

## CURRICULUM VITAE ET STUDIORUM FEDERICA CARRILLO

### CONTACTS:

### EDUCATION

**July 2021- at present**

**Specialization in Microbiology and Virology** at the University of Campania Luigi Vanvitelli

**January 2018-May 2021: PhD in Molecular Medicine and Medical Biotechnology**

Department of Molecular Medicine and Medical Biotechnology, University of Naples Federico II

Thesis title: Relevance of NCOA4 functions in tissue regeneration

**January 2018: Qualification to the profession of biologist**

University of Sannio, Benevento

**December 2015 – september 2017: Master's degree in Medical Biotechnology**

University of Naples Federico II

Vote: 107/110

Thesis title: Isolation and characterization of breast cancer circulating tumor cells (CTCs) as a new approach for monitoring metastatic disease

**September 2012 – December 2015: Bachelor's degree in Biotechnology for health**

University of Naples Federico II

Thesis title: Transactivation of membran's receptors mediated by GPCRs

Vote: 93/110

### EXPERIENCE AND SKILLS

**Specialization in Microbiology and Virology-U.O.C of Microbiology and Virology at University Luigi Vanvitelli 2021-at present:**

Main activity: to conduct clinical analysis from patients' samples in order to isolate, identify and characterize bacterial and viral pathogens. Identification of mutations responsible for antibiotic resistance in order to set up an effective therapeutic plan. Developed ability to manage samples, organize the work and to collaborate with the medical staff.

**PhD in Molecular Medicine and Medical Biotechnology 2018-2021:**

PhD project: The main aim was to investigate whether NCOA4 functions in controlling DNA replication and iron availability were necessary to sustain regeneration of highly proliferating tissues such the intestinal and bone marrow ones. Experience to work with cellular and in vivo systems.

Experience to handling transgenic mouse models. Experience in the field of molecular biology, analysis of stem cells biomarkers by flow cytometry, evaluation of gene and protein expression by molecular biology techniques. Strong ability to work in team and independently to achieve fixed results. Developed ability to find creative solutions to problems and to analyze and present data.

Data 06/05/2022

**Internship Department of Molecular Medicine and Medical Biotechnology-  
Master's degree 2016-2017:**

Worked with cellular systems: immortalized and primary cell culture derived from patients. Collection of blood samples from patients affected by breast cancer in order to isolate and characterize circulating tumor cells. Collaborated with other professional figures (Pathologists and Oncologists) to collect and analyse tumor tissue for the organization of the biobank

**PUBLICATIONS**

**Published:** Antonella Nai, Maria Rosa Lidonnici, Giorgia Federico, Mariateresa Pettinato, Violante Olivari, **Federica Carrillo**, Simonetta Geninatti Crich, Giuliana Ferrari, Clara Camaschella, Laura Silvestri, Francesca Carlomagno "NCOA4-mediated ferritinophagy in macrophages is crucial to sustain erythropoiesis in mice" *Haematologica* 106(3):795-805. doi: 10.3324/haematol.2019.241232.

**Submitted- under review:** Giorgia Federico; **Federica Carrillo**; Francesca Dapporto; Mario Chiariello; Massimo Santoro; Roberto Bellelli; Francesca Carlomagno "NCOA4 links iron bioavailability to DNA metabolism" submitted to Cell reports.

**ABSTRACT AND CONGRESS**

**XLIX Congresso Nazionale Amcli 26/2/22-1/3/2022- Rimini, Italy**  
"The prevalence of Human Cystic Echinococcosis in Campania Region: Result of a Regional Screening Project" Francesco Foglia, Valentina Fiore, **Federica Carrillo**, Antonetta Schettino, Anna De Filippis, Gianluigi Franci, Emiliana Finamore, Massimiliano Galdiero

**Keystone Symposia on molecular and cellular biology-January  
13-17 2019-Snowbird, Utah USA**

"NCOA4 protein couples Iron Bioavailability to DNA replication"- Giorgia Federico; **Federica Carrillo**; Francesca Dapporto; Mario Chiariello; Massimo Santoro; Roberto Bellelli; Francesca Carlomagno

**CERTIFICATION**

**Certificate of qualification** for the use of TOXINOMETRO WAKO issued by Alifax S.r.l on 23/11/2021

**Certificate of qualification** for the use of SIDE CAR issued by Alifax S.r.l on 23/11/2021

**INTERPERSONAL SKILLS**

Extremely collaborative and friendly . Exchanged constructive feedback and supported the team. Perseverant and self-motivated, patient and absolutely respectful to colleagues and chief

**OTHER SKILLS**

IT: extensive knowledge of standard office software, Photoshop and Prism.  
Languages: English (fluent).  
Organized, fast-learner and highly motivated in working environment

Data  
06/05/2022

## TECHNICAL SKILLS

- Cell culture: immortalized and primary cells, primary cultures of mouse embryonic fibroblasts (MEFs)
- Transfection of cellular cultures to obtain transient or stable clones
- Protein extraction, Western-Blot, (co-)immunoprecipitations and chromatin immunoprecipitation (ChIP)
- Assays to evaluate iron concentration from tissues and serum with colorimetric method and calcein staining to evaluate Labile Iron Pool by flow cytometry
- RNA and DNA extraction from cellular and tissue samples, reverse transcription, PCR, and Real-time PCR
- Handling, feeding, breeding and genotyping of transgenic mouse models.
- Immunohistochemistry analysis
- Immunofluorescence analysis
- Flow cytometry

*I authorize the processing of my personal data pursuant to Legislative Decree 196 of June 30, 2003 and art. 13 GDPR (EU Regulation 2016/679) for the purpose of personnel search and selection.*

*The undersigned, aware that false declarations involve the application of the penal sanctions provided for by art. 76 of the D.P.R. 445/2000, declares that the information reported in the following curriculum vitae, is true.*

Data  
06/05/2022