

# Dr. Samuel MEIGNAN

PhD, Preclinical Oncology Project Manager

Tumorigenesis and Resistance to Treatment Unit – INSERM U908  
Centre Oscar Lambret

3, rue Frédéric Combemale  
59020 LILLE Cedex  
+33 3 20 16 92 14  
[s-meignan@o-lambret.fr](mailto:s-meignan@o-lambret.fr)

Date of birth 05.10.1981  
French nationality

## RESEARCH & DEVELOPMENT EXPERIENCE

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### EMPLOYMENT HISTORY

From 2013 **Preclinical Research Project Manager, head of the "Tumorigenesis and Resistance to Treatment" Unit of the Oscar Lambret Center - INSERM U908 (Lille, France)**

- **Aim of studies:** « Isolation, characterization and pharmacological targeting of cancer stem cells in pediatric high grade glioma and neuroblastoma »

2009 - 2013 **Postdoctoral position in Antitumor Pharmacology (Oscar Lambret Center - INSERM U837, Lille, France)**

- **Aims of Studies :**

- Part 1: « Potentiation of basic anticancer drugs by Carbonic Anhydrase IX inhibition for breast and colorectal cancers treatment »
- Part 2: « Evaluation of the integrins inhibitor Cilengitide (Merck Laboratories) alone or associated with ionizing radiations in high grade pediatric glioma cells »
- Part 3: « Combination of new Topoisomerase II inhibitor F14512 (Pierre Fabre Laboratories) with radiotherapy on HNSCC and paediatric neuroblastoma cell lines »
- Part 4: « Role of Akt1 and HER3 in HNSCC resistance to Cetuximab and ionizing radiations »

- **Results : 4 Publications published, 3 articles in preparation**

Communications in international congress

2004 - 2009 **PhD in Cancerology (Inserm U908, Lille, France)**

- **Aim of Study :** « Evaluation of Nerve Growth Factor receptors roles in breast cancer cells growth »

- **Results : 5 articles published in international journals**

Communications in scientific meetings

2003 **Training in Cancerology Research** on telomerase targeting in colorectal cancer, *Unité MéDIAN, CNRS, U.F.R de Pharmacie, Reims, France*

2002 **Training in Parasitology Research** on endoparasitosis in coprolithical samples, *U.F.R de Pharmacie, Reims, France*

### TEACHING AND MENTORING ACTIVITIES

- Scientific expert for SFCE funding commission 2014
- Reviewer for *Journal of Applied Oral Science*
- Supervision of students at all levels, director of seven Master 2 Research students, supervisor of two PhD students
- Teaching in Masters 2 Research "Biology & Health" (Lille)
- Teaching in Biology Masters degree at the Faculty of Medicine of Lille
- Teaching of experimental strategy to students in 1<sup>st</sup> cycle of the University of Sciences of Lille
- Training and supervision of laboratory personnel

## SKILLS AND KNOWLEDGE

- **Cellular Biology** : Cell culture and cell lines establishment, plasmidic transfection and expressing clones establishment, biological behavior assay, flow cytometry
- **Therapeutic combination** : Pharmacological association, Radiosensitivity determination
- **Animal testing grade I and surgery accreditation** : orthotopic and subcutaneous tumor xenograft, tumor samples transplantation (mouse and zebrafish)
- **Histology** : Anatomopathology, Immunohistochemistry, Immunocytochemistry
- **Proteomic** : Immunoblot, Immunoprecipitation, bidimensionnal Electrophoresis
- **Molecular Biology** : Quantitative PCR, plasmide purification, Microarray, siRNA, shRNA
- **Microscopy** : Fluorescence, Apotome and Confocal Zeiss
- **Software** : Microsoft Office, EndNote, Adobe CS, Zeiss ZEN, Zeiss Axioimager, Beckman Summit, Calcsyn

Scientific team management

Adaptation and optimization of new protocols

Establishing collaborations

Literature monitoring

## AWARDS AND GRANTS

- 2014 - Research grant obtained from the Cancéropôle Nord-Ouest (20k€)
- 2013 - Research grant obtained from the SFCE (50k€)
- 2013 - Scholarship from SFP for Master II students
- 2012 - Research grant obtained from the "Ligue Contre Le Cancer" (10k€)
- 2012 - Scholarship from University Lille2 for Master II students
- 2011 - Scholarship from INCA and French ORL College for Master II students
- 2011 - Travel grant obtained from Merck KGaA
- 2010 - Research grants obtained from Pierre Fabre Laboratories
- 2005 - Scholarship from « INSERM / Région Nord-Pas-De-Calais »
  
- 2010 - Best communication award (13<sup>th</sup> GPCO Days, Nîmes, France)
- 2010 - Best poster award (PRIM Drug Design Meeting, Lille, France)
- 2007 - Best poster award ("André Verbert" Meeting, Lille, France)

## TRAINING

- 2009 **PhD of Life Science & Health, specialty Cellular and Molecular Biology** «Impact of the NGF receptors overexpression on breast cancer cells growth », *USTL, Lille, France*
- 2005 **MASTER 2 « Biology & Health »** with distinction, *USTL, Lille, France*
- 2004 **MASTER 1 « Genetic & Microbiology »** with distinction, *USTL, Lille, France*

## PUBLICATIONS

- E. Tomellini, Y. Touil, C. Lagadec, S. Julien, P. Ostyn, N. Ziental-Gelus, S. Meignan, J. Lengrand, E. Adriaenssens, E. Polakowska, X. Le Bourhis. **NGF and proNGF simultaneously promote symmetric self-renewal, quiescence and EMT to enlarge the breast cancer stem cell compartment.** *Stem Cells* (2014).
- P. Leblond, E. Boulet, C. Bal-Mahieu, A. Pillon, A. Kruczynski, N. Guilbaud, C. Bailly, T. Sarrazin, E. Lartigau, A. Lansiaux, S. Meignan. **Activity of the anti-cancer drug F14512 against pediatric glioma and neuroblastoma cell lines.** *Investigational New Drugs* (2014)
- B. Rysman, F. Mouawad, A. Gros, D. Chevalier, S. Meignan. **HER3 receptor, a key role in head and neck squamous cell carcinomas: a review.** *Head and Neck, under review.*
- F. Mouawad, A. Gros, B. Rysman, C. Bal-Mahieu, C. Bertheau, S. Horn, T. Sarrazin, E. Lartigau, D. Chevalier, C. Bailly, A. Lansiaux, S. Meignan. **The antitumor drug F14512 enhances cisplatin and ionizing radiation effects in head and neck squamous carcinoma cell lines.** *Oral Oncol* (2014).
- S. Verbeke, E. Tomellini, F. Dhamani, S. Meignan, E. Adriaenssens, X. Le Bourhis. **Extracellular cleavage of the p75 neurotrophin receptor is implicated in its pro-survival effect in breast cancer cells.** *FEBS Lett* (2013).
- P. Leblond, A. Dewitte, F. Le Tinier, C. Bal-Mahieu, M. Baroncini, T. Sarrazin, A. Lansiaux, S. Meignan. **Cilengitide targets more efficiently pediatric than adult glioma cells in vitro through cell detachment and anoikis induction.** *Anticancer Drugs* (2013).
- T. Rogez-Florent, S. Meignan, C. Foulon, P. Six, A. Gros, C. Supuran, A. Scozzafava, R. Frédérick, B. Masereel, P. Depreux, A. Lansiaux, J.F. Goossens, S. Gluszk, L. Goossens. **New selective carbonic anhydrase IX inhibitors: Synthesis and pharmacology evaluation of diarylpyrazole-benzenesulfonamides.** *Bioorg Med Chem* (2013).
- P. Leblond, S. Meignan, F. Le Tinier, U. Bethe, A. Lansiaux. **The inhibitor of integrins Cilengitide: a new active drug in neuro-oncology.** *Bull Cancer* (2011).
- E. Vanhecke, E. Adriaenssens, S. Verbeke, S. Meignan, E. Germain, N. Berteaux, V. Nurcombe, X. Le Bourhis, H. Hondermarck. **Brain-Derived Neurotrophic Factor and Neurotrophin-4/5 are Expressed in Breast Cancer and Can Be Targeted to Inhibit Tumor Cell Survival.** *Clinical Cancer Research* (2011).
- C. Lagadec, Romon R., C. Tastet, S. Meignan, E. Com, A. Page, G. Bideaux, H. Hondermarck, X. Le Bourhis. **Ku86 is important for TrkA overexpression-induced breast cancer cell invasion.** *Proteomics Clinical Applications* (2010).
- S. Meignan\*, S. Verbeke\*, C. Lagadec, E. Germain, H. Hondermarck, E. Adriaenssens, X. Le Bourhis. **Overexpression of p75<sup>NTR</sup> increases survival of breast cancer cells through p21<sup>waf1</sup>.** *Cellular Signalling* (2010).
- S. Meignan\*, C. Lagadec\*, E. Adriaenssens, E. Vanhecke, R. Romon, R.A. Toillon, B. Oxombre, H. Hondermarck, X. Le Bourhis. **TrkA overexpression promotes growth and metastasis of breast cancer cells.** *Oncogene* (2009).

(\*) Co-first authors

## COMMUNICATIONS

- A. Tiphaine, F. Vasseur, C. Bal-Mahieu, P. Leblond, S. Meignan, **Mise en place d'un modèle d'identification et de suivi de CSC dans les gliomes de haut grade pédiatriques**, 7<sup>th</sup> Cancéropole Nord-Ouest Days, 2014, Deauville, France (Poster)
- B. Rysman, A. Gros, M. Arcicasa, F. Mouawad, D. Chevalier, S. Meignan, **Impact of HER3 inhibition in HNSCC cells resistant to Cetuximab**, ECHNO Congress 2014, Liverpool, UK (Poster)
- S. Meignan, F. Mouawad, A. Dewitte, C. Bertheau, N. Watzet, E. Lartigau, D. Chevalier, C. Bailly, A. Lansiaux. **Polyamine Transport System activity and hijacking in cancer cells: New option in Head and Neck tumors treatment with the polyamine-containing drug candidate F14512**, EORTC-NCI-ASCO meeting, 2011, Brussel, Belgium and AACR 103<sup>rd</sup> annual meeting, 2012, Chicago, USA (Poster)
- F. Mouawad, S. Meignan, A. Dewitte, A. Gros, C. Bertheau, N. Watzet, E. Lartigau, D. Chevalier, C. Bailly, A. Lansiaux. **Evaluation of the PTS-targeted topoisomerase II inhibitor F14512 with representative Head and Neck Squamous Cancer Cell lines**, 5<sup>th</sup> European Conference on Head & Neck Oncology, 2012, Poznań, Poland (Best oral presentation award)
- F. Mouawad, S. Meignan, A. Dewitte, C. Bertheau, N. Watzet, E. Lartigau, D. Chevalier, C. Bailly, A. Lansiaux. **Evaluation du F14512 sur des lignées cancéreuses des voies aérodigestives supérieures.** Société française de chirurgie oncologique, 2011, Nancy, France (Best oral presentation award)
- S. Meignan, P. Leblond, A. Dewitte, N. Watzet, E. Lartigau, A. Lansiaux. **Cilengitide targets more efficiently pediatric than adult glioma cells in vitro through cell detachment and anoikis induction**, SFCE Congress, 2011, Lille, France and AACR 102<sup>nd</sup> annual meeting, 2011, Orlando, USA (Poster)
- P. Leblond, S. Meignan, F. Le Tinier, A. Dewitte, N. Watzet, E. Lartigau, A. Lansiaux. **Effects of radiation-induced  $\alpha v \beta 3$  integrin modulation on Cilengitide efficiency in pediatric glioma cells in vitro**, ESTRO Congress, 2011, London, UK (Poster)
- P. Leblond, S. Meignan, F. Le Tinier, A. Dewitte, N. Watzet, E. Lartigau, A. Lansiaux. **Impact de la surexpression radioinduite de l'intégrine  $\alpha v \beta 3$  sur l'efficacité du Cilengitide dans les lignées cellulaires de gliome pédiatriques**, SFCE Congress, 2011, Lille, France (Poster)
- F. Le Tinier, S. Meignan, P. Leblond, D. Dewitte, N. Watzet, E. Lartigau, A. Lansiaux. **Etude des effets d'un nouvel inhibiteur d'intégrines et de son association avec la radiothérapie sur des lignées de gliomes pédiatriques**, SFRO Congress, 2011, Paris, France (Poster)
- S. Meignan, C. Borrego, A. Lemoine, A. Dewitte, J.-P. Bonte, P. Depreux, L. Goossens, J.-F. Goossens, A. Lansiaux. **Potentialisation de l'activité des agents anticancéreux à caractère basique par l'utilisation d'inhibiteurs d'AC IX: Perspectives dans le traitement des cancers colorectaux**, 13<sup>th</sup> GPCO Days, 2010, Nîmes, France (Best oral presentation award)
- S. Meignan, P. Leblond, A. Dewitte, N. Watzet, A. Lansiaux. **Le Cilengitide, inhibiteur des intégrines  $\alpha v \beta 3$  et  $\alpha v \beta 5$  cible plus efficacement les gliomes pédiatriques que les gliomes de l'adulte par détachement cellulaire et induction de l'anoikis**, 13<sup>th</sup> GPCO Day, 2010, Nîmes, France (Poster)