

## Curriculum Vitae

Name: Mario Chiariello  
Place and date of birth: Napoli, May 30, 1969  
Nationality: Italian  
Affiliation and address: Consiglio Nazionale delle Ricerche (CNR)  
Istituto di Fisiologia Clinica (IFC)  
and  
Istituto per lo Studio, la Prevenzione e la Rete Oncologica (ISPRO)  
Core Research Laboratory (CRL)  
Via Fiorentina 1  
53100, Siena-Italy  
Ph: +39 0577 1916274  
Fax: +39 0577 43444  
email: mario.chiariello@cnr.it  
email: m.chiariello@ispro.toscana.it  
ORCID ID: <http://orcid.org/0000-0001-8434-5177>

### Education

2000 Ph.D. in “Cellular and Molecular Biology and Pathology”.  
1994 (1<sup>st</sup> session) Authorization (“Esame di Stato”) to the profession of medical doctor.  
1993 M.D. degree at the II Medical School, University of Naples, with “summa cum laude”.  
1987 Diploma di Maturità Scientifica at the Liceo “G. Mercalli”, Napoli, Italy.

### Current Position

2023-to date “Head”, Istituto di Fisiologia Clinica (IFC), Section of Siena, Consiglio Nazionale delle Ricerche (CNR), Siena, Italy  
2020-to date “Director of Research” (“Dirigente di Ricerca”) at Istituto di Fisiologia Clinica (IFC), Section of Siena, Consiglio Nazionale delle Ricerche (CNR), Siena, Italy.  
2018-to date “Group Leader” at Istituto per lo Studio, la Prevenzione e la Rete Oncologica (ISPRO), Core Research Laboratory Research Unit, Siena.

### Chronology of Past Employment

2009-2019 Senior Staff Scientist (“Primo Ricercatore”) at Istituto di Fisiologia Clinica (IFC), Section of Siena, Consiglio Nazionale delle Ricerche (CNR), Siena, Italy.  
2007-2017 “Group Leader” at Istituto Toscano Tumori, Core Research Laboratory Research Unit, Azienda Ospedaliera Universitaria Senese, Siena.  
2006-2009 Senior Staff Scientist (“Primo Ricercatore”) at Istituto di Endocrinologia e Oncologia Sperimentale (IEOS), CNR, Napoli, Italy.  
2001-2006 “Ricercatore-III Livello” at IEOS, CNR, Napoli, Italy.  
2004 (May-August) “Contractor” at National Institutes of Health (NIH), National Institute of Dental and Craniofacial Research (NIDCR), Bethesda, MD, USA, in Dr. J. Silvio Gutkind’s laboratory.  
2003 (January-April) “Short Term Mobility Program, CNR” spent at NIH, NIDCR, Bethesda, MD, USA, in Dr. J. Silvio Gutkind’s laboratory.  
2000-2001 “EU-Fondo Sociale Europeo” Fellow (“Assegno di Ricerca”) at the Department of Cellular and Molecular Biology and Pathology, University of Napoli “Federico II”.  
1997-2000 “Visiting Fellow” at NIH, NIDCR, Bethesda, MD, USA, in Dr. J. Silvio Gutkind’s laboratory.  
1995-1999 “Ph.D. Fellowship”, Department of Cellular and Molecular Biology and Pathology, University of Napoli “Federico II”, in Dr. C. Bucci’s laboratory.  
1994 (July-Sept.) “Special Volunteer” at NIH, NIDCR, Bethesda, MD, USA, in Dr. J. Silvio Gutkind’s laboratory.  
1991 (March-April) “Visiting student” at European Molecular Biology Laboratory (EMBL), Heidelberg, Germany, in Dr. M. Zerial’s laboratory.  
1990-1993 “Undergraduate Fellow”, Department of Cellular and Molecular Biology and Pathology, University of Naples “Federico II”, in Dr. C. Bucci’s laboratory.

### Research Support

2022-2025 Grant from European Union – Next Generation EU, for the Project: “Ageing Well in an ageing society - Age-It” (Task -1.5 Cellular and molecular mechanisms of vascular senescence and atherosclerotic plaque vulnerability). Role: Unit Coordinator.

2021-2024 Grant from the “European Joint Programme Rare Diseases (EJP RD) for the Project: “Personalized MECP2 gene therapy using CRISPR/Cas9 technology coupled to AAV-mediated delivery in 3D cell culture and KI mice” (MECPer-3D, project ID EJPRD20-111). Role: Unit Coordinator.

2021-2023 Grant from Regione Toscana (Bando Ricerca Salute 2018) for the project: “Pre-clinical development and characterization of GLI-selective therapeutics for treatment of basal cell carcinoma and melanoma”. Role: Unit Coordinator.

2018-2020 Grant supported by “First Health Pharmaceuticals B.V.” (The Netherlands), for the project: “Human helicase DDX3 inhibitors as therapeutic agents”. Role: Project Coordinator.

2017-2020 AIRC “Multi-user Equipment Program” for the Project: “INnovative PhotoAcoustic Tomography to advance cancer research (INPACT)”. Role: Group Leader.

2017-2018 Grant supported by “Bio-on”, for the project: “Glioblastoma Theranostics”. Role: Group Leader.

2017-2018 Grant supported by IRCCS Istituto delle Scienze Neurologiche, Bologna, for the Project: “Set up of orthotopic glioblastoma mouse models for the development of novel theranostic approaches”. Role: Project Supervisor.

2017-2020 AIRC “Fellowship for Italy” for the Project: “Role of MAPK15 in Melanoma”. Role: Project Supervisor.

2017 Grant supported by “First Health Pharmaceuticals B.V.” (The Netherlands), for the project: “Human helicase DDX3 inhibitors as therapeutic agents”. Role: Project Coordinator.

2016-2017 Grant from Regione Toscana for the project: “The role of the ERK8 MAP kinase in human cancer”. Role: Project Coordinator.

2015-2019 Support for networking activities in the context of the project: “TRANSAUTOPHAGY: European Network of Multidisciplinary Research and Translation of Autophagy Knowledge”, granted by European Cooperation in Science and Technology (COST). Role: Secondary Proposer (<http://cost-transautophagy.eu>).

2014-2015 Grant from Regione Toscana for the project: “The role of the ERK8 MAP kinase in human cancer”. Role: Project Coordinator.

2011-2013 Grant supported by Ministero del Lavoro, della Salute e delle Politiche Sociali, Italy, for the project: “Targeting MAP kinases to eradicate the mammary cancer stem cell reservoir”. Role: Project Coordinator.

2011-2014 Grant supported by Regione Toscana (POR CREO FESR 2007-2013) for the project: “Development of a targeted organic-inorganic hybrid nano-magnetic-optic carrier to cure solid tumors through chemotherapy and ipertermia”. Role: Unit Coordinator.

2012 Grant supported by “Fondazione Toscana Life Sciences”, for the project: “Orphan-2 – Activity in the field of Enzyme Replacement Therapy (ERT)”. Role: Project Coordinator.

2010-2012 Grant supported by Ministero del Lavoro, della Salute e delle Politiche Sociali, Italy, for the project: “New therapeutic targets from the biology of the BCR-ABL oncogene”. Role: Project Coordinator.

2008-2013 Start-up from Regione Toscana to establish in Siena the Unit “Signal Transduction” of the Istituto Toscano Tumori. Project: “The role of the ERK8 MAP kinase in human cancer”. Role: Project Coordinator.

2005-2007 Grant supported by AIRC (Associazione Italiana per la Ricerca sul Cancro), for the project: “Signaling networks controlling the expression and function of the *c-myc* proto-oncogene”. Role: Project Coordinator.

2006-2007 Research project supported by CNR (“Modulo” SV.P15.013.001). Principal Investigator for the project: “Control mechanisms in transmission of intracellular signals”.

2006-2007 Grant supported by Ministero dell’Università e della Ricerca (MIUR, Italy) for the Project: “MAP kinase involvement in amyloid precursor protein (APP) proteolysis and Alzheimer’s disease pathogenesis”. Participating Unit. Project Coordinator: Prof. Tommaso Russo, University of Napoli.

2004 Grant supported by AIRC, for the project: “Signaling networks controlling the expression and function of the *c-myc* proto-oncogene”. Role: Project Coordinator.

2003 Grant supported by AIRC, for the project: “*c-Myc*-dependent cell cycle progression and cellular transformation induced by the Rac GTPase”. Role: Project Coordinator.

2002 Grant supported by AIRC, for the project: "Mechanisms controlling the expression of the *c-myc* proto-oncogene induced by Rho-like GTPases". Role: Project Coordinator.

1999 Grant "Progetto Giovani Ricercatori", supported by MURST, for the project: "Function of the Rab proteins in endocytosis". Role: Project Coordinator.

### Institutional and Service Activities

-*Ad-hoc reviewer*: EMBO Reports; Autophagy; The Journal of Biological Chemistry; Molecular and Cellular Biology; European Journal of Cancer; Antioxidants & Redox Signaling; The Journal of Cellular Physiology; Endocrine-Related Cancer; The Journal of Cellular Biochemistry; BMC Cell Biology; Molecular Cancer Research; Thyroid; The Scientific World Journal; PLOS ONE; ACS Medicinal Chemistry Letters; Nucleic Acid Research; American Journal of Physiology; Biomaterials; BMC Cell Biology; Matrix Biology; Cancer Letters; Current Drug Targets; Current Opinion in Pharmacology; Oncotarget; Cells; Current Medicinal Chemistry; Experimental and Therapeutic Medicine; Frontiers Cell and Developmental Biology; International Journal of Molecular Sciences; Scientific Reports; Theranostics; Redox Biology.

-*Grant reviewer*: MIUR (Ministero dell'Istruzione, dell'Università e della Ricerca, Italy); MiSE (Ministero dello Sviluppo Economico, Italy); AIRC (Associazione Italiana per a Ricerca sul Cancro); REPRISE (Register of Expert Peer Reviewers for Italian Scientific Evaluation).

-2014-to date "Scientific Expert" of Animal Welfare Body (AWB), Toscana Life Sciences Foundation, Siena, Italy.

-2015-to date "Faculty Board" Member for the PhD Course in "Genetics, Oncology and Clinical Medicine", Siena.

-2014-2015 "Faculty Board" Member for the PhD Course in "Biochemistry and Molecular Biology", Siena.

-2008-2013 "Faculty Board" Member for the PhD Course in "Genetics, Oncology and Clinical Medicine", Siena.

### Awards

2018-2024 National Scientific Qualification ("Abilitazione Scientifica Nazionale") as Associate Professor in "General and Clinical Pathology". Ministero dell'Istruzione, Università e Ricerca (MIUR), Italy.

2014-2024 National Scientific Qualification ("Abilitazione Scientifica Nazionale") as Full Professor in "Applied Biology". Ministero dell'Istruzione, Università e Ricerca (MIUR), Italy.

2014-2020 National Scientific Qualification ("Abilitazione Scientifica Nazionale") as Full Professor in "Molecular Biology". Ministero dell'Istruzione, Università e Ricerca (MIUR), Italy.

1996 Award as "Visiting Fellow" at National Institutes of Health (NIH), Bethesda, MD, USA.

### Publications

1. Gherardini L, Vetri Buratti V, Maturi M, Inzalaco G, Locatelli E, Sambri L, Gargiulo S, Barone V, Bonente D, Bertelli E, Tortorella S, Franci L, Fioravanti A, Comes Franchini M, **Chiariello M** (2023). Loco-regional treatment with temozolomide-loaded thermogels prevents glioblastoma recurrences in orthotopic human xenograft models. *Scientific Reports*. 13: 4630. PMID: 36944737; doi: 10.1038/s41598-023-31811-5
2. **Chiariello M**, Gherardini L. Aiming for the brain: a new thermogel-based drug delivery platform (2023). *Cell Signaling*. 1: 35-37.
3. Bonente D, Bianchi L, De Salvo R, Nicoletti C, De Benedetto E, Bacci T, Bini L, Inzalaco G, Franci L, **Chiariello M**, Tosi GM, Bertelli E, Barone V (2023). Co-Expression of Podoplanin and CD44 in Proliferative Vitreoretinopathy Epiretinal Membranes. *Int. J. Mol. Sci.* 24: 9728; PMID: 37298679; doi: 10.3390/ijms24119728
4. Federico G, Carrillo F, Dapporto F, **Chiariello M**, Santoro M, Bellelli R, Carlomagno F (2022). NCOA4 links iron bioavailability to DNA metabolism. *Cell Reports*. 40: 111207. PMID: 35977492; doi: 10.1016/j.celrep.2022.111207
5. Franci L, Inzalaco G, **Chiariello M** (2022). MAPK15 controls mitochondrial fitness and contributes to prevent cellular senescence. *Autophagy Reports* (ISSN: 2769-4127). 1: 381. doi: 10.1080/27694127.2022.2113016
6. Franci L, Tubita A, Bertolino FM, Palma A, Cannino G, Settembre C, Rasola A, Rovida E, **Chiariello M** (2022). MAPK15 Protects from Oxidative Stress-Dependent Cellular Senescence

- by Inducing the Mitophagic Process. *Aging Cell*. 21: e13620. PMID: 35642724; doi: 10.1111/accel.13620
7. Talà A, Guerra F, Calcagnile M, Romano R, Resta SC, Paiano A, **Chiariello M**, Pizzolante G, Bucci C, Alifano P (2022). HrpA anchors meningococci to the dynein motor and affects the balance between apoptosis and pyroptosis. *Journal of Biomedical Science*. 29: 45. PMID: 35765029; doi: 10.1186/s12929-022-00829-8.
  8. Elia I, Realini G, Di Mauro V, Borghi S, Bottoni L, Tornambè S, Vitiello L, Weiss S, **Chiariello M**, Tamburrini A, Oliviero S, Neri F, Orlandini M, Galvagni F (2022). SNAI1 is upregulated during muscle regeneration and represses FGF21 and ATF3 expression by directly binding their promoters. *The FASEB Journal*. 36: e22401. PMID: 35726676; doi: 10.1096/fj.202200215R
  9. Pietrobono S, Franci L, Imperatore F, Zanini C, Stecca B, **Chiariello M** (2021). MAPK15 Controls Hedgehog Signaling in Medulloblastoma Cells by Regulating Primary Ciliogenesis. *Cancers*. 13, 4903. PMID: 34638386; doi: 10.3390/cancers13194903.
  10. Tortorella S, Inzalaco G, Dapporto F, Maturi M, Sambri L, Vetri Buratti V, **Chiariello M**, Comes Franchini M, Locatelli E (2021). Biocompatible Pectin-based Hybrid Hydrogels for Tissue Engineering Applications. *New Journal of Chemistry*. 45, 22386. doi: 10.1039/D1NJ04142H.
  11. Brai A, Riva V, Clementi L, Falsitta L, Zamperini C, Sinigiani V, Festuccia C, Sabetta S, Aiello D, Roselli C, Garbelli A, Trivisani CI, Maccari L, Bugli F, Sanguinetti M, Calandro P, **Chiariello M**, Quaranta P, Botta L, Angelucci A, Maga G, Botta M (2021). Targeting DDX3X helicase activity with BA103: a new effective therapeutic approach in glioblastoma. *Cancers*. 13, 5569. PMID: 34771731; doi: 10.3390/cancers13215569.
  12. Croci S, Venneri MA, Mantovani S, Fallerini C, Benetti E, Picchiotti N, Campolo F, Imperatore F, Palmieri M, Daga S, Gabbi C, Montagnani F, Beligni G, Farias TDJ, Carriero ML, Di Sarno L, Alaverdian D, Aslaksen S, Cubellis MV, Spiga O, Baldassarri M, Fava F, Norman PJ, Frullanti E, Isidori AM, Amoroso A, Mari F, Furini S, Mondelli MU, GEN-COVID multicenter study, **Chiariello M\***, Renieri A\*, Meloni I (2021). The polymorphism L412F in TLR3 inhibits autophagy and is a marker of severe COVID-19 in males. *Autophagy*. PMID: 34964709; doi: 10.1080/15548627.2021.1995152. \* Co-corresponding authors.
  13. Gherardini L, Inzalaco G, Imperatore F, D'Aurizio R, Franci L, Miragliotta V, Boccuto A, Calandro P, Andreini M, Tarditi A, **Chiariello M** (2021). The FHP01 DDX3X Helicase Inhibitor Exerts Potent Anti-Tumor Activity In Vivo in Breast Cancer Pre-Clinical Models. *Cancers*. 13, 4830. PMID: 34638314; doi: 10.3390/cancers13194830.
  14. Fallerini C, et al.\* (2021). Association of Toll-like receptor 7 variants with life-threatening COVID-19 disease in males: findings from a nested case-control study. *eLife*. 10: e67569. PMID: 33650967; DOI: 10.7554/eLife.67569. \*See collaborators in GEN-COVID Multicenter Study.
  15. Romano R, Calcagnile M, Margiotta A, Franci L, **Chiariello M**, Alifano P, Bucci C (2021). RAB7A regulates vimentin phosphorylation through AKT and PAK. *Cancers*. 13: 2220. PMID: 34066419; doi: 10.3390/cancers13092220
  16. Klionsky DJ, et al. (2021). Guidelines for the use and interpretation of assays for monitoring autophagy (4th edition). *Autophagy*. 17: 1. PMID: 33634751; doi: 10.1080/15548627.2020.1797280
  17. Tosi GM, Giustarini D, Franci L, Minetti A, Imperatore F, Caldi E, Fiorenzani P, Aloisi AM, Sparatore A, Rossi R, **Chiariello M**, Orlandini M, Galvagni F (2021). Superior Properties of N-acetylcysteine Ethyl Ester over N-Acetyl Cysteine to Prevent Retinal Pigment Epithelial Cells Oxidative Damage. *Int. J. Mol. Sci*. 22: 600. PMID: 33435325; doi: 10.3390/ijms22020600
  18. Tortorella S, Maturi M, Dapporto F, Spanu C, Sambri L, Comes Franchini M, **Chiariello M**, Locatelli E (2020). Surface modification of nanocellulose through carbamate link for a selective release of chemotherapeutics. *Cellulose*. 27, 8503–8511. doi: 10.1007/s10570-020-03390-5
  19. Iralde-Lorente L, Tassone G, Clementi L, Franci L, Munier CC, Cau Y, Mori M, **Chiariello M**, Angelucci A, Perry MWD, Pozzi C, Mangani S, Botta M (2020). Identification of Phosphate-Containing Compounds as New Inhibitors of 14-3-3/c-Abl Protein-Protein Interaction. *ACS Chem Biol*. 15: 1026. PMID: 32142251; doi: 10.1021/acscchembio.0c00039
  20. Leonardi M, Perna E, Tronolone S, Colecchia D, **Chiariello M** (2019). Activated kinases screening identifies the IKBKE oncogene as a positive regulator of autophagy. *Autophagy*. 15: 312. PMID: 30289335; doi: 10.1080/15548627.2018.1517855.
  21. Iralde-Lorente L, Cau Y, Clementi L, Franci L, Tassone G, Valensin D, Mori M, Angelucci A, **Chiariello M**, Botta M (2019). Chemically stable inhibitors of 14-3-3 protein-protein interactions

- derived from BV02. *J. Enzyme Inhib. Med. Chem.* 34: 657. PMID: 30727786 doi: 10.1080/14756366.2019.1574779.
22. Lubrano S, Laura Comelli, Piccirilli C, Marranci A, Dapporto F, Tantillo E, Gemignani F, Gutkind JS, Salvetti A, Chiorino G, Cozza G, **Chiariello M**, Galli A, Poliseno L, Cervelli T (2019). Development of a yeast-based system to identify new hBRAFV600E functional interactors. *Oncogene*. 38: 1355. PMID: 30237439; doi: 10.1038/s41388-018-0496-5.
  23. Colecchia D, Dapporto F, Tronolone S, Salvini L, **Chiariello M** (2018). MAPK15 is part of the ULK complex and controls its activity to regulate early phases of the autophagic process. *J. Biol. Chem.* 293: 15962. PMID: 30131341; doi: 10.1074/jbc.RA118.002527.
  24. Bertuzzi G, Crotti S, Calandro P, Bonini BF, Monaco I, Locatelli E, Fochi M, Zani P, Strocchi E, Mazzanti A, **Chiariello M**, Comes Franchini M. Quinone-fused pyrazoles through regio-selective 1,3-dipolar cycloadditions: synthesis of tricyclic scaffolds and in vitro cytotoxic activity evaluation on glioblastoma cancer cells (2018). *ChemMedChem*. 13: 1744. PMID: 29966045; doi: 10.1002/cmdc.201800251.
  25. Calandro P, Iovenitti G, Mancini A, Zamperini C, Candita F, Dreassi E, **Chiariello M**, Schenone S, Botta M (2018). Plasmin-binding tripeptide-decorated liposomes loading pyrazolo[3,4-d]pyrimidines for the targeting to hepatocellular carcinoma. *ACS Medicinal Chemistry Letters*. 9: 646. PMID: 30034594; doi: 10.1021/acsmchemlett.8b00062.
  26. Pietrobono S, Santini R, Gagliardi S, Dapporto F, Colecchia D, **Chiariello M**, Leone C, Valoti M, Manetti F, Petricci E, Taddei M, Stecca B (2018). Targeted inhibition of Hedgehog-GLI signaling by novel acylguanidine derivatives inhibits melanoma cell growth by inducing replication stress and mitotic catastrophe. *Cell Death & Disease*. 9: 142. PMID: 29396391; doi: 10.1038/s41419-017-0142-0.
  27. Colecchia D, Stasi M, Leonardi M, Manganelli F, Nolano M, Veneziani BM, Santoro L, Eskelinen E-L, **Chiariello M\***, Bucci C\* (2018). Alterations of autophagy in the peripheral neuropathy Charcot-Marie-Tooth type 2B. *Autophagy*. 14: 930. PMID: 29130394; doi: 10.1080/15548627.2017.1388475. \*Co-corresponding authors.
  28. Colecchia D, Nicolato E, Ravagli C, Faraoni P, Strambi A, Rossi M, Doumet S, Mosconi E, Locatelli E, Comes Franchini M, Balzi M, Baldi G, Marzola P, **Chiariello M**. (2017). EGFR-targeted magnetic nanovectors recognize, in vivo, head and neck squamous cells carcinoma-derived tumors. *ACS Medicinal Chemistry Letters*. 8: 1230-1235. doi: 10.1021/acsmchemlett.7b00278
  29. Monaco I, Camorani S, David Colecchia D, Locatelli E, Calandro P, Oudin A, Niclou S, Arra C, **Chiariello M\***, Cerchia L\*, Comes Franchini M\* (2017). Aptamer functionalization of nanosystems for Glioblastoma targeting through the Blood-Brain-Barrier. *Journal of Medicinal Chemistry*. 60: 4510-4516. PMID: 28471660; doi: 10.1021/acs.jmedchem.7b00527. \*Co-corresponding authors.
  30. Vignaroli G, Iovenitti G, Zamperini C, Coniglio F, Calandro P, Molinari A, Fallacara AL, Sartucci A, Calgani A, Colecchia D, Mancini A, Festuccia C, Dreassi E, Valoti M, Musumeci F, **Chiariello M**, Angelucci A, Botta M, Schenone S (2017). Prodrugs of pyrazolo[3,4-d]pyrimidines: from library synthesis to evaluation as potential anticancer agents in an orthotopic glioblastoma model. *Journal of Medicinal Chemistry*. 60: 6305-6320. PMID: 28650650; DOI: 10.1021/acs.jmedchem.7b00637
  31. Fallacara AL, Mancini A, Zamperini C, Marianelli S, **Chiariello M**, Pozzie G, Santoro F, Botta M, Schenone S (2017). Pyrazolo[3,4-d]pyrimidines-loaded human serum albumin (HSA) nanoparticles: preparation, characterization and cytotoxicity evaluation against neuroblastoma cell line. *Bioorganic & Medicinal Chemistry Letters*. 27: 3196-3200. PMID: 28558969; DOI: 10.1016/j.bmcl.2017.05.015.
  32. Vitiello M, Tuccoli A, D'Aurizio R, Sarti S, Giannecchini L, Lubrano S, Marranci A, Evangelista M, Peppicelli S, Ippolito C, Barravecchia I, Guzzolino E, Montagnani V, Gowen M, Mercoledi E, Mercatanti A, Comelli L, Gurrieri S, Wu LW, Ope O, Flaherty K, Boland GM, Hammond MR, Kwong L, **Chiariello M**, Stecca B, Zhang G, Salvetti A, Angeloni D, Pitto L, Calorini L, Chiorino G, Pellegrini M, Herlyn M, Osman I and Poliseno L (2017). Context-dependent miR-204 and miR-211 differentially affect the biological properties of amelanotic and melanotic melanoma cells. *Oncotarget*. 8: 25395-25417. PMID: 28445987; DOI: 10.18632/oncotarget.15915.
  33. Botta L, Maccari G, Calandro P, Tiberi M, Brai A, Zamperini C, Canducci F, **Chiariello M**, Marti-Centelles R, Falomir E, Carda M (2017). One drug for two targets: Biological evaluation of antiretroviral agents endowed with antiproliferative activity. *Bioorganic & Medicinal Chemistry Letters*. 27: 2502-2505. PMID: 28408224; DOI: 10.1016/j.bmcl.2017.03.097.

34. Musumeci F, Fallacara AL, Brullo C, Grossi G, Botta L, Calandro P, **Chiariello M**, Kissova M, Crespan E, Maga G and Schenone S (2017). Identification of new pyrrolo[2,3-d]pyrimidines as Src tyrosine kinase inhibitors *in vitro* active against Glioblastoma. *European Journal of Medicinal Chemistry*. 127: 369-378. PMID: 28076826; DOI: 10.1016/j.ejmech.2016.12.036.
35. Rossi M, Colecchia D, Ilardi G, Acunzo M, Nigita G, Sasdelli F, Celetti A, Strambi A, Staibano S, Croce CM and **Chiariello M** (2016). MAPK15 upregulation promotes cell proliferation and prevents DNA damage in male germ cell tumors. *Oncotarget*. 7: 20981-98. PMID: 26988910; DOI: 10.18632/oncotarget.8044.
36. Bertuzzi G, Locatelli E, Colecchia D, Calandro P, Bonini BF, Chandanshive JZ, Mazzanti A, Zani P, **Chiariello M** and Comes Franchini M (2016). Straightforward synthesis of a novel ring-fused pyrazole-lactam and *in vitro* cytotoxic activity on cancer cell lines. *European Journal of Medicinal Chemistry*. 117: 1-7. PMID: 27081742; DOI: 10.1016/j.ejmech.2016.04.006.
37. Vignaroli G, Calandro P, Zamperini C, Coniglio F, Glovenitti G, Tavanti M, Colecchia D, Dreassi E, Valoti M, Schenone S, **Chiariello M** and Botta M (2016). Improvement of pyrazolo[3,4-d]pyrimidines pharmacokinetic properties: nanosystem approaches for drug delivery. *Scientific Reports*. 6: 21509. PMID: 26898318; DOI: 10.1038/srep21509.
38. Bellelli R, Federico G, Mattè A, Colecchia D, Iolascon A, **Chiariello M**, Santoro M, De Franceschi L and Carlomagno F (2016). NCOA4 deficiency impairs systemic iron homeostasis. *Cell Reports*. 14, 1–11. PMID: 26776506; DOI: 10.1016/j.celrep.2015.12.065.
39. Klionsky DJ, et al. (2016). Guidelines for the use and interpretation of assays for monitoring autophagy (3<sup>rd</sup> edition). *Autophagy*. 12: 1-222. PMID: 26799652; DOI: 10.1080/15548627.2015.1100356.
40. Valensin D, Cau Y, Calandro P, Vignaroli G, Dello Iacono L, **Chiariello M**, Mori M and Botta M (2016). Molecular insights to the bioactive form of BV02, a reference inhibitor of 14-3-3 $\sigma$  protein–protein interactions. *Bioorg. Med. Chem. Lett*. 26: 894-898. PMID: 26774582; DOI: 10.1016/j.bmcl.2015.12.066.
41. Colecchia D, Rossi M, Sasdelli F, Sanzone S, Strambi A and **Chiariello M** (2015). MAPK15 mediates BCR-ABL-induced autophagy and regulates oncogene-dependent cell proliferation and tumor formation. *Autophagy*. 11: 1790-1802. PMID: 26291129; DOI: 10.1080/15548627.2015.1084454.
42. Camorani S, Crescenzi E, Colecchia D, Carpentieri A, Amoresano A, Fedele M, **Chiariello M** and Cerchia L (2015). Aptamer targeting EGFRvIII mutant hampers its constitutive autophosphorylation and affects migration, invasion and proliferation of glioblastoma cells. *Oncotarget*. 6: 37570-37587. PMID: 26461476; DOI: 10.18632/oncotarget.6066.
43. Morra F, Luise C, Merolla F, Poser I, Visconti R, Ilardi G, Paladino S, Inuzuka H, Guggino G, Monaco R, Colecchia D, Monaco G, Cerrato A, **Chiariello M**, Claudio PP, Staibano S and Celetti A (2015). FBXW7 and USP7 regulate CCDC6 turnover during the cell cycle and affect cancer drugs susceptibility in NSCLC. *Oncotarget*. 20: 12697-709. PMID: 25885523; DOI: 10.18632/oncotarget.3708.
44. Naddaka M, Locatelli E, Colecchia D, Sambri L, Monaco I, Baschieri A, Sasdelli F, **Chiariello M**, Matteucci E, Zani P and Comes Franchini M (2015). Hybrid Cholesterol-based nanocarriers containing phosphorescent Ir complexes. *In vitro* imaging on glioblastoma cell line. *RSC Adv*. 5: 1091-1096. DOI: 10.1039/c4ra12936a
45. Carlomagno F and **Chiariello M** (2014). Growth factor transduction pathways: paradigm of anti-neoplastic targeted therapy. *J. Mol. Med*. 92: 723-733. PMID: 24906458; DOI: 10.1007/s00109-014-1177-7.
46. Locatelli E, Matteini P, Sasdelli F, Pucci A, **Chiariello M**, Molinari V, Pini R and Comes Franchini M. (2014). Surface chemistry and entrapment of magnesium nanoparticles into polymeric micelles: a highly biocompatible tool for photothermal therapy. *Chem. Commun*. 50: 7783-7786 PMID: 24901445; DOI: 10.1039/c4cc01513d.
47. Mori M, Vignaroli G, Cau Y, Dinić J, Hill R, Rossi M, Colecchia D, Pešić M, Link W, **Chiariello M**, Ottmann C and Botta M (2014). Discovery of 14-3-3 protein-protein interaction inhibitors that sensitize multidrug resistant cancer cells to Doxorubicin and the Akt inhibitor GSK690693. *ChemMedChem*. 9: 973-983. PMID: 24715717; DOI: 10.1002/cmdc.201400044.
48. Acunzo M, Romano G, Palmieri D, Laganá A, Garofalo M, Balatti V, Drusco A, **Chiariello M**, Nana-Sinkam P and Croce CM (2013). The cross-talk between MET and EGFR in Non-Small Cell Lung Cancer involves miR-27a and Sprouty2. *Proc. Natl. Acad. Sci. USA*. 110: 8573-8578. PMID: 23650389; DOI: 10.1073/pnas.1302107110.

49. Strambi A, Mori M, Rossi M, Colecchia D, Manetti F, Carlomagno F, Botta M and **Chiariello M** (2013). Structure prediction and validation of the ERK8 kinase domain. *PLoS ONE* 8(1): e52011. PMID: 23326322; DOI: 10.1371/journal.pone.0052011.
50. Colecchia D, Strambi A, Sanzone S, Iavarone C, Rossi M, Dall'armi C, Piccioni F, Verrotti di Pianella A and **Chiariello M** (2012). MAPK15/ERK8 stimulates autophagy by interacting with LC3 and GABARAP proteins. *Autophagy*. 8: 1724-1740. PMID: 22948227; DOI: 10.4161/auto.21857.
51. Acunzo M, Visone R, Romano G, Veronese A, Lovat F, Palmieri D, Bottoni A, Garofalo M, Gasparini P, Condorelli G, **Chiariello M** and Croce CM (2012). miR-130a targets MET and induces TRAIL-sensitivity in NSCLC by downregulating miR-221 and 222. *Oncogene*. 31: 634-642. PMID: 21706050; DOI: 10.1038/onc.2011.260.
52. Rossi M, Colecchia D, Iavarone C, Strambi A, Piccioni F, Verrotti di Pianella A and **Chiariello M** (2011). Extracellular signal-regulated kinase 8 (Erk8) controls estrogen-related receptor  $\alpha$  (ERR $\alpha$ ) cellular localization and inhibits its transcriptional activity. *J. Biol. Chem.* 286: 8507-8522. PMID: 21190936; DOI: 10.1074/jbc.M110.179523.
53. Iavarone C, Acunzo M, Carlomagno F, Catania A, Melillo RM, Carlomagno MS, Santoro M and **Chiariello M** (2006). Activation of the Erk8 MAP kinase by RET/PTC3, a constitutively active form of the RET proto-oncogene. *J. Biol Chem.* 281:10567-10576. PMID: 16484222; DOI: 10.1074/jbc.M513397200.
54. Bucci C and **Chiariello M** (2006). Signal transduction gRABs attention. *Cellular Signalling*. 18: 1-8. PMID: 16084065; DOI: 10.1016/j.cellsig.2005.07.001
55. Catania A, Iavarone C, Carlomagno MS and **Chiariello M** (2006). Selective transcription and cellular proliferation induced by PDGF require histone deacetylase activity. *Biochem. Biophys. Res. Commun.* 343: 544-554. PMID: 16554031; DOI: 10.1016/j.bbrc.2006.03.013.
56. Marinissen MJ, **Chiariello M**, Tanos T, Bernard O, Narumiya S, and Gutkind JS (2004). The small GTP-binding protein RhoA regulates c-Jun by a ROCK-JNK signaling axis. *Molecular Cell*. 13: 29-41. PMID: 15068801. DOI: 10.1016/S1097-2765(04)00153-4
57. Iavarone C, Catania A, Marinissen MJ, Visconti R, Acunzo M, Tarantino C, Carlomagno MS, Bruni CB, Gutkind JS and **Chiariello M** (2003). The platelet-derived growth factor controls c-myc expression through a JNK- and AP-1-dependent signaling pathway. *J. Biol. Chem.* 278: 50024-50030. PMID: 14523011; DOI: 10.1074/jbc.M308617200.
58. **Chiariello M**, and Gutkind JS (2002). Regulation of MAP Kinases by G Protein-Coupled Receptors. *Methods in Enzymology*. 345: 437-447. PMID: 11665627.
59. **Chiariello M**, Marinissen MJ and Gutkind JS (2001). Regulation of c-myc expression by PDGF through the Src-mediated activation of Vav2 and Rho GTPases. *Nat. Cell. Biol.* 3: 580-586. PMID: 11389443; DOI: 10.1038/35078555.
60. Marinissen MJ, **Chiariello M**, and Gutkind JS (2001). Regulation of gene expression by the small GTPase Rho through the ERK6 (p38 $\gamma$ ) MAP kinase pathway. *Genes Dev.* 15: 535-553. PMID: 11238375; DOI: 10.1101/gad.855801.
61. **Chiariello M**, Gomez E and Gutkind JS (2000). Regulation of cyclin-dependent kinase (Cdk) 2 Thr-160 phosphorylation and activity by mitogen-activated protein kinase in late G1 phase. *Biochem. J.* 349: 869-876. PMID: 10903150; DOI: 10.1042/bj3490869
62. **Chiariello M**, Marinissen MJ and Gutkind JS (2000). Multiple Mitogen-Activated Protein Kinase Signaling Pathways Connect the Cot Oncoprotein to the c-jun Promoter and to Cellular Transformation. *Mol. Cell. Biol.* 20: 1747-1758. PMID: 10669751; DOI: 10.1128/MCB.20.5.1747-1758.2000
63. Fukuhara S, Marinissen MJ, **Chiariello M** and Gutkind JS (2000). Signaling from G protein-coupled receptors to ERK5/BMK1 involves Galphaq and Galpha12/13 families of heterotrimeric G proteins: Evidence for the existence of a novel Ras and Rho-independent pathway. *J. Biol. Chem.* 275: 21730-21736. PMID: 10781600; DOI: 10.1074/jbc.M002410200.
64. Visconti R, Gadina M, **Chiariello M**, Chen EH, Stancato LF, Gutkind JS and O'Shea JJ (2000). Importance of the MKK6/p38 pathway for interleukin-12-induced STAT4 serine phosphorylation and transcriptional activity. *Blood*. 96: 1844-1852. PMID: 10961885.
65. Bucci C, **Chiariello M**, Lattero D, Maiorano M and Bruni CB (1999). Interaction cloning and characterization of the cDNA encoding the human Prenylated Rab Acceptor (PRA1). *Biochem. Biophys. Res. Commun.* 258: 657-662. PMID: 10329441; DOI: 10.1006/bbrc.1999.0651.
66. Marinissen MJ, **Chiariello M**, Pallante M and Gutkind JS (1999). A network of mitogen-activated protein kinases links G protein-coupled receptors to the c-jun promoter: a role for c-jun

- NH2-terminal kinase, p38s, and extracellular signal-regulated kinase 5. *Mol. Cell. Biol.* 19: 4289-4301. PMID: 10330170.
67. Pece S, **Chiariello M**, Murga C and Gutkind JS (1999). Activation of the protein kinase Akt/PKB by formation of E-cadherin-mediated cell-cell junctions. Evidence for the association of phosphatidylinositol 3-kinase with the E-cadherin adhesion complex. *J. Biol. Chem.* 274: 19347-19351. PMID: 10383446.
  68. **Chiariello M**, Bruni CB and Bucci C (1999). The small GTPases Rab5a, Rab5b and Rab5c are differentially phosphorylated in vitro. *FEBS Lett.* 453: 20-24. PMID: 10403367.
  69. **Chiariello M**, Visconti R, Carlomagno F, Melillo RM, Bucci C, de Franciscis V, Fox GM, Jing, SQ, Coso OA, Gutkind JS, Fusco A and Santoro M (1998). Signalling of the Ret receptor tyrosine kinase through the c-Jun NH2-terminal protein kinases (JNKs): evidence for a divergence of the ERKs and JNKs pathways induced by Ret. *Oncogene.* 16: 2435-2445. PMID: 9627110; DOI: 10.1038/sj.onc.1201778.
  70. **Chiariello M**, De Gregorio L, Vitelli R, Alifano P, Dragani TA, Bruni CB and Bucci C (1998). Genetic mapping of the mouse Rab7 gene and pseudogene and of the human RAB7 homolog. *Mammalian Genome.* 9: 448-452. PMID: 9585432.
  71. Vitelli R, Santillo M, Lattero D, **Chiariello M**, Bifulco M, Bruni CB and Bucci C (1997). Role of the small GTPase RAB7 in the late endocytic pathway. *J. Biol. Chem.* 272: 4391-4397. PMID: 9020161.
  72. Vitelli R, **Chiariello M**, Lattero D, Bruni CB and Bucci C (1996). Molecular cloning and expression analysis of the human Rab7 GTP-ase complementary deoxyribonucleic acid. *Biochem. Biophys. Res. Commun.* 229: 887-890. PMID: 8954989; DOI: 10.1006/bbrc.1996.1897.
  73. Coso OA, **Chiariello M**, Yu, J-C, Teramoto, H, Crespo P, Xu, N, Miki T and Gutkind JS (1995). The small GTP-binding proteins rac1 and cdc42 regulate the activity of the JNK/SAPK signaling pathway. *Cell* 81: 1137-1146. PMID: 7600581. DOI: 10.1016/s0092-8674(05)80018-2
  74. Coso OA, **Chiariello M**, Kalinec G, Kyriakis JM, Woodgett J and Gutkind JS (1995). Transforming G protein-coupled receptors potently activate JNK (SAPK): evidence for a divergence from the tyrosine-kinase signaling pathway. *J. Biol. Chem.* 270: 5620-5624. PMID: 7890682.
  75. Bucci C, Lütcke A, Steele-Mortimer O, Olkkonen, VM, Dupree P, **Chiariello M.**, Bruni CB, Simons K, and Zerial M (1995). Co-operative regulation of endocytosis by three rab5 isoforms. *FEBS Lett.* 366: 65-71. PMID: 7789520.
  76. Vitelli R, **Chiariello M**, Bruni CB, Bucci C (1995). Cloning and expression analysis of the murine Rab7 cDNA. *Biochim. Biophys. Acta* 1264: 268-270. PMID: 8547311.
  77. Bucci C, Wandinger-Ness A, Lütcke A, **Chiariello M**, Bruni CB, and Zerial M (1994). Rab5a is a common component of the apical and basolateral endocytic machinery in polarized epithelial cells. *Proc. Natl. Acad. Sci. USA.* 91: 5061-5065. PMID: 8197185.

### Book chapters

1. **Chiariello M**, Vaqué JP, Crespo P, Gutkind JS (2010). Activation of Ras and Rho GTPases and MAP Kinases by G-protein-coupled receptors. *Methods Mol Biol.* 661: 137-50.
2. Marinissen MJ and **Chiariello M**. Targeting MAP kinase signaling pathways for the treatment of cancer (2006). In: "Signaling molecules as targets in cancer therapy" by Nova Science Publishers Inc. ISBN: 1600212433.
3. Fukuhara S, Marinissen MJ, **Chiariello M** and Gutkind JS. The pathway linking G protein-coupled receptors to the nucleus (2000). In: Signaling Networks and Cell Cycle Control. J.S. Gutkind ed., Humana Press, 5: p. 83-98. ISBN: 9780896037106.
4. Bucci C, **Chiariello M**, and Bruni CB. "Rab7" (1995). In: Guidebook to the Small GTPases (Guidebook Series). Zerial M and Huber L ed., Oxford University Press, p. 336-338. ISBN: 0198599447.
5. Murphy C, Orioli D, Lütcke A, Bucci C, **Chiariello M**, Lehtonen E and Zerial M. Rab proteins and the regulation of vesicular traffic in polarized cells (1995). In: GTPase controlled molecular machines, Serono Symposia Series Advances in experimental medicine: Frati L and Aaronson A ed., Raven Press, New York, 7: p. 187-195. ISBN: 8885974279.
6. Murphy C, Orioli D, Lütcke A, Bucci C, **Chiariello M**, Lehtonen E and Zerial M. Rab proteins and the regulation of vesicular traffic in polarized cells (1994). In: GTPase-controlled molecular machines. Book Series: Challenges of modern medicine. 6: 187-195.



### **Selected Published Abstracts**

1. Croci S, Beligni G, Rossetti A, Edo A, Sorg T, Manara M, Lo Rizzo C, Mencarelli MA, Canitano R, Sica M, Capitani K, Conticello SG, Molinaro F, **Chiariello M**, Chillon M, Ladewig J, Herault, Renieri A, Meloni I (2023). CRISPR/Cas9-based gene editing for Rett syndrome therapy. *Human Gene Therapy*. 33: A141.
2. Iralde-Lorente L, Tassone G, Cau Y, Munier C, Franci L, Pozzi C, Angelucci A, Chiariello M, Perry M, Mangani S and Botta M. Small Molecules as Potential Inhibitors of the 14-3-3/c-Abl Interaction for the Treatment of CML (2019). *Proceedings*. 22: 17
3. Colecchia D, Stasi M, Leonardi M, Manganelli F, Nolano M, Veneziani BM, Santoro L, Chiariello M, Bucci C. Alterations of autophagic flux in Charcot-Marie-Tooth 2b disease (2016). *Journal of the Peripheral Nervous System*. 21: 246.
4. Camorani S, Crescenzi E, Colecchia D, Carpentieri A, Amoresano A, **Chiariello M** and Cerchia L. Aptamer-mediated inhibition of EGFRvIII mutant in glioblastoma cells (2015). *Cancer Research* 75 (15 supplement): LB-022-LB-022. DOI: 10.1158/1538-7445.AM2015-LB-022
5. Colecchia D and Chiariello M. MAPK15 mediates BCR-ABL-induced autophagy and cellular transformation (2014). *Anticancer Research*. 34: 5864-5864.
6. Rossi M, Colecchia D, Iavarone C, Strambi A, Verrotti di Pianella A and **Chiariello M**. Extracellular signal-regulated kinase 8 controls estrogen-related receptor alpha cellular localization and inhibits its transcriptional activity (2011). *FEBS Journal*. 278 (SI): 220-221.
7. Visconti R, Gadina M, **Chiariello M**, Chen EH, Stancato LF, Gutkind JS and O'Shea JJ. Importance of the MKK6/p38 pathway for interleukin-12-induced STAT4 serine phosphorylation and transcriptional activity (2000). *FASEB Journal*. 14: A1084.
8. Barros S, **Chiariello M** and Gutkind JS. Biological interaction between p73 and HPV E6 oncoprotein (2000). *Journal of Dental Research*. 79: 620
9. Coso OA, **Chiariello M**, Yu, J-C, Teramoto, H, Crespo P, Xu, N, Miki T and Gutkind JS. The small GTP-binding proteins rac1 and cdc42 regulate the activity of the JNK/SAPK signaling pathway (1995). *Molecular Biology of the Cell*. 6: 1976.