

Decreto Rettore Università di Roma "La Sapienza" n° 2168/2023 del 07.08.2023

Procedura Selettiva Di Chiamata Per N. 1 Posto Di Ricercatore A Tempo Determinato in Tenure Track (RTT) Riservata Ex Art. 24, Comma 1-BIS, L. 240/2010 presso il Dipartimento di Medicina Molecolare, Facoltà di Farmacia e Medicina, SC: 06/A2 Patologia Generale e Patologia Clinica - SSD: MED/04, Codice Concorso: 2023RTTE015.

LAURA DI MAGNO
Curriculum Vitae ai fini della pubblicazione

Place: Rome
Date: 4th October 2023

Part I – General Information

Full Name	Laura Di Magno
Spoken Languages	Italian; English

Part II – Education

Type	Year	Institution	Notes (Degree, Experience,...)
PhD	2013	Università degli Studi dell'Aquila – L'Aquila, Italy	PhD in Biotechnology
Licensure	2010	University of Tuscia, Viterbo, Italy	Licensure in Biology
University graduation	2009	University "La Sapienza", Rome, Italy	Master's degree: Medical Molecular and Cellular Biotechnology. Graduation: 110/110 " <i>summa cum laude</i> "
University graduation	2007	University "La Sapienza", Rome, Italy	Bachelor's degree: Biotechnology. Graduation: 110/110 " <i>summa cum laude</i> "

Part III – Appointments

IIIA – Academic Appointments

Start	End	Institution	Position
01.04.2023	31.03.2024	University "La Sapienza", Rome, Italy	Research fellow funded by Fondazione Umberto Veronesi
01.04.2022	31.03.2023	University "La Sapienza", Rome, Italy	Research fellow funded by Fondazione Umberto Veronesi
01.05.2021	31.03.2022	University "La Sapienza", Rome, Italy	Assegnista di ricerca category B type I funded by University "La Sapienza"
01.05.2020	30.04.2021	University "La Sapienza", Rome, Italy	Assegnista di ricerca category A type I funded by University "La Sapienza"
01.01.2020	30.04.2020	University "La Sapienza", Rome, Italy	Research fellow funded by

			“Istituto Pasteur, Fondazione Cenci Bolognetti”
01.04.2013	31.03.2014	University “La Sapienza”, Rome, Italy	Research fellow funded by “Istituto Pasteur, Fondazione Cenci Bolognetti”
15.02.2013	14.03.2013	University “La Sapienza”, Rome, Italy	Research collaborator funded by “Sapienza Innovazione”

IIIB – Other Appointments

Start	End	Institution	Position
01.07.2019	31.12.2019	Italian Institute of Technology (IIT)	Research fellow
01.07.2017	30.06.2019	Italian Institute of Technology (IIT)	Research fellow
01.07.2014	30.06.2017	Italian Institute of Technology (IIT)	Research fellow

IIIC - Qualifications

Start	End	Institution	Position
08.02.2022	08.02.2033	National scientific qualification	Abilitazione Scientifica Nazionale II Fascia, SC 06/A2 – MED/04
31.01.2022	31.01.2033	National scientific qualification	Abilitazione Scientifica Nazionale II Fascia, SC 06/N1 – MED/46

Part IV – Teaching experience

Year	Institution	Lecture/Course
2023	University “La Sapienza”, Rome, Italy	Attività didattica elettiva (ADE) in the Master' s course of Medicine and Surgery (CLF)
2022	Fondazione Umberto Veronesi	Dissemination activity at I.S.S. Curie Levi, Collegno (Italy) - "Researchers in Class"
2018 - 2021	University “La Sapienza”, Rome, Italy	Lecturer of “Molecular Medicine: Molecular Oncology”, in the PhD course of Molecular Medicine (University “La Sapienza”)

Part V – Participation in International and National Meetings

VA - International Meetings

Oral Presentations

Year	Title
2023	Invited speaker at the international scientific conference “BBSRC International Partnering Award - The GLI transcription factors: from upstream regulators to downstream targets”, University of Leeds, Leeds, UK. Oral presentation title: "Targeting metabolic and redox vulnerabilities to treat Shh medulloblastoma"
2022	Speaker at the international scientific conference “International Conference on Advanced Molecular Medicine”, Grand Hotel Duca d’Este, Tivoli, Rome (Italy). Oral presentation title: "Selective targeting of redox alterations in medulloblastoma tumors"

	through nanotechnology-based delivery systems"
2021	Speaker at the international scientific conference "III International AICC Exosome I online meeting. Oral presentation title: "Tumor-targeting niosomes for phenformin brain in medulloblastoma therapy"
2018	Invited speaker at the international scientific conference "23rd World Congress on Advances in Oncology and 22nd International Symposium on Molecular Medicine", Athens Metropolitan Hotel, Athens, Greece. Oral presentation title: "Targeting vulnerabilities to treat Shh medulloblastoma"

Presentations

Year	Title
2014	Presentation at the international scientific conference "AMPK: Biological Action and Therapeutic Perspectives", Renaissance Tuscany - Il Ciocco Resort, Lucca, Italy. Presentation title: "Hedgehog/AMPK mediated control of polyamine metabolism supports neuronal and medulloblastoma cell growth"

Organization

Year	Title
2022	Member of the Local Committee at the international scientific conference "Sixth International Conference on Polyamines: Biochemical, Physiological and Clinical Perspectives", Grand Hotel Duca d'Este, Tivoli, Rome (Italy)

VB - National Meetings

Oral Presentations

Year	Title
2014	Speaker at the "L'Istituto Pasteur e i suoi giovani scienziati: ricerche "in crescita"", University "La Sapienza", Rome, Italy. Oral presentation title: "Druggable glycolytic requirement for Hedgehog-dependent neuronal and medulloblastoma growth"

Presentations

Year	Title
2023	Presentation at the scientific conference SIPMeT Young Scientists Meeting 2023 "General pathology: the trunk of the tree of medicine", Parma, Italy. Presentation title: "Novel n-(heterocyclylphenyl)benzenesulfonamide sharing an unreported binding site with TCF-4 at the β -catenin armadillo repeats domain as anticancer agent"
2022	Presentation at the scientific conference "Pathophysiology of Disease" - SIPMeT, Ancona, Italy. Presentation title: "Selective targeting of redox alterations in medulloblastoma tumors through nanotechnology-based delivery systems"
2021	Presentation at the scientific conference "Molecular pathology: from bench to bedside - SIPMeT Young Scientists Meeting 2021", Perugia, Italy. Presentation title: "Tumor-targeting niosomes for phenformin brain delivery in medulloblastoma therapy"
2018	Presentation at the scientific conference "34th SIPMeT National Congress", Centro Congressi Hotel Baia Verde, Catania, Italy. Presentation title: "Phenformin Inhibits Tumor Growth Through a Complex I Independent Redox/Corepressor Module"

Part VI - Society memberships and Awards

VIA - Memberships

Year	Title
2021 - 2023	Member of the Associazione Italiana di Colture Cellulari (AICC)
2018 - 2023	Member of Società Italiana di Patologia e Medicina Translazionale (SIPMeT)

VIB - Awards

Year	Title
2021	Best Oral Communication Award. III International AICC Exosome Meeting, 7th-8th June 2021. Presentation title: "Tumor-targeting niosomes for phenformin brain delivery in medulloblastoma therapy"
2018	Best Poster Award. 34th SIPMeT National Congress, Catania, Italy. Poster title: "Phenformin Inhibits Tumor Growth Through a Complex I-Independent Redox/Corepressor Module"

Part VII – Courses and Certifications

Year	Title
2022	Training course (D.M 5 agosto 2021) accredited by the Italian Ministry of Health 0024495-12/10/2022-DGSAF-MDS-P. Functions: A, C, D. Modules: 1, 2, 3.1, 4, 5, 6.1, 7, 10, 20.
2019	FELASA accredited course - Cat. B (N. F023/09, #12/2019). Functions: A, C, D. Modules: 10, 20, 21, 22. Species: M, R.)

Part VIII - Funding Information [grants as PI-principal investigator or I-investigator]

Year	Title	Program	Grant value
2023 - 2025	I in the project: "Understanding the role of CNBP-eIF5A-polyamine metabolism in DM2 pathogenesis "	Telethon #GMR22T1027	
2022-2027	I in the project: "Targeting energy and redox alterations in colorectal cancer"	AIRC IG #25833	
2022-2025	I in the project: "Targeting reductive stress-GDF15 axis in colorectal cancer"	University "La Sapienza" Funding #RG12117A61923A6F	
2021 - 2022	PI in the project "Studio del ruolo dell'asse CNBP-MYC nel cancro del colon-retto"	University "La Sapienza" Funding # AR22117A8A8AA3C1	
2020 - 2023	I in the project: "Dissecting the role of the Nijmegen breakage syndrome protein in SHH-dependent tumorigenesis"	University "La Sapienza" Funding #RG120172B82DC503	
2018 - 2020	I in the project: "Targeting MYC translation in colorectal cancer"	Pasteur Institute Cenci-Bolognetti Foundation #57	
2018 -	I in the project: "Analysis of the DM2	AFM-Telethon	

2020	pathogenic mechanisms using Drosophila as model system"	#21025	
2016-2021	I in the project: "Ruolo pro-tumorigenico dell'asse CNBP-cMYC nella carcinogenesi del cancro del colon-retto"	AIRC IG # 17575	
2014 - 2019	PI in the project "Focused Ultrasound therapy of brain tumors"	Italian Institute of Technology	

Part IX – Research Activities

Keywords	Brief Description
Metabolic Reprogramming	Study of the role of aerobic glycolysis in the proliferation and growth of normal and tumor brain cells
Energy Sensors	Examining the biochemical mechanisms of action of the energy sensor AMPK in the pathogenesis of brain tumors
NADH homeostasis	Investigating the molecular mechanism of action of the antidiabetic drug phenformin as anticancer agent
Metabolic targeting	Study of pharmacological inhibitors in glucose, redox and energy pathways
Drug Design and Biological Validation	Screening and identification of new bioactive compounds for cancer therapy

- Main results attained:

- Study of the role of aerobic glycolysis in the proliferation and growth of normal and tumor brain cells: i) identification of hexokinase 2 (HK2) and pyruvate kinase M2 (PKM2) overexpression as a hallmark of brain tumors ii) aerobic glycolysis inhibition blocks the Hedgehog-induced proliferation of granule cell progenitors and iii) MB growth in vitro and in vivo.
- Examining the biochemical mechanisms of action of the energy sensor AMPK for the treatment of brain tumors: i) AMPK phosphorylates Gli1 at the residue Ser408 and targets it to proteasomal degradation. ii) AMPK activation selectively inhibits oncogenic signaling in human cells.
- Investigating the molecular mechanism of action of the antidiabetic drug phenformin as anticancer agent: i) identification of mitochondrial glycerophosphate dehydrogenase (mGPD) as a direct target of phenformin ii) phenformin acts through a redox-dependent, CtBP2-mediated, anti-cancer mechanism.
- Study of pharmacological inhibitors in glucose, redox and energy pathways: i) pharmacological targeting with HK2 inhibitor 3-bromopyruvate and PKM2 inhibitor dichloroacetate (DCA) in vitro and in animal models of brain tumors. Identification of aerobic glycolysis as a new target for the treatment of brain tumors; ii) mGPD and CtBP2 genetic ablation abrogates the therapeutic effect of phenformin. Identification of a biguanide-mediated redox/corepressor interplay, as a relevant target for tumor therapy. iii) identification of a post-translational modification of a single aminoacidic residue (Ser408) of Gli1 oncogene as the key druggable metabolic checkpoint in human brain tumors.
- Screening and identification of new bioactive compounds for cancer therapy: i) identification of compound 14 as a selective inhibitor of β -catenin signaling; ii) identification of compound 18 as a selective LDH inhibitor; iii) identification of the N-(heterocyclylphenyl)benzenesulfonamides compound 9 as a β -catenin inhibitor.

- International and National Collaborations:

- International Collaborations:

Department of Cellular Biology, The Scripps Research Institute, USA; University of Ottawa, Canada; Cancer Research Center of Lyon (CRCL), Lyon, France; Institut Curie, PSL Research University, France; Université Paris Sud, Université Paris-Saclay, France; University Paris Descartes, France; Department of Cancer Biology, Perelman School of Medicine, University of Pennsylvania, USA; MRC Toxicology Unit, University of Cambridge, UK; University of Miami; University of Copenhagen, Denmark; Rutgers Cancer Institute of New Jersey, Rutgers University, USA; Barts Cancer Institute, Queen Mary University of London, UK; Kymab Ltd, Babraham Campus, Cambridge, UK; Nencki Institute of Experimental Biology, Warszawa, Poland; University of North Carolina School of Medicine, Chapel Hill, NC, USA; Cornell University, Ithaca, NY, USA; University of Leeds, Leeds, UK; Shanghai University of Traditional Chinese Medicine, Shanghai, China.

- National Collaborations:

CNR di Monterotondo; Dipartimento di Chimica e Tecnologie Farmaceutiche, "Sapienza" Università di Roma; Dipartimento di Biologia e Biotecnologie "Charles Darwin" "Sapienza" Università di Roma, Dipartimento di Biochimica "Sapienza" Università di Roma, Dipartimento degli Organi di Senso, "Sapienza" Università di Roma; Divisione di Metabolismo and Unità di Ricerca di Biochimica metabolica, Ospedale pediatrico Bambino Gesù, Roma; Dipartimento di Ematologia/Oncologia pediatrica, Ospedale pediatrico Bambino Gesù, Roma; Dipartimento di Biologia, Università di Pisa, Pisa; Dipartimento di Biotecnologie, Università di Verona; Dipartimento Medicina Sperimentale e Chirurgia, Università Tor Vergata, Roma; Dipartimento di Scienze Medico-Chirurgiche e Biotecnologie, "Sapienza" Università di Roma; Dipartimento di oncologia e Medicina Molecolare, Istituto Superiore di Sanità; Dipartimento di Scienze e Tecnologie Biologiche e Ambientali, Università del Salento; Unità di Neuroimmunologia, IRCCS Fondazione Santa Lucia, Roma; Core Facilities, Istituto Superiore di Sanità, Roma; Istituto ENEA, Roma; Dipartimento di Biotecnologie Mediche e Medicina Traslazionale, Università di Milano; Dipartimento di Oncologia Sperimentale, Istituto Europeo di Oncologia; Dipartimento di Scienze della Vita e Biotecnologie, Università di Ferrara; Dipartimento di Scienze e Tecnologie Biologiche, Chimiche e Farmaceutiche, Università di Palermo; Dipartimento di Scienze Psicologiche, Pedagogiche, dell'Esercizio fisico e della Formazione, Università di Palermo; Dipartimento di Biomedicina, Neuroscienze e Diagnostica avanzata, Università di Palermo; Dipartimento di Medicina Sperimentale, "Sapienza" Università di Roma; Università degli Studi di Roma "Foro Italico"; Dipartimento di Scienze Anatomiche Istologiche Medico Legali e dell'Apparato Locomotore, "Sapienza" Università di Roma; Dipartimento di Medicina Traslazionale e di Precisione, "Sapienza" Università di Roma; Dipartimento di Chirurgia Generale e Specialistica, "Sapienza" Università di Roma; IRCCS Neuromed, Isernia; Dipartimento di Pediatria, "Sapienza" Università di Roma; Dipartimento di Oncologia Medica, Ospedale Sant'Andrea, Roma; Dipartimento di Scienze Medico-Chirurgiche e Medicina Traslazionale, "Sapienza" Università di Roma; Anestesia, Rianimazione e Terapia intensiva del dolore, Ospedale Sant'Andrea, Roma; IRCCS Istituto Nazionale dei tumori Regina Elena; Dipartimento di Scienze Radiologiche Oncologiche e Anatomo Patologiche, "Sapienza" Università di Roma; Università Cattolica del Sacro Cuore, Roma; Università di Napoli "Federico II"; Ospedale di Chivasso, Torino.

Part X – Summary of Scientific Achievements

Total Publications indexed on Pubmed (28 publications)

Product type	Number	Data Base	Start	End
Papers [international]	28	PubMed, ISI Web of Science, Scopus	2009	2023

Total Impact factor	193.68
Average Impact factor per Product	6.91
Total Citations	604
Average Citations per Product	21.57
Hirsch (H) index	14
Normalized H index*	1
Number of first/last/corresponding author publications	10

*H index divided by the academic seniority

Publications of the last 10 years indexed on Pubmed (26 publications)

Product type	Number	Data Base	Start	End
Papers [international]	26	PubMed, ISI Web of Science, Scopus	2013	2023

Total Impact factor	180.17
Average Impact factor per Product	6.92
Total Citations	552
Average Citations per Product	21.23
Hirsch (H) index	13
H index / 10 years	1.3
Number of first/last/corresponding author publications	10

Part XI– Selected Publications

List of the publications selected for the evaluation. For each publication report title, authors, reference data, journal IF* (if applicable), citations**, press/media release (if any).

Notes:

* Journal Impact Factors of the year of publication are indicated.

** Scopus was used to calculate citations.

1) Nalli M*, **Di Magno L***, Wen Y*, Liu X*, D'Ambrosio M, Puxeddu M, Parisi A, Sebastiani J, Sorato A, Coluccia A, Ripa S, Di Pastena F, Capelli D, Montanari R, Masci D, Urbani A, Naro C, Sette C, Orlando V, D'Angelo S, Biagioni S, Bigogno C, Dondio G, Pastore A, Stornaiuolo M, Canettieri G, Liu T, Silvestri R, La Regina G. Novel N-(Heterocyclylphenyl)benzenesulfonamide Sharing an Unreported Binding Site with T-Cell Factor 4 at the β -Catenin Armadillo Repeats Domain as an Anticancer Agent.

ACS Pharmacol Transl Sci. 2023 Jul 3;6(7):1087-1103. doi: 10.1021/acsptsci.3c00092.

eCollection 2023 Jul 14.

* Equal contribution

IF: 6.0 Citations: 0

2) **Di Magno L**, Coluccia A, Bufano M, Ripa S, La Regina G, Nalli M, Di Pastena F, Canettieri G, Silvestri R, Frati L. Discovery of novel human lactate dehydrogenase inhibitors: Structure based virtual screening studies and biological assessment.
Eur J Med Chem. 2022 Oct 5;240:114605. doi: 10.1016/j.ejmech.2022.114605. Epub 2022 Jul 14. IF: 6.7 Citations: 1

3) **Di Magno L**, Di Pastena F, Bordone R, Coni S, Canettieri G. The Mechanism of Action of Biguanides: New Answers to a Complex Question.
Cancers (Basel). 2022 Jun 30;14(13):3220. doi: 10.3390/cancers14133220. IF: 5.2 Citations: 5

4) **Di Magno L**, Di Pastena F, Puxeddu M, La Regina G, Coluccia A, Ciogli A, Manetto S, Maroder M, Canettieri G, Silvestri R, Nalli M. Sulfonamide Inhibitors of β -Catenin Signaling as Anticancer Agents with Different Output on c-MYC.
ChemMedChem. 2020 Dec 3;15(23):2264-2268. doi: 10.1002/cmdc.202000594. IF: 3.46 Citations: 4

5) **Di Magno L**, Manni S, Di Pastena F, Coni S, Macone A, Cairoli S, Sambucci M, Infante P, Moretti M, Petroni M, Nicoletti C, Capalbo C, De Smaele E, Di Marcotullio L, Giannini G, Battistini L, Goffredo BM, Iorio E, Agostinelli E, Maroder M, Canettieri G. Phenformin Inhibits Hedgehog-Dependent Tumor Growth through a Complex I-Independent Redox/Corepressor Module.
Cell Rep. 2020 Feb 11;30(6):1735-1752.e7. doi: 10.1016/j.celrep.2020.01.024. IF: 9.42 Citations: 29

PRESS/MEDIA RELEASE:

https://www.repubblica.it/salute/2020/02/12/news/fenformina_il_farmaco_che_agisce_come_una_batteria_al_contrario_per_frenare_il_tumore_al_cervello_in_eta_pediatica-266892891/
<https://www.ilgiornale.it/news/salute/medulloblastoma-fenformina-pu-contrastarlo-1827479.html>
<https://tg24.sky.it/salute-e-benessere/2020/02/13/cancro-cervello-bambini-fenformina>

6) Bufalieri F, Infante P, Bernardi F, Caimano M, Romania P, Moretti M, Lospinoso Severini L, Talbot J, Melaiu O, Tanori M, **Di Magno L**, Bellavia D, Capalbo C, Puget S, De Smaele E, Canettieri G, Guardavaccaro D, Busino L, Peschiaroli A, Pazzaglia S, Giannini G, Melino G, Locatelli F, Gulino A, Ayrault O, Fruci D, Di Marcotullio L. ERAP1 promotes Hedgehog dependent tumorigenesis by controlling USP47-mediated degradation of β TrCP.
Nat Commun. 2019 Jul 24;10(1):3304. doi: 10.1038/s41467-019-11093-0. IF: 12.12 Citations: 31

PRESS/MEDIA RELEASE:

<https://www.airc.it/traguardi-dei-ricercatori/erap-1-nuovo-bersaglio-terapeutico-in-oncologia>
https://www.agi.it/salute/cancro_studio_italiano_scopre_mecanismo_che_blocca_la_crescita-5971617/news/2019-08-05/
<https://www.liberoquotidiano.it/news/scienze---tech/13490715/tumori-scoperta-molecola-blocca-crescita-su-quali-puo-intervenire.html>

7) Antonucci L*, **Di Magno L***, D'Amico D, Manni S, Serrao SM, Di Pastena F, Bordone R, Yurtsever ZN, Caimano M, Petroni M, Giorgi A, Schininà ME, Yates Iii JR, Di Marcotullio L, De Smaele E, Checquolo S, Capalbo C, Agostinelli E, Maroder M, Coni S, Canettieri G. Mitogen activated kinase kinase kinase 1 inhibits hedgehog signaling and medulloblastoma growth through GLI1 phosphorylation.
Int J Oncol. 2019 Feb;54(2):505-514.

* Equal contribution

IF: 5.2 Citations: 20

8) Coni S*, **Di Magno L***, Serrao SM, Kanamori Y, Agostinelli E, Canettieri G. Polyamine Metabolism as a Therapeutic Target in Hedgehog-Driven Basal Cell Carcinoma and Medulloblastoma.

Cells. 2019 Feb 11;8(2). pii: E150.

* Equal contribution

IF: 4.36 Citations: 13

9) **Di Magno L**, Basile A, Coni S, Manni S, Sdruscia G, D'Amico D, Antonucci L, Infante P, De Smaele E, Cucchi D, Ferretti E, Di Marcotullio L, Screpanti I, Canettieri G. The energy sensor AMPK regulates Hedgehog signaling in human cells through a unique Gli1 metabolic checkpoint.

Oncotarget. 2016 Feb 23;7(8):9538-49.

IF: 5.16 Citations: 37

10) D'Amico D, Antonucci L, **Di Magno L**, Coni S, Sdruscia G, Macone A, Miele E, Infante P, Di Marcotullio L, De Smaele E, Ferretti E, Ciapponi L, Giangaspero F, Yates JR 3rd, Agostinelli E, Cardinali B, Screpanti I, Gulino A, Canettieri G. Non-canonical Hedgehog/AMPK-Mediated Control of Polyamine Metabolism Supports Neuronal and Medulloblastoma Cell Growth.

Dev Cell. 2015 Oct 12;35(1):21-35.

IF: 9.33 Citations: 52

PRESS/MEDIA RELEASE:

https://www.sanita24.ilsole24ore.com/art/medicina-e-ricerca/2015-10-19/medulloblastoma-speranze-una-terapia-personalizzata-bersaglio-molecolare-095834.php?uuid=ACuwkwIB&refresh_ce=1

11) **Di Magno L**, Coni S, Di Marcotullio L, Canettieri G. Digging a hole under Hedgehog: downstream inhibition as an emerging anticancer strategy.

Biochim Biophys Acta. 2015 Aug;1856(1):62-72.

IF: 7.84 Citations: 54

12) **Di Magno L**, Manzi D, D'Amico D, Coni S, Macone A, Infante P, Di Marcotullio L, De Smaele E, Ferretti E, Screpanti I, Agostinelli E, Gulino A, Canettieri G. Druggable glycolytic requirement for Hedgehog-dependent neuronal and medulloblastoma growth.

Cell Cycle. 2014;13(21):3404-13.

IF: 4.56 Citations: 37

PRESS/MEDIA RELEASE:

https://www.uniroma1.it/sites/default/files/allegati_news/segnalazione%20dei%20media_4.pdf

Part XII– Total Publications

1) Nalli M*, **Di Magno L***, Wen Y*, Liu X, D'Ambrosio M, Puxeddu M, Parisi A, Sebastiani J, Sorato A, Coluccia A, Ripa S, Di Pastena F, Capelli D, Montanari R, Masci D, Urbani A, Naro C, Sette C, Orlando V, D'Angelo S, Biagioni S, Bigogno C, Dondio G, Pastore A, Stornaiuolo M, Canettieri G, Liu T, Silvestri R, La Regina G. Novel N-(Heterocyclylphenyl)benzensulfonamide Sharing an Unreported Binding Site with T-Cell Factor 4 at the β -Catenin Armadillo Repeats Domain as an Anticancer Agent.

ACS Pharmacol Transl Sci. 2023 Jul 3;6(7):1087-1103. doi: 10.1021/acsptsci.3c00092. eCollection 2023 Jul 14.

* Equal contribution

IF: 6.0 Citations: 0

2) Coni S, Bordone R, Ivy DM, Yurtsever ZN, **Di Magno L**, D'Amico R, Cesaro B, Fatica A, Belardinilli F, Bufalieri F, Maroder M, De Smaele E, Di Marcotullio L, Giannini G, Agostinelli E, Canettieri G. Combined inhibition of polyamine metabolism and eIF5A hypusination suppresses colorectal cancer growth through a converging effect on MYC translation.

Cancer Lett. 2023 Apr 10;559:216120. doi: 10.1016/j.canlet.2023.216120. Epub 2023 Mar 8.

IF2023: 9.7 Citations: 1

3) Caballero-Ruiz B, Gkotsi DS, Ollerton H, Morales-Alcala CC, Bordone R, Jenkins GML, **Di Magno L**, Canettieri G, Riobo-Del Galdo NA. Partial Truncation of the C-Terminal Domain of PTCH1 in Cancer Enhances Autophagy and Metabolic Adaptability.

Cancers (Basel). 2023 Jan 6;15(2):369. doi: 10.3390/cancers15020369.

IF: 5.2 Citations: 0

4) Cardinale V, Carpino G, Overi D, Safarikia S, Zhang W, Kanke M, Franchitto A, Costantini D, Riccioni O, Nevi L, Chiappetta M, Onori P, Franchitto M, Bini S, Hung YH, Lai Q, Zizzari I, Nuti M, Nicoletti C, Checquolo S, **Di Magno L**, Giuli MV, Rossi M, Sethupathy P, Reid LM, Alvaro D, Gaudio E. Human duodenal submucosal glands contain a defined stem/progenitor subpopulation with liver-specific regenerative potential.

J Hepatol. 2023 Jan;78(1):165-179. doi: 10.1016/j.jhep.2022.08.037. Epub 2022 Sep 9.

IF: 25.7 Citations: 5

5) De Vitis C, Capalbo C, Torsello A, Napoli C, Salvati V, Loffredo C, Blandino G, Piaggio G, Auciello FR, Pelliccia F, Salerno G, Simmaco M, **Di Magno L**, Canettieri G, Coluzzi F, Mancini R, Rocco M, Sciacchitano S. Opposite Effect of Thyroid Hormones on Oxidative Stress and on Mitochondrial Respiration in COVID-19 Patients.

Antioxidants (Basel). 2022 Oct 8;11(10):1998. doi: 10.3390/antiox11101998.

IF: 7.0 Citations: 2

6) **Di Magno L**, Di Pastena F, Bordone R, Coni S, Canettieri G. The Mechanism of Action of Biguanides: New Answers to a Complex Question.

Cancers (Basel). 2022 Jun 30;14(13):3220. doi: 10.3390/cancers14133220.

IF: 5.2 Citations: 5

7) **Di Magno L**, Coluccia A, Bufano M, Ripa S, La Regina G, Nalli M, Di Pastena F, Canettieri G, Silvestri R, Frati L. Discovery of novel human lactate dehydrogenase inhibitors: Structure based virtual screening studies and biological assessment.

Eur J Med Chem. 2022 Oct 5;240:114605. doi: 10.1016/j.ejmech.2022.114605. Epub 2022 Jul 14.

IF: 6.7 Citations: 1

8) Kanamori Y, Finotti A, **Di Magno L**, Canettieri G, Tahara T, Timeus F, Greco A, Tirassa P, Gasparello J, Fino P, Di Liegro CM, Proia P, Schiera G, Di Liegro I, Gambari R, Agostinelli E. Enzymatic Spermine Metabolites Induce Apoptosis Associated with Increase of p53, caspase-3 and miR-34a in Both Neuroblastoma Cells, SJNKP and the N-Myc-Amplified Form IMR5.

Cells 2021, 10(8), 1950; <https://doi.org/10.3390/cells10081950>.

IF: 7.66 Citations: 9

9) Coni S, Serrao SM, Yurtsever ZN, **Di Magno L**, Bordone R, Bertani C, Licursi V, Ianniello Z, Infante P, Moretti M, Petroni M, Guerrieri F, Fatica A, Macone A, De Smaele E, Di Marcotullio L, Giannini G, Maroder M, Agostinelli E, Canettieri G. Blockade of EIF5A hypusination limits

colorectal cancer growth by inhibiting MYC elongation.

Cell Death Dis. 2020 Dec 10;11(12):1045. doi: 10.1038/s41419-020-03174-6.

IF: 8.46 Citations: 31

10) **Di Magno L**, Di Pastena F, Puxeddu M, La Regina G, Coluccia A, Ciogli A, Manetto S, Maroder M, Canettieri G, Silvestri R, Nalli M. Sulfonamide Inhibitors of β -Catenin Signaling as Anticancer Agents with Different Output on c-MYC.

ChemMedChem. 2020 Dec 3;15(23):2264-2268. doi: 10.1002/cmdc.202000594.

IF: 3.46 Citations: 4

11) Giuli MV, Diluvio G, Giuliani E, Franciosa G, **Di Magno L**, Pignataro MG, Tottone L, Nicoletti C, Besharat ZM, Peruzzi G, Pelullo M, Palermo R, Canettieri G, Talora C, d'Amati G, Bellavia D, Screpanti I, Checquolo S. Notch3 contributes to T-cell leukemia growth via regulation of the unfolded protein response.

Oncogenesis. 2020 Oct 18;9(10):93. doi: 10.1038/s41389-020-00279-7.

IF: 7.48 Citations: 11

12) **Di Magno L**, Manni S, Di Pastena F, Coni S, Macone A, Cairoli S, Sambucci M, Infante P, Moretti M, Petroni M, Nicoletti C, Capalbo C, De Smaele E, Di Marcotullio L, Giannini G, Battistini L, Goffredo BM, Iorio E, Agostinelli E, Maroder M, Canettieri G. Phenformin Inhibits Hedgehog-Dependent Tumor Growth through a Complex I-Independent Redox/Corepressor Module.

Cell Rep. 2020 Feb 11;30(6):1735-1752.e7. doi: 10.1016/j.celrep.2020.01.024.

IF: 9.42 Citations: 29

PRESS/MEDIA RELEASE:

https://www.repubblica.it/salute/2020/02/12/news/fenformina_il_farmaco_che_agisce_come_una_batteria_al_contrario_per_frenare_il_tumore_al_cervello_in_eta_pediatria-266892891/

<https://www.ilgiornale.it/news/salute/medulloblastoma-fenformina-pu-contrastarlo-1827479.html>

<https://tg24.sky.it/salute-e-benessere/2020/02/13/cancro-cervello-bambini-fenformina>

13) Spiombi E, Angrisani A, Fonte S, De Feudis G, Fabretti F, Cucchi D, Izzo M, Infante P, Miele E, Po A, **Di Magno L**, Magliozzi R, Guardavaccaro D, Maroder M, Canettieri G, Giannini G, Ferretti E, Gulino A, Di Marcotullio L1, Moretti M, De Smaele E. KCTD15 inhibits the Hedgehog pathway in Medulloblastoma cells by increasing protein levels of the oncosuppressor KCASH2.

Oncogenesis. 2019 Nov 4;8(11):64. doi: 10.1038/s41389-019-0175-6.

IF: 6.11 Citations: 16

14) Bufalieri F, Infante P, Bernardi F, Caimano M, Romania P, Moretti M, Lospinoso Severini L, Talbot J, Melaiu O, Tanori M, **Di Magno L**, Bellavia D, Capalbo C, Puget S, De Smaele E, Canettieri G, Guardavaccaro D, Busino L, Peschiaroli A, Pazzaglia S, Giannini G, Melino G, Locatelli F, Gulino A, Ayrault O, Fruci D, Di Marcotullio L. ERAP1 promotes Hedgehog dependent tumorigenesis by controlling USP47-mediated degradation of β TrCP.

Nat Commun. 2019 Jul 24;10(1):3304. doi: 10.1038/s41467-019-11093-0.

IF: 12.12 Citations: 31

PRESS/MEDIA RELEASE:

<https://www.airc.it/traguardi-dei-ricercatori/erap-1-nuovo-bersaglio-terapeutico-in-oncologia>

https://www.agi.it/salute/cancro_studio_italiano_scopre_mecanismo_che_blocca_la_crescita-5971617/news/2019-08-05/

<https://www.liberoquotidiano.it/news/scienze---tech/13490715/tumori-scoperta-molecola-blocca-crescita-su-quali-puo-intervenire.html>

15) Coni S*, **Di Magno L***, Serrao SM, Kanamori Y, Agostinelli E, Canettieri G. Polyamine Metabolism as a Therapeutic Target in Hedgehog-Driven Basal Cell Carcinoma and Medulloblastoma.

Cells. 2019 Feb 11;8(2). pii: E150.

* Equal contribution

IF: 4.36 Citations: 13

16) Antonucci L*, **Di Magno L***, D'Amico D, Manni S, Serrao SM, Di Pastena F, Bordone R, Yurtsever ZN, Caimano M, Petroni M, Giorgi A, Schininà ME, Yates Iii JR, Di Marcotullio L, De Smaele E, Checquolo S, Capalbo C, Agostinelli E, Maroder M, Coni S, Canettieri G. Mitogen activated kinase kinase kinase 1 inhibits hedgehog signaling and medulloblastoma growth through GLI1 phosphorylation.

Int J Oncol. 2019 Feb;54(2):505-514.

* Equal contribution

IF: 5.2 Citations: 20

17) Coluccia A, La Regina G, Naccarato V, Nalli M, Orlando V, Biagioni S, De Angelis ML, Baiocchi M, Gautier C, Gianni S, Di Pastena F, **Di Magno L**, Canettieri G, Coluccia AML, Silvestri R. Drug Design and Synthesis of First in Class PDZ1 Targeting NHERF1 Inhibitors as Anticancer Agents.

ACS Med Chem Lett. 2019 Jan 14;10(4):499-503.

IF: 3.97 Citations: 12

18) Coni S, Mancuso AB, **Di Magno L**, Sdruscia G, Manni S, Serrao SM, Rotili D, Spiombi E, Bufalieri F, Petroni M, Kusio-Kobialka M, De Smaele E, Ferretti E, Capalbo C, Mai A, Niewiadomski P, Screpanti I, Di Marcotullio L, Canettieri G. Selective targeting of HDAC1/2 elicits anticancer effects through Gli1 acetylation in preclinical models of SHH Medulloblastoma.

Sci Rep. 2017 Mar 9;7:44079.

IF: 4.12 Citations: 55

19) Infante P, Alfonsi R, Ingallina C, Quaglio D, Ghirga F, D'Acquarica I, Bernardi F, **Di Magno L**, Canettieri G, Screpanti I, Gulino A, Botta B, Mori M, Di Marcotullio L. Inhibition of Hedgehog-dependent tumors and cancer stem cells by a newly identified naturally occurring chemotype.

Cell Death Dis. 2016 Sep 22;7(9):e2376.

IF: 5.96 Citations: 49

20) **Di Magno L**, Basile A, Coni S, Manni S, Sdruscia G, D'Amico D, Antonucci L, Infante P, De Smaele E, Cucchi D, Ferretti E, Di Marcotullio L, Screpanti I, Canettieri G. The energy sensor AMPK regulates Hedgehog signaling in human cells through a unique Gli1 metabolic checkpoint.

Oncotarget. 2016 Feb 23;7(8):9538-49.

IF: 5.16 Citations: 37

21) D'Amico D, Antonucci L, **Di Magno L**, Coni S, Sdruscia G, Macone A, Miele E, Infante P, Di Marcotullio L, De Smaele E, Ferretti E, Ciapponi L, Giangaspero F, Yates JR 3rd, Agostinelli E, Cardinali B, Screpanti I, Gulino A, Canettieri G. Non-canonical Hedgehog/AMPK-Mediated Control of Polyamine Metabolism Supports Neuronal and Medulloblastoma Cell Growth.

Dev Cell. 2015 Oct 12;35(1):21-35.

IF: 9.33 Citations: 52

PRESS/MEDIA RELEASE:

https://www.sanita24.ilsole24ore.com/art/medicina-e-ricerca/2015-10-19/medulloblastoma-speranze-una-terapia-personalizzata-bersaglio-molecolare-095834.php?uuid=ACuwwkIB&refresh_ce=1

22) Coni S, **Di Magno L**, Canettieri G. Determination of Acetylation of the Gli Transcription Factors.

Methods Mol Biol. 2015;1322:147-56.

IF: 1.37 Citations: 3

23) **Di Magno L**, Coni S, Di Marcotullio L, Canettieri G. Digging a hole under Hedgehog: downstream inhibition as an emerging anticancer strategy.

Biochim Biophys Acta. 2015 Aug;1856(1):62-72.

IF: 7.84 Citations: 54

24) **Di Magno L**, Manzi D, D'Amico D, Coni S, Macone A, Infante P, Di Marcotullio L, De Smaele E, Ferretti E, Screpanti I, Agostinelli E, Gulino A, Canettieri G. Druggable glycolytic requirement for Hedgehog-dependent neuronal and medulloblastoma growth.

Cell Cycle. 2014;13(21):3404-13.

IF: 4.56 Citations: 37

PRESS/MEDIA RELEASE:

https://www.uniroma1.it/sites/default/files/allegati_news/segnalazione%20dei%20media_4.pdf

25) Antonucci L, D'Amico D, **Di Magno L**, Coni S, Di Marcotullio L, Cardinali B, Gulino A, Ciapponi L, Canettieri G. CNBP regulates wing development in *Drosophila melanogaster* by promoting IRES-dependent translation of dMyc.

Cell Cycle. 2014;13(3):434-9.

IF: 4.56 Citations: 16

26) Coni S, Antonucci L, D'Amico D, **Di Magno L**, Infante P, De Smaele E, Giannini G, Di Marcotullio L, Screpanti I, Gulino A, Canettieri G. Gli2 acetylation at lysine 757 regulates hedgehog-dependent transcriptional output by preventing its promoter occupancy.

PLoS One. 2013 Jun 6;8(6):e65718.

IF: 3.53 Citations: 59

27) Canettieri G, Coni S, Antonucci L, **Di Magno L**, Gulino A. TORCs/CRTCcs: more than mere coincidence.

Cell Cycle. 2009 Apr 1;8(7):963-4.

IF: 4.08 Citations: 1

28) Canettieri G, Coni S, Della Guardia M, Nocerino V, Antonucci L, **Di Magno L**, Scream R, Screpanti I, Giannini G, Gulino A. The coactivator CRTC1 promotes cell proliferation and transformation via AP-1.

Proc Natl Acad Sci U S A. 2009 Feb 3;106(5):1445-50.

IF: 9.43 Citations: 51

Part XIII- Meeting Acta published on International Journals indexed on ISI Web of Science

1. **Di Magno L**, Manni S, Di Pastena F, Coni S, Serrao SM, Agostinelli E, Canettieri G. Targeting metabolic vulnerabilities to treat Shh medulloblastoma. **International Journal Of Molecular**

Medicine. 2018; Volume 42; Supplement 1; Page S34-S34.
IF: 2.928 Citations: 0

2. Coni S, **Di Magno L**, Mancuso AB, Sdruscia G, Manni S, Serrao SM, Di Marcotullio L, De Smaele E, Ferretti E, Canettieri G. Targeting Gli acetylation in Shh-medulloblastoma: A successful preclinical approach. **International Journal Of Molecular Medicine**. 2017; Volume 40; Supplement 1; Page S26-S26.
IF: 2.784 Citations: 0