
BIOGRAPHICAL SKETCH

NAME: **STEFANIA FIORCARI**

POSITION TITLE: PostDoctoral fellow at University of Modena and Reggio Emilia

Dr. **Stefania Fiorcari** was born in Carpi (MO) on June 4, 1985. In 2009 she graduated *cum laude* in Medical and Pharmaceutical Biotechnology at the University of Modena and Reggio Emilia discussing the thesis concerning the role of increased angiogenesis induced by Ang2 and VEGF in chronic lymphocytic leukemia. In January 2010, she became PhD student in Molecular and Regenerative Medicine. During her PhD training, she performed her research in the laboratory of Prof. Roberto Marasca, studying the cellular crosstalk between CLL and endothelial cells and its importance in CLL patho-biology. During this period she joined Prof. Jan A Burger's group at MD Anderson Cancer Center (Department of Leukemia) investigating the role of PI3 kinase δ signaling in CLL adhesion to endothelium and for integrin signaling. In April 2013, she discussed her PhD thesis titled "Dissecting the crosstalk between chronic lymphocytic leukemia cell and microenvironment: role of GS-1101 a specific PI3K delta inhibitor". In these years, she achieved achievements by AIRC, Fondazione Umberto Veronesi and AIL.

Awards:

- Ministerial grant of three years at the University of Modena and Reggio Emilia (2010-2013)
- Travel grant from Italian Society of Experimental Hematology (2012)
- Travel grant from European Hematology Association (2014)
- Travel grant from Italian society of Experimental Hematology (2014)
- FIRCA/AIRC Italian Association for Cancer Research (AIRC) (2015-2018)
- First Prize entitled to Professor Pierluigi Castoldi (AIL) (2015)
- ASH Abstract Achievement (American Society of Hematology) (2017)
- Post-doctoral fellowship from Fondazione Umberto Veronesi (2018)
- Travel grant from Italian Society of Experimental Hematology (2018)
- Post-doctoral fellowship from Fondazione Umberto Veronesi (2019)
- Travel grant from European hematology Association (2019)
- Post-doctoral fellowship from Fondazione Umberto Veronesi (2020)

Reviewer for the following journals:

- Oncotarget
- Cellular Oncology
- Molecular Therapy Nucleic Acids
- Clinical and Experimental Medicine
- Leukemia & Lymphoma
- PlosOne
- Frontiers Oncology
- British Journal of Cancer
- Blood Advances

PUBLICATIONS:

Number of Publications: 23

h-index: 13

citations: 465

- 1) Fiorcari S, Maffei R, Vallerini D, Scarfò L, Barozzi P, Maccaferri M, Potenza L, Ghia P, Luppi M, Marasca R. BTK inhibition impairs the innate response against fungal infection in patients with chronic lymphocytic leukemia. Accepted to *Frontiers in Immunology*.
- 2) Maffei R, Maccaferri M, Arletti L, Fiorcari S, Benatti S, Potenza L, Luppi M, Marasca R. Immunomodulatory effect of ibrutinib: reducing the barrier against fungal infections. *Blood Rev*. 2020 Mar;40:100635.
- 3) Maffei R, Benatti S, Atene C A, Debbia G, Zucchini P, Potenza L, Luppi M, Fiorcari S*, Marasca R*. Selective inhibition of PI3K γ affects survival and proliferation of chronic lymphocytic leukemia B cells. *Leuk Lymphoma*. 2019 Nov 14:1-5. doi: 10.1080/10428194.2019.1666376.
*these authors contribute equally to this work
- 4) Fiorcari S, Benatti S, Zucchetto A, Zucchini P, Gattei V, Luppi M, Marasca R, Maffei R. Overexpression of CD49d in trisomy 12 chronic lymphocytic leukemia patients is mediated by IRF4 through induction of IKAROS. *Leukemia*. 2019 May;33(5):1278-1302.
- 5) Fiorcari S, Maffei R, Marasca R. Casein Kinase 1: a new tale of CLL microenvironment. *Translational cancer research*.
- 6) Martinelli S, Maffei R, Fiorcari S, Quadrelli C, Zucchini P, Benatti S, Potenza L, Luppi M, Marasca R. Idelalisib impairs T-cell-mediated immunity in chronic lymphocytic leukemia. *Haematologica*. 2018 Jul 5. pii: haematol.2017.187070. doi:10.3324/haematol.2017.187070.
- 7) Maffei R*, Fiorcari S*, Vaisitti T, Martinelli S, Benatti S, Debbia G, Rossi D, Zucchini P, Potenza L, Luppi M, Gaidano G, Deaglio S, Marasca R. Macitentan, a double antagonist of endothelin receptors, efficiently impairs migration and microenvironmental survival signals in chronic lymphocytic leukemia. *Oncotarget* 2017 Sep 27;8(52):90013-90027. doi: 10.18632/oncotarget.21341.
- 8) Fiorcari S, Maffei R, Marasca R. New players in the Bruton's tyrosine kinase vs. Ibrutinib match. *Translational cancer research*. May 2017, Vol 6, pages S469-S471 (Editorial).
- 9) Maffei R, Fiorcari S, Martinelli S, Benatti S, Bulgarelli J, Rizzotto L, Debbia G, Santachiara R, Rigolin GM, Forconi F, Rossi D, Laurenti L, Palumbo GA, Vallisa D, Cuneo A, Gaidano G, Luppi M, Marasca R. Increased SHISA3 expression characterizes chronic lymphocytic leukemia patients sensitive to lenalidomide. *Leuk Lymphoma*. 2017 Jun 22:1-11. doi: 10.1080/10428194.2017.1339872.
- 10) Maffei R, Fiorcari S, Martinelli S, Guarnotta C, Benatti S, Belmonte B, Potenza L, Luppi M, Marasca R. Angiopoietin-2 acts as a survival factor for chronic lymphocytic leukemia B cells throughout Tie-2 receptor engagement. *Hematol Oncol*. 2017 Jun 4. doi: 10.1002/hon.2448.
- 11) Martinelli S, Maffei R, Fiorcari S, Quadrelli C, Zucchini P, Benatti S, Potenza L, Luppi M, Marasca R. The expression of endothelin-1 in chronic lymphocytic leukemia is controlled by epigenetic mechanisms and extracellular stimuli. *Leuk Res*. 2017 Mar;54:17-24. doi: 10.1016/j.leukres.2016.12.006. Epub 2016 Dec 30.
- 12) Cosenza M, Civallero M, Fiorcari S, Pozzi S, Marcheselli L, Bari A, Ferri P, Sacchi S. The histone deacetylase inhibitor romidepsin synergizes with lenalidomide and enhances tumor cell death in T-cell lymphoma cell lines. *Cancer Biol Ther*. 2016 Aug 12:1-13.
- 13) Fiorcari S, Maffei R, Audrito V, Martinelli S, Ten Hacken E, Zucchini P, Grisendi G, Potenza L, Luppi M, Burger JA, Deaglio S, Marasca R. Ibrutinib modifies the function of monocyte/macrophage

- population in chronic lymphocytic leukemia. *Oncotarget*. 2016 Oct 4;7(40):65968-65981. doi: 10.18632/oncotarget.11782.
- 14) Maffei R, Colaci E, Fiorcari S, Martinelli S, Potenza L, Luppi M, Marasca R. Lenalidomide in chronic lymphocytic leukemia: the present and future in the era of tyrosine kinase inhibitors. *Crit Rev Oncol Hematol*. 2016 Jan;97:291-302. doi: 10.1016/j.critrevonc.2015.09.003. Epub 2015 Sep 30. Review.
 - 15) Maffei R, Fiorcari S, Martinelli S, Potenza L, Luppi M, Marasca R. Targeting neoplastic B cells and harnessing microenvironment: the "double face" of ibrutinib and idelalisib. *J Hematol Oncol*. 2015 May 29;8:60. doi: 10.1186/s13045-015-0157-x. Review.
 - 16) Grisendi G, Spano C, D'souza N, Rasini V, Veronesi E, Prapa M, Petrachi T, Piccinno S, Rossignoli F, Burns JS, Fiorcari S, Granchi D, Baldini N, Horwitz EM, Guarneri V, Conte P, Paolucci P, Dominici M. Mesenchymal progenitors expressing TRAIL induce apoptosis in sarcomas. *Stem Cells*. 2015 Mar;33(3):859-69. doi: 10.1002/stem.1903.
 - 17) Fiorcari S, Martinelli S, Bulgarelli J, Audrito V, Zucchini P, Colaci E, Potenza L, Narni F, Luppi M, Deaglio S, Marasca R, Maffei R. Lenalidomide interferes with tumor-promoting properties of nurse-like cells in chronic lymphocytic leukemia. *Haematologica*. 2015 Feb;100(2):253-62. doi: 10.3324/haematol.2014.113217. Epub 2014 Nov 14.
 - 18) Maffei R*, Bulgarelli J*, Fiorcari S*, Martinelli S, Castelli I, Valenti V, Rossi D, Bonacorsi G, Zucchini P, Potenza L, Vallisa D, Gattei V, Del Poeta G, Forconi F, Gaidano G, Narni F, Luppi M, Marasca R. Endothelin-1 promotes survival and chemoresistance in chronic lymphocytic leukemia B cells through ETA receptor. *PLoS One*. 2014 Jun 5;9(6):e98818. doi: 10.1371/journal.pone.0098818. eCollection 2014.
 - 19) Fiorcari S, Brown WS, McIntyre BW, Estrov Z, Maffei R, O'Brien S, Sivina M, Hoellenriegel J, Wierda WG, Keating MJ, Ding W, Kay NE, Lannutti BJ, Marasca R, Burger JA. The PI3-kinase delta inhibitor idelalisib (GS-1101) targets integrin-mediated adhesion of chronic lymphocytic leukemia (CLL) cell to endothelial and marrow stromal cells. *PLoS One*. 2013 Dec 23;8(12):e83830. doi: 10.1371/journal.pone.0083830. eCollection 2013.
 - 20) Maffei R*, Fiorcari S*, Bulgarelli J, Rizzotto L, Martinelli S, Rigolin GM, Debbia G, Castelli I, Bonacorsi G, Santachiara R, Forconi F, Rossi D, Laurenti L, Palumbo GA, Vallisa D, Cuneo A, Gaidano G, Luppi M, Marasca R. Endothelium-mediated survival of leukemic cells and angiogenesis-related factors are affected by lenalidomide treatment in chronic lymphocytic leukemia. *Exp Hematol*. 2014 Feb;42(2):126-36.e1. doi: 10.1016/j.exphem.2013.10.007. Epub 2013 Nov 6.
 - 21) Martinelli S, Kanduri M, Maffei R, Fiorcari S, Bulgarelli J, Marasca R, Rosenquist R. ANGPT2 promoter methylation is strongly associated with gene expression and prognosis in chronic lymphocytic leukemia. *Epigenetics*. 2013 Jul;8(7):720-9. doi: 10.4161/epi.24947. Epub 2013 May 14.
 - 22) Maffei R, Bulgarelli J, Fiorcari S, Bertoncetti L, Martinelli S, Guarnotta C, Castelli I, Deaglio S, Debbia G, De Biasi S, Bonacorsi G, Zucchini P, Narni F, Tripodo C, Luppi M, Cossarizza A, Marasca R. The monocytic population in chronic lymphocytic leukemia shows altered composition and deregulation of genes involved in phagocytosis and inflammation. *Haematologica*. 2013 Jul;98(7):1115-23. doi:10.3324/haematol.2012.073080. Epub 2013 Jan 24.
 - 23) Marasca R, Maffei R, Martinelli S, Fiorcari S, Bulgarelli J, Debbia G, Rossi D, Rossi FM, Rigolin GM, Martinelli S, Gattei V, Del Poeta G, Laurenti L, Forconi F, Montillo M, Gaidano G, Luppi M. Clinical heterogeneity of de novo 11q deletion chronic lymphocytic leukaemia: prognostic relevance

of extent of 11q deleted nuclei inside leukemic clone. *Hematol Oncol*. 2013 Jun;31(2):88-95. doi: 10.1002/hon.2028. Epub 2012 Oct 2. Erratum in: *Hematol Oncol*. 2013 Spe;31(3):168.

24) Maffei R, Fiorcari S, Bulgarelli J, Martinelli S, Castelli I, Deaglio S, Debbia G, Fontana M, Coluccio V, Bonacorsi G, Zucchini P, Narni F, Torelli G, Luppi M, Marasca R. Physical contact with endothelial cells through β 1- and β 2- integrins rescues chronic lymphocytic leukemia cells from spontaneous and drug-induced apoptosis and induces a peculiar gene expression profile in leukemic cells. *Haematologica*. 2012 Jun;97(6):952-60. doi: 10.3324/haematol.2011.054924. Epub 2011 Dec 29.

25) Maffei R, Martinelli S, Santachiara R, Rossi D, Guarnotta C, Sozzi E, Zucchetto A, Rigolin GM, Fiorcari S, Castelli I, Fontana M, Coluccio V, Leonardi G, Zucchini P, Tripodo C, Cuneo A, Gattei V, Del Poeta G, Forconi F, Gaidano G, Torelli G, Marasca R. Angiopoietin-2 plasma dosage predicts time to first treatment and overall survival in chronic lymphocytic leukemia. *Blood*. 2010 Jul 29;116(4):584-92. doi: 10.1182/blood-2009-11-252494. Epub 2010 Apr 9.

26) Maffei R, Martinelli S, Castelli I, Santachiara R, Zucchini P, Fontana M, Fiorcari S, Bonacorsi G, Ilariucci F, Torelli G, Marasca R. Increased angiogenesis induced by chronic lymphocytic leukemia B cells is mediated by leukemia-derived Ang2 and VEGF. *Leuk Res*. 2010 Mar;34(3):312-21. doi: 10.1016/j.leukres.2009.06.023. Epub 2009 Jul 18.