

# CURRICULUM VITAE

FORMATO EUROPEO/EUROPEAN FORMAT



## INFORMAZIONI PERSONALI/ PERSONAL INFORMATION

Nome, Cognome/Name, Surname	Ferdinando Febbraio
Telefono/Telephone	<b>+39 081 6132 611</b>
Fax	
E-mail	<b>ferdinando.febbraio@cnr.it</b>
Sito web/Website	
Nazionalità/Nationality	<b>Italian</b>
Luogo e data di nascita/ Place and Date of birth	<b>Naples</b>

## ESPERIENZA PROFESSIONALE / WORK EXPERIENCE

Dates (from – to)	06/2019 – ongoing
Name and address of employer	National Research Council (CNR) Institute of Biochemistry and Cellular Biology
Type of business or sector	Biochemistry – Enzymology
Occupation or position held	Researcher
Main activities and responsibilities	Research in Biochemistry - Tutor of students.
Dates (from – to)	12/2001 – 06/2019
Name and address of employer	National Research Council (CNR) Institute of Protein Biochemistry
Type of business or sector	Biochemistry – Enzymology
Occupation or position held	Researcher
Main activities and responsibilities	Research in Biochemistry - Tutor of students.
Dates (from – to)	01/2001 – 04/2001
Name and address of employer	National Research Council (CNR) Institute of Protein Biochemistry
Type of business or sector	Biochemistry – Enzymology
Occupation or position held	Temporary contract
Main activities and responsibilities	Research in Biochemistry,.

## **ISTRUZIONE E FORMAZIONE / EDUCATION AND TRAINING**

Dates (from – to)	11/1996 – 04/2001
Name and type of organisation providing education and training	University of Naples “Federico II”
Principal subjects occupational skills covered	Biochemistry
Title of qualification awarded	Ph.D. in Biological Chemistry and Molecular Biology
Level in National classification	Ph.D.
Dates (from – to)	10/1994 – 10/1996
Name and type of organisation providing education and training	National Research Council (CNR) International Institute of Genetics and Biophysics
Principal subjects occupational skills covered	Biophysics approaches to biotransformation enzyme-mediated.
Title of qualification awarded	Fellowship
Dates (from – to)	11/1988 – 03/1993
Name and type of organisation providing education and training	University of Naples “Federico II”
Principal subjects occupational skills covered	Biological Science
Title of qualification awarded	Degree in Biological Sciences
Level in National classification	Master degree

## **ATTIVITA' DI RICERCA / RESEARCH ACTIVITIES**

Attuali campi di ricerca / Research sectors	Recent research activity is strongly oriented to biotechnological applications of biological macromolecules in the field of environmental security and human health. The studies of proteins, and recently also nucleic acids, are oriented to the development of their biotechnological applications such as molecular markers, bioreceptors in biosensors and biodrugs. These activities naturally led to its involvement in a biotechnological start-up aimed at the production and marketing of proteins and enzymes for biotechnological applications in the field of human health and the environment security.
Recenti attività scientifiche/ Recent Scientific Activities.	Participation to the PON - "Ricerca e Competitività 2007-2013". codice identificativo PON01-01585. Titled “Prodotti Innovativi per il Monitoraggio e la Decontaminazione/ Detossificazione di Agenti Nervini ed Esplosivi nell'Ambiente e/o per la Gestione delle Emergenze.” granted from MIUR /EU. The overall objective of the project, through the application of innovative biotechnological approaches, was to gain knowledge that can be used to address issues of considerable social and economic concern in the area of citizen security, emergency management and preservation of environmental resources. The activities covered the study of biosensors and hydrolysis enzymes for the monitoring and decontamination of nerve agents.

Co-Author of 54 International publications  
Co-Author of more than 50 abstract to Congress.  
Co-Author of 2 patents  
Co-Author of 2 scientific software

### Google Scholar h-index 23

### Recent publications (last five years)

- G.P. Cetrangolo, J. Rusko, C. Gori, P. Carullo, G. Manco, M. Chino, F. Febbraio. Highly sensitive detection of chemically modified thio-organophosphates by an enzymatic biosensing device: an automated robotic approach. Submitted (2019).
- G.P. Cetrangolo, C. Gori, J. Rusko, S. Terreri, G. Manco, A. Cimmino and F. Febbraio. Determination of Picomolar Concentrations of Paraoxon in Human Urine by Fluorescence-Based Enzymatic Assay. *Sensors (Basel)*, 19 (22), DOI:10.3390/s19224852.
- G. Lettieri, V. Mollo, A. Ambrosino, F. Caccavale, J. Troisi, F. Febbraio, M. Piscopo. Molecular effects of copper on the reproductive system of *mytilus galloprovincialis*. *Mol Reprod Dev.* (2019) Jan 15. doi: 10.1002/mrd.23114.
- V. De Guglielmo, R. Puoti, R. Notariale, V. Maresca, J. Ausió, J. Troisi, M. Verrillo, A. Basile, F. Febbraio, M. Piscopo. Alterations in the properties of sperm protamine-like II protein after exposure of *Mytilus galloprovincialis* (Lamarck 1819) to sub-toxic doses of cadmium. *Ecotoxicol Environ Saf.* (2019) Mar;169:600-606.
- E. Porzio, F. Bettazzi, L. Mandrich, I. Del Giudice, O.F. Restaino, S. Laschi, F. Febbraio, V. De Luca, M.G. Borzacchiello, T.M. Carusone, F. Worek, A. Pisanti, P. Porcaro, C. Schiraldi, M. De Rosa, I. Palchetti, G. Manco. Innovative Biocatalysts as Tools to Detect and Inactivate Nerve Agents. *Sci Rep.* (2018) Sep 13;8(1):13773.
- M. Piscopo, M. Trifuoggi, C. Scarano, C. Gori, A. Giarra and F. Febbraio. Relevance of arginine residues in Cu(II)-induced DNA breakage and Proteinase K resistance of H1 histones. *Sci Rep.* (2018) May 9;8(1):7414.
- E. Ionata, L. Marcolongo, F. La Cara, G.P. Cetrangolo, F. Febbraio. Improvement of functional properties of a thermostable  $\beta$ -glycosidase for milk lactose hydrolysis. *Biopolymers.* (2018) Aug;109(10):e23118.
- P. Carullo, G.P. Cetrangolo, S. Terreri, G. Manco, A. Cimmino, F. Febbraio, Direct detection of organophosphate compounds by a fluorescence-based biosensor, *Sensors and Actuators B* 255 (2018) 3257–3266.
- F. Febbraio, Biochemical strategies for the detection and detoxification of toxic chemicals in the environment, *World J Biol Chem.* 8 (2017) 13–20.
- S. Terreri, M. Durso, V. Colonna, A. Romanelli, D. Terracciano, M. Ferro, S. Perdona, L. Castaldo, F. Febbraio, F. de Nigris, A. Cimmino, New Cross-Talk Layer between Ultraconserved Non-Coding RNAs, MicroRNAs and Polycomb Protein YY1 in Bladder Cancer, *Genes.* 7 (2016) 127.
- M. Olivieri, M. Ferro, S. Terreri, M. Durso, A. Romanelli, C. Avitabile, O. De Cobelli, A. Messere, D. Bruzzese, I. Vannini, L. Marinelli, E. Novellino, W. Zhang, M. Incoronato, G. Iardi, S. Staibano, L. Marra, R. Franco, S. Perdona, D. Terracciano, B. Czerniak, G.L. Liguori, V. Colonna, M. Fabbri, F. Febbraio, G.A. Calin, A. Cimmino, Long non-coding RNA containing ultraconserved genomic region 8 promotes bladder cancer tumorigenesis, *Oncotarget.* 7 (2016) 20636–20654.
- P. Carullo, G.P. Cetrangolo, L. Mandrich, G. Manco, F. Febbraio, Fluorescence Spectroscopy Approaches for the Development of a Real-Time Organophosphate Detection System Using an Enzymatic Sensor, *Sensors.* 15 (2015) 3932–3951.

**ULTERIORI INFORMAZIONI /  
ADDITIONAL INFORMATION**

**CO-FOUNDER** of Start-up DETOXIZYMES s.r.l.s. 04/07/2014 Partita IVA 07820751217 Numero REA NA – 912757, working in the development, production and marketing of protein and enzymes for biotechnological application in the field human health and environmental security.

**AWARDS:**

Added in the CNR highlights 2010-2011.

Finalista nel gruppo CNR che ha partecipato al concorso "START CUP" (finale di Genova del 21 Ottobre-2 Novembre 2011) in occasione del Festival della Scienza che ha portato alla costituenda start-up "Detoxizymes".

In virtu' del risultato ottenuto al concorso "START CUP", il gruppo Detoxizymes è stato ammesso alla fase finale del premio "Working Capital – PNI" tenutosi a Torino il 20 novembre 2011.

Vincitore nel gruppo Detoxizymes del Progetto "Smart&Start" che ha portato alla costituenda start-up "Detoxizymes".

Il Gruppo "Detoxizymes" risulta Vincitore del premio "Best Presentation Award". BioItaly National RoadShow Napoli 22 gennaio 2015.

**OTHER:**

MIUR reviewer in the final evaluation of the SIR 2014 call

Registered to the "Albo dei Revisori MIUR" (Ministero dell'Istruzione, dell'Università e della Ricerca) - Dipartimento per l'Università, l'Alta Formazione Artistica, Musicale e Coreutica e per la Ricerca - Direzione Generale per il Coordinamento e lo Sviluppo della Ricerca.

Registered to "Register of Expert Peer Reviewers for Italian Scientific Evaluation" (REPRISE) of international scientific experts.

Referee of international journals

Member of editorial board of World Journal of Biological Chemistry

Tutor of PhD, fellows and under-graduated students.

Visiting student at Chemistry department of Ben-Gurion University of the Negev in Beer-Sheva (Israel).

Visiting researcher at Zewail City of Science and Technology, October Gardens, 6th of October City, 12578-Giza (Egypt)

**National Scientific Qualification** (DD 222 of 20 July 2012), 05/E1 – as Associate Professor (II Fascia) in General and Clinical Biochemistry. Valid until 16/06/2020.