

## Curriculum vitae Cristina Migliore

### Personal details

Born in Turin

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### Educations

**2010:** PhD in Cellular Sciences and Technologies, University of Turin; Supervisor: Prof. Silvia Giordano. Thesis title: “Modulation of MET induced invasive growth by small RNAs”.

**2005:** Master Degree in Medical Biotechnology, School of Biotechnology, University of Torino, Medical School (high grade 110/110).

**2003:** Bachelor Degree in Biotechnology, School of Biotechnology, University of Torino, Medical School (110/110).

**2000:** High School diploma (100/100) at the “Liceo scientifico E. Majorana” in Moncalieri (TO)

### Professional experiences and current position

**2021-present:** RTDA, Department of Oncology, University of Turin.

**2010/2021:** Post Doc Post Doc at the Laboratory of Molecular Biology directed by Prof. Silvia Giordano, Department of Oncology, IRCCS, Univ. of Torino

**2005/2010:** PhD Student in Cellular Sciences and Technologies in the Division of Molecular Oncology of the Institute for Cancer Research and Treatment, School of Medicine, University of Torino. Supervisor: Prof. Silvia Giordano. Subject: miRNAs and MET addiction in tumor growth and metastases.

**2004/2005:** Research training as undergraduate student in the Division of Molecular Oncology of the Institute for Cancer Research and Treatment, School of Medicine, University of Torino.

**2002/2003:** Research training as undergraduate student in the laboratory of Biochemistry and Biology directed by Pr. Silengo.

### Honors

12 June 2010: winner of the Pezcoller-Begnudelli Awards for one of the three best posters at the international congress: “22nd Pezcoller Symposium- RNA biology and cancer”.

5 October 2016: winner of “Best poster of section 4” at “EurOPDX workshop-PDX models in clinical oncology and cancer precision medicine”.

### Teaching activity:

Doctor Migliore has a long teaching experience in histology subject. From 2006 to present, she performed classroom-taught lessons, prepared teaching material and written tests. From 2021 to present she is the regular histology teacher at the nursing school, University of Turin, branch of Cuneo.

### Research main topics

Doctor Migliore, as above documented, has been directly involved in scientific research from 2005 to present. Her research activity was directed to the study of the role MET, EGFR and HER2 oncogenes in tumor progression and, in the last years, in gastric cancer progression. She studied, also, the role of miRNAs in the regulation of MET activity and in the resistance to target therapies.

- At the beginning of her research activity, as undergraduate student, she participated to the setting of one of the first inducible systems for RNA interference. This tool was fundamental for the study of tumor progression in MET dependent tumors (Corso S, Migliore C, et al. *Oncogene*. 2008).
- Later on, she studied miRNAs, at the time newly identified regulators of protein expression. She identified miRNAs able to physiological regulate MET expression (Migliore et al., *Cancer Research*, 2008), studied their deregulation in colon cancer (Migliore et al., *Clinical Cancer Research*, 2012), and identified new miRNA-mediated mechanisms of resistance to target therapies (Migliore et al, *EMBO Molecular Medicine*, 2018).
- Moreover she identified mechanisms of resistance to MET and EGFR target therapies, (Ghiso E\*,

Migliore C\* et al, Neoplasia, 2017; Apicella M, Migliore C et al, Oncogene, 2017), \*co-first.

• In the last years, she focused her attention to the identification of new target therapies for the treatment of gastric cancer. In particular, she concentrated on the creation and on the characterization of a biobank of primary cells and organoids from gastric cancer patients and patients derived xenografts (PDXs). This led her research group to obtain the biggest biobank of gastric cancer models present in Academic laboratories which represents the starting point of the research activities of the research group (Corso S et al, Cancer Research, 2019). These models have been fundamental for the identification of patients benefitting from anti-EGFR and anti-HER2 target therapies and for the identification of mechanisms of resistance to these therapies. (Corso S\*, Pietrantonio F\*, Apicella M\*, Migliore C\* et al. Clinical Cancer Research, 2021, Ughetto S\*, Migliore C\* et al., Gastric Cancer, 2021) \*co-first.

### **Bibliometry (2008-present)** ([www.scopus.com](http://www.scopus.com))

TOTAL IF: 278.537

AVERAGE IF: 11.606

TOT IF F/L: 99.58

AVERAGE IF F/L: 11.064

H-INDEX: 16 (Scopus, 15/03/23)

TOTAL CITATIONS: 1131 (Scopus, 15/03/23).

### **publications**

1. Petrelli, A., Rizzolio, S., Pietrantonio, F., Bellomo, S.E., Benelli, M., De Cecco, L., Romagnoli, D., Berrino, E., Orrù, C., Ribisi, S., Moya-Rull, D., **Migliore, C.**, Conticelli, M., Maina, I.M., Puliga, E., Serra, V., Pellegrino, B., Llop-Guevara, A., Musolino, A., Siena, S., Sartore-Bianchi, S., Prisciandaro, M., Morano, F., Antista, M., Fumagalli, U., De Manzoni, G., Degiuli, M., Baiocchi, G.L., Amisano, M.F., Ferrero, A., Marchiò, C., Corso, S., and Giordano, S., BRCA2 Germline Mutations Identify Gastric Cancers Responsive to PARP Inhibitors (2023) Cancer Research, accepted.
2. Pietrantonio, F., Manca, P., Bellomo, S.E., Corso, S., Raimondi, A., Berrino, E., Morano, F., **Migliore, C.**, Niger, M., Castagnoli, L., Pupa, S.M., Marchiò, C., Di Bartolomeo, M., Restuccia, E., Lambertini, C., Tabernero, J., Giordano, S. HER2 Copy Number and Resistance Mechanisms in Patients with HER2-positive Advanced Gastric Cancer Receiving Initial Trastuzumab-based Therapy in JACOB Trial (2023) Clinical cancer research : an official journal of the American Association for Cancer Research, 29 (3), pp. 571-580. DOI: 10.1158/1078-0432.CCR-22-2533
3. Pal, R., Kowalik, M.A., Serra, M., **Migliore, C.**, Giordano, S., Columbano, A., Perra, A. Diverse MicroRNAs-mRNA networks regulate the priming phase of mouse liver regeneration and of direct hyperplasia (2022) Cell Proliferation, 55 (4), art. no. e13199, DOI: 10.1111/cpr.13199
4. Ughetto, S.\*, **Migliore, C.\***, Pietrantonio, F., Apicella, M., Petrelli, A., D'Errico, L., Durando, S., Moya-Rull, D., Bellomo, S.E., Rizzolio, S., Capelôa, T., Ribisi, S., Degiuli, M., Reddavid, R., Rapa, I., Fumagalli, U., De Pascale, S., Ribero, D., Baronchelli, C., Sgroi, G., Rausa, E., Baiocchi, G.L., Molfino, S., Manenti, S., Bencivenga, M., Sacco, M., Castelli, C., Siena, S., Sartore-Bianchi, A., Tosi, F., Morano, F., Raimondi, A., Prisciandaro, M., Gloghini, A., Marsoni, S., Sottile, A., Sarotto, I., Sapino, A., Marchiò, C., Cassoni, P., Guarrera, S., Corso, S., Giordano, S. Personalized therapeutic strategies in HER2-driven gastric cancer (2021) Gastric Cancer, 24 (4), pp. 897-912. DOI: 10.1007/s10120-021-01165-w  
**\*CO-FIRST AUTHOR**
5. Corso, S.\*, Pietrantonio, F.\*, Apicella, M.\*, **Migliore, C.\***, Conticelli, D., Petrelli, A., D'Errico, L., Durando, S., Moya-Rull, D., Bellomo, S.E., Ughetto, S., Degiuli, M., Reddavid, R., Fumagalli, U., de Pascale, S., Sgroi, G., Rausa, E., Baiocchi, G.L., Molfino, S., de Manzoni, G., Bencivenga, M., Siena, S., Sartore-Bianchi, A., Morano, F., Corallo, S., Prisciandaro, M., Bartolomeo, M.D., Gloghini, A., Marsoni, S., Sottile, A., Sapino, A., Marchio, C., Dahle-Smith, A., Miedzybrodzka, Z., Lee, J., Ali, S.M., Ross, J.S., Alexander, B.M., Miller, V.A., Petty, R., Schrock, A.B., Giordano, S. Optimized

EGFR blockade strategies in EGFR addicted gastroesophageal adenocarcinomas (2021) *Clinical Cancer Research*, 27 (11), pp. 3126-3140. DOI: 10.1158/1078-0432.CCR-20-0121

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6. Grunberg, N., Pevsner-Fischer, M., Goshen-Lago, T., Diment, J., Stein, Y., Lavon, H., Mayer, S., Levi-Galibov, O., Friedman, G., Ofir-Birin, Y., Syu, L.-J., **Migliore, C.**, Shimoni, E., Stemmer, S.M., Brenner, B., Dlugosz, A.A., Lyden, D., Regev-Rudzki, N., Ben-Aharon, I., Scherz-Shouval, R. Cancer-associated fibroblasts promote aggressive gastric cancer phenotypes via heat shock factor 1-mediated secretion of extracellular vesicles (2021) *Cancer Research*, 81 (7), pp. 1639-1653. DOI: 10.1158/0008-5472.CAN-20-2756
7. Perra, A., Kowalik, M.A., Cabras, L., Runfola, M., Sestito, S., **Migliore, C.**, Giordano, S., Chiellini, G., Rapposelli, S., Columbano, A. Potential role of two novel agonists of thyroid hormone receptor- $\beta$  on liver regeneration (2020) *Cell Proliferation*, 53 (5), art. no. e12808, DOI: 10.1111/cpr.12808
8. Corso, S., Isella, C., Bellomo, S.E., Apicella, M., Durando, S., **Migliore, C.**, Ughetto, S., D'Errico, L., Menegon, S., Moya-Rull, D., Cargnelutti, M., Capelôa, T., Conticelli, D., Giordano, J., Venesio, T., Balsamo, A., Marchio, C., Degiuli, M., Reddavid, R., Fumagalli, U., de Pascale, S., Sgroi, G., Rausa, E., Baiocchi, G.L., Molfino, S., Pietrantonio, F., Morano, F., Siena, S., Sartore-Bianchi, A., Bencivenga, M., Mengardo, V., Rosati, R., Marrelli, D., Morgagni, P., Rausei, S., Pallabazzer, G., de Simone, M., Ribero, D., Marsoni, S., Sottile, A., Medico, E., Cassoni, P., Sapino, A., Pectasides, E., Thorner, A.R., Nag, A., Drinan, S.D., Wollison, B.M., Bass, A.J., Giordano, S. A comprehensive PDX gastric cancer collection captures cancer cell-intrinsic transcriptional MSI traits (2019) *Cancer Research*, 79 (22), pp. 5884-5896. DOI: 10.1158/0008-5472.CAN-19-1166
9. **Migliore, C.**, Morando, E., Ghiso, E., Anastasi, S., Leoni, V.P., Apicella, M., Cora', D., Sapino, A., Pietrantonio, F., De Braud, F., Columbano, A., Segatto, O., Giordano, S. miR-205 mediates adaptive resistance to MET inhibition via ERRF1 targeting and raised EGFR signaling (2018) *EMBO Molecular Medicine*, 10 (9), art. no. e8746. DOI: 10.15252/emmm.201708746
10. Corso, S., Cargnelutti, M., Durando, S., Menegon, S., Apicella, M., **Migliore, C.**, Capeloa, T., Ughetto, S., Isella, C., Medico, E., Bertotti, A., Sassi, F., Sarotto, I., Casorzo, L., Pisacane, A., Mangioni, M., Sottile, A., Degiuli, M., Fumagalli, U., Sgroi, G., Molfino, S., De Manzoni, G., Rosati, R., De Simone, M., Marrelli, D., Saragoni, L., Rausei, S., Pallabazzer, G., Roviello, F., Cassoni, P., Sapino, A., Bass, A., Giordano, S. Rituximab Treatment Prevents Lymphoma Onset in Gastric Cancer Patient-Derived Xenografts (2018) *Neoplasia (United States)*, 20 (5), pp. 443-455. DOI: 10.1016/j.neo.2018.02.003
11. Ghiso, E.\*, **Migliore, C.\***, Ciciriello, V., Morando, E., Petrelli, A., Corso, S., De Luca, E., Gatti, G., Volante, M., Giordano, S. YAP-Dependent AXL Overexpression Mediates Resistance to EGFR Inhibitors in NSCLC (2017) *Neoplasia (United States)*, 19 (12), pp. 1012-1021. DOI: 10.1016/j.neo.2017.10.003  
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12. Apicella, M., **Migliore, C.**, Capelôa, T., Menegon, S., Cargnelutti, M., Degiuli, M., Sapino, A., Sottile, A., Sarotto, I., Casorzo, L., Cassoni, P., De Simone, M., Comoglio, P.M., Marsoni, S., Corso, S., Giordano, S. Dual MET/EGFR therapy leads to complete response and resistance prevention in a MET-amplified gastroesophageal xenopatient cohort (2017) *Oncogene*, 36 (9), pp. 1200-1210. DOI: 10.1038/onc.2016.283
13. Germano, A., Rapa, I., Volante, M., De Francia, S., **Migliore, C.**, Berruti, A., Papotti, M., Terzolo, M. RRM1 modulates mitotane activity in adrenal cancer cells interfering with its metabolism (2015) *Molecular and Cellular Endocrinology*, 401, pp. 105-110. DOI: 10.1016/j.mce.2014.11.027
14. Petrelli, A., Perra, A., Cora, D., Sulas, P., Menegon, S., Manca, C., **Migliore, C.**, Kowalik, M.A., Ledda-Columbano, G.M., Giordano, S., Columbano, A. MicroRNA/gene profiling unveils early molecular changes and nuclear factor erythroid related factor 2 (NRF2) activation in a rat model recapitulating human hepatocellular carcinoma (HCC) (2014) *Hepatology*, 59 (1), pp. 228-241. DOI: 10.1002/hep.26616

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16. Rapa, I., Volante, M., **Migliore, C.**, Farsetti, A., Berruti, A., Vittorio Scagliotti, G., Giordano, S., Papotti, M. Human ASH-1 promotes neuroendocrine differentiation in androgen deprivation conditions and interferes with androgen responsiveness in prostate cancer cells (2013) *Prostate*, 73 (11), pp. 1241-1249. DOI: 10.1002/pros.22679
17. Petrelli, A., Perra, A., Schernhuber, K., Cargnelutti, M., Salvi, A., **Migliore, C.**, Ghiso, E., Benetti, A., Barlati, S., Ledda-Columbano, G.M., Portolani, N., De Petro, G., Columbano, A., Giordano, S. Sequential analysis of multistage hepatocarcinogenesis reveals that miR-100 and PLK1 dysregulation is an early event maintained along tumor progression (2012) *Oncogene*, 31 (42), pp. 4517-4526. DOI: 10.1038/onc.2011.631
18. **Migliore, C.**, Martin, V., Leoni, V.P., Restivo, A., Atzori, L., Petrelli, A., Isella, C., Zorcolo, L., Sarotto, I., Casula, G., Comoglio, P.M., Columbano, A., Giordano, S. MiR-1 downregulation cooperates with MACC1 in promoting MET overexpression in human colon cancer (2012) *Clinical Cancer Research*, 18 (3), pp. 737-747. DOI: 10.1158/1078-0432.CCR-11-1699
19. Comito, G., Calvani, M., Giannoni, E., Bianchini, F., Calorini, L., Torre, E., **Migliore, C.**, Giordano, S., Chiarugi, P. HIF-1 $\alpha$  stabilization by mitochondrial ROS promotes Met-dependent invasive growth and vasculogenic mimicry in melanoma cells (2011) *Free Radical Biology and Medicine*, 51 (4), pp. 893-904. DOI: 10.1016/j.freeradbiomed.2011.05.042
20. Corso, S., Ghiso, E., Cepero, V., Sierra, J.R., **Migliore, C.**, Bertotti, A., Trusolino, L., Comoglio, P.M., Giordano, S. Activation of HER family members in gastric carcinoma cells mediates resistance to MET inhibition (2010) *Molecular Cancer*, 9, art. no. 121 DOI: 10.1186/1476-4598-9-121
21. **Migliore, C.**, Giordano, S. MiRNAs as new master players (2009) *Cell Cycle*, 8 (14), pp. 2185-2186. Cited 11 times. DOI: 10.4161/cc.8.14.9113
22. **Migliore, C.**, Petrelli, A., Ghiso, E., Corso, S., Capparuccia, L., Eramo, A., Comoglio, P.M., Giordano, S. MicroRNAs impair MET-mediated invasive growth (2008) *Cancer Research*, 68 (24), pp. 10128-10136. DOI: 10.1158/0008-5472.CAN-08-2148
23. **Migliore, C.**, Giordano, S. Molecular cancer therapy: Can our expectation be MET? (2008) *European Journal of Cancer*, 44 (5), pp. 641-651. DOI: 10.1016/j.ejca.2008.01.022
24. Corso, S., **Migliore, C.**, Ghiso, E., De Rosa, G., Comoglio, P.M., Giordano, S. Silencing the MET oncogene leads to regression of experimental tumors and metastases (2008) *Oncogene*, 27 (5), pp. 684-693. DOI: 10.1038/sj.onc.1210697