ALLEGATO B

UNIVERSITÀ DEGLI STUDI DI MILANO
selezione pubblica per n.__1_ posto/i di Ricercatore a tempo determinato ai sensi dell'art.24, comma 3, lettera b) della Legge 240/2010 per il settore concorsuale _____05/I1 - Genetica, **settore scientifico-disciplinare __**BIO/18 – Genetica **presso il Dipartimento di ____Bioscienze___, (avviso bando pubblicato sulla G.U. n. __50_____ del ___30.6.2020__) Codice concorso _4400_____**

Irene Franco
CURRICULUM VITAE

INFORMAZIONI PERSONALI (NON INSERIRE INDIRIZZO PRIVATO E TELEFONO FISSO O CELLULARE)

COGNOME	FRANCO
NOME	IRENE
DATA DI NASCITA	26, 11, 1985

INSERIRE IL PROPRIO CURRICULUM
(non eccedente le 30 pagine)

PERSONAL INFORMATION

FIRST NAME: **Irene**
LAST NAME: **Franco**
ORCID: 0000-0002-4272-239X
DATE AND PLACE OF BIRTH: 26/11/1985, Savigliano (CN Italy)
CITIZENSHIP: Italian
WORK ADDRESS: Department of Biosciences and Nutrition
Neo
Blickagången 16
SE-141 57 Huddinge
SWEDEN
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MOTHER LANGUAGE Italian
FOREIGN LANGUAGES Swedish (SFI 2015-2016)
French (DELF certification in 2004)
English (PET certification in 2000).

PROFESSIONAL EXPERIENCE

From Sep 2020: Project leader at San Raffaele Scientific Institute, Milan, Italy, Dept of Genetics and Cellular Biology, Alessandra Boletta's research group. The project entitled "Somatic mutagenesis in the kidney tubules is enhanced by specific metabolic pathways" is funded by Horizon2020 Marie Sklodowska-Curie Individual Fellowship.

Dec 2019- Jun 2020: Interruption of research activity for maternity leave

Dec 2014- Aug 2020: Post-doctoral fellow at Karolinska Institute, Stockholm, Sweden, Dept. of Biosciences and Nutrition, Maria Eriksson's research group. Project is focused on genetic mechanisms of aging.

Aug 2017-Feb 2018: Interruption of research activity for maternity leave

Sep 2016: Invited guest researcher at the Statistical Inference and Computational Biology unit at the Human Genetics Foundation in Torino, Italy.

Jan-Nov 2014: Post-doctoral research fellow at Kither Biotechnology S.r.l. with an applied research project funded by Lagrange-C.R.T. Foundation, Turin, Italy. Project title: "Identification of PI3Kγ and PI3Kδ inhibitors for the treatment of chronic obstructive bronchopneumopathy".

2010-2013: PhD student in "Biomedical sciences and human oncology" specialization in "Functional Genomics applied to Translational Research", XXV cicle, at Molecular Biotechnology Center, University of Turin, Italy. Thesis title: "PI3K class II alpha regulates primary cilium elongation and function during embryonic development and renal cystogenesis"

2007-2009: Undergraduate student at the Molecular Biotechnology Center, University of Turin, Italy. Laboratory of Molecular Biology headed by Prof. Emilio Hirsch. Thesis title: "Targeting PI3Kγ activity prevents pressure overload-induced heart dysfunction by distinct effects on leukocyte and cardiomyocytes".

EDUCATION

29/01/2014: PhD thesis defence. Thesis title: "PI3K class II alpha regulates primary cilium elongation and function during embryonic development and renal cystogenesis"

2010-2013: PhD in "Biomedical Sciences and Human Oncology", specialization in "Functional Genomics applied to Translational Research" at Department of Molecular Biotechnology and Health Science, University of Torino, Italy.

15/07/2009: Master degree. Thesis title: "Targeting PI3Kγ activity prevents pressure overload-induced heart dysfunction by distinct effects on leukocyte and cardiomyocytes"

2007-2009: Master course in Molecular Biotechnology, at the University of Torino, Italy. Honour degree: 110/110 magna cum laude.

2004-2007: BSc in Molecular Biotechnology at the University of Turin, Italy. Honour degree: 110/110 magna cum laude .

1999-2004: **High School Diploma**: at the "V. Alfieri" classical lyceum, Asti, Italy. Final mark 99/100.

1999-2004: **Conservatory Diploma and bachelor degree** in classical trumpet at the "G. Verdi" conservatory, Torino, Italy. Final mark 6.75/10.

PUBLICATIONS

The PI3K/Akt/mTOR pathway in polycystic kidney disease: a complex interaction with polycystins and primary cilium.
Margaria JP, Campa CC, De Santis MC, Hirsch E. and **Franco I.***
***corresponding author**
CELLULAR SIGNALLING, 2020 Feb;66:109468. doi: 10.1016/j.cellsig.2019.109468
Impact factor: **3.39**

Whole genome DNA sequencing provides an atlas of somatic mutagenesis in healthy human cells and identifies a tumor-prone cell type.
Franco I.*, Helgadottir H.T., Moggio A., Larsson M., Vrtačnik P., Johansson A., Norgren N., Lundin P., Mas-Ponte D, Nordström J., Lundgren T., Stenvinkel P., Wennberg L., Supek F. and Eriksson M*.
***corresponding authors**
GENOME BIOLOGY, 2019 Dec 18;20(1):285. doi: 10.1186/s13059-019-1892-z
Impact factor: **14.03**

Healthy skeletal muscle aging: The role of satellite cells, somatic mutations and exercise
Franco, I.*, Fernandez-Gonzalo R., Vrtacnik, P., Lundberg, T. R., Eriksson, M., Gustafsson, T.
***corresponding author**
INT REVIEW OF CELL AND MOLEC BIOLOGY, 2019, 346 157-200
Impact factor: **3.89**

Somatic mutagenesis in satellite cells associates with human skeletal muscle aging.
Franco I*, Johansson A, Olsson K, Vrtačnik P, Lundin P, Helgadottir HT, Larsson M, Revêchon G, Bosia C, Pagnani A, Provero P, Gustafsson T, Fischer H, Eriksson M*.

***co-corresponding authors**
NATURE COMMUNICATIONS, 2018 Feb 23;9(1):800.
Impact factor: **12.12**

Phosphoinositide 3-Kinase Gamma Inhibition Protects from Anthracycline Cardiotoxicity and Reduces Tumor Growth.
Li M, Sala V, De Santis MC, Cimino J, Cappello P, Pianca N, Di Bona A, Margaria JP, Martini M, Lazzarini E, Pirozzi F, Rossi L, **Franco I**, Bornbaum J, Heger J, Rohrbach S, Perino A, Tocchetti CG, Lima BHF, Teixeira MM, Porporato PE, Schulz R, Angelini A, Sandri M, Ameri P, Sciarretta S, Lima-Júnior RCP, Mongillo M, Zaglia T, Morello F, Novelli F, Hirsch E, Ghigo A.
CIRCULATION, 2018 Jan 18
Impact factor: **19.31**

Mitotic Spindle Assembly and Genomic Stability in Breast Cancer Require PI3K-C2α Scaffolding Function.
Gulluni F, Martini M, De Santis MC, Campa CC, Ghigo A, Margaria JP, Ciraolo E, **Franco I**, Ala U, Annaratone L, Disalvatore D, Bertalot G, Viale G, Noatynska A, Compagno M, Sigismund S, Montemurro F, Thelen M, Fan F, Meraldi P, Marchiò C, Pece S, Sapino A, Chiarle R, Di Fiore PP, Hirsch E.
CANCER CELL, 2017 Oct 9;32(4):444-459.e7.
Impact factor: **27.40**

Rare progerin-expressing preadipocytes and adipocytes contribute to tissue depletion over time.
Revêchon G, Viceconte N, McKenna T, Sola Carvajal A, Vrtačnik P, Stenvinkel P, Lundgren T, Hultenby K, **Franco I**, Eriksson M.
SCIENTIFIC REPORTS, 2017 Jun 30;7(1):4405.
Impact factor: **4.26**

Rac signal adaptation controls neutrophil mobilization from the bone marrow.
Campa C.C., Germena G., Ciraolo E., Copperi E., Sapienza A., **Franco I.**, Ghigo A., Camporeale A., Di Savino A., Martini M., Perino A., Megens R.T.A., Kurz A., Scheiermann C., Sperandio M., Gamba A., Hirsch E.
SCIENCE SIGNALING, 2016 Dec 20;9(459):ra124.
Impact factor: **6.28**

Phosphoinositide 3-Kinase γ Restrains Neurotoxic Effects of Microglia After Focal Brain Ischemia.
Schmidt C., Frahm C., Schneble N., Müller JP., Brodhun M., **Franco I.**, Witte OW., Hirsch E., Wetzker R., Bauer R..
MOLECULRA NEUROBIOLOGY, 2016 Oct;53(8):5468-79
Impact factor: **5.40**

Phosphoinositide 3-Kinase-C2α Regulates Polycystin-2 Ciliary Entry and Protects against Kidney Cyst Formation.
Franco I*, Margaria JP*, De Santis MC, Ranghino A, Monteyne D, Chiaravalli M, Pema M, Campa CC, Ratto E, Gulluni F, Perez-Morga D, Somlo S, Merlo GR, Boletta A, Hirsch E.
* Equal contributors
JOURNAL OF THE AMERICAN SOCIETY OF NEPHROLOGY, 2016 Apr;27(4):1135-44.
Impact factor: **9.47**

PI3K-C2α: One enzyme for two products coupling vesicle trafficking and signal transduction.
Campa CC, **Franco I**, Hirsch E.
FEBS LETTERS, 2015 Jun 22;589(14):1552-8.
Impact factor: **3.34**

Morgana acts as an oncosuppressor in chronic myeloid leukemia.
Di Savino A, Panuzzo C, Rocca S, Familiari U, Piazza R, Crivellaro S, Carrà G, Ferretti R, Fusella F, Giugliano E, Camporeale A, **Franco I**, Miniscalco B, Cutrin JC, Turco E, Silengo L, Hirsch E, Rege-Cambrin G, Gambacorti-Passerini C, Pandolfi PP, Papotti M, Saglio G, Tarone G, Morotti A, Brancaccio M.

BLOOD, 2015 Apr 2; 125:2245-53.
Impact factor: **10.43**

The Hedgehog pathway effector smoothened exhibits signaling competency in the absence of ciliary accumulation.
Fan CW, Chen B, **Franco I**, Lu J, Shi H, Wei S, Wang C, Wu X, Tang W, Roth MG, Williams NS, Hirsch E, Chen C, Lum L.
CHEMISTRY AND BIOLOGY, 2014 Dec 18; 21:1680-9.
Impact factor: **6.74**

Deficiency of cannabinoid receptor of type 2 worsens renal function/structural abnormalities in streptozotocin-induced diabetic mice
F Barutta, S Grimaldi, **I Franco**, S Bellini, R Gambino, S Pinach, A Corbelli, G Bruno, MP Rastaldi, T Aveta, E Hirsch, V Di Marzo, G Gruden.
KIDNEY INTERNATIONAL, 2014, Nov; 86(5):979-90
Impact factor: **8.52**

PI3K class II α controls spatially restricted endosomal PtdIns3*P* and Rab11 activation to promote primary cilium function.
I Franco*, F Gulluni*, CC Campa*, C Costa*,JP Margaria, E Ciraolo, M Martini, D Monteyne, E De Luca, G Germena, Y Posor, T Maffucci, S Marengo, V Haucke, M Falasca, D Perez-Morga, A Boletta, GR. Merlo and E Hirsch
* Equal contributors
DEVELOPMENTAL CELL, 2014, Mar; 28: 647-658.
Impact factor: **10.37**

Myocyte signaling in leukocyte recruitment to the heart
A Ghigo, **I Franco**, F Morello and E Hirsch
CARDIOVASCULAR RESEARCH 2014, May 1;102(2):270-80.
Impact factor: **5.81**

PI3K in cancer-stroma interaction: bad in seed and ugly in soil
E Hirsch*, E Ciraolo*, **I Franco***, A Ghigo* and M Martini*
*** Equal contributors**
ONCOGENE 2014 Jun 12;33(24):3083-90
Impact factor: **8.56**

PI3-Kinase γ Promotes Rap1a-Mediated Activation of Myeloid Cell Integrin a4ß1, Leading to Tumor Inflammation and Growth.
Schmid MC, **Franco I**, Kang SW, Hirsch E, Quilliam LA, Varner JA
PLOS ONE 2013; 8: e60226
Impact factor: **3.23**

Distinct effects of leukocyte and cardiac phosphoinositide 3-kinase γ activity in pressure overload-induced cardiac failure.
Damilano F*, **Franco I***, Perrino C, Schaefer K, Azzolino O, Carnevale D, Cifelli G, Carullo P, Ragona R, Ghigo A, Perino A, Lembo G, Hirsch E
*** Equal contributors**
CIRCULATION 2011 Feb; 123: 391-9
Impact factor: **19.31**

Receptor tyrosine kinases and TLR/IL1Rs unexpectedly activate myeloid cell PI3Kγ, a single convergent point promoting tumor inflammation and progression.
Schmid MC, Avraamides CJ, Dippold HC, **Franco I**, Foubert P, Ellies LG, Acevedo LM, Manglicmot JR, Song X, Wrasidlo W, Blair SL, Ginsberg MH, Cheresh DA, Hirsch E, Field SJ, Varner JA
CANCER CELL 2011 Jun; 19: 715-27

Impact factor: **27.40**

The absence of functional PI3Kgamma prevents leukocyte recruitment and ameliorates DSS-induced colitis in mice.
van Dop WA, Marengo S, Te Velde AA, Ciraolo E, **Franco I**, Ten Kate FJ, Boeckxstaens GE, Hardwick JC, Hommes DW, Hirsch E, van den Brink GR
IMMUNOL LETT 2010 Jun; 15;131(1):33-9:
Impact factor: **2.37**

INVITED PRESENTATIONS

07.06.2020 European Renal Association- European Dialysis and Transplant Association Conference (57th ERA-EDTA); Milan, June 6-9 2020. Abstract selected for oral presentation.
06.06.2020 European Human Genetics Conference (ESHG 2020); Berlin, June 6-9 2020. Abstract selected for oral presentation.
01.10.2019 Invited seminar at the Institute for Research in Biomedicine (IRB Barcelona, Spain), as part of the "Barcelona Biomed Plenary Seminars" organized by the IRB Barcelona.
18.06.2019 European Human Genetics Conference (ESHG 2019); Gothenburg, June 15-18 2019. Abstract selected for oral presentation.
19.06.18 Invited seminar at Istituto Europeo di Oncologia (IFOM-IEO, Milan, Italy)
16.06.2018 European Human Genetics Conference (ESHG 2018); Milan, June 16-19 2018. Abstract selected for oral presentation
15.06.2018 Invited seminar at San Raffaele Scientific Institute (Milan, Italy)
08.09.2016 Invited seminar at Italian Institute for Genomic Medicine (IIGM, Turin, Italy)
12.10.2014 European Society of Endocrinology congress; Mont Sainte Odille, October 9-12 2014. Abstract selected for oral presentation.

EXAMPLES OF PARTICIPATION IN INDUSTRIAL INNOVATION

16.05.2014 Interviewed as a representative of university start-ups and participation to a round table for open discussion within the initiative "Now new. La ricerca si racconta". The discussion was focused on scientific start-ups in the area of Turin, Italy. https://youtu.be/rXCwBBpXPWU

PRIZES AND AWARDS

2018-2020: "Erik Rönnbergs award for the study of aging and aging related syndromes" from the Riksbank Jubileumsfond foundation.
2016: American Society of Human Genetics congress, Vancouver, 18-22 october 2016
Poster was highlighted as a "Reviewers´choice", a selection of the 10% best abstracts at the congress.
2014: Winner of the first prize of the poster competition. European Society of Endocrinology congress; October 9-12 2014.
2012: Winner of the poster prize in the category "PhD students". Cilia conference: Cilia in development and disease; May 16-18 2012
2010: Winner of the first prize of the Young Investigator's Award Poster prize. European Society of Cardiology "Translational Winter Research Meeting on Heart Failure"; January 27-30, 2010

FUNDINGS

2020-2022: Marie Sklodowska-Curie Individual Fellowship to carry out the project "Somatic mutagenesis in the kidney tubules is enhanced by specific metabolic pathways" in the lab of Alessandra Boletta at San Raffaele Scientific Institute, Milan, Italy ·
2019: Research grant from Svenska Läkaresällskapets awarded to the project "Somatic mutagenesis in kidney cancer and polycystic kidney disease", application number SLS-890221
2019: Research grant from Herald Jeanssons Stiftelse awarded to the project "Somatic mutations in polycystic kidney disease progression", a.n. JS2018-0084
2018-2019: Karolinska Institute board of research grant awarded to the project "Somatic mutation accumulation in kidney stem cells with aging", a.n. 2018-01571
2017: Svenska Läkaresällskapets research grant awarded to the project "Accumulation of somatic mutations in human tissues with aging", a.n. SLS-693321

2017-2018: Post doctoral fellowship from David and Astrid Hageléns foundation awarded to the project "Accumulation of somatic mutations in human tissues during aging", a.n. 2-2413/2016.
2016-2017: Loo och Hans Ostermans stiftelse för medicinsk forskning to the project "Impact of somatic mutations on human tissue aging", a.n. 2016oste46245 and 2017-00229
2016-2017: Karolinska Institute board of research grant 2016 and 2017 awarded to the project "Impact of somatic mutations on human tissue aging", a.n. 2016fobi47680

SUPERVISING AND MENTORING ACTIVITIES
2015-2019: Co-supervisor of the PhD thesis of Hafdis Helgadottir. At the Dept of Biosciences and Nutrition, Karolinska Institute, Sweden. Main supervisor prof Maria Eriksson. Thesis title: "Somatic mutations in healthy cells and age-associated diseases", date of discussion 27.09.2019
2013-2014: Co-supervisor of the master thesis of Jean Piero Margaria in the Dept of Molecular biotechnology and Health Sciences, University of Torino, Italy. Main supervisor prof Emilio Hirsch.

Data 14.7.2020 Luogo Castell'Alfero (AT)

Irene Zenca