

Biographical sketch

- Name and Surname: **Luigi Fattore**
- Place and date of birth: Maddaloni (CE), 12 Giugno 1985.
- Address: Via Roberto Stagno 13, 00168. Roma (RM)
- Phone number: 3921161351
- E-mail: luigifattore1985@gmail.com

Education

- **February 2015:** PhD in Experimental Medicine on Molecular and Clinical Medicine Department, "Sapienza" University of Rome. Title of the thesis: "*ErbB3 receptor in melanoma: a key player in the development of resistance to therapy*".
- **November 2012:** Qualification as a Professional Biologist, Second University of Studies of Naples (Caserta)
- **August 2011:** Certificate of attendance of English language study at Callan School of London.
- **March 2011:** Second level degree in Medical Biotechnology on University of Naples Federico II, final grade 105 /110. Title of the thesis: "*The interaction between the transcriptional factors WT1 and ZNF224 modulates the expression of apoptotic genes in erythroleukemia K562 cells*".
- **March 2007:** First level degree in Biotechnology on the Second University of Studies of Naples (Caserta), final grade 102/110. Title of the thesis: "*Pathogenesis of prion diseases: current knowledge and future prospects*".

Research Experience

- **January 2019 to the present:** Post Doc fellow of the Istituto Pasteur Italia, Fondazione Cenci Bolognetti beside the Laboratory of Cellular and Molecular Biology of the Department of Clinical and Molecular Medicine, "Sapienza" University of Rome within the Department of Surgery "P. Valdoni", Rome.
- **January 2018 to December 2018:** Post Doc fellow "Fondazione Umberto Veronesi" at UOSD Modelli Preclinici e Nuovi Agenti Terapeutici, IRCCS Istituto Nazionale Tumori "Regina Elena" of Rome beside the Laboratory of Cellular and Molecular Biology of the Department of Clinical and Molecular Medicine, "Sapienza" University of Rome within the Department of Surgery "P. Valdoni", Rome.
- **From July 2017:** reviewer for the international journals "Journal of Translational Medicine", "Cell Death & Disease", "Journal of Experimental & Clinical Cancer Research" and "Frontiers in Oncology".
- **January 2016 at the present:** member of the executive board of the "Società Italiana di Biofisica e Biologia Molecolare", SIBBM.
- **September 2016 to December 2016:** Research collaboration with the laboratories of Prof. C. Croce, Department of Molecular Virology, Immunology, and Medical Genetics at the Ohio State University in Columbus (Ohio, USA). Research interest: study of novel miRNA involvement in phenotypic resistance to BRAF/ MEK inhibitors in melanoma. Study of the interaction between miR-579-3p and MITF transcription factor in melanoma differentiation, proliferation and resistance to targeted therapies.
- **January 2015 to December 2017:** Post Doc fellow "FIRC Fondazione Italiana per la ricerca sul Cancro" at IRCCS "Fondazione G. Pascale" of Naples in collaboration with the Laboratory of Cellular and Molecular Biology of the Department of Clinical and Molecular Medicine, "Sapienza" University of Rome within the Department of Surgery "P. Valdoni", Rome.
- Organizer of the BeMM (Biology and Molecular Medicine) PhD Symposium, 23RD January 2015 at I Clinica Medica of Policlinico Umberto I, "Sapienza" University of Rome.
- **May 2014 to November 2014:** PhD student training in the laboratories of Prof. C. Croce, Department of Molecular Virology, Immunology, and Medical Genetics at the Ohio State University in Columbus (Ohio, USA). Research interest: new miRNAs involved in resistance to BRAF/ MEK inhibitors in melanoma. Identification of mechanisms of resistance to BRAF/ MEK inhibitors in melanoma.
- **November 2011 to February November 2014:** PhD student of Experimental Medicine on Molecular and Clinical Medicine Department, "Sapienza" University of Rome, under the supervision of Prof. Rita Mancini with expertise in setting up of vitro bioassays and drug testing using also primary and 3D cultures of tumor cells. Research interest: Identification of mechanisms of resistance to BRAF/ MEK inhibitors in melanoma. Assessment of "*in vitro*" and "*in vivo*" activity of anti-ErbB3 receptor mAbs on primary lung cancer cells, also in combination with chemotherapy. Study of the role of monoclonal antibodies directed against ErbB3 receptor in inhibition of growth and migration of melanoma cells. **September 2009 to March 2011:** Undergraduated student on University of Naples Federico II under the supervision of Prof Paola Costanzo. Research interest: Study the role of WT1/ ZNF224 interaction in the modulation of the expression of apoptotic genes in erythroleukemia cells.

Publications (Last five)

- 1) **Luigi F**, Ruggiero CF, Liguoro D, Mancini R, Ciliberto G. Single cell analysis to dissect molecular heterogeneity and disease evolution in metastatic melanoma. *Cell Death and Disease*. 2019 Accepted review article (CDDIS-19-2823R).
- 2) Ruggiero CF, Malpicci D, **Fattore L**, Madonna G, Vanella V, Mallardo D, Liguoro D, Salvati V, Capone M, Bedogni B, Ascierio P, Mancini R, Ciliberto G. ErbB3 Phosphorylation as Central Event in Adaptive Resistance to Targeted Therapy in Metastatic Melanoma: Early Detection in CTCs during Therapy and Insights into Regulation by Autocrine Neuregulin. *Cancers (Basel)*. 2019 Sep 25;11(10), pii: E1425. doi: 10.3390/cancers11101425.
- 3) Bruschini S, di Martino S, Pisanu ME, **Fattore L**, De Vitis C, Laquintana V, Buglioni S, Tabbì E, Cerri A, Visca P, Alessandrini G, Facciolo F, Napoli C, Trombetta M, Santoro A, Crescenzi A, Ciliberto G, Mancini R. CytoMatrix for a reliable and simple characterization of lung cancer stem cells from malignant pleural effusions. *J Cell Physiol*. 2019 Aug 9. doi: 10.1002/jcp.29121.
- 4) Leonetti E, Gesualdi L, Scheri KC, Dinicola S, **Fattore L**, Masiello MG, Cucina A, Mancini R, Bizzarri M, Ricci G, Catizone A. c-Src Recruitment is Involved in c-MET-Mediated Malignant Behaviour of NT2D1 Non-Seminoma Cells. *Int J Mol Sci*. 2019 Jan 14;20(2). pii: E320. doi: 10.3390/ijms20020320.
- 5) Pisanu ME, Maugeri-Saccà S **Fattore L**, Bruschini S, De Vitis C, Tabbì E, Bellei B, Migliano E, Kovacs D, Camera E, Picardo M, Jakopin Z, Cippitelli C, Bartolazzi A, Raffa S, Torrissi MR, Fulcinitti F, Ascierio PA, Ciliberto G, Mancini R. Inhibition of Stearoyl-CoA desaturase 1 reverts BRAF and MEK inhibition-induced selection of cancer stem cells in BRAF-mutated melanoma. *J Exp Clin Cancer Res*. 2018. *J Exp Clin Cancer Res*. 2018 Dec 17;37(1):318. doi: 10.1186/s13046-018-0989-7.