Curriculum Vitae

Domenico D'Arca

Home address: Via Ponte Marianna 31/B, Spilamberto (MO) 41057, Italy
Citizenship: Italian
Date and Place of birth: 02/10/1974 - *Potenza (PZ)*
Gender: Male

Contacts

Office: +39 0592055610
Lab: +39 0592055398
Mobile: +39 349 2246846

E-mail: domenico.darca@unimore.it
domdarc@hotmail.com

Personal and lab Information

lab web site:
http://www.neubiomet.unimore.it/site/en/home/research/articolo930024132.html

Researcher identifiers: Research ID B-9212-2016, ORCID 0000-0002-7240-6005
Scopus Author ID: 6507531407

Education and training

2006

February 2006: I earned the PhD degree in Experimental Medicine at the University of Modena and Reggio Emilia, Faculty of Medicine, Italy.

2004-2006

During the second stage of my PhD program, I have been a visiting researcher at the Department of Urology, Kimmel Cancer Center, Thomas Jefferson University Hospital in Philadelphia, Pennsylvania, USA (Laboratory of Prof. Baffa R. and Gomella L.); my projects were focused on the characterization and functional analysis of *MITOSTATIN*, a new tumor suppressor gene, at 12q24.1 chromosome 12, and *in vivo* study of the effect of Rofecoxib in the inhibition or slowing the development of BBN-induced urinary bladder cancers in mice lacking the *FHIT* tumour suppressor gene. The experience and the accomplishments achieved in this outstanding laboratory allowed me to publish my results in the international peer-reviewed journals.

2003-2004

I started my PhD program in 2003**,** Faculty of Medicine, University of Modena and Reggio Emilia, Italy; over the first stage, my project was to better define the role of Clusterin protein in prostate cancer. In particular I investigated the localization and expression of different Clusterin isoforms during prostate cancer development in a transgenic mice model (Transgenic Adenocarcinoma of the Mouse Prostate, TRAMP) and in transformed cell lines. The role of this protein in the chemoprevention of prostate cancer has been investigated as well. I contributed on the accomplishment of the above research programs, and achieved several publications in the international peer-reviewed journals.

2001

Degree in Biological Sciences, 110/110, University of Modena and Reggio Emilia, Italy. I started working on cancer research field as graduate student, and my project was

focused on the role of polyamine metabolism regulatory genes and Clusterin (SGP2, TRPM-2, APO-J) during the cell cycle and neoplastic transformation. I contributed on the accomplishment of the above research program, achieving the publication in the leading international peer-reviewed journals.

Leadership and other Professional Experiences

2008 - to present

Assistant Professor position, University of Modena e Reggio Emilia, Department of Biomedical Sciences, Italy. Started my own laboratory. The experience and accomplishments achieved, provided me with the opportunity to continue to produce the highest quality work in the Oncology field. My research interests are mostly focused on the molecular basis of human tumors with emphasis on Prostate, Ovarian and Colorectal cancers. Structural and functional characterization of the new protein TpMs, endowed with tumor suppressor activity. Based on our preliminary results, TpMs may play a critical role in guarding the fidelity of mitosis; we demonstrated that its depletion leads to incorrect chromosome segregation, followed by aneuploidy and chromosomal aberrations. I have achieved in this laboratory the possibility to publish my results on the leading international peer-reviewed journals and obtained 1 Patent approved, 2015 (102015000088249, “ANTICANCER DRUGS”).

2007-2009

Postdoctoral research fellow. Since May 2007, after my PhD program, I have been a postdoctoral research fellow at the outstanding laboratory of professors Antonio Iavarone and Anna Lasorella, Columbia University, Medical Center Institute for Cancer Genetics New York, USA. Over the three years of this postdoctoral fellowship, my projects were focused on the molecular mechanisms of tumor angiogenesis (roles of Id proteins in Hif1α-VEGF pathway). I investigated also the roles of Huwe1, E3 ubiquitin ligase, that operate upstream of a novel N-Myc-Dll3-Notch pathway to control neural stem cell activity and promote neurogenesis. We found that the deregulation of Huwe1 function is involved in tumor development.
I have achieved in this laboratory the possibility to publish my results on the leading international peer-reviewed journals as main author.
In this laboratory I had the chance to supervise a technician and graduate students, who helped me in developing my projects.

Teaching activity

2008 - to present

Course on Biochemistry and Molecular Biology, New Technologies of Molecular Biology at the Faculty of Medicine, University of Modena and Reggio Emilia, Italy**.**

Supervision of undergraduate students, graduate students and postdoctoral fellows.

Research grants

2021-2026

2021-2026. AIRC (Associazione italiana per la ricerca sul cancro) “Thymidylate synthase dimer disrupters induce DNA damage, halt cell growth, overcome drug resistance in colorectal cancer” IG 25785. *Participant*.

2021-2023 2021-2023. FONDO DI ATENEO PER LA RICERCA ANNO 2021 PROGETTO DI RICERCA INTERDISCIPLINARE MISSION ORIENTED. “TEAD ligands prevent YAP binding and combat colorectal cancer growth and resistance”. *Participant.*

2016-2018 2016-2018 AIRC Grant (Associazione italiana per la ricerca sul cancro) “Protein-protein interaction inhibitors of thymidylate synthase against colorectal cancers” IG 16977. *Participant*.

2016-2018 2016-2018 “Fondazione di Vignola” Grant. “Ruolo chiave della proteina Mitostatin per la stabilità genomica del tumore prostatico: nuovo biomarcatore capace di distingue tumori indolenti da tumori aggressivi per una terapia personalizzata”. *Principal Investigator*

2014-2017 2014-2017: BHF Grant (British Heart Foundation, PhD Studentship) “ Trichoplein: Role for a novel regulator in the endothelial cell function in diabetes” *Participant*.

2010-2013 2010-2013 AIRC Grant (Associazione italiana per la ricerca sul cancro) “Targeting drug resistance in ovarian cancer” IG 10474. *Participant*.

2006 PRIN 2006: “Study of anti-tumoral activity of green tea catechins (GTCs) and the role of Clusterin (CLU) and its nuclear form (nCLU) as possible mediator of their action”. ID: 2006062247. *Participant*.

2004 PRIN 2004: “Expression levels of Clusterin isoforms in inflammation and cancer of the lung”. ID: 2004061839_002. *Participant*.

2004 PRIN 2004: “Expression profiles of Clusterin isoforms and genes involved in cell proliferation during prostate carcinoma development”. ID: 2004062571_003. *Participant*.

2003 PRIN 2003: “Correlation between the expression patterns of Clusterin isoforms and of the genes controlling the metabolism of aliphatic polyamines in prostate cancer initiation and progression”. ID: 2003063881_003. *Participant*.

Reviewer for funding agencies

Grant award peer reviewer Expert Evaluator of the European Commission for Horizon 2020, the Marie Sklodowska-Curie Individual Fellowship H2020-MSCA-IF (MSCA-IF-2016, MSCA-IF-2017, MSCA-IF-2018, MSCA-IF-2019); European & Global Fellowships – Scientific Panel LIF, since 2016.

University Grant: Bando di Ateneo per la Ricerca di Base, since 2015. PRIN, since 2018.

Reviewer for scientific journals

Biochemical Journal, Brain Research, British Journal of Medicine and Medical Research, British Journal of Pharmaceutical Research, Developmental Biology,

Journal of Molecular Endocrinology, Medicinal Chemistry Journal.

Member of the editorial board

Member of the Editorial Board of Scientific Journals: Oxidative Medicine and Cellular Longevity, Analytical Cellular Pathology.

Participation to clinical trial studies

I am participating to the translational research activity of the following clinical trials: i) MITO group "Multicenter Italian Trials in Ovarian cancer and gynecologic malignancies" (MITO is a member of the Gynecologic Cancer Intergroup, GCIG and part of the European Network of Gynaecological Oncological Trial Groups, ENGOT); ii) EUTROC (European Network for Translational Research in Ovarian Cancer, Jalid Sheouli), and iii) translational research activity of clinical trial of the IRCCS Istituto Scientifico Romagnolo (Dr. Ugo De Giorgi) per lo Studio e la Cura dei Tumori (I.R.S.T.) Meldola, Forlì –Italy.

Patents

2015 Patent approved: "ANTICANCER DRUGS". Inventors: Costi MP, Costantino L, Ponterini G, Marverti G, Franchini S, Tondi D, **D'Arca D**, Ferrari S, Luciani R, Venturelli A, Sammak S, Lauriola A, Gozzi G. Submitted: 29/12/2015, Patent N°: 102015000088249.

2023 Patent approved: "Composti ad attività antitumorale diretti alla Hippo pathway". Inventors: COSTI Maria Paola, VENTURELLI Alberto, RONCAGLIA Fabrizio, PONTERINI Glauco, MARVERTI Gaetano, D'ARCA Domenico, ZAPPATERRA Dana, TAGLIAZUCCHI Lorenzo, AIELLO Daniele, MALPEZZI Giulia, MOSCHELLA Maria Gaetana, SANTUCCI Matteo, MOR Marco, SCALVINI Laura, ELISI Gian Marco. Patent N°: P7816IT00.

Publications

https://pubmed.ncbi.nlm.nih.gov/?term=d%27arca+d&sort=date

Selected abstracts

Lauriola Angela, Caporali Andrea, Mai Sabine, **D'Arca Domenico**. "The key role of Mitostatin in the maintenance of genome stability". American Association for Cancer Research (AACR), AACR Annual Meeting April 2017 Washington, D.C., USA (http://www.aacr.org).

Laura Taddia, Lorena Losi, Alessandra Gualandi, **Domenico D'Arca**, Gaia Gozzi, Leda Severi, Stefania Ferrari, Chiara Marraccini, Glauco Ponterini, Gaetano Marverti, Ioana Braicu, Jalid Sehouli, Maria Paola Costi.
"Identification of a protein panel characterizing the cellular activity of Pemetrexed in

the treatment of ovarian cancer". European Network for Translational Research in Ovarian Cancer (EUTROC), 18 April 2015, Berlin, Germany**.**

D'Arca D., Caporali A., Martello A., Davalli P., Lauriola A., Rivasi F., Brausi M. "Mitostatin: a "Guardian of Mitochondrial integrity" in prostate gland". The 22nd Meeting of the EAU Section of Urological Research (ESUR), 9-11 October 2014 Glasgow, Scotland.

D'Arca Domenico, Caporali Andrea, Martello Andrea, Davalli Pierpaola, Lauriola Angela, Rivasi Francesco, Brausi Maurizio and Corti Arnaldo.
"MITOSTATIN: a "Guardian of Mitochondrial integrity" in prostate gland". The 5th International Forum of Regional and Targeting Therapies for Cancer (RTTC),2013 November 15th-18th - Shanghai, China.

Marverti G., Pirondi S., Marraccini C., Frassineti C., Helleman J., Berns E.M.J.J., Ferrari S., Luciani R., Martello A., M. Pelà, R.Guerrini and **D'Arca D**., Costi, M.P. "Studies On The Effects Of A Novel Pteorate-Peptide Bioconjugate For Folate Receptor-Mediated Targeted Therapy In Human Ovarian Cancer Cell Lines". European Network for Translational Research in Ovarian Cancer (EUTROC), 2013.

M. Scaltriti, A. Caporali, **D. D'Arca,** A. Caccamo, E. Medico, A. Corti and S. Bettuzzi.
"Profiling of genes differentially regulated by clusterin in PC3 human prostate cancer cells by DNA microarray". 9th World congress on advances in oncology, and 7th International Symposium on molecular medicine, 14-16 October, 2004, Hersonissos, Crete, Greece.

G. Marverti, A. Ligabue, M.G. Monti, S. Bettuzzi, A. Caporali, **D. D'Arca** and M.S. Moruzzi. "Spermidine/Spermine N^1-Acetyltransferase transient over-expression increases sensitivity of resistant human ovarian cancer cells to N^1,N^{12}-Bis(Ethyl)Spermine and cisplatin". Biogenic Amines, Health implications of dietary Amines, 22-26 May 2004, Trento.

S. Carnevali, S. Petruzzelli, **D. D'Arca**, A. Caporali, S. Astancolle, F. Luppi, A. Corti and L.M. Fabbri. "Cigarette smoke (CSE) induces clusterin expression in human lung fibroblasts". European Respiratory Society Annual Congress, 4-8 September 2004, Glasgow.

S. Bettuzzi, A.Caporali, P. Davalli, S. Astancolle, **D. D'Arca**, M. Brausi, A. Corti. "Cathechins chemopreventive action on prostate cancer is mediated by Clusterin overexpression in the TRAMP model". XIXth Congress of EAU 24-27 March 2004, Wien.

A. E. Caccamo, M. Scaltriti, A. Caporali, **D. D'Arca**, F. Scorcioni , G. Candiano, M. Mangiola and S. Bettuzzi "Nuclear traslocation of a truncated clusterin isoform is associated to induction of anoikis in SV40-immortalized human prostate epithelial cells (PNT1A). Apoptosis 2003: From signaling pathways to therapeutic tools. Jan. 29 – Febr. 1st, 2003- European Parliament Conference Center (Luxembourg)

M. Scaltriti, A. Caporali, S. Astancolle, **D. D'Arca** and S. Bettuzzi
"Clusterin-expression is down-regulated in transformed epithelial cells but up-regulated in fibroblasts from prostate cancer". Biochemical Aspects of Health and

Disease–Biochemical Society Christmas Meeting. Imperial College, London 16-18 December 2002

Speaker in meetings and conferences

2014 — 5th Shanghai International Forum of Regional and Targeting Therapies for Cancer (RTTC2013, 15-17 November 2014, Shanghai, China): Oral presentation
Session: Novel Markers for Diagnosis and Individualized Treatment
Speech title: MITOSTATIN: a "Guardian of Mitochondrial integrity" in prostate gland.

2014 — 22nd Meeting of the EAU Section of Urological Research (ESUR), 9-11 October 2014, Glasgow, Scotland: Oral presentation
Speech title: MITOSTATIN is a novel Mitochondria-Localized Tumor Suppressor, the "Guardian of Mitochondrial integrity"

2013 — The Joint Round Table event: "Urology: How to provide the right prevention and treatment to the right patient at the right time?" at the European Parliament in Brussels, September 25th 2013. Organized by the European Alliance for Personalised Medicine (EAPM) and the European Association of Urology (EAU).
The key discussion addressed some of the most burning concerns in European health care. The representatives of the EAU and EAPM have met with Members of the European Parliament to discuss the role that urology research and practice play in in the development of personalised medicine across Europe.

Memberships

Member, European Association of Urology (EAU) since 2013.
Member, Italian Society of Biochemistry and Molecular Biology (SIB) since 2013.
Member, Italian Association of Cell Cultures (AICC) since 2015.
Member, European Association for Cancer Research (EACR) since 2016.

Scientific Merit Scholarships and Fellowships

2007-2009 — Ministero del Lavoro, delle Politiche Sociali e Agenzia Sanitaria della regione Campania, Research Fellowship.

2006 — Department of Biomedical Sciences, Università di Modena e Reggio Emilia, Research Fellowschip.

2004 — Associazione "Angela Serra" per la ricerca sul cancro, Merit scholarship.

Languages

Italian: First language
English: Fluent reading, writing and speaking

DOMENICO D'ARCA
18.06.2026
10:40:50
GMT+02:00