

Sonia-Vanina Forcales Fernandez

Associate Investigator, IGTP

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Education/Training:

- March 16th 2001** **Ph.D in Immunology and Molecular Biology.**
Thesis title "Characterization of the expression of the gene ACII".
Physiology Department, School of Biology University of Barcelona.
- 1994-1995** **Course in "General aspects of basic research in breast cancer".**
Autonomous University of Barcelona, Hospital de la Vall d'Hebrón.
- June 1995** **BSc. Biology.** University of Barcelona. Specialized in Molecular Biology.

Professional/ Research experience:

- **March 2017- Present** **Assistant Professor of Immunology** at the Department of Physiology and Experimental Therapeutics, Faculty of Medicine, University of Barcelona, Campus Bellvitge.
- **October 2010- Present** **Associate Investigator** at the Institute for Predictive and Personalized Medicine of Cancer (IMPPC) now Health Research Institute Germans Trias i Pujol (IGTP). Role of chromatin remodelers and pericentromeric ncRNA in colon cancer.
- **February 2006- September 2010** **Postdoctoral fellow** at the Sanford Burnham Medical Research Institute. La Jolla, California in the group of Dr. Puri. Study of the role of BAF60c, a SWI/SNF chromatin remodeling complex subunit, in embryonic stem cell myogenic commitment.
- **January 2005- December 2005** **Telethon Postdoctoral Fellow** at the Scientific Park of Rome, San Raffaele. Study of the mechanism linking extracellular-signal activated transduction pathways, p38 and p13K, and chromatin modifications at muscle loci.
- **November 2004-December 2004** **Visiting postdoc** at Dr. Dilworth laboratory at the Ottawa Hospital Research Institute. *In vitro* MyoD-dependent transcription with chromatinized templates.
- **January 2003- December 2004** **Marie Curie Postdoctoral Fellow**, at the Biomedic Scientific Park of Rome. Study of the regulation of muscle gene expression at the level of transcription. Identification of pharmacological targets for enhancing muscle gene expression and regeneration.
- **January 2002- December 2002** **Postdoc** at Fondazione Telethon. Gene Expression Laboratory at the "I Clinica Medica, Policlinico Umberto I, Università La Sapienza", Rome, Italy. MyoD-mediated transcription in muscle progenitors.
- **October-December 1998** **Visiting PhD student** at the **Terryfox Laboratories** in **Vancouver**, Canada. Learning Gene Therapy techniques by retroviral vectors and bone marrow transplantation.
- **July 1995-March 2001** **phD student** in the **Immunology group** of the Faculty of Biology at the University of Barcelona. Characterization of the structure and expression of a gene involved in the control of MHC class II gene expression.

Selected Publications

H-index: 11

Citations: 1178 by 964 documents

27 publications:

Sum total Impact Factor: 194

- Dumbovic G, Biayna J, Banus J, Samuelsson JK, Roth A, Diederichs S, Alonso S, Perucho M, **Forcales SV**. A novel lncRNA from NBL2 pericentromeric macrosatellite forms a perinucleolar aggregate structure in colon cancer. *Nucleic Acids Research*. 2018 Jun20;46(11):5504-5524
- Dumbovic G, **Forcales SV**, Perucho M. Emerging roles of macrosatellite repeats in genome organization and disease development. *Epigenetics*. 2017 Jul 3;12(7):515-526. doi: 10.1080/15592294.2017.1318235.
- **Forcales SV**. Potential of adipose-derived stem cells in muscular regenerative therapies. *Front Aging Neurosci*. 2015, Jul 13;7:123.
- Albini S, Coutinho P, Malecova B, Giordani L, Savchenko A, **Forcales SV**, Puri PL. “Epigenetic reprogramming of human embryonic stem cells into skeletal muscle cells and generation of contractile myospheres”. *Cell Rep*. 2013, Mar 28;3(3):661-70.
- Kim C, Wong J, Wen J, Wang S, Wang C, Spiering S, Kan NG, **Forcales S**, Puri PL, Leone TC, Marine JE, Calkins H, Kelly DP, Judge DP, Chen HS. “Studying arrhythmogenic right ventricular dysplasia with patient-specific iPSCs”. *Nature*. 2013, Feb 7;494(7435):105-10.
- **Forcales SV**, Albini S, Giordani L, Malecova B, Cignolo L, Chernov AV, Coutinho P, Saccone V, Consalvi S, Williams R, Wang K, Wu Z, Baranovskaya S, Miller A, Dilworth FJ, Puri PL. “Signal-dependent incorporation of MyoD-BAF60c into Brg1-based SWI/SNF chromatin-remodeling complex”. *EMBO J*. 2012, Jan 18;31(2):301-16.
- **Forcales SV**. and Puri P.L.P “Novel pharmacological strategies to manipulate skeletal myogenesis”. *Seminars in Cell & Developmental Biology*. 2005, Vol.16, issues 4-5: 596-611.
- Simone C*, **Forcales SV***, Hill DA, Imbalzano AN, Latella L, Puri PL “p38 pathway targets SWI-SNF chromatin-remodeling complex to muscle-specific loci”. *Nature Genetics*. 2004, 36:738-43. * equal contribution. Commented in the same volume by MA Gillespie and M. Rudnicki “Something to SNF about”.

Grants, Awards and Fellowships

- **Spanish Ministry of Economy (MINECO)**, Instituto de Salud Carlos III, Excellence program. Project: “Biomarkers and combinatorial drug targets for a personalized therapy for three major cancers”. PIE16/00011. Co-PI. Coordinator M. Buschbeck. January 2017-December 2019. Awarded with **€483.000**.
 - **Fundació Olga Torres**. Project: “Identification of chromatin biomarkers for predicting and sensitizing response to current treatments in colorectal cancer”. January 2016-December 2017. Awarded **€60.000**.
 - **Marie Curie postdoctoral fellowship** (European Community). January 2003-December 2004.
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