CURRICULUM VITAE ET STUDIORUM

April 24, 2025

Personal data:

Family name: **Fotino**
First name: **Carmen R.**
Titles: **Ph.D.**

Nationality: [redacted]

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e-mail address: [redacted]

Professional and Research Experiences:

February 2023 – present: Peer review and research monitoring Manager at Fondazione Telethon

December 2020 – February 2023: ***Scientific Research Officer at Fondazione Telethon***

Oct 2020 – December 2020: **Alliance Manager at GENETHING** (Gene Therapy Consulting) S.r.l.

May 2018-May 2020: **Scientist at Juvenile Diabetes Research Foundation (JDRF) in the Immunotherapies Research Program**

- Goal-oriented team member focused on developing disease-modifying immune therapies (small molecules and/or biologics) that induce, restore, and maintain immune tolerance to cure, treat and prevent type 1 diabetes (T1D)
- Manage a drug development portfolio with an emphasis on projects related to the preclinical phase of novel immunotherapies
- Create and sustain trusted partnerships with academic investigators, global clinical trial consortia, pharmaceutical companies and regulatory stakeholders to execute translational scientific projects focused on prevention of T1D
- Manage a biomarker portfolio focused on discovery and validation of susceptibility and prognostic biomarkers for T1D to aid in the design clinical trials

January 2018-April 2018: **Assistant Scientist**, Department of Microbiology and Immunology, University of Miami Miller School of Medicine, Miami, FL, USA. Mentor: Thomas Malek, Ph.D.

May 2017-December2018: **Staff Scientist,** Diabetes & Metabolism Research Institute/Beckman Research Institute at the City of Hope. Mentor: Helena Reijonen, PhD.

Sep 2016- Apr 2017: **Visiting Scientist**, Department of Experimental Medicine, Section of Pathology at Ferrara University (Italy).

Nov 2015-Aug 2016: **Expert Collaborator**, Laboratoire de Bioénergétique Fondamentale et Appliquée, Université Grenoble Alpes, Grenoble, France. Mentor : Sandrine Lablanche, M.D.

May 2013-Nov 2015: **Assistant Scientist**, Diabetes Research Institute, University of Miami Miller School of Medicine, Miami, FL, USA. Mentor: Antonello Pileggi, M.D., Ph.D

March 2009 – Apr 2013: **Postdoctoral Fellow**, Diabetes Research Institute, University of Miami Miller School of Medicine, Miami, FL, USA. Mentor: Antonello Pileggi, M.D., Ph.D.

Sep 2008- Feb *2009:* **Research Fellowship**, Department of Endocrinology and Metabolism, University of Pisa, Italy. Project: "Role of adipocyte in the pathogenesis of insulin-resistance". Mentor: Prof. Stefano Del Prato, M.D., Ph.D.

Sep 2008- Dec 2008 **Instructor (Contract)**: "Molecular Pathology", Department of Pharmacy, Ferrara University, Italy.

2006- Aug 2008: **Research Fellowship**, Department of Endocrinology and Metabolism, University of Pisa, Italy. Project: "Definition of methods for the study of adiponectin polymorphism and adiponectin isoform". Mentor: Prof. Stefano Del Prato, M.D., Ph.D.

2005-2006: **Annual Fellowship**, Department of Endocrinology and Metabolism, University of Pisa, Italy. Project: "Effects of subclinical hypotiroidism on traditional markers of atherosclerosis". Mentor: Prof. Stefano Del Prato, M.D., Ph.D.

2004-2005: **Annual Fellowship**, Department of Endocrinology and Metabolism, University of Pisa, Italy. Project: "e-NOS gene polymorphism, endothelial dysfunction and metabolic syndrome in subjects with essential hypertension". Mentor: Prof. Stefano Del Prato, M.D., Ph.D.

Jan 2003- June 2004 **Semester Fellowship**, Department of Endocrinology and Metabolism, University of Pisa, Italy. Project: "Role of exosamine pathway on the e-NOS expression in human endothelial cells". Mentor: Prof. Stefano Del Prato, M.D., Ph.D.

2000-Oct 2002: **Undergraduate Student**, Department of Endocrinology and Metabolism, University of Pisa, Italy. Project: "Analysis of apo-E polymorphism, measurement of LDL-ox by ELISA, optimization of electrophoresis for LDL separation in patients with type 2 diabetes". Mentor: Prof. Stefano Del Prato, M.D., Ph.D

Education/Qualifications:

July 1994: High school Diploma

17 Oct. 2002: **Master Degree of Science,** with the thesis titled "*New cardiovascular risk factors as putative markers of progression of renal damage in a caucasian cohort of type 2 diabetic patients".* Faculty of Sciences, University of Pisa, Italy.

Dec. 2002: Italian National Board Licence, Biology Profession. University of Pisa, Italy.

May 2007: **PhD in Endocrinology and Metabolic Sciences**, University of Pisa, Italy.

Honors and Awards:

1. Finalist Biomedical Abstracts, Italian Scientists and Scholars of North America 2014, Washington, D.C., November 12-13, 2014
2. Finalist, 2014 Alan S. Livingstone, M.D. Research Award, University of Miami Miller School of Medicine, June 2014.
3. Postdoc Travel Fellowship, 2014 Federation of Clinical Immunology Societies (FOCIS) Advanced Course in Basic and Clinical Immunology. March 2014.
4. Recipient, **Targeted Donation** to the Diabetes Research Institute Foundation from Mrs. Lillian Redlich. Amount: $25,000. 2013.
5. Postdoc Travel Award**,** 12th Congress of the Cell Transplantation Society, Milan, Italy, July 7-11, 2013.

Technical experience:

- Good competences in cellular biology, preparation of primary cellular cultures and optimization of transfection protocols with different plasmids.
- Good competences in proteins analysis with SDS-PAGE electrophoresis, western blot, cellular protein fractionation and co-immunoprecipitation.
- Good competences in molecular biology: gel electrophoresis of nucleic acids and proteins, DNA and RNA extraction. Techniques to analyse polymorphism: Polymerase chain reaction, RFLP, SSCP, DGGE.
- Experience in digital fluorescence microscopy and confocal, image analysis.
- Immunoassays; Multicolor Flow Cytometry Analysis; T cell polarization (Th0/1/2/17); Mixed Lymphocyte Reaction (MLR); Suppression Assays; Antigen Presentation with peptide pulsed DCs; in vivo assays; Adoptive transfer experiments in rodents; in vivo MLR; Islet transplantation; Skin transplantation; Bone Marrow transplantation.

Informatics

Informatics platforms:

MacIntosh
MS-DOS
Windows
NT systems.

Software:

MS Office
GraphPad Prism
Endnote
Illustrator
ImageJ
Kaluza
FACSDiva

Languages:

Italian: mother language
English: fluent written and spoken language
French: school level

Peer Review:

Research Grants

2015: Ad hoc Reviewer, Italian Ministry of Health Scientific Grants
2013: Ad hoc Reviewer, Italian Ministry of Health Scientific Grants

Scientific Journals

Diabetes
Cell Transplant
J Transplant
Transplant Intl
Molecular and Cellular Endocrinology
Endocrine

Publications on Peer-Reviewed Scientific Journals:

1. **Fotino C**, Molano RD, Ben Nasr M, Umland O, Fraker CA, Ulissi U, Balasubramanian HB, Lunati ME, Usuelli V, Seelam AJ, Khalefa SA, La Sala C, Gimeno J, Mendez AJ, Ricordi C, Bayer AL, Fiorina P, Pileggi A. Reversal of Experimental Autoimmune Diabetes With an sCD39/Anti-CD3 Treatment. **Diabetes**, 2023.

2. Midhat H. Abdulreda. Damaris Molano, Gaetano Faleo, Maite Lopez-Cabezas, Alexander Shishido, Ulisse Ulissi, **Carmen Fotino**, Luis F. Hernandez, Ashley Tschiggfrie, Virginia R. Aldrich, Alejandro Tamayo-Garcia, Allison S. Bayer, Camillo Ricordi, Alejandro Caicedo, Peter Buchwald, Antonello Pileggi, Per-Olof Berggren. In vivo imaging of type 1 diabetes immunopathology using eye-transplanted islets in NOD mice. **Diabetologia**, 2019.

3. Tezza S, Ben Nasr M, D'Addio F, Vergani A, Usuelli V, Falzoni S, Bassi R, Dellepiane S, **Fotino C**, Rossi C, Maestroni A, Solini A, Corradi D, Giani E, Mameli C, Bertuzzi F, Pezzolesi MG, Wasserfall CH, Atkinson MA, Füchtbauer EM, Ricordi C, Folli F, Di Virgilio F, Pileggi A, Dhe-Paganon S, Zuccotti GV, Fiorina P. Islet-Derived eATP Fuels Autoreactive CD8+ T Cells and Facilitates the Onset of Type 1 Diabetes. **Diabetes**. 2018

4. **Fotino C**, Dal Ben D, Adinolfi E. Emerging Roles of Purinergic Signaling in Diabetes. **Med Chem**. 2018.

5. Dwyer CJ, Bayer AL, **Fotino C**, Yu L, Cabello-Kindelan C, Ward NC, Toomer KH, Chen Z, Malek TR. Altered homeostasis and development of regulatory T cell subsets represent an IL-2R-dependent risk for diabetes in NOD mice. **Sci Signal**. Dec 2017.

6. Giraldo JA, Molano RD, Rengifo HR, **Fotino C**, Gattás-Asfura KM, Pileggi A, Stabler CL. The impact of cell surface PEGylation and short-course immunotherapy on islet graft survival in an allogeneic murine model. **Acta Biomater**. Feb. 2017.

7. Berman DM**,** Molano RD, **Fotino C**, Ulissi U, Gimeno J, Mendez AJ, Kenyon NM, Kenyon NS, Andrews DM, Ricordi C, Pilegg A. Bioengineering the endocrine pancreas: intraomental islet transplantation within a biologic resorbable scaffold. ***Diabetes*** 2016 Feb 25.

8. Fotino N, **Fotino C**, Pileggi A. Re-engineering Islet Cell Transplantation. ***Pharmacol Res*.** 98:76-85;2015.

9. **Fotino C**, Vergani A, Fiorina P, Pileggi A. P2X receptors and diabetes. ***Curr Med Chem***. 22(7):891-901;2014

10. Liu K, Vergani A, Zhao P, Ben Nasr M, Wu X, Iken K, Jiang D, Su X, **Fotino C**, Fiorina P, Visner GA. Inhibition of the Purinergic Pathway Prolongs Mouse Lung Allograft Survival. ***Am J Respir Cell Mol Biol*** 51(2):300-10;2014.

11. Vergani A, Tezza S, **Fotino C**, Visner G, Pileggi A, Chandraker A, Fiorina P. The purinergic system in allotransplantation. ***Am J Transplant*** 14(3):507-14;2014.

12. Pileggi A, Klein D, **Fotino C**, Bravo-Egaña V, Rosero S, Doni M, Podetta M, Ricordi C, Molano RD, Pastori RL. MicroRNAs in islet immunobiology and transplantation. ***Immunol Res*** 57(1-3):185-96;2013.

13. **Fotino C**, Molano RD, Ricordi C, Pileggi A. Transdisciplinary approach to restore pancreatic islet function. ***Immunol Res*** 57(1-3):210-21;2013.

14. Vergani A**, Fotino C** , D'Addio F, Tezza S, Podetta M, Gatti F, Chin M, Bassi R, Molano RD, Corradi D, Gatti R, Ferrero ME, Secchi A, Grassi F, Ricordi C, Sayegh MH, Maffi P, Pileggi A, Fiorina P. Effect of the Purinergic Inhibitor Oxidized-ATP in a Model of Islet Allograft Rejection. ***Diabetes*** 62(5):1665-1675;2013 [Epub 11 Jan 2013]. [***Accompaining Commentary***: Aikin RA. Targeting Purinergic Receptors in Islet Transplantation. Diabetes 62(5):1394-1395;2013.

15. Vergani A, Tezza S, D'Addio F, **Fotino C**, Liu K, Niewczas M, Bassi R, Molano RD, Kleffel S, Petrelli A, Soleti A, Ammirati E , Frigerio M, Visner G, Grassi F, Ferrero ME, Corradi D, Abdi R,

Ricordi C, Sayegh MH, Pileggi A, Fiorina P. Long-term heart transplant survival by targeting the ionotropic purinergic receptor P2X7. **Circulation** 2013 Jan 29;127(4):463-75.

16. **Fotino C***, Faleo G*, Bocca N, Molano RD, Zahr-Akrawi E, Molina J, Villate S, Umland O, Skyler JS, Bayer AL, Ricordi C, Pileggi A. Prevention of autoimmune diabetes and induction of beta-cell proliferation in NOD mice by hyperbaric oxygen therapy. ***Diabetes*** 61:1769-1778;2012**.** [***Accompaining Commentary***: Rajagopalan, G Kudva YC, David CS. Is HOT a cool treatment for Type 1 Diabetes? ***Diabetes*** 61:1664-1666; 2012.
17. **Fotino C** & Pileggi A. Blockade of leukocyte function antigen-1 (LFA-1) in clinical islet transplantation. ***Curr Diab Rep*** 1(5):337-44;2011.
18. **Fotino C**, Ricordi C, Lauriola V, Alejandro R, Pileggi A. Bone marrow-derived stem cell transplantation for the treatment of insulin-dependent diabetes. ***Rev Diabet Stud*** 7(2):140-153;2010.
19. Rimessi A, Marchi S, **Fotino C**, Romagnoli A, Huebner K, Croce CM, Pinton P, Rizzuto R. Intramitochondrial calcium regulation by the FHIT gene product sensitizes to apoptosis. ***Proc Natl Acad Sci U S A***. 106(31):12753-8, 2009.
20. Celsi F, Pizzo P, Brini M, Leo S, **Fotino C**, Pinton P, Rizzuto R. Mitochondria, calcium and cell death: a deadly triad in neurodegeneration. ***Biochim Biophys Acta***. 1787(5):335-44, 2009.
21. Volpe L, Cuccuru I, Lencioni C, Napoli V, Ghio A, **Fotino C**, Bertolotto A, Penno G, Benzi L, Del Prato S, Di Cianni G. Early subclinical atherosclerosis in women with previous gestational diabetes mellitus. ***Diabetes Care***. 31(5):e32, 2008.
22. Dell'Omo G, Penno G, Pucci L, **Fotino C**, Lucchesi D, Del Prato S, Pedrinelli R. Lack of association between endothelial nitric oxide synthase gene polymorphisms, microalbuminuria and endothelial dysfunction in hypertensive men. ***J Hypertens***. 25(7):1389-95, 2007.
23. L. Pucci, S. Triscornia, D. Lucchesi, **C. Fotino**, G. Pellegrini, E. Pardini, R. Miccoli, S. Del Prato, G. Penno. Cystatin C and estimates of renal function: searching for a better measure of kidney function in diabetic patients. ***Clin Chem***. 53(3):480-8, 2007.
24. Dell'Omo G, Penno G, Pucci L, Lucchesi D, **Fotino C**, Del Prato S, Pedrinelli R. ACE gene insertion/deletion polymorphism modulates capillary permeability in hypertension. ***Clin Sci (Lond)***. 111: 357-64, 2006.
25. Pucci L, Lucchesi D, **Fotino C**, Penno G. "Ipertensione arteriosa e rischio cardiovascolare". In: Diabete e rischio cardiovascolare. Stefano Del Prato Ed. ***Primula Multimedia S.r.l.*** Pag. 68-88, 2006.
26. Pedrinelli R, Dell'Omo G, Penno G, Di Bello V, Pucci L, **Fotino C**, Lucchesi D, Del Prato S, Dal Fiume C, Barlassina C, Cusi D. α-Adducin and angiotensin-converting enzyme polymorphism in hypertension: evidence for a joint influence on albuminuria. ***Journal of hypertension***. 24:931-7, 2006.
27. Pucci L1, Lucchesi D, Fotino C, Grupillo M, Miccoli R, Penno G, Del Prato S. [Integrin Beta 3 PlA1/PlA2 polimorphism does not contribute to complications in both type 1 and type 2 diabetes]. G Ital Nefrol. Sep-Oct;20(5):461-9, 2003.