

Curriculum Vitae

PERSONAL INFORMATION

NAME: Alessia Lamolinara

BIRTH: 01 October 1984

WORK ADDRESS: Center for Advanced Studies and Technology (CAST), Via Luigi Polacchi 11, 66100, Chieti, Italy. Tel +39-0871-541570 (Lab) e-mail: alessia.lamolinara@unich.it

RESEARCHER UNIQUE IDENTIFIER (ORCID ID): 0000-0002-7421-4509

CURRENT POSITION: Research Fellow, Department of Medicine and Aging Science, “G. d’Annunzio” University of Chieti-Pescara.

EDUCATIONS AND QUALIFICATIONS

2007: Bachelor Degree in Biotechnology (110 cum laude) at the University of L’Aquila;

2011: Master Degree in Medical Biotechnology (110 cum laude) at the University of L’Aquila;

2017: PhD in “Translational Medicine”, School of Medicine, “G. d’Annunzio” University, Chieti-Pescara.

ACADEMIC AND SCIENTIFIC RANKS

2019: Scientific member of the OPBA (Organization responsible for animal welfare), “G. d’Annunzio” University, Chieti (D.R. n.886 del 2019 - prot. n.40722 del 10.6.2019).

2017: 4 months scholarship on “Retinal morphofunctional analysis in patients with diabetich maculopatia” at the Ophthalmology Unit directed by Prof. Leonardo Mastropasqua, “G. d’Annunzio” University, Chieti;

2017: Participation as tutor in the “Training and updating course for the use of animals at scientific and educational purposes” 2nd edition 2017, Istituto

Zooprofilattico Sperimentale dell'Abruzzo e del Molise "G. Caporale" (IZSAM), Teramo.

2012: 2 years scholarship on “Breast cancer in a transgenic mouse model: tumor cell dissemination early or late event” at the Immuno-Oncology Laboratory directed by Prof. Piero Musiani, “G. d’Annunzio” University, Chieti.

SCIENTIFIC PUBLICATIONS

The original peer-reviewed publications are 28, the citations obtained are 260 and hIndex = 9 (source: Scopus). The ten most significant publications are listed below:

1. Grasso S, Cangelosi D, Chapelle J, Alzona M, Centonze G, Lamolinara A, Salemme V, Angelini C, Morellato A, Saglietto A, Bianchi FT, Cabodi S, Salaroglio IC, Fusella F, Ognibene M, Iezzi M, Pezzolo A, Poli V, Di Cunto F, Eva A, Riganti C, Varesio L, Turco E, Defilippi P. The SRCIN1/p140Cap adaptor protein negatively regulates the aggressiveness of neuroblastoma. *Cell Death Differ.* 2020 Apr; 27(4):1448. doi: 10.1038/s41418-019-0405-7. Epub 2019 Sep 5. PubMed PMID: 31488891.
2. Mottini C, Tomihara H, Carrella D, Lamolinara A, Iezzi M, Huang JK, Amoreo CA, Buglioni S, Manni I, Robinson FS, Minelli R, Kang Y, Fleming JB, Kim MP, Bristow CA, Trisciuglio D, Iuliano A, Del Bufalo D, di Bernardo D, Melisi D, Draetta GF, Ciliberto G, Carugo A, Cardone L. Predictive signatures inform the effective repurposing of Decitabine to treat K-RAS-dependent Pancreatic Ductal Adenocarcinoma. *Cancer Res.* 2019 Nov 1;79(21):5612-5625. doi: 10.1158/0008-5472.CAN-19-0187. Epub 2019 Sep 5. PubMed PMID: 31492820.
3. Matte A, Recchiuti A, Federti E, Koehl B, Mintz T, El Nemer W, Tharaux PL, Brousse V, Andolfo I, Lamolinara A, Weinberg O, Siciliano A, Norris PC, Riley IR, Iolascon A, Serhan CN, Brugnara C, De Franceschi L. Resolution of sickle cell disease-associated inflammation and tissue damage with 17R-resolvin D1. *Blood.* 2019 Jan 17;133(3):252-265. doi: 10.1182/blood-2018-07-865378. Epub 2018 Nov 7. PubMed PMID: 30404812.
4. Fiore A, Ugel S, De Sanctis F, Sandri S, Fracasso G, Trovato R, Sartoris S, Solito S, Mandruzzato S, Vascotto F, Hippen KL, Mondanelli G, Grohmann U, Piro G, Carbone C, Melisi D, Lawlor RT, Scarpa A, Lamolinara A, Iezzi M, Fassan M, Biciato S, Blazar BR, Sahin U, Murray PJ, Bronte V. Induction of

- immunosuppressive functions and NF- κ B by FLIP in monocytes. *Nat Commun.* 2018 Dec 5;9(1):5193. doi: 10.1038/s41467-018-07654-4. PubMed PMID: 30518925.
5. Castiello L, Sestili P, Schiavoni G, Dattilo R, Monque DM, Ciaffoni F, Iezzi M, Lamolinara A, Sistigu A, Moschella F, Pacca AM, Macchia D, Ferrantini M, Zeuner A, Biffoni M, Proietti E, Belardelli F, Aricò E. Disruption of IFN- γ Signaling Promotes HER2/Neu Tumor Progression and Breast Cancer Stem Cells. *Cancer Immunol Res.* 2018 Jun;6(6):658-670. doi: 10.1158/2326-6066.CIR-17-0675. Epub 2018 Apr 5. PubMed PMID: 29622580.
 6. Capone E, Lamolinara A, D'Agostino D, Rossi C, De Laurenzi V, Iezzi M, Iacobelli S, Sala G. EV20-mediated delivery of cytotoxic auristatin MMAF exhibits potent therapeutic efficacy in cutaneous melanoma. *J Control Release.* 2018 May 10;277:48-56. doi: 10.1016/j.jconrel.2018.03.016. Epub 2018 Mar 14. PubMed PMID: 29550398.
 7. Codagnone M, Cianci E, Lamolinara A, Mari VC, Nespoli A, Isopi E, Mattoscio D, Arita M, Bragonzi A, Iezzi M, Romano M, Recchiuti A. Resolvin D1 enhances the resolution of lung inflammation caused by long-term *Pseudomonas aeruginosa* infection. *Mucosal Immunol.* 2018 Jan;11(1):35-49. doi: 10.1038/mi.2017.36. Epub 2017 Apr 19. PubMed PMID: 28422188.
 8. Grasso S, Chapelle J, Salemme V, Aramu S, Russo I, Vitale N, Verdun di Cantogno L, Dallaglio K, Castellano I, Amici A, Centonze G, Sharma N, Lunardi S, Cabodi S, Cavallo F, Lamolinara A, Stramucci L, Moiso E, Provero P, Albini A, Sapino A, Staaf J, Di Fiore PP, Bertalot G, Pece S, Tosoni D, Confalonieri S, Iezzi M, Di Stefano P, Turco E, Defilippi P. The scaffold protein p140Cap limits ERBB2-mediated breast cancer progression interfering with Rac GTPase-controlled circuitries. *Nat Commun.* 2018 Mar 30;9:16203. doi: 10.1038/ncomms16203. PubMed PMID: 29600801.
 9. Sandri S, Bobisse S, Moxley K, Lamolinara A, De Sanctis F, Boschi F, Sbarbati A, Fracasso G, Ferrarini G, Hendriks RW, Cavallini C, Scupoli MT, Sartoris S, Iezzi M, Nishimura MI, Bronte V, Ugel S. Feasibility of Telomerase-Specific Adoptive T-cell Therapy for B-cell Chronic Lymphocytic Leukemia and Solid Malignancies. *Cancer Res.* 2016 May 1;76(9):2540-51. doi: 10.1158/0008-5472.CAN-15-2318. PubMed PMID: 27197263.
 10. Castagnoli L, Iezzi M, Ghedini GC, Ciravolo V, Marzano G, Lamolinara A, Zappasodi R, Gasparini P, Campiglio M, Amici A, Chiodoni C, Palladini A, Lollini PL, Triulzi T, Menard S, Nanni P, Tagliabue E, Pupa SM. Activated d16HER2

homodimers and SRC kinase mediate optimal efficacy for trastuzumab. *Cancer Res.* 2014 Nov 1;74(21):6248-59. doi: 10.1158/0008-5472.CAN-14-0983. Epub 2014 Aug 27. PubMed PMID: 25164009.

LIST OF PEER-REVIEWED PUBLICATIONS (2012-2020)

1) Mattoscio D, Isopi E, Codagnone M, Mari VC, Lamolinara A, D'Aurora M, Cianci E, Nespoli A, Franchi S, Gatta V, Dubourdeau M, Moretti P, Di Sabatino M, Iezzi M, Romano M, Recchiuti A. Resolvin D1 reduces lung infection and inflammation activating resolution in cystic fibrosis. *Frontiers in Immunology*. Accepted 2020 Mar 12. IN PRESS

2) Bibbo' S, Lamolinara A, Capone E, Purgato S, Tsakaneli A, Panella V, Sallese M, Rossi C, Ciufici P, Nieddu V, De Laurenzi V, Iezzi M, Perini G, Sala G, Sala A. Repurposing a psychoactive drug for children with cancer: p27Kip1-dependent inhibition of metastatic neuroblastomas by Prozac. *Oncogenesis*. 2020 Jan 2;9(1):3. doi: 10.1038/s41389-019-0186-3. PubMed PMID: 31900399.

3) Grasso S, Cangelosi D, Chapelle J, Alzona M, Centonze G, Lamolinara A, Salemme V, Angelini C, Morellato A, Saglietto A, Bianchi FT, Cabodi S, Salaroglio IC, Fusella F, Ognibene M, Iezzi M, Pezzolo A, Poli V, Di Cunto F, Eva A, Riganti C, Varesio L, Turco E, Defilippi P. The SRCIN1/p140Cap adaptor protein negatively regulates the aggressiveness of neuroblastoma. *Cell Death Differ*. 2020 Apr; 27(4):1448. doi: 10.1038/s41418-019-0405-7. Epub 2019 Sep 5. PubMed PMID: 31488891.

4) Koschorke A, Faraci S, Giani D, Chiodoni C, Iorio E, Canese R, Colombo MP, Lamolinara A, Iezzi M, Ladomery M, Vernieri C, de Braud F, Di Nicola M, Tagliabue E, Castagnoli L, Pupa SM. Phenethyl isothiocyanate hampers growth and progression of HER2-positive breast and ovarian carcinoma by targeting their stem cell compartment. *Cell Oncol (Dordr)*. 2019 Dec;42(6):815-828. doi: 10.1007/s13402-019-00464-w. Epub 2019 Aug 2. PubMed PMID: 31376137.

5) Mottini C, Tomihara H, Carrella D, Lamolinara A, Iezzi M, Huang JK, Amoreo CA, Buglioni S, Manni I, Robinson FS, Minelli R, Kang Y, Fleming JB, Kim MP, Bristow CA, Trisciuglio D, Iuliano A, Del Bufalo D, di Bernardo D, Melisi D, Draetta GF, Ciliberto G, Carugo A, Cardone L. Predictive signatures inform the effective repurposing of Decitabine to treat K-RAS-dependent Pancreatic Ductal Adenocarcinoma. *Cancer Res.* 2019 Nov 1;79(21):5612-5625. doi: 10.1158/0008-5472.CAN-19-0187. Epub 2019 Sep 5. PubMed PMID: 31492820.

- 6) Basile A, De Marco M, Festa M, Falco A, Iorio V, Guerriero L, Eletto D, Rea D, Arra C, Lamolinara A, Ballerini P, Damiani V, Rosati A, Sala G, Turco MC, Marzullo L, De Laurenzi V. Development of an anti-BAG3 humanized antibody for treatment of pancreatic cancer. *Mol Oncol*. 2019 Jun;13(6):1388-1399. doi: 10.1002/1878-0261.12492. Epub 2019 May 17. PubMed PMID: 30973679.
- 7) Giansanti F, Capone E, Ponziani S, Piccolo E, Gentile R, Lamolinara A, Di Campi A, Sallese M, Iacobelli V, Cimini A, De Laurenzi V, Lattanzio R, Piantelli M, Ippoliti R, Sala G, Iacobelli S. Secreted Gal-3BP is a novel promising target for non-internalizing Antibody-Drug Conjugates. *J Control Release*. 2019 Jan 28;294:176-184. doi: 10.1016/j.jconrel.2018.12.018. Epub 2018 Dec 13. PubMed PMID: 30553852.
- 8) Matte A, Recchiuti A, Federti E, Koehl B, Mintz T, El Nemer W, Tharaux PL, Brousse V, Andolfo I, Lamolinara A, Weinberg O, Siciliano A, Norris PC, Riley IR, Iolascon A, Serhan CN, Brugnara C, De Franceschi L. Resolution of sickle cell disease-associated inflammation and tissue damage with 17R-resolvin D1. *Blood*. 2019 Jan 17;133(3):252-265. doi: 10.1182/blood-2018-07-865378. Epub 2018 Nov 7. PubMed PMID: 30404812.
- 9) Fiore A, Ugel S, De Sanctis F, Sandri S, Fracasso G, Trovato R, Sartoris S, Solito S, Mandruzzato S, Vascotto F, Hippen KL, Mondanelli G, Grohmann U, Piro G, Carbone C, Melisi D, Lawlor RT, Scarpa A, Lamolinara A, Iezzi M, Fassan M, Biciato S, Blazar BR, Sahin U, Murray PJ, Bronte V. Induction of immunosuppressive functions and NF- κ B by FLIP in monocytes. *Nat Commun*. 2018 Dec 5;9(1):5193. doi: 10.1038/s41467-018-07654-4. PubMed PMID: 30518925.
- 10) Mastropasqua R, D'Aloisio R, Di Nicola M, Di Martino G, Lamolinara A, Di Antonio L, Tognetto D, Toto L. Relationship between aqueous humor cytokine level changes and retinal vascular changes after intravitreal aflibercept for diabetic macular edema. *Sci Rep*. 2018 Nov 8;8(1):16548. doi: 10.1038/s41598-018-35036-9. PubMed PMID: 30410092.
- 11) Di Antonio L, Toto L, Mastropasqua A, Brescia L, Erroi E, Lamolinara A, Di Nicola M, Mastropasqua L. Retinal vascular changes and aqueous humor cytokines changes after aflibercept intravitreal injection in treatment-naïve myopic choroidal neovascularization. *Sci Rep*. 2018 Oct 23;8(1):15631. doi: 10.1038/s41598-018-33926-6. PubMed PMID: 30353107.

12) De Cola A, Lamolinara A, Lanuti P, Rossi C, Iezzi M, Marchisio M, Todaro M, De Laurenzi V. MiR-205-5p inhibition by locked nucleic acids impairs metastatic potential of breast cancer cells. *Cell Death Dis.* 2018 Jul 26;9(8):821. doi: 10.1038/s41419-018-0854-9. PubMed PMID: 30050081.

13) Castiello L, Sestili P, Schiavoni G, Dattilo R, Monque DM, Ciaffoni F, Iezzi M, Lamolinara A, Sistigu A, Moschella F, Pacca AM, Macchia D, Ferrantini M, Zeuner A, Biffoni M, Proietti E, Belardelli F, Aricò E. Disruption of IFN-I Signaling Promotes HER2/Neu Tumor Progression and Breast Cancer Stem Cells. *Cancer Immunol Res.* 2018 Jun;6(6):658-670. doi: 10.1158/2326-6066.CIR-17-0675. Epub 2018 Apr 5. PubMed PMID: 29622580.

14) Capone E, Lamolinara A, D'Agostino D, Rossi C, De Laurenzi V, Iezzi M, Iacobelli S, Sala G. EV20-mediated delivery of cytotoxic auristatin MMAF exhibits potent therapeutic efficacy in cutaneous melanoma. *J Control Release.* 2018 May 10;277:48-56. doi: 10.1016/j.jconrel.2018.03.016. Epub 2018 Mar 14. PubMed PMID: 29550398.

15) Codagnone M, Cianci E, Lamolinara A, Mari VC, Nespoli A, Isopi E, Mattoscio D, Arita M, Bragonzi A, Iezzi M, Romano M, Recchiuti A. Resolvin D1 enhances the resolution of lung inflammation caused by long-term *Pseudomonas aeruginosa* infection. *Mucosal Immunol.* 2018 Jan;11(1):35-49. doi: 10.1038/mi.2017.36. Epub 2017 Apr 19. PubMed PMID: 28422188.

16) Capone E, Giansanti F, Ponziani S, Lamolinara A, Iezzi M, Cimini A, Angelucci F, Sorda R, Laurenzi V, Natali PG, Ippoliti R, Iacobelli S, Sala G. EV20-Sap, a novel anti-HER-3 antibody-drug conjugate, displays promising antitumor activity in melanoma. *Oncotarget.* 2017 Sep 8;8(56):95412-95424. doi: 10.18632/oncotarget.20728. eCollection 2017 Nov 10. PubMed PMID: 29221137.

17) Sandri S, De Sanctis F, Lamolinara A, Boschi F, Poffe O, Trovato R, Fiore A, Sartori S, Sbarbati A, Bondanza A, Cesaro S, Krampera M, Scupoli MT, Nishimura MI, Iezzi M, Sartoris S, Bronte V, Ugel S. Effective control of acute myeloid leukaemia and acute lymphoblastic leukaemia progression by telomerase specific adoptive T-cell therapy. *Oncotarget.* 2017 May 23;8(50):86987-87001. doi: 10.18632/oncotarget.18115. eCollection 2017 Oct 20. PubMed PMID: 29152058.

18) Palladini A*, Nicoletti G*, Lamolinara A*, Dall'Ora M, Balboni T, Ianzano ML, Laranga R, Landuzzi L, Giusti V, Ceccarelli C, Santini D, Taffurelli M, Di Oto E, Asioli

S, Amici A, Pupa SM, De Giovanni C, Tagliabue E, Iezzi M, Nanni P, Lollini PL. HER2 isoforms co-expression differently tunes mammary tumor phenotypes affecting onset, vasculature and therapeutic response. *Oncotarget*. 2017 Apr 13;8(33):54444-54458. doi: 10.18632/oncotarget.17088. eCollection 2017 Aug 15. PubMed PMID: 28903354. *contributed equally

19) Carpineto P, Aharrh-Gnama A, Ciciarelli V, Borrelli E, Petti F, Aloia R, Lamolinara A, Di Nicola M, Mastropasqua L. Subretinal Fluid Levels of Signal-Transduction Proteins and Apoptosis Molecules in Macula-Off Retinal Detachment Undergoing Scleral Buckle Surgery. *Invest Ophthalmol Vis Sci*. 2016 Dec 1;57(15):6895-6901. doi: 10.1167/iovs.16-20372. PubMed PMID: 28002564.

20) Castagnoli L, Ghedini GC, Koschorke A, Triulzi T, Dugo M, Gasparini P, Casalini P, Palladini A, Iezzi M, Lamolinara A, Lollini PL, Nanni P, Chiodoni C, Tagliabue E, Pupa SM. Pathobiological implications of the d16HER2 splice variant for stemness and aggressiveness of HER2-positive breast cancer. *Oncogene*. 2017 Mar 23;36(12):1721-1732. doi: 10.1038/onc.2016.338. Epub 2016 Sep 19. PubMed PMID: 27641338.

21) Grasso S, Chapelle J, Salemme V, Aramu S, Russo I, Vitale N, Verdun di Cantogno L, Dallaglio K, Castellano I, Amici A, Centonze G, Sharma N, Lunardi S, Cabodi S, Cavallo F, Lamolinara A, Stramucci L, Moiso E, Provero P, Albin A, Sapino A, Staaf J, Di Fiore PP, Bertalot G, Pece S, Tosoni D, Confalonieri S, Iezzi M, Di Stefano P, Turco E, Defilippi P. The scaffold protein p140Cap limits ERBB2-mediated breast cancer progression interfering with Rac GTPase-controlled circuitries. *Nat Commun*. 2018 Mar 30;9:16203. doi: 10.1038/ncomms16203. PubMed PMID: 29600801.

22) Corda G, Sala G, Lattanzio R, Iezzi M, Sallese M, Fragassi G, Lamolinara A, Mirza H, Barcaroli D, Ermler S, Silva E, Yasaei H, Newbold RF, Vagnarelli P, Mottolese M, Natali PG, Perracchio L, Quist J, Grigoriadis A, Marra P, Tutt AN, Piantelli M, Iacobelli S, De Laurenzi V, Sala A. Functional and prognostic significance of the genomic amplification of frizzled 6 (FZD6) in breast cancer. *J Pathol*. 2017 Feb;241(3):350-361. doi: 10.1002/path.4841. Epub 2016 Dec 29. PubMed PMID: 27859262.

23) Sandri S, Bobisse S, Moxley K, Lamolinara A, De Sanctis F, Boschi F, Sbarbati A, Fracasso G, Ferrarini G, Hendriks RW, Cavallini C, Scupoli MT, Sartoris S, Iezzi M, Nishimura MI, Bronte V, Ugel S. Feasibility of Telomerase-Specific Adoptive

T-cell Therapy for B-cell Chronic Lymphocytic Leukemia and Solid Malignancies. *Cancer Res.* 2016 May 1;76(9):2540-51. doi: 10.1158/0008-5472.CAN-15-2318. PubMed PMID: 27197263.

24) Croci S, Nanni P, Palladini A, Nicoletti G, Grosso V, Benegiamo G, Landuzzi L, Lamolinara A, Ianzano ML, Ranieri D, Dall'Ora M, Iezzi M, De Giovanni C, Lollini PL. Interleukin-15 is required for immunosurveillance and immunoprevention of HER2/neu-driven mammary carcinogenesis. *Breast Cancer Res.* 2015 May 22;17:70. doi: 10.1186/s13058-015-0588-x. PubMed PMID: 25997501.

25) Lamolinara A*, Stramucci L*, Hysi A, Iezzi M, Marchini C, Mariotti M, Amici A, Curcio C. Intradermal DNA Electroporation Induces Cellular and Humoral Immune Response and Confers Protection against HER2/neu Tumor. *J Immunol Res.* 2015;2015:159145. doi: 10.1155/2015/159145. Epub 2015 Jul 13. PubMed PMID: 26247038. * contributed equally

26) Castagnoli L, Iezzi M, Ghedini GC, Ciravolo V, Marzano G, Lamolinara A, Zappasodi R, Gasparini P, Campiglio M, Amici A, Chiodoni C, Palladini A, Lollini PL, Triulzi T, Menard S, Nanni P, Tagliabue E, Pupa SM. Activated d16HER2 homodimers and SRC kinase mediate optimal efficacy for trastuzumab. *Cancer Res.* 2014 Nov 1;74(21):6248-59. doi: 10.1158/0008-5472.CAN-14-0983. Epub 2014 Aug 27. PubMed PMID: 25164009.

27) Steven A, Leisz S, Massa C, Iezzi M, Lattanzio R, Lamolinara A, Bukur J, Muller A, Hiebl B, Holzhausen HJ, Seliger B. HER-2/neu mediates oncogenic transformation via altered CREB expression and function. *Mol Cancer Res.* 2013 Nov;11(11):1462-77. doi: 10.1158/1541-7786.MCR-13-0125. Epub 2013 Sep 11. PubMed PMID: 24025972.

28) Nanni P, Nicoletti G, Palladini A, Croci S, Murgo A, Ianzano ML, Grosso V, Stivani V, Antognoli A, Lamolinara A, Landuzzi L, di Tomaso E, Iezzi M, De Giovanni C, Lollini PL. Multiorgan Metastasis of Human HER-2(+) Breast Cancer in Rag2(-/-);Il2rg(-/-) Mice and Treatment with PI3K Inhibitor. *PLoS One.* 2012;7(6):e39626. doi: 10.1371/journal.pone.0039626. Epub 2012 Jun 21. PubMed PMID: 22737248.