**Curriculum vitae Simona Gallo**

***Personal details***

Born in Turin
Nationality: Italian
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ORCID ID: 0000-0001-7404-1356; Scopus ID: 54412048300

***Education***

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| 2012-2016 | PhD in Molecular Medicine, University of Turin, Italy |
| 2006-2011 | Master's Degree in Molecular Biotechnology, University of Turin, Italy, 110/110 cum laude and mention |

***Professional experiences and current position***

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| 2021-pres | Senior PostDoc Researcher (Assegnista di Ricerca), University of Turin |
| 20017-2021 | PostDoc Researcher, Candiolo Cancer Institute, FPO – IRCCS |
| 2016-2017 | PostDoc Researcher (Assegnista di Ricerca), University of Turin |
| 2012-2016 | PhD Student in Molecular Medicine, University of Turin |
| 2011 | Research Collaborator, Candiolo Cancer Institute, FPO – IRCCS |
| 2008-2011 | Thesis Student, University of Turin |

***Honors***

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| 2017 | Travel Fellowship European Section of the International Society for Heart Research |
| 2016 | Research Fellowship (1 year) Fondazione Franco e Marilisa Caligara |
| 2012 | Research Fellowship (4 years) MIUR |

***Teaching activity:***

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| 2011-pres | Biochemistry Teaching Assistant,<br>Nursing Faculty and Medical Radiology Faculty, University of Turin |
| 2014-pres | Subject-matter expert of Biochemistry, Dental Faculty, University of Turin |
| 2014-pres | Supervisor in Thesis Preparation, University of Turin |
| 2017-pres | Supervision of laboratory staff and students, University of Turin |

***Research main topics***

Dr. Simona Gallo started her research training, as an undergraduate student, in 2008 within the cardiovascular research group led by Prof. Tiziana Crepaldi. She developed a strong expertise in in vitro and in vivo experimental models, molecular biology, and biochemistry. During the cardiovascular research experience, she developed solid experience in transcriptomic analysis studying cardiomyogenesis (Gatti, 2013) and heart failure in mouse models (Riess, 2011; Sala, Biomed Res Int 2016; Sala, J Mol Cell Cardiol 2016) and in patients (Galluzzo, Gallo, 2021). She published her first first-author original paper regarding the cardioprotective role of HGF-MET against hypoxic damage (Gallo, 2014). In 2016, after obtaining her PhD in Molecular Medicine, she put her expertise into CardioOncology by moving to the Candiolo Cancer Institute at Prof. Paolo Comoglio's group. The commitment of Dr. Gallo to cancer research started by studying the protection of the heart against chemotherapy-derived cardiotoxicity through the activation of MET downstream signaling (Gallo, Br J Pharmacol 2020; Gallo, Int J Mol Sc 2020). Thanks to the stimulating environment at Candiolo Cancer Institute she produced two papers in collaboration on different functions of MET in cancer (Modica, 2020; Altintas, 2022). She collaborated with the group of Dr. Denis Vivien (University of Caen, France) in writing a comprehensive review on the role of HGF-MET axis in the central nervous system (CNS, Desole, Gallo, 2021). Starting from these reflections, Dr Gallo hypothesized a mechanistic parallel in the way MET regulates glutamate-dependent activities in the CNS and in the neoplastic cellular function. The recent research activities of Dr. Gallo were thus inspired by emerging lessons from neuroscience field, and lead to her most important first-author original work demonstrating the invasive role of NMDAR/MET complex in TNBC cells (Gallo, 2022). This new research topic has stimulated in Dr. Gallo the wish to confirm her work in cancer research regarding the role of glutamate in cancer as indicated by her last comprehensive review on the topic (Gallo, 2023).

Participation in projects:

2019-pres (PI: Paolo Comoglio), Participant, "Novel MET genetic alterations: unexpected roles in cancer progression and resistance to targeted therapies", AIRC

2018-2021 (PI: Paolo Comoglio), Participant, "Activation of the Met receptor as therapeutic tool in MS: a new neuroprotective mechanism involving the glutamatergic system", Fondazione Italiana per la Sclerosi Multipla (FISM)

2014-2020 (PI: Tiziana Crepaldi) Participant, "New Biomarkers of Heart Failure", CRT and Compagnia di SanPaolo

2012-2014 (PI: Tiziana Crepaldi) Participant, "Cardiac cachexia and cardiac effects of muscular atrophy: a cross-talk of autophagic wasting", Association Francaise contre les Myopathies (AFM)

2012 (PI: Tiziana Crepaldi) Participant, "Study of the mechanisms involved in cardiac cachexia", University of Turin (ex 60%)

***Bibliometry (1994-present)*** (*www.scopus.com*)

H-index 10

Citations 490

***Publications***

**Gallo S,** Vitacolonna A, Crepaldi T. 2023. "NMDA Receptor And Its Emerging Role In Cancer". *Int J Mol Sci*. 24: 2540.
DOI: doi: 10.3390/ijms24032540

Altintas DM, **Gallo S**, Basilico C, Cerqua M, Bocedi A, Vitacolonna A, Botti O, Casanova E, Rancati I, Milanese C, Notari S, Gambardella G, Ricci G, Mastroberardino PG, Boccaccio C, Crepaldi T, Comoglio PM. 2022. "The PSI Domain of the MET Oncogene Encodes A Functional Disulfide Isomerase Essential For The Maturation Of The Receptor Precursor". *Int J Mol Sci.* 23: 12427.
DOI: 10.3390/ijms232012427

**Gallo S**, Vitacolonna A, Comoglio P, Crepaldi T. 2022. "MET Oncogene Controls Invasive Growth by Coupling with NMDA Receptor". *Cancers*. 14:4408.
DOI: 10.3390/cancers14184408

Desole C*, **Gallo S***, Vitacolonna A, Vigna E, Basilico C, Montarolo F, Bardou I, Ali C, Maillasson M, Crepaldi T, Comoglio P, Lemarchand E, Agin V, Roussel BD, Vivien D. 2021. "Engineering, Characterization, and Biological Evaluation of an Antibody Targeting the HGF Receptor". *Front Immunol*. 12:775151. *These authors contributed equally to this work.
DOI: 10.3389/fimmu.2021.775151

Desole C, **Gallo S**, Vitacolonna A, Montarolo F, Bertolotto A, Vivien D, Comoglio P, Crepaldi T. 2021. "HGF and MET: From Brain Development To Neurological Disorders". *Front Cell Dev Biol*. 9: 683609.
DOI: 10.3389/fcell.2021.683609

Galluzzo A*, **Gallo S***, Pardini B*, Birolo G, Fariselli P, Boretto P, Vitacolonna A, Peraldo-Neia C, Spilinga M, Volpe A, Celentani D, Pidello S, Bonzano A, Matullo G, Giustetto C, Bergerone S, Crepaldi T. 2021 "Identification of Novel Circulating Micrornas in Advanced Heart Failure by Next-Generation Sequencing". *ESC Heart Fail*. 8:2907-2919. *These authors contributed equally to this work.
DOI: 10.1002/ehf2.13371

Modica C, **Gallo S**, Chiriaco C, Spilinga M, Comoglio PM, Crepaldi T, Basilico C, Vigna E. 2020. "Molecular Engineering Strategies Tailoring the Apoptotic Response to a MET Therapeutic Antibody". *Cancers* 12: e741.
DOI: 10.3390/cancers12030741

**Gallo S**, Spilinga M, Casanova E, Bonzano A, Boccaccio C, Comoglio PM, Crepaldi T. 2020. "The Long-Lasting Protective Effect Of HGF In Cardiomyoblasts Exposed To Doxorubicin Requires A Positive Feed-Forward Loop Mediated By Erk1,2-Timp1-Stat3". *Int J Mol Sci*. 21: 5258.
DOI: 10.3390/ijms21155258

**Gallo S**, Spilinga M, Albano R, Ferrauto G, Di Gregorio E, Casanova E, Balmativola D, Bonzano A, Boccaccio C, Sapino A, Comoglio PM, Crepaldi T. 2020. "Activation of the Met Receptor Attenuates Doxorubicin-Induced Cardiotoxicity in Vivo and in Vitro." *Br J Pharmacol.* 177:3107-3122.
DOI: 10.1111/bph.15039

**Gallo S**, Vitacolonna A, Bonzano A, Comoglio P, Crepaldi T. 2019. "ERK: A Key Player In The Pathophysiology Of Cardiac Hypertrophy". Int J Mol Sci. 20: E2164.
DOI: 10.3390/ijms20092164

Sala V, Gatti S, **Gallo S**, Medico E, Cantarella D, Cimino J, Ponzetto A, Crepaldi T. 2016. "A New Transgenic Mouse Model Of Heart Failure And Cardiac Cachexia Raised By Sustained Activation Of Met Tyrosine Kinase In The Heart. Biomed Res Int. 2016: 9549036.
DOI: 10.1155/2016/9549036

Sala V, **Gallo S**, Gatti S, Medico E, Vigna E, Cantarella D, Fontani L, Natale M, Cimino J, Morello M, Comoglio PM, Ponzetto A, Crepaldi T. "Cardiac Concentric Hypertrophy Promoted by Activated Met Receptor Is Mitigated in Vivo by Inhibition of Erk1,2 Signalling with Pimasertib." *J Mol Cell Cardiol.* 93: 84–97.
DOI: 10.1016/j.yjmcc.2016.02.017

**Gallo S**, Sala V, Gatti S, Crepaldi T. 2015. "Cellular And Molecular Mechanisms Of HGF/Met In The Cardiovascular System". Clin Sci. 129: 1173-1193.
DOI: 10.1042/CS20150502

Sala V*, **Gallo S***, Gatti S., Vigna E., Ponzetto A., Crepaldi T. 2015 "Anti-Differentiation Effect Of Oncogenic Met Receptor In Terminally-Differentiated Myotubes". Biomedicines. 3: 124-137. *These authors contributed equally to this work.
DOI: 10.3390/biomedicines3010124

**Gallo S**, Sala V, Gatti S, Crepaldi T. 2014. "HGF/Met Axis In Heart Function And Cardioprotection". Biomedicine. 2: 247-262.
DOI: 10.3390/biomedicines2040247

**Gallo S**, Gatti S, Sala V, Comoglio PM and Crepaldi T. 2014. "HGF/Met Axis Has Anti-Apoptotic And Anti-Autophagic Function In Hypoxic Cardiac Injury". Receptor Clin Invest. 1: 292-294.

**Gallo S**, Gatti S, Sala V, Albano R, Costelli P, Casanova E, Comoglio PM, Crepaldi T. 2014. "Agonist Antibodies Activating the Met Receptor Protect Cardiomyoblasts from Cobalt Chloride-Induced Apoptosis and Autophagy." *Cell Death Dis.* 5: e1185.
DOI: 10.1038/cddis.2014.155

Sala V, Bergerone S, Gatti S, **Gallo S**, Ponzetto A, Ponzetto C, Crepaldi T. 2014. "MicroRNAs In Myocardial Ischemia: Identifying New Targets And Tools For Treating Heart Disease". New frontiers for miR-medicine. Cell Mol Life Sci. 71: 1439-1452.
DOI: 10.1007/s00018-013-1504-0

Gatti S, Leo C, **Gallo S**, Sala V, Bucci E, Natale M, Cantarella D, Medico E, Crepaldi T. 2013. "Gene Expression Profiling Of HGF/Met Activation In Neonatal Mouse Heart". Transgenic Res. 22: 579-593.
DOI: 10.1007/s11248-012-9667-2

Sala V, **Gallo S**, Leo C, Gatti S, Gelb BD, Crepaldi T. 2012. Signaling To Cardiac Hypertrophy: Insight From Human And Mouse RASopathies. Mol Med. 18: 938-947.
DOI: 10.2119/molmed.2011.00512

Riess I, Sala V, Leo C, Demaria M, Gatti S, **Gallo S**, Fitou A, Boero O, Levi R, Cuccovillo I, Molla F, De Angelis N, Staszewsky L, Latini R, Crepaldi T. 2011. "A Mouse Model for Spatial and Temporal Expression of HGF in the Heart." *Trans Res.* 20: 1203–1216.
DOI: 10.1007/s11248-011-9485-y

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