europass Curriculum vitae

PERSONAL INFORMATION

Monica Fumagalli

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Date of birth 18/03/1969 | Nationality Italian

WORK EXPERIENCE

3rd January 2000 — **Consultant Neonatologist**

NICU, Fondazione IRCCS Cà Granda Ospedale Maggiore Policlinico Milano

SC di Neonatologia e Terapia Intensiva Neonatale

Via Della Commenda 12

20122 Milano Italy

24th December 2013 – 23th December 2016 — **Researcher ad-interim (RTD-A)**

Università degli Studi di Milano, Milan (Italy)

1st October 2017 – 30th September 2020 — **Researcher ad-interim (RTD-B)**

Università degli Studi di Milano, Milan (Italy)

1st October 2020 - Ongoing — **Associate Professor in Pediatrics**

Università degli Studi di Milano, Milan (Italy)

EDUCATION AND TRAINING

24th July 1995 — **Degree in Medicine** — Full marks and honours

Università degli Studi di Milano, Milan (Italy)

Experimental study on: “Cerebral perfusion and pharmacological closure of Patent Ductus Arteriosus in preterm infants”

10th June 1996 — **Albo dei Medici Chirurghi di Milano**

8th November 1999 — **Board Certificate in Pediatrics** — Full marks and honours

Università degli Studi di Milano, Milan (Italy)

Experimental study on: “Effects of administration of different types and doses of natural surfactant on cerebral oxygenation and hemodynamics in preterm infants”

2002 — **Research Fellow**

Department of Neonatology, The Juliane Marie Center (directed by Prof Gorm Greisen), and the Neurobiology Research Unit, Copenhagen (Denmark)

PERSONAL SKILLS

Mother tongue(s): Italian

Other language(s):

English proficient user	French independent user	German basic user

RESEARCH ACTIVITY

My main interest is about brain lesions acquired during the perinatal age, still a leading cause of diseases with major impact on quality of life. Within the big field of perinatal brain damage, the focus of my research has been moving from accuracy of diagnosis, better understanding of pathogenesis and prediction of outcome.
I developed a scientific method starting from an animal model for the study of cerebral haemodynamics in the immature brain by near-infrared spectroscopy and laser-Doppler flowmetry. Thereafter, I applied the scientific methodology to human infants and I performed clinical research studies based on the Good Clinical Practice (GCP) guidelines.
In order to investigate the pathogenesis of brain damage, I performed clinical research studies on cerebral haemodynamics using near-infrared spectroscopy in newborn infants and I participate in multinational clinical trials (the “Safeboosc II and III: Safeguarding the Brain of Our Smallest Children"; the "BabyLux: an Optical Neuromonitor of Cerebral Oxygen and Metabolism and Blood Flow for Neonatology", the latter funded by the European Commission)

I used brain imaging techniques to improve the accuracy of diagnosis and the prediction of prognosis in babies with brain lesions. Starting from cranial ultrasound I moved to conventional Magnetic Resonance Imaging (MRI) and advanced MR techniques (DWI, DTI, SWI and Volumetric MRI) to study perinatal brain damage and the impact of prematurity, and related diseases, on brain development in preterm babies.

Another field of interest I developed is represented by human behavioral epigenetics applied to neonatal research and in particular to the effects of premature birth and pain-exposure on gene methylation, and related long-term behavioral problems in childhood.

A relevant part of my research activity is related to the study project: "Cancer in Pregnancy (CIP-study): long term follow-up of children in utero exposed to chemotherapy and/or radiotherapy". This study has a great impact on the treatment of pregnant mothers with cancer and publications in this area were accepted with great interest by the scientific community.

SCIENTIFIC SOCIETIES

Since 2003 Member of the Italian Society of Pediatrics and of the Italian Society of Neonatology

Since 2013 Member of the European Society for Pediatric Research

COMMITTEE WORK

2013 - 2019 Member of the council of BRAIN & DEVELOPMENT section European Society for Pediatric Research

2013 - 2016 Member of the council of the "Gruppo di studio di neurologia neonatale e follow-up" of the Italian Society of Neonatology

2019 – 2022 Secretary of the council of the "Gruppo di studio di neurologia e follow-up" of the Italian Society of Neonatology

PRIZES, AWARDS, HONORS

2002 European Society for Pediatric Research Grant: Young Investigators Exchange Programme

2001 Borsa di Specializzazione Medica in Neonatologia: “J. Miglierina”, Varese

PUBLICATIONS

- Total number of publications: 173 (Scopus)
- Citations: 3590 (Scopus)
- H-index: 32 (Scopus)

Milan, 12.11.2022