

## Curriculum Vitae

**Name:** Gianluca Sala

**Date of birth:** 4/13/1972

**Marital status:** married

**Residence:** Via E. Di Simone, 65125, Pescara, Italy.

**Citizenship:** Italian



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| Gianluca Sala, Ph.D.                                                                                                                                                                                          |              | <b>Email:</b> g.sala@unich.it<br><b>Phone:</b> +39 0871-541504               |
| <b>Education</b> <ul style="list-style-type: none"><li>Ph.D in Oncology and Pathology, University of Chieti-Pescara, “G. D’Annunzio”.</li><li>Degree in Biology, University of Rome, “La Sapienza”.</li></ul> |              |                                                                              |
| <b>Positions</b>                                                                                                                                                                                              | YEARS        | FIELD OF STUDY                                                               |
| Associate Professor in Biochemistry, University of Chieti-Pescara                                                                                                                                             | 2023-to date | Molecular and Cellular Oncology, Cancer therapeutics Research & Development. |
| Discovery Director, Mediapharma srl                                                                                                                                                                           | 2015-to 2019 | Molecular and Cellular Oncology, Target therapeutics Research & Development. |
| Senior Scientist, University of Chieti-Pescara                                                                                                                                                                | 2011-to date | Molecular and Cellular Oncology, Target therapeutics Research & Development. |
| Senior Scientist, Mediapharma srl                                                                                                                                                                             | 2011-to 2015 | Molecular and Cellular Oncology, Target therapeutics Research & Development. |
| Senior Postdoc, University of Chieti-Pescara                                                                                                                                                                  | 2008-2011    | Molecular and Cellular Oncology, Target Research & Development.              |
| Postdoc, University College London                                                                                                                                                                            | 2005-2008    | Molecular and Cellular Oncology, Cell signaling                              |
| Research Fellow, University of Chieti-Pescara                                                                                                                                                                 | 2004-2005    | Molecular and Cellular Oncology, Cell signaling                              |
| Research Fellow, Regina Elena Cancer Institute, Rome                                                                                                                                                          | 2000-2004    | Molecular and Cellular Oncology, Cell signaling                              |
| Predoc fellowship, Istituto Mario Negri Sud , Santa Maria Imbaro (Chieti)                                                                                                                                     | 1998-2000    | Molecular genetic, cell signalling.                                          |

### Grants:

**2015-2018 “Dual ErbB-3 and PI3K/AKT pathway inhibition as a novel approach to targeting cancer”.** (Stefano Iacobelli PI) Italian Minister of Health (304.000 €).

**2016-2019 “Development and preclinical evaluation of a novel Antibody-Drug-Conjugate (ADC) targeting HER-3”** (Gianluca Sala PI). Italian Association of Cancer Research ( IG 2016 : 287.000 €).

**2022-to date “Developing new antibody-drug conjugates (ADC)s for neuroblastoma and glioblastoma”** (Gianluca Sala PI). Italian Association of Cancer Research ( IG 2021:539.000 €).

### Patents:

- ErbB3 binding antibody (US 2013/0224220 A1)
- “Humanized anti-BAG3 antibodies” WO 2017/076878 A1
- “Endosialin Binding antibody” WO 2017/134234 A1
- “LGALS3BP antibody-drug-conjugate and its use for the treatment of cancer” WO/2019/197651

**Awards:** Paul Harris Fellow, Rotary Club International, Chieti 09/06/2019

## Publications:

1. Sallesse, M., et al., *The G-protein-coupled receptor kinase GRK4 mediates homologous desensitization of metabotropic glutamate receptor 1*. FASEB J, 2000. **14**(15): p. 2569-80.
2. Fiorini, M., et al., *Negative regulation of receptor tyrosine kinase signals*. FEBS Lett, 2001. **490**(3): p. 132-41.
3. Sala, G., et al., *The E27 beta2-adrenergic receptor polymorphism reduces the risk of myocardial infarction in dyslipidemic young males*. Thromb Haemost, 2001. **85**(2): p. 231-3.
4. Fiorini, M., et al., *Expression of RALT, a feedback inhibitor of ErbB receptors, is subjected to an integrated transcriptional and post-translational control*. Oncogene, 2002. **21**(42): p. 6530-9.
5. Anastasi, S., et al., *Feedback inhibition by RALT controls signal output by the ErbB network*. Oncogene, 2003. **22**(27): p. 4221-34.
6. Anastasi, S., et al., *Loss of RALT/MIG-6 expression in ERBB2-amplified breast carcinomas enhances ErbB-2 oncogenic potency and favors resistance to Herceptin*. Oncogene, 2005. **24**(28): p. 4540-8.
7. Falasca, M., et al., *The role of phosphoinositide 3-kinase C2alpha in insulin signaling*. J Biol Chem, 2007. **282**(38): p. 28226-36.
8. Sala, G., et al., *Phospholipase Cgamma1 is required for metastasis development and progression*. Cancer Res, 2008. **68**(24): p. 10187-96.
9. Maffucci, T., et al., *A phosphoinositide 3-kinase/phospholipase Cgamma1 pathway regulates fibroblast growth factor-induced capillary tube formation*. PLoS One, 2009. **4**(12): p. e8285.
10. Sala, G., et al., *An ErbB-3 antibody, MP-RM-1, inhibits tumor growth by blocking ligand-dependent and independent activation of ErbB-3/Akt signaling*. Oncogene, 2012. **31**(10): p. 1275-86.
11. Sala, G., et al., *EV20, a Novel Anti-ErbB-3 Humanized Antibody, Promotes ErbB-3 Down-Regulation and Inhibits Tumor Growth In Vivo*. Transl Oncol, 2013. **6**(6): p. 676-84.
12. Ghasemi, R., et al., *Dual targeting of ErbB-2/ErbB-3 results in enhanced antitumor activity in preclinical models of pancreatic cancer*. Oncogenesis, 2014. **3**: p. e117.
13. Capone, E., P.R. Prasetyanti, and G. Sala, *HER-3: hub for escape mechanisms*. Aging (Albany NY), 2015. **7**(11): p. 899-900.
14. De Cola, A., et al., *miR-205-5p-mediated downregulation of ErbB/HER receptors in breast cancer stem cells results in targeted therapy resistance*. Cell Death Dis, 2015. **6**: p. e1823.
15. Momeny, M., et al., *Heregulin-HER3-HER2 signaling promotes matrix metalloproteinase-dependent blood-brain-barrier transendothelial migration of human breast cancer cell lines*. Oncotarget, 2015. **6**(6): p. 3932-46.
16. Prasetyanti, P.R., et al., *ErbB-3 activation by NRG-1beta sustains growth and promotes vemurafenib resistance in BRAF-V600E colon cancer stem cells (CSCs)*. Oncotarget, 2015. **6**(19): p. 16902-11.
17. Rosati, A., et al., *BAG3 promotes pancreatic ductal adenocarcinoma growth by activating stromal macrophages*. Nat Commun, 2015. **6**: p. 8695.
18. Di Franco, S., G. Sala, and M. Todaro, *p63 role in breast cancer*. Aging (Albany NY), 2016. **8**(10): p. 2256-2257.
19. Capone, E., et al., *EV20-Sap, a novel anti-HER-3 antibody-drug conjugate, displays promising antitumor activity in melanoma*. Oncotarget, 2017. **8**(56): p. 95412-95424.
20. Capone, E., et al., *Generation of a novel Antibody-Drug Conjugate targeting endosialin: potent and durable antitumor response in sarcoma*. Oncotarget, 2017. **8**(36): p. 60368-60377.
21. Corda, G., et al., *Functional and prognostic significance of the genomic amplification of frizzled 6 (FZD6) in breast cancer*. J Pathol, 2017. **241**(3): p. 350-361.
22. Damiani, V., et al., *Therapeutic Efficacy of the Novel Stimuli-Sensitive Nano-Ferritins Containing Doxorubicin in a Head and Neck Cancer Model*. Int J Mol Sci, 2017. **18**(7).
23. Emmanouilidi, A., et al., *The role of phospholipase Cgamma1 in breast cancer and its clinical significance*. Future Oncol, 2017. **13**(22): p. 1991-1997.
24. Capone, E., et al., *EV20-mediated delivery of cytotoxic auristatin MMAF exhibits potent therapeutic efficacy in cutaneous melanoma*. J Control Release, 2018. **277**: p. 48-56.
25. De Marco, M., et al., *Role of BAG3 in cancer progression: A therapeutic opportunity*. Semin Cell Dev Biol, 2018. **78**: p. 85-92.

26. Ferro, R., et al., *GPR55 signalling promotes proliferation of pancreatic cancer cells and tumour growth in mice, and its inhibition increases effects of gemcitabine*. *Oncogene*, 2018. **37**(49): p. 6368-6382.
27. Iorio, V., et al., *Combined effect of anti-BAG3 and anti-PD-1 treatment on macrophage infiltrate, CD8(+) T cell number and tumour growth in pancreatic cancer*. *Gut*, 2018. **67**(4): p. 780-782.
28. Adamska, A., et al., *Pharmacological inhibition of ABCC3 slows tumour progression in animal models of pancreatic cancer*. *J Exp Clin Cancer Res*, 2019. **38**(1): p. 312.
29. Adamska, A., et al., *ABCC3 is a novel target for the treatment of pancreatic cancer*. *Adv Biol Regul*, 2019. **73**: p. 100634.
30. Basile, A., et al., *Development of an anti-BAG3 humanized antibody for treatment of pancreatic cancer*. *Mol Oncol*, 2019. **13**(6): p. 1388-1399.
31. Casari, I., et al., *Dual PDK1/Aurora Kinase A Inhibitors Reduce Pancreatic Cancer Cell Proliferation and Colony Formation*. *Cancers (Basel)*, 2019. **11**(11).
32. Emmanouilidi, A., et al., *Preclinical validation of 3-phosphoinositide-dependent protein kinase 1 inhibition in pancreatic cancer*. *J Exp Clin Cancer Res*, 2019. **38**(1): p. 191.
33. Giansanti, F., et al., *Secreted Gal-3BP is a novel promising target for non-internalizing Antibody-Drug Conjugates*. *J Control Release*, 2019. **294**: p. 176-184.
34. Iorio, V., et al., *CAF-Derived IL6 and GM-CSF Cooperate to Induce M2-like TAMs-Letter*. *Clin Cancer Res*, 2019. **25**(2): p. 892-893.
35. Lattanzio, R., et al., *PLC-gamma-1 phosphorylation status is prognostic of metastatic risk in patients with early-stage Luminal-A and -B breast cancer subtypes*. *BMC Cancer*, 2019. **19**(1): p. 747.
36. Saul, M.J., et al., *miR-574-5p as RNA decoy for CUGBP1 stimulates human lung tumor growth by mPGES-1 induction*. *FASEB J*, 2019. **33**(6): p. 6933-6947.
37. Bibbo, S., et al., *Repurposing a psychoactive drug for children with cancer: p27(Kip1)-dependent inhibition of metastatic neuroblastomas by Prozac*. *Oncogenesis*, 2020. **9**(1): p. 3.
38. Capone, E., et al., *Targeting Vesicular LGALS3BP by an Antibody-Drug Conjugate as Novel Therapeutic Strategy for Neuroblastoma*. *Cancers (Basel)*, 2020. **12**(10).
39. Falvo, E., et al., *Engineered Human Nanoferritin Bearing the Drug Genz-644282 for Cancer Therapy*. *Pharmaceutics*, 2020. **12**(10).
40. Gandullo-Sanchez, L., et al., *HER3 targeting with an antibody-drug conjugate bypasses resistance to anti-HER2 therapies*. *EMBO Mol Med*, 2020. **12**(5): p. e11498.
41. Ponziani, S., et al., *Antibody-Drug Conjugates: The New Frontier of Chemotherapy*. *Int J Mol Sci*, 2020. **21**(15).
42. Capone, E., S. Iacobelli, and G. Sala, *Role of galectin 3 binding protein in cancer progression: a potential novel therapeutic target*. *J Transl Med*, 2021. **19**(1): p. 405.
43. Capone, E., et al., *EV20/NMS-P945, a Novel Thienoindole Based Antibody-Drug Conjugate Targeting HER-3 for Solid Tumors*. *Pharmaceutics*, 2021. **13**(4).
44. D'Agostino, D., et al., *EV20sssvc/MMAF, an HER3 targeting antibodydrug conjugate displays antitumor activity in liver cancer*. *Oncol Rep*, 2021. **45**(2): p. 776-785.
45. Falvo, E., et al., *High activity and low toxicity of a novel CD71-targeting nanotherapeutic named The-0504 on preclinical models of several human aggressive tumors*. *J Exp Clin Cancer Res*, 2021. **40**(1): p. 63.
46. Perrotti, V., et al., *Therapeutic Potential of Antibody-Drug Conjugate-Based Therapy in Head and Neck Cancer: A Systematic Review*. *Cancers (Basel)*, 2021. **13**(13).
47. Rossi, F.A., et al., *USP19 modulates cancer cell migration and invasion and acts as a novel prognostic marker in patients with early breast cancer*. *Oncogenesis*, 2021. **10**(3): p. 28.
48. Tsakaneli, A., et al., *MYC regulates metabolism through vesicular transfer of glycolytic kinases*. *Open Biol*, 2021. **11**(12): p. 210276.
49. De Marco, M., et al., *Concerted BAG3 and SIRPalpha blockade impairs pancreatic tumor growth*. *Cell Death Discov*, 2022. **8**(1): p. 94.
50. De Santis, M.C., et al., *Lysosomal lipid switch sensitises to nutrient deprivation and mTOR targeting in pancreatic cancer*. *Gut*, 2022.

51. Dufrusine, B., et al., *BAG3 induces fibroblasts to release key cytokines involved in pancreatic cell migration*. J Cell Biochem, 2022. **123**(1): p. 65-76.
52. Rossi, C., et al., *Breast cancer in the era of integrating "Omics" approaches*. Oncogenesis, 2022. **11**(1): p. 17.
53. Vicencio, J.M., et al., *Osimertinib and anti-HER3 combination therapy engages immune dependent tumor toxicity via STING activation in trans*. Cell Death Dis, 2022. **13**(3): p. 274.
54. Keinänen O. et al., *Visualizing Galectin-3 Binding Protein Expression with ImmunoPET*. Molec. Pharmaceut., 2023 (*in press*)