

Fabien Campagne, Ph.D.

## Professional Preparation

Grenoble I, Joseph Fourier University, France	Chemistry	B.Sc. 1993
Grenoble I, Joseph Fourier University, France	Chemistry	M.Sc. 1994
Nancy I, Henri Poincare University, France	Computational & Theoretical Chemistry	Diplome d'Etudes Approfondies 1995
Nancy I, Henri Poincare University, France	Computational & Theoretical Chemistry	Ph.D. 1998
Mount Sinai School of Medicine, New York	Bioinformatics	1998-2000

## Appointments

2014-present	<b>Academic Editor.</b> PeerJ, PeerJ Computer Science.
2000-2003	<b>Instructor,</b> Institute for Computational Biomedicine, Mount Sinai School of Medicine, New York, NY
2007-present	<b>Associate Director,</b> Biomedical Informatics Core, Clinical Translational Science Center (CTSC). Weill Cornell Medical College, New York, NY. <b>Research Assistant Professor,</b> Department of Physiology and Biophysics;
2003-2006	<b>Director,</b> Computational Genomics Core Facility. Weill Cornell Medical College, New York, NY. <b>Assistant Professor,</b> Department of Physiology and Biophysics;

## Publications (selected from 50 publications)

1. Torracinta, R., Mesnard, L., Levine, S., Shaknovich, R., Hanson, M. and Campagne, F., 2016. Adaptive Somatic Mutations Calls with Deep Learning and Semi-Simulated Data. bioRxiv, p.079087.[PREPRINT]
2. A mouse model of hereditary hemorrhagic telangiectasia generated by transmammary-delivered immunoblocking of BMP9 and BMP10 Santiago Ruiz, Haitian Zhao, Pallavi Chandakkar, Prodyot Chatterjee, Lionel Blanc, Christine Metz, Fabien Campagne, Philippe Marambaud
3. Exome Sequencing and Prediction of Long-Term Kidney Allograft Function. Mesnard L, Muthukumar T, Burbach M, Li C, Shang H, Dadhania D, Lee JR, Sharma VK, Xiang J, Suberbielle C, Carmagnat M, Ouali N, Rondeau E, Friedewald JJ, Abecassis MM, Suthanthiran M, Campagne F. PLoS Comput Biol. 2016 Sep 29;12(9):e1005088. doi: 10.1371/journal.pcbi.1005088. eCollection 2016 Sep.
4. Language workbench user interfaces for data analysis. Benson VM, Campagne F\*. PeerJ. 2015 Feb 24;3:e800. doi: 10.7717/peerj.800. eCollection 2015. PMID: 25755929 (Victoria Benson was a summer intern in the lab, summer 2014).
5. The MicroArray Quality Control (MAQC)-II study of common practices for the development and validation of microarray-based predictive models. Shi L, Campbell G, Jones WD, Campagne F, Wen Z, Walker SJ, Su Z, Chu TM, Goodsaid FM, Puztai L, Shaughnessy JD Jr, Oberthuer A, Thomas RS, Paules RS, Fielden M, Barlogie B, Chen W, Du P, Fischer M, Furlanello C, Gallas BD, Ge X, Megherbi DB, Symmans WF, Wang MD, Zhang J, Bitter H, Brors B, Bushel PR, Bylesjo M, Chen M, Cheng J, Cheng J, Chou J, Davison TS, Delorenzi M, Deng Y, Devanarayan V, Dix DJ, Dopazo J, Dorff KC, Elloumi F, Fan J, Fan S, Fan X, Fang H, Gonzaludo N, Hess KR, Hong H, Huan J, Irizarry RA, Judson R, Juraeva D, Lababidi S, Lambert CG, Li L, Li Y, Li Z, Lin SM, Liu G, Lobenhofer EK, Luo J, Luo W, McCall MN, Nikolsky Y, Pennello GA, Perkins RG, Philip R, Popovici V, Price ND, Qian F, Scherer A, Shi T, Shi W, Sung J, Thierry-Mieg D, Thierry-Mieg J, Thodima V, Trygg J, Vishnuvajjala L, Wang SJ, Wu J, Wu Y, Xie Q, Yousef WA, Zhang L, Zhang X, Zhong S, Zhou Y, Zhu S, Arasappan D, Bao W, Lucas AB, Berthold F, Brennan RJ, Bunes A, Catalano JG, Chang C, Chen R, Cheng Y, Cui J, Czika W, Demichelis F, Deng X, Dosymbekov D, Eils R, Feng Y, Fostel J, Fulmer-Smentek S, Fuscoe JC, Gatto L, Ge W, Goldstein DR, Guo L, Halbert DN, Han J, Harris SC, Hatzis C, Herman D, Huang J, Jensen RV, Jiang R, Johnson CD, Jurman G, Kahlert Y, Khuder SA, Kohl M, Li J, Li L, Li M, Li QZ, Li S, Li Z, Liu J, Liu Y, Liu Z, Meng L, Madera M, Martinez-

## Biographical Sketch

- Murillo F, Medina I, Meehan J, Miclaus K, Moffitt RA, Montaner D, Mukherjee P, Mulligan GJ, Neville P, Nikolskaya T, Ning B, Page GP, Parker J, Parry RM, Peng X, Peterson RL, Phan JH, Quanz B, Ren Y, Riccadonna S, Roter AH, Samuelson FW, Schumacher MM, Shambaugh JD, Shi Q, Shippy R, Si S, Smalter A, Sotiriou C, Soukup M, Staedtler F, Steiner G, Stokes TH, Sun Q, Tan PY, Tang R, Tezak Z, Thorn B, Tsyganova M, Turpaz Y, Vega SC, Visintainer R, von Frese J, Wang C, Wang E, Wang J, Wang W, Westermann F, Willey JC, Woods M, Wu S, Xiao N, Xu J, Xu L, Yang L, Zeng X, Zhang J, Zhang L, Zhang M, Zhao C, Puri RK, Scherf U, Tong W, Wolfinger RD; MAQC Consortium. *Nat Biotechnol.* 2010 Aug;28(8):827-38. doi: 10.1038/nbt.1665. Epub 2010 Jul 30. PMID: 20676074
6. Discovery and validation of urine markers of acute pediatric appendicitis using high-accuracy mass spectrometry. Kentsis A, Lin YY, Kurek K, Calicchio M, Wang YY, Monigatti F, Campagne F, Lee R, Horwitz B, Steen H, Bachur R. *Ann Emerg Med.* 2010 Jan;55(1):62-70.e4. doi: 10.1016/j.annemergmed.2009.04.020.
  7. Introduction to the development and validation of predictive biomarker models from high-throughput data sets. Deng X, Campagne F. *Methods Mol Biol.* 2010;620:435-70. doi: 10.1007/978-1-60761-580-4\_15.
  8. GobyWeb: simplified management and analysis of gene expression and DNA methylation sequencing data. Dorff KC, Chambwe N, Zeno Z, Simi M, Shaknovich R, Campagne F\*. *PLoS One.* 2013 Jul 23;8(7):e69666. doi: 10.1371/journal.pone.0069666. Print 2013. PMID: 23936070. (Nyasha Chambwe was a graduate student in the lab. Zachary Zeno was a summer intern in the lab, summer 2012).
  9. Whole-Exome Sequencing of Metastatic Cancer and Biomarkers of Treatment Response. Beltran H, Eng K, Mosquera JM, Sigaras A, Romanel A, Rennert H, Kossai M, Pauli C, Faltas B, Fontugne J, Park K, Banfelder J, Prandi D, Madhukar N, Zhang T, Padilla J, Greco N, McNary TJ, Herrscher E, Wilkes D, MacDonald TY, Xue H, Vacic V, Emde AK, Oswald D, Tan AY, Chen Z, Collins C, Gleave ME, Wang Y, Chakravarty D, Schiffman M, Kim R, Campagne F, Robinson BD, Nanus DM, Tagawa ST, Xiang JZ, Smogorzewska A, Demichelis F, Rickman DS, Sboner A, Elemento O, Rubin MA. *JAMA Oncol.* 2015 Jul 1;1(4):466-74. doi: 10.1001/jamaoncol.2015.1313. PMID: 26181256
  10. Ute Drees-Werringloer, Jean-Charles Lambert, Valérie Vingtdoux, Haitian Zhao, Horia Vais, Adam Siebert, Ankit Jain, Jeremy Koppel, Anne Rovelet-Lecrux, Didier Hannequin, Florence Pasquier, Daniela Galimberti, Elio Scarpini, David Mann, Corinne Lendon, Dominique Campion, Philippe Amouyel, Peter Davies, J. Kevin Foskett, Fabien Campagne\*, and Philippe Marambaud\*. A polymorphism in CALHM1 influences Ca<sup>2+</sup> homeostasis, A $\beta$  levels, and Alzheimer's disease risk. *Cell,* 2008 Jun 27;133(7):1149-61.
  11. Variability in DNA methylation defines novel epigenetic subgroups of DLBCL associated with different clinical outcomes. Chambwe N, Kormaksson M, Geng H, De S, Michor F, Johnson NA, Morin RD, Scott DW, Godley LA, Gascoyne RD, Melnick A, Campagne F\*, Shaknovich R\*. *Blood.* 2014 Mar 13;123(11):1699-708. doi: 10.1182/blood-2013-07-509885. Epub 2014 Jan 2. PMID: 24385541
  12. DNA methylation signatures identify biologically distinct subtypes in acute myeloid leukemia. Figueroa ME, Lugthart S, Li Y, Erpelinck-Verschueren C, Deng X, Christos PJ, Schifano E, Booth J, van Putten W, Skrabanek L, Campagne F, Mazumdar M, Grealley JM, Valk PJ, Löwenberg B, Delwel R, Melnick A. *Cancer Cell.* 2010 Jan 19;17(1):13-27. doi: 10.1016/j.ccr.2009.11.020.

(\* ) Indicates corresponding author, or co-corresponding of a manuscript.

## Synergistic Activities

Development and/or refinement of research tools; computation methodologies, and algorithms for problem-solving in biomedicine. Dr. Campagne has developed a number of bioinformatics research tools widely used in the biomedical community. Selected research tools developed include Viseur, TissueInfo, RbDe, RbDg, BDVal, Goby, GobyWeb, NextflowWorkbench, MetaR.

Peer-review Activities. Dr. Campagne frequently peer-reviews for scientific journals (e.g., *Bioinformatics*, *BMC Bioinformatics*, *Transplantation*), conferences (e.g., BOSC, PSB) and funding agencies (including NSF and NIH).

## Biographical Sketch