

## **CAMBIEN Béatrice**

Née le 12 Mai 1974

Française

Email: Béatrice.CAMBIEN@univ-cotedazur.fr

ORCID: 0000-0002-6914-0525

## **Fonction actuelle**

Depuis 01/01/2009 : Chargée de recherche 1ère classe (CR1 INSERM) puis CRCN, UMR E4320, « Transporters in Imaging Radiotherapy and Oncology », Université Nice Côte d'Azur, Nice, France

## **Cursus**

1992 : Baccalauréat Section C

2000 : Doctorat de l'Université de Nice Sophia Antipolis, spécialité physiologie

2021 : Habilitation à Diriger la Recherche (HDR), Université Nice Côte d'azur

## **Expérience en Recherche**

2009-24 : Chargée de recherche (CR1-CRCN INSERM), UMR E4320 Nice (Transporters in Imaging Radiotherapy and Oncology)

2005-09 : Chargée de Recherche (CR2 INSERM), INSERM U576, Nice

2003-05 : Chercheur post-doctorant, INSERM U638, Nice.

2001-03 : Chercheur post-doctorant, Harvard Medical School, USA.

1997-00 : Doctorante, INSERM U638, Nice.

## **Expertise et Animation**

2016-> aujourd'hui : Membre du comité d'éthique CIEPAL-Azur 28

2017-> aujourd'hui : Membre du conseil d'administration de la Société Française de Biologie des Radiations (SFBR)

2018-> aujourd'hui : Membre du comité de pilotage de la Fédération de recherche azurienne Claude Lalanne, Université Côte d'Azur

2021-> aujourd'hui : Secrétaire et membre du CA de la Société Française de Biologie des Radiations (SFBR)

2023-> aujourd'hui : Co-directrice de la Fédération de recherche azurienne Claude Lalanne, Université Côte d'Azur

2023-> aujourd'hui : Responsable de la plateforme d'imagerie SPECT/CT (PEMED, site Pasteur, Nice)

### **Membre du comité d'organisation de 6 congrès internationaux :**

Congrès SFBR (2017, 2020, 2022, 2024) ; Congrès Fédération Claude Lalanne (2018, 2022)

### **Direction de projets**

2023-26: AAP Inserm Aviesan RadioMagnet

2023-24 : Programme Hubert Curien SAKURA Japon

2022-23 : Transgene/SATT Maturation « Vaccinia »

2020-21 : Programme AUF-Prisa Canada/Colombie

2018-2020 : Conseil général 06 : BioProton

2018-19 : Programme Erasmus Madrid

2016-2018 : CEA-PTTox

2014-17 : INCa DogOncoVir 2

2011-14 : INCa DogOncoVir 1

2005-08 : ARC

2003-05 : ARC

### **Valorisation économique**

2 dépôts de brevet : (EP17 305520.3, 2019) (EP2018/061576, 2018)

1 projet de maturation: SATT-Transgène "Vaccinia" (2022-2023)

### **Organisation d'enseignement**

- Winterschool Columbia university, 2021 + 2022
- Licence GBHQ, Université Côte d'azur : depuis 2021

### **Publications**

[1] Castillo-Rivera F, Ondo-Méndez A, Guglielmi J, Guignon JM, Jing L, Lindenthal S, Gonzalez A, López D, Cambien B, Pourcher T. Tumor microenvironment affects exogenous sodium/iodide symporter expression. Transl Oncol. 2021;14(1):100937. doi: 10.1016/j.tranon.2020.100937.

[2] . How Do Surface Properties of Nanoparticles Influence Their Diffusion in the Extracellular Matrix? A Model Study in Matrigel Using Polymer-Grafted Nanoparticles. M Le Goas, F Testard, O Taché, N Debou, B Cambien, G Carrot, JP Renault. Langmuir 2020, 36, 35, 10460–10470. doi : 10.1021/acs.langmuir.0c01624.

- [3] Identification of oncolytic vaccinia restriction factors in canine high-grade mammary tumor cells using single-cell transcriptomics. B Cambien, K Lebrigand, A Baeri, N Nottet, C Compin, A Lamit, O Ferraris, C N Peyrefitte, V Magnone, J Henriques, L-E Zaragosi, S Giorgetti Peraldi, F Bost, M Gautier-Isola, R Rezzonico, P Barbry, R Barthel, B Mari, G Vassaux. *PLOS Pathogens*. doi: 10.1101/2020.05.29.123133
- [4] . Proteomic analysis of iodinated contrast agent-induced perturbation of thyroid iodide uptake. M Hichri, G Vassaux, JM Guigonis, T Juhel, F Graslin, J Guglielmi, T Pourcher and B Cambien. *Journal of Clinical Medicine*, 2020;9(2). pii: E329. doi: 10.3390/jcm9020329.
- [5] . Magnetosomes are efficient tumor radioenhancers for X-rays and proton-activatable nanoparticles for particle therapy. Hafsi M, S.Preveral., C Hoog, J Hérault, G Adryanczyk Perrier, C T Lefèvre, H Michel, D Pignol, J Doyen, T Pourcher, O Humbert, J Thariat and B Cambien. *Nanomedicine, Nanotechnology, Biology and Medicine*.2020. doi: 10.1016/j.nano.2019.102084.
- [6] - Improving <sup>131</sup>I radioiodine therapy by hybrid polymer-grafted gold nanoparticles. Le Goas M, M.Paquet., A Paquirissamy , J Guglielmi, C Compin, J Thariat, G Vassaux, V Geertsens, O Humbert, JP Renault, G Carrot , T Pourcher and B Cambien. *Int J Nanomedicine*. 2019; doi.org/10.2147/IJN.S211496.
- [7] . Irradiation Effects on Polymer-Grafted Gold Nanoparticles for Cancer Therapy. Le Goas, M. P., A; Gargouri, D; Fadda, G; Testard, F; Aymes-Chodur, C; Jubeli, E; Cambien, B; Pourcher, T; Palacin, S; Renault, JP; Carrot, G. *ACS Applied Bio Materials* DOI:10.1021/acsabm.8b00484.3.
- [8] . Iodinated contrast agents perturb iodide uptake by the thyroid independently of free iodide. Vassaux G, Zwarthoed C, Signetti L, Guglielmi J, Compin C, Guigonis JM, Juhel T, Humbert O, Benisvy D, Pourcher T, Cambien B (2018). *J. Nucl. Med*, 59:121-126.
- [9] . Single-Photon Emission Computed Tomography for Preclinical Assessment of Thyroid Radioiodide Uptake Following Various Combinations of Preparative Measures. Zwarthoed C, Chatti K, Guglielmi J, Hichri M, Compin C, Darcourt J, Vassaux G, Benisvy D, Pourcher T and Cambien B. *Thyroid*. 2016; 26(11):1614-1622.
- [10] Evaluation of tetrafunctional block copolymers as synthetic vectors for lung gene transfer. Richard-Fiardo P, Hervouet C, Marsault R, Franken PR, Cambien B, Guglielmi J, Warnez Soulie J, Darcourt J, Pourcher T, Colombani T, Haudebourg T, Peuziat P, Pitard B, Vassaux G. *Biomaterials*. 2015;45:10-7. doi: 10.1016/j.biomaterials.2014.12.051.
- [11] <sup>99m</sup>TcO<sub>4</sub><sup>-</sup>, auger-mediated thyroid stunning dosimetric requirements and associated molecular events. Cambien B, Franken PR, Lamit A, Mauxion T, Richard-Fiardo P, Guglielmi J, Crescence L, Mari B, Pourcher T, Darcourt J, Bardiès M, Vassaux G. *PLoS One*. 2014 ;9(3): e92729.
- [12] - Normalization to blood activity is required for the accurate quantification of Na/I symporter ectopic expression by SPECT/CT in individual subjects. Richard-Fiardo P, Franken PR, Lamit A, Marsault R, Guglielmi J, Cambien B, Graslin F, Lindenthal S, Darcourt J, Pourcher T, Vassaux G. *PLoS One*. 2012;7(3):e34086. doi: 10.1371/journal.pone.0034086.
- [13] Effect of fractalkine-Fc delivery in experimental lung metastasis using DNA/704 nanospheres. Richard-Fiardo P, Cambien B, Pradelli E, Beilvert F, Pitard B, Schmid Antomarchi H, Schmid-Alliana A. *Cancer Gene Ther*. 2011 Nov;18(11):761-72. doi: 10.1038/cgt.2011.42.
- [14] - CCL5 neutralization restricts cancer growth and potentiates the targeting of PDGFR $\beta$  in colorectal carcinoma. Cambien B, Richard-Fiardo P, Karimjee BF, Martini V, Ferrua B, Pitard B, Schmid-Antomarchi H, Schmid-Alliana A. *PLoS One*. 2011;6(12):e28842. doi: 10.1371/journal.pone.0028842.
- [15] - Cambien B, Karimjee BF, Richard-Fiardo P, Bziouech H, Barthel R, Millet MA, Martini V, Birnbaum D, Scoazec JY, Abello J, Al Saati T, Johnson MG, Sullivan TJ, Medina JC, Collins TL, Schmid-Alliana A, Schmid-Antomarchi H. Organ-specific inhibition of metastatic colon Contacts : DESP : evaluation.desp@inserm.fr DRH : eval-chercheurs.drh@inserm.fr 101, rue de Tolbiac 75654 Paris cedex 13 Tél. +33 (0)1 44 23 60 00 Page 11 sur 13 carcinoma by CXCR3 antagonism. *Br J Cancer*. 2009;100(11):1755-64. doi: 10.1038/sj.bjc.6605078.

- [16] - Silencing of hSlo potassium channels in human osteosarcoma cells promotes tumorigenesis. Cambien B, Rezzonico R, Vitale S, Rouzaire-Dubois B, Dubois JM, Barthel R, Soilihi BK, Mograbi B, Schmid-Alliana A, Schmid-Antomarchi H. *Int J Cancer*. 2008;123(2):365-371. doi: 10.1002/ijc.23511.
- [17] - Vitale S, Cambien B, Karimjee BF, Barthel R, Staccini P, Luci C, Breittmayer V, Anjuère F, Schmid-Alliana A, Schmid-Antomarchi H. Tissue-specific differential antitumour effect of molecular forms of fractalkine in a mouse model of metastatic colon cancer. *Gut*. 2007;56(3):365-72.
- [18] - Decreased plasma fibronectin leads to delayed thrombus growth in injured arterioles. Matuskova J, Chauhan AK, Cambien B, Astrof S, Dole VS, Piffath CL, Hynes RO, Wagner DD. *Arterioscler Thromb Vasc Biol*. 2006;26(6):1391-6.
- [19] - Antithrombotic activity of TNF- $\alpha$ . Cambien B, Bergmeier W, Saffaripour S, Mitchell HA, Wagner DD. *J Clin Invest*. 2003;112(10):1589-96.
- [20] - Nitric oxide regulates exocytosis by S-nitrosylation of N-ethylmaleimide-sensitive factor. Matsushita K, Morrell CN, Cambien B, Yang SX, Yamakuchi M, Bao C, Hara MR, Quick RA, Cao W, O'Rourke B, Lowenstein JM, Pevsner J, Wagner DD, Lowenstein CJ. *Cell*. 2003;115(2):139-50.
- [21] - Interaction of P-selectin and PSGL-1 generates microparticles that correct hemostasis in a mouse model of hemophilia A. Hrachovinová I, Cambien B, Hafezi-Moghadam A, Kappelmayer J, Camphausen RT, Widom A, Xia L, Kazazian HH Jr, Schaub RG, McEver RP, Wagner DD. *Nat Med*. 2003;9(8):1020-5.
- [22] - Cambien B., Pomeranz M., Schmid-Antomarchi H., Breittmayer V., Millet M.A., Rossi B., Schmid-Alliana A. Signal transduction pathways involved in soluble fractalkine-induced monocytic cell adhesion. *Blood* 2001, 97, 2031-2037.
- [23] - Cambien B, Pomeranz M, Millet MA, Rossi B, Schmid-Alliana A. *Blood*. 2001, 15;97(2):359-66. Signal transduction involved in MCP-1-mediated monocytic transendothelial migration.
- [24] Protein kinase activation by warm and cold hypoxia- reoxygenation in primary- cultured rat hepatocytes- JNK(1)/SAPK(1) involvement in apoptosis.- Crenesse D, Gugenheim J, Hornoy J, Tornieri K, Laurens M, Cambien B, Lenegrat G, Cursio R, De Souza G, Auberger P, Heurteaux C, Rossi B, Schmid-Alliana A. . *Hepatology*. 2000 ;32(5):1029-36.
- [25] Src-regulated extracellular signal-related kinase and Syk-regulated c-Jun N-terminal kinase pathways act in conjunction to induce IL-1 synthesis in response to microtubule disruption in HL60 cells.- Cambien B, Millet MA, Schmid-Antomarchi H, Brossette N, Rossi B, Schmid- Alliana A. *J Immunol*. 1999; 163(9):5079-85.