

Celine GONGORA



Dr. Celine Gongora is team leader at the IRCM, Montpellier, France. Her work focuses on the resistance to tyrosine kinases inhibitors in colon cancer.

One of the main causes of cancer treatment failure is the development of drug resistance, the mechanisms of

which is pleiotropic by nature and involves multiple pathways that need to be targeted to potentiate tumor response. Our new group, emerging from P. Martineau's has already demonstrated that the two kinase inhibitors sorafenib and the MAPK14 inhibitor SB202190 can overcome irinotecan resistance, and was the first to identify predictive gene signature in CRC for response to treatment using patients' samples. Our future research project will focus on identification of new alternative strategies for the optimization of anticancer treatment used in colorectal cancer (CCR) and prostate cancer (PCa). Based on specific molecular signatures obtained from patients and from drug-resistant models we are developing functional approaches either exploratory or focused on specific genes of interest.

Key publication:

Marzi L, Combes E, Vié N, Ayrolles-Torro A, Tosi D, Desigaud D, Perez-Gracia E, Larbouret C, Montagut C, Iglesias M, Jarlier M, Denis V, Linares LK, Lam EW, Martineau P, Del Rio M, Gongora C. *FOXO3a and the MAPK p38 are activated by cetuximab to induce cell death and inhibit cell proliferation and their expression predicts cetuximab efficacy in colorectal cancer.* <u>Br J Cancer.</u> 2016 Nov 8;115(10):1223-1233. doi: 10.1038/bjc.2016.313. Epub 2016 Sep 29.

Thierry AR, Mouliere F, El Messaoudi S, Mollevi C, Lopez-Crapez E, Rolet F, Gillet B, Gongora C, Dechelotte P, Robert B, Del Rio M, Lamy PJ, Bibeau F, Nouaille M, Loriot V, Jarrousse AS, Molina F, Mathonnet M, Pezet D, Ychou M. *Clinical validation of the detection of KRAS and BRAF*



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mutations from circulating tumor DNA. <u>Nat Med.</u> 2014 Apr;20(4):430-5. doi: 10.1038/nm.3511. Epub 2014 Mar 23.