in: Mol Pharmacol 1999 Jun;55(6):1108. PubMed PMID: 10051537
5. Colangelo D, Osella D. Telomerase inhibition and cancer: might platinum based drugs have a future as anti-telomerase pharmacological approach? Curr Med Chem. 2005;12(26): 3091-102. PubMed PMID: 16375703