

PERSONAL INFORMATION Pia Rivetti di Val Cervo

WORK EXPERIENCE

December 2021- Present

Biologist

Italian Medicines Agency - AIFA (Italy)

Support to the HTA activity for Advanced Therapy Medicinal Products.

November 2021-December 2021

Scientific Editor

Elsevier (Italy)

Scientific Editor for peer-reviewed journals belonging to Elsevier's LifeSciences portfolio.

May 2021-July 2021

Scientific Writer

Università degli studi di Milano (Italy)

Editing and revision of scientific documents for publication and dissemination.

October 2019-May 2021

Senior Post-doctoral Researcher

Università degli studi di Milano (Italy)

Development of a new gene silencing approach as a therapeutic approach for the Adult onset autosomal dominant Leukodystrophy, in collaboration with the Neuroscience Institute Cavalier Ottolenghi-NICO of Turin.

May 2017-October 2019

Senior Post-doctoral scientist - Marie Curie Fellow

Università degli studi di Milano (Italy)

Generation of a disease modelling platform based on directly-reprogrammed medium spiny neurons to screen new therapeutic compounds against Huntingtons Disease.

Development of Standard operating procedures and protocols for lentiviral production.

November 2014-April 2017

Coordinator of the Viral Facility

Karolinska Institutet (Sweden)

Establishment of Standard Operating Procedures and Good Laboratory Practices for work with genetically modified organisms (GMOs), specifically viral vectors.

Compliance advisory for biocontainment strategies and microbiological techniques.

Training and supervision on biosafety level II work with genetically modified organisms (GMOs).

January 2011-May 2017

Post-doctoral scientist - EMBO and Vetenskapsradet Fellow

Karolinska Institutet (Sweden)

Development of a gene therapy approach for the in vivo direct conversion of astrocytes into dopaminergic neurons as a therapeutic alternative for Parkinson's Disease.

Teaching.

July 2008-August 2008

Visiting scientist

Medical Research Council - Toxicology Unit (United Kingdom)

Research on the interplay between miR34 and ITCH in chronic lymphocitic leukemia.

September 2005-March 2006

Visiting scientist

Centre National de Recherches Scientifiques (CNRS), Institut de Biochimie et Biophysique Moléculaire et Cellulaire (IBBMC) (France)

Proteomic analysis of the Thioredoxin/Thioredoxin Reductase system targets in *S. cerevisiae*.EDUCATION AND TRAINING

December 2008- Present

Board Certification as Licensed Biologist

Università di Roma Tor Vergata (Italy)

- October 2006-January 2011 **Ph.D. in Biochemistry and Molecular Biology**
 Università di Roma Tor Vergata (Italy)
 Evaluation of the role of microRNAs in epidermal differentiation and senescence, as well as brain morphogenesis.
- September 2004-October 2006 **Master Degree in Genetics and Molecular Biology**
 Università Sapienza of Rome (Italy)
 Mass spectrometric analysis of post-synthetic modifications in polypeptides and their involvement in protein function and structure.
- September 2001-July 2004 **Bachelor Degree in Biological Sciences**
 Università Sapienza of Rome (Italy)
 Structural analysis of M. lepraes truncated haemoglobin O using LC-MS and MALDI-ToF technology.

ADDITIONAL INFORMATION

- Expertise**
- Direct reprogramming: Reprogramming of human and murine cells in vitro and in vivo (fibroblasts and astrocytes into neurons)
- Gene therapy: Design, production and delivery of viral vectors for ectopic gene expression in vitro and in vivo
- Cellular biology: In vitro derivation, differentiation and culturing of human and murine cells. Manipulation and culturing of human and murine stem cells (embryonic, naive, pluripotent). Transfection and transduction techniques. Cell fate mapping.
- Microscopy: Wide field, confocal, two-photon microscopy for immunohistochemistry and immunocytochemistry. Clarification of tissues. 2D analysis and 3D reconstruction of microscopy data. Live imaging and Calcium imaging.
- Molecular Biology: Advanced molecular cloning. Handling, modification, production and purification of integrating and non-integrating viral GMOs. Silencing strategies through miRNA, siRNA and ASO manipulation.
- Biochemistry: Purification as well as absolute and relative quantification techniques for RNA, DNA, microRNA and proteins. Mass spectrometry (LC-MS and MALDI-ToF). Chromatography (HPLC). Single-cell RNA sequencing, transcriptional analysis and in silico analysis. Immunohistochemistry and Immunocytochemistry techniques.
- Publications**
- Rivetti di Val Cervo P, Besusso D, Conforti P, Cattaneo E. "hiPSCs for predictive modelling of neurodegenerative diseases: dreaming the possible"
 Nature Reviews Neurology 17, 381-392 (2021)
- Giorgio E, Lorenzati M, Rivetti di Val Cervo P, Brussino A, Cernigoj M, Della Sala E, Bartoletti Stella A, Ferrero M, Caiazza M, Capellari S, Cortelli P, Conti L, Cattaneo E, Buffo A, Brusco A.
 "Allele-specific silencing as treatment for gene duplication disorders: proof-of-principle in autosomal dominant leukodystrophy"
 Brain 142, 1905-1920 (2019)
- Vezzoli E, Caron I, Talpo F, Besusso D, Conforti P, Battaglia E, Sogne E, Falqui A, Petricca L, Verani M, Martufi P, Caricasole A, Bresciani A, Cecchetti O, Rivetti di Val Cervo P, Sancini G, Riess O, Nguyen H, Seipold L, Saftig P, Biella G, Cattaneo E, Zuccato C. "Inhibiting pathologically active ADAM10 rescues synaptic and cognitive decline in Huntington's disease."
 J Clin Invest 129, 2390-2403 (2019)
- Rivetti di Val Cervo P, Romanov RA, Spigolon G, Masini D, Martin-Montanez E, Toledo E, La Manno G, Feyder M, Pifl C, Ng Y-H, Padrell Sanchez S, Linnarsson S, Wernig M, Harkany T, Fisone G, Arenas E. "Direct reprogramming of human and rodent astrocytes into functional induced dopaminergic neurons in vitro and in vivo"
 Nature Biotechnology 35, 444-452 (2017)
- Villaescusa JC, Toledo EM, Rivetti di Val Cervo P, Yang S, Kaiser K, Islam S, Gyllborg D, Landreh M, Falk A, Bergman T, Li B, Selleri L, SRW, Barker RA, Laguna-Goya R, Linnarsson S, Arenas E. "A PBX1 transcriptional network controls dopaminergic neuron development and it is impaired in Parkinson's disease."
 EMBO J 35, 1963-78 (2016)
- Lena AM, Mancini M, Rivetti di Val Cervo P, Saintigny G, Mahe C, Melino G, Candi E. "MicroRNA-191 triggers keratinocytes senescence by SATB1 and CDK6 downregulation."

Biochem Biophys Res Commun 423, 509-14 (2012)

Rivetti di Val Cervo P, Lena AM, Nicoloso M, Rossi S, Mancini M, Zhou H, Saintigny G, Dellambra E, Odorisio T, Mahe C, Calin GA, Candi E, Melino G. "p63-microRNA feedback in keratinocyte senescence."

Proc Natl Acad Sci USA 109, 1133-8 (2012)

Agostini M, Tucci P, Candi E, Shalom-Feuerstein R, Rivetti di Val Cervo P, Aberdam D, Knight RA, Nicotera P, McKeon F, Melino G. "p73 regulates miR-34a in neuronal differentiation"

Proc Natl Acad Sci USA 108, 21093-8 (2011)

Rivetti di Val Cervo P, Tucci P, Majid A, Lena MA, Agostini M, Bernardini S, Candi E, Cohen G, Nicotera P, Dyer MJ, Melino G. "p73, miR106b, miR34a, and Itch in chronic lymphocytic leukemia." Blood 113, 6498-9 (2009)

Candi E, Cipollone R, Rivetti di Val Cervo P, Gonfloni S, Melino G, Knight R. "p63 in epithelial development."

Cell Mol Life Sci 65, 3126-33 (2008)

Lena AM, Shalom-Feuerstein R, Rivetti di Val Cervo P, Aberdam D, Knight RA, Melino G, Candi E. "miR-203 represses 'stemness' by repressing DeltaNp63."

Cell Death Differ 15, 1187-95 (2008)

Trandafir F, Hoogewijs D, Altieri F, Rivetti di Val Cervo P, Ramser K, Van Doorslaer S, Vanfleteren JR, Moens L, Dewilde S. (2007) "Neuroglobin and cytoglobin as potential enzyme or substrate."

Gene 398, 103-13 (2007)

Projects Granted Funding

2018 - EuroBioImaging collaborative project for the Advanced Light Microscopy Italian Node - EuBi_PIRI081

2017 - H2020 Marie SkLodowska-Curie post-doctoral Individual Fellowship - DISMODHD

2016 - Erasmus+ teacher mobility grant

2016 - ISSCR travel award.

2015 - Karolinska Institutet Research Foundations, research grant - 2013fobi37520.

2011 - Vetenskapsradet post-doctoral fellowship - 524-2011-962.

2011 - EMBO long-term post-doctoral fellowship - ALTF 583-2011.

2006 - PhD scholarship from the Italian Ministry of Education.

2004 - Scholarship for Master Thesis abroad from the Faculty of Sciences, University Sapienza of Rome (Italy)

Memberships Coordinator and member of the scientific committee "La Spes" ONLUS Rome, Italy

Coordination of the scientific committee activities and evaluation of research projects on neurological aspects of Wiskott-Aldrich Syndrome.

Other Relevant Information Presentations, Conferences and Seminars

2020 - Invited speaker at the conference "REWRITING DNA - new research frontiers on rare diseases" organized by LaSpes - Milan, Italy.

2018 - Invited lecture on "Cellular reprogramming, from bench to bedside" at the University of Malaga, faculty of Medicine - Malaga, Spain.

2018 - Invited lecture on "Cellular reprogramming, past present and future" at the University of Milan, course in Biomedicine - Milan, Italy.

2017 - Seminar on "Direct reprogramming of astrocytes into induced dopaminergic neurons. Opening of a new therapeutic possibility for Parkinson's Disease" at the INGM institute - Milan, Italy.

2016 - Conference talk on "Direct reprogramming of astrocytes into induced dopaminergic neurons in vitro and in vivo" at the ISSCR annual conference - San Francisco (CA, U.S.A)

2016 - Seminar on "Direct reprogramming of astrocytes into induced dopaminergic neurons. Opening of a new therapeutic possibility for Parkinson's Disease" at the IBIMA conference, University of Malaga - Malaga, Spain.

2016 - Invited lecture on "Cellular reprogramming - basic concepts" at the University of Malaga, faculty of Medicine - Malaga, Spain.

2016 - Seminar on "Direct reprogramming of human and rodent astrocytes into functional induced dopaminergic neurons in vitro and in vivo" at the MBB department, Karolinska Institutet - Stockholm, Sweden.

2016 - Seminar on "direct reprogramming of astrocytes" at the division of Molecular Neurobiology, Karolinska Institutet - Stockholm, Sweden.

2008 - Seminar on "miR-203 represses 'stemness' by repressing DeltaNp63" at the "Programmed Cell Death" meeting in Villa Vigoni - Loven di Menaggio, Italy.

2007 - Seminar on "DeltaNp63 regulates thymic development through enhanced expression of FgfR2 and Jag " at the "Cell Death" meeting - Sarteano, Italy.