

**FORMATO EUROPEO
PER IL CURRICULUM
VITAE**



FEDERICA ALBANESE

WORK EXPERIENCE

Date (from – to) **1° March 2024 – present**
Name and address of employer **Fondazione Regionale per la Ricerca Biomedica**
Piazza Città di Lombardia 1, 20124 Milan, Italy
Type of employment **Scientific Officer – Permanent contract**
Main responsibilities Support in the organization and management of the evaluation process of projects proposals submitted to regional; Calls writing, monitoring, and reviewing; management of scientific reviewers database; support to researchers and Host Institutions for the scientific part in submitting projects in response to FRRB's Calls for Proposals; monitoring and analysis of scientific reports submitted periodically by Host Institutions.

Date (from – to) **15 June 2023 – 23 February 2024**
Name and address of employer **National Institute of Health (NIH)**
Bethesda, United States of America
Type of employment **Postdoctoral Fellow**
Main responsibilities

- Manipulation of induced pluripotent stem cells (iPSCs) obtained from Parkinson's Disease patients.
- Differentiation of iPSCs into microglia or dopaminergic neurons.
- Genome editing using CRISPR-Cas9 in stem cell culture.
- Sanger sequencing and PCR.
- Spatial proteomics

Date (from – to) **1° March 2022 – 31 May 2023**
Name and address of employer **University Health Network (UHN)**
Toronto, Canada
Type of employment **Postdoctoral Fellow**
Main responsibilities

- Confocal microscopy and super-resolution microscopy.
- In vitro cell culture and protein overexpression using transfection.
- Biochemistry assays (western blot, immunocytochemistry).
- DNA and RNA extraction.
- Cell-based lysosomal assays (pH measurement, proteolytic activity)
- RT-qPCR and PCR.
- Stereotaxic surgery to vehicle AVV into mouse brains
- Gene silencing using siRNA in vitro.
- Flow cytometry.
- Writing grants and research papers

EDUCATION

Date (from – to) **1 November 2018- 31 January 2022**
Qualification **PhD in Neurosciences and Translational Neurotechnologies**
Name and type of educational or training institution **University of Ferrara, Italy**

Date (from – to) **1 October 2013 – 18 October 2018**
Qualification **Master's Degree in Pharmaceutical Chemistry and technologies (110/110 cum laude)**
Name and type of educational or training institution **University of Ferrara, Italy**

HONORS AND AWARDS

<i>Date and type of the institution of the award</i>	September 2022 – University Health Network
<i>Name of the award</i>	Krembil Research Institute Post-Doctoral & clinical Research Fellowship Award 2022
<i>Date and type of the institution of the award</i>	April 2021 – University of Ferrara
<i>Name of the award</i>	IUSS Scholarship 2021 – University of Ferrara
<i>Date and type of the institution of the award</i>	January 2018 - University of Ferrara
<i>Name of the award</i>	Atlante Exchange Program Scholarship

PUBLICATIONS

- **Albanese F.**, Mercatelli D., Finetti L., Lamonaca G., Pizzi S., Shimshek D., Bernacchia G., Morari M. (2021). Constitutive silencing of LRRK2 kinase activity leads to early glucocerebrosidase deregulation and late impairment of autophagy *in vivo*. *Neurobiol Dis.* 159:105487. doi: 10.1016/j.nbd.2021.105487.
- **Albanese F.**, Domenicale C., Volta M., Morari M. (2022) Modeling Parkinson's disease in LRRK2 mice: focus on synaptic dysfunction and the autophagy-lysosomal pathway. *Biochem Soc Trans.* 50 (1): 621–632. doi: 10.1042/BST20211288
- **Albanese F.**, Novello S., Morari M. (2019) Autophagy and LRRK2 in the Aging Brain. *Frontiers in Neuroscience.* 13, 1352. doi:10.3389/fnins.2019.01352.
- Longo, F.; Aryal, S.;.....**Albanese, F.**;.....Klann, E. (2023) Cell type-specific disruption of cortico-striatal circuitry drives repetitive patterns of behavior in fragile X syndrome model mice. *Cell Reports.* 42, 112901. Doi: 10.1016/j.celrep.2023.112901
- Nim S., 1, O'Hara D., Corbi-Verge C., Perez-Riba A, Fujisawa K, Kapadia M, Chau H., **Albanese F.**, et al (2023). Disrupting the α -synuclein-ESCRT interaction with a peptide inhibitor mitigates neurodegeneration. *Nat Commun* 14, 2150 (2023). <https://doi.org/10.1038/s41467-023-37464-2>
- Domenicale, C.; Mercatelli, D.; **Albanese, F.**; Novello, S.; Vincenzi, F.; Varani, K.; Morari, M. (2022). Dopamine Transporter, PhosphoSerine129 α -Synuclein and α -Synuclein Levels in Aged LRRK2 G2019S Knock-In and Knock-Out Mice. *Biomedicines* 10, 881. doi:10.3390/biomedicines10040881
- Novello, S.; Mercatelli, D.; **Albanese, F.**; Domenicale, C.; Brugnoti, A.; D'Aversa, E.; Vantaggiato, S.; Dovero, S.; Murtaç, V.; Presotto, L.; et al. (2021). In vivo susceptibility to energy failure
- Regoni, M.; Cattaneo,..... **Albanese, F.**; et al., (2020). Pharmacological Antagonism of Kainate Receptor Rescues Dysfunction and Loss of Dopamine Neurons in a Mouse Model of Human Parkin-induced Toxicity. *Cell Death Dis.* 11, 963. doi: 10.1038/s41419-020-03172-8
- Regoni M., Zanetti L.,.....**Albanese, F.**; et al., (2021). Early Dysfunction of Substantia Nigra Dopamine Neurons in the ParkinQ311X Mouse. *Biomedicines.* 9(5), 514. doi: 10.3390/biomedicines9050514

PERSONAL SKILLS

MOTHER TONGUE LANGUAGE **ITALIAN**

OTHER LANGUAGES **ENGLISH: C1**

Reading Skills
Excellent

Writing Skills
Excellent

Listening and speaking skills
Excellent

INTERPERSONAL SKILLS

Having work abroad has given the opportunity to learn how to work in different situations and with diverse cultures. Since my PhD years, I have also managed how to mentor students, which has helped me developing leadership skills. Moreover, I have also learnt how to develop a critical thinking and capabilities to properly manage time-sensitive activities due to my past work experience.

TECHNICAL SKILLS

Microsoft Office package: Microsoft Word, Excel, PowerPoint, Access Team-work oriented Google meet, Microsoft powerpoint knowledge of presentation platforms (PowerPoint, Prezi, Canva) Organizational and planning skills, Internet, MS Teams Social Media Video Conferencing (Zoom, Teams, Skype, Webex) - Advanced Social Media including Facebook , WhatsApp and Twitter,

NCBI, PubMed, Scopus, BLAST, Primer3plus, GraphPad Prism 9, CFX Manager. Data analysis: ImageJ, Image Lab (Bio-rad), QBase+, Cell profiler, Stereoinvestigator, NeuroLucida, Imaris. Animal behavior software: Ethovision, Freeze Frame, AnyMaze. Confocal and imaging software: ZEN Black and ZEN Blue (ZEISS).

I hereby authorize the processing of my personal data in accordance with Legislative Decree 196 of June 30, 2003 and Art. 13 GDPR.