

# Sarah FIGAROL

PhD in Oncology

PharmD

DES Pharmaceutical Innovation and Research



## EDUCATION

**PhD in Oncology**

Doctoral school BSB (Biology, Health and Biotechnologies),  
Paul Sabatier Toulouse III University, Toulouse  
2016-2020



**PharmD**

**DES Pharmaceutical Innovation and Research**

Paul Sabatier Toulouse III University, Toulouse and Limousin  
University, Limoges  
2009-2020



**Master's degree in Oncology**

Paul Sabatier Toulouse III University, Toulouse  
2015-2016



## WORK EXPERIENCES

**Postdoctoral Research fellow**

November 2020-now

Collaborative project with a clinical stage biotechnology company that designs and develops new cancer drugs  
Cancer Research Center of Toulouse (CRCT), Team 3, Cancer cell signaling and therapeutics, G. Favre – Inserm, UMR1037.



**PhD**

2016-october 2020

Understanding the early steps of resistance to EGFR tyrosine kinase inhibitors in lung cancers.

- Lab: Cancer Research Center of Toulouse (CRCT), Team 3, Cancer cell signaling and therapeutics, G. Favre – Inserm, UMR1037.
- Supervisors: Pr Gilles Favre, Dr Anne Pradines, Dr Olivier Calvayrac.



**Pharmacy residency**

2014-2019

- Semester 1: Clinical pharmacology, Neurosciences division, CHU Toulouse Purpan, Toulouse.
- Semester 2: Pharmacology and pharmacokinetic lab, University Institute of Cancer-Toulouse-Oncopole, Toulouse.
- Semesters 3 to 10: Cancer Research Center of Toulouse, Team 3, Cancer cell signaling and therapeutics, G. Favre – Inserm, UMR1037.



**Master**

2013-2016

- 1<sup>st</sup> year Biohealth: Intranuclear translocation of EGFR and its consequences for anticancer pharmacology. McGill University, Montreal, Canada. Supervisor : Pr Bertrand J Jean-Claude.
- 2<sup>nd</sup> year Oncology: Development of TALEN strategy directed against RHOB to study the role of RHOB in genetic instability, intratumoral genomic heterogeneity and therapeutic resistance in non-small cell lung cancers. Cancer Research Center of Toulouse (CRCT), Team 3, Cancer cell signaling and therapeutics, G. Favre – Inserm, UMR1037. Supervisors: Pr Gilles Favre and Dr Anne Pradines.



**Teaching experiences**

2016-2019

- Biochemistry and molecular biology courses, 64 hours per year, Faculty of Science and Engineering, Paul Sabatier Toulouse III University, Toulouse (2016-2017 to 2018-2019).
- Master's Degree 1st year student supervision (2018).
- Master's Degree 2nd year student supervision (2020).



## SKILLS

Cell biology		Molecular biology	Ex vivo/Biochemistry
Cell culture (tumor cell-lines) Cell treatments Transfection (siRNA) Transduction (lentiviral/adenoviral vectors) Microscopy Proliferation Assays Migration-Invasion Assays Incucyte®		RNA/DNA isolation, PCR, RT-qPCR, Library prep for RNA-sequencing Sample preparation for single-cell RNA-sequencing RNA-sequencing analysis	Protein isolation Western Blot Immunoprecipitation ELISA Immunofluorescence FACS Seahorse
Mouse handling	Computer	Personal skills	
FELASA Accreditation C	Biorad CFX Manager GraphPad Prism Image J Office EndNote Zotero Bio-Informatics (GSEA, Panther, Cytoscape Clue-GO)	Autonomy and ability to make suggestions Rigor and ability to organize and plan work Dynamism, strong problem-solving and ability to adapt to changes and to produce results against challenging timelines Team player and collaborative skills and ability to manage technicians Ability to ask scientific plausibility and technical feasibility of a project Ability to collect, analyse, summarise and communicate scientific datas Keen on innovate and learn novel technologies	
Languages			
French (native speaker) English (B2, TOEIC=785 in 2015)			

## SCIENTIFIC PUBLICATIONS AND COMMUNICATIONS

### Publications

**FIGAROL, S.**, Delahaye, C., Gence R., Asslan R., Pagano S., Tardy C., Colinge J., Cabello-Aguilar S., Lajoie-Mazenc I., Clermont E., Casanova A., Pradines A., Mazières J., Calvayrac O., Favre G. Under submission, 2021.

Laplagne, C., Meddour, S., **FIGAROL, S.**, Michelas, M., Calvayrac, O., Favre, G., Laurent, C., Fournié, J.J., Cabantous, S. & Poupot, M.. Vγ9Vδ2 T Cells Activation Through Phosphoantigens Can Be Impaired by a RHOB Rerouting in Lung Cancer. *Frontiers in immunology*, 2020.

Calvayrac, O., Nowosad, A., Cabantous, S., Lin, LP., **FIGAROL, S.**, Jeannot, P., Serres, MP., Callot, C., Perchey, RT., Creff, J., Taranchon-Clermont, E., Rouquette, I., Favre, G., Pradines, A., Manenti, S., Mazieres, J., Lee, H., Besson, A..Cytoplasmic p27Kip1 promotes tumorigenesis via suppression of RhoB activity. *The Journal of pathology*, 2018.

Calvayrac, O., Mazières, J., **FIGAROL, S.**, Marty-Detraves, C., Raymond-Letron, I., Bousquet, E., Farella, M., Clermont-Taranchon, E., Milia, J., Rouquette, I., Guibert, N., Lusque, A., Cadranel, J., Mathiot, N., Savina, A., Pradines, A., Favre, G.. The RAS-related GTPase RHOB confers resistance to EGFR-tyrosine kinase inhibitors in non-small-cell lung cancer via an AKT-dependent mechanism. *EMBO molecular medicine*, 2017.

### Patent

Methods for the treatment of cancers that has acquired resistance to kinase inhibitors - EP19208154

### Poster presentations

- Symposium « Signal-targeted-therapies and Resistances », Pierre Fabre Medicament, Toulouse, November 2017.
- Congress: Toulouse Onco Week, Toulouse, February 2018.
- Journées de l'école doctorale BSB, Toulouse, April 2018.
- Congress: Canceropole Grand Sud-Ouest, Arcachon, November 2019.
- Congress: Toulouse Onco Week, Toulouse, February 2020.

### Oral presentations

Cancer Research Center of Toulouse Seminars – September 2018 and February 2019.