

Europass Curriculum Vitae

Personal information

First name / Surname | Andrea Motta

Address | Istituto di Chimica Biomolecolare (ICB), Consiglio Nazionale delle Ricerche (CNR), Via Campi Flegrei

34, 80078, Pozzuoli (Napoli), Italy

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E-mail andrea.motta@icb.cnr.it

Nationality Italian

Date of birth | August 5, 1957

Gender | Male

Occupational field Research; Application of nuclear magnetic resonance (NMR) spectroscopy to

biosystems

Work experience

Dates 2002 - Present

Occupation or position held Research Director (Full professor equivalent)

Main activities and responsibilities NMR of proteins and metabolomics; Coordinator of the NMR Service

Name and address of employer | Istituto di Chimica Biomolecolare (ICB), Consiglio Nazionale delle Ricerche (CNR), Via Campi Flegrei

34, 80078, Pozzuoli (Napoli), Italy.

Type of business or sector | Public Research Organization

Dates 1985 – 2001

Occupation and position held Permanent Researcher and First Researcher at the ICB-National Research Council (CNR), Italy

Main activities and responsibilities NMR of peptides and proteins; Coordinator of the NMR Service

Name and address of employer | Istituto di Chimica Biomolecolare (ICB), Consiglio Nazionale delle Ricerche (CNR), Via Campi Flegrei

34, 80078, Pozzuoli (Napoli), Italy.

Type of business or sector | Public Research Organization

Education and training

Dates | July 2017 – June 2019

Title of qualification awarded Grant: "NMR-based metabolomics analysis as a new tool to monitor inflammation and treatment in cystic

fibrosis", funded by Regione Lazio [coordinated by Ospedale Pediatrico Bambino Gesù (Dr. Vincenzina

Lucidi). Responsible for Unit 3].

Principal subjects | Metabolomics of human patologies.

July 2014 - December 2015 **Dates**

Title of qualification awarded Grant: "Biotechnological Nutraceutics Network of Campania Region (POR Campania 2007/20013): "Biotechnology for human health", Project: "Well-being from Biotechnology: New Processes and Products

for Nutraceutics, Cosmeceutics and Human Nutrition (BenTeN) (Coordinator of the project).

September 2010 - August 2012 **Dates**

Grant: "Metabolomic analysis by NMR as a new approach to understanding inflammation and monitoring Title of qualification awarded

of pharmacological therapy in children and young adults with cystic fibrosis", funded by Fondazione

Fibrosi Cistica (Verona, Italy).

Principal subjects Metabolomics of biological fluids and statistical analysis.

> **Dates** June 2012

Title of qualification awarded National coordinator of the Italian delegation for the Israeli-Italian Bilateral Meeting: "Molecular Structure,

Dynamics, and Recognition of Biomolecules: Physiology, Pathology, and Biological Assembly", 5-6 June

2012, held in Tel Aviv (Israel) and funded by the Italian Ministry of Foreign Affairs.

Dates February 2003 - Present

Title of qualification awarded Head of the NMR Service of Research Area "Naples 3".

December 2002 - June 2005 **Dates**

Grant: "Understanding the molecular bases of aluminium in neuropathologies: are Al-induced Title of qualification awarded conformational changes in calmodulin implicated in neurotoxicity mechanisms?" funded by CNR/MIUR

(Coordinator of the project).

January 2002 Dates Research director (Full professor equivalent) at the Institute of Bimolecular Chemistry – CNR. Title of qualification awarded

March 2001 **Dates**

First researcher (Associate professor equivalent) at the Institute of Biomolecular Chemistry - CNR. Title of qualification awarded

September 1996 - March 2002 Dates

Grant: "Intracellular mechanisms of antigen processing and presentation by the MHC class I and class II Title of qualification awarded molecules", funded by EU (Coordinator of the Italian Team).

June 1994 Dates

Coordinator of the NMR Service of the Institute for the Chemistry of Molecules of Biological Interest Title of qualification awarded (CNR), now ICB-CNR.

June 1994 - August 1994 **Dates**

Summer visitor at the European Molecular Biology Laboratory, Heidelberg (Germany) in the Biostructure Title of qualification awarded

Dates April 1992 – March 1995

Grant: "Control of muscle filament assembly by titin and nebulin: a multidisciplinary approach", funded by Title of qualification awarded

Human Frontier Science Program Organization (Coordinator of the Italian Team).

1991 - Present **Dates**

Group leader at the ICB-CNR. Title of qualification awarded

ICB-CNR, Italy Public Research Organization Name and type of organization

> January 1985 **Dates**

Researcher at the Institute for the Chemistry of Molecules of Biological Interest (CNR), now ICB-CNR Title of qualification awarded

> September 1982 - June 1985 **Dates**

Post doc at the department of Chemistry, Carnegie-Mellon University, Pittsburgh PA, USA. NMR studies Title of qualification awarded

on human plasminogen (supervisor Prof. Miguel Llinás).

Dates

Degree in Chemistry, specialization in Physical Chemistry, with highest mark and honors (summa cum Title of qualification awarded laude), discussing the experimental thesis "NMR studies and structural calculations on uteroglobin"

(supervisor Prof. Pierandrea Temussi).

Name and type of organization University of Naples "Federico II", Faculty of Sciences providing education and training

Publications and additional information

Co-author of 190 articles and reviews in peer-reviewed scientific journals (H-index = 48 according to Google Scholar, and H-index = 41 according to Web of Science: ORCID ID: 0000-0002-8643-658X, as of September 2021), 89% of them as senior author, on NMR applications to biostructural problems of proteins and polypeptides, and metabolomics.

He served as referee for international Journals like PLoS One, Biochemistry, Analytical Chemistry, Journal of Physical Chemistry, Journal of the American Chemical Society, Journal of Proteome Research, Bioanalysis, European Respiratory Journal, Biomarkers in Medicine, Journal of Allergy and Clinical Immunology, Thorax, Lancet, etc.

He also served as project evaluator for the "National Science Foundation" (Washington DC, USA), the "International Science Foundation" (Washington DC, USA), and the Human Frontier Science Program Organization (Strasbourg, France) for applications involving NMR to biostructural aspects of proteins and polypeptides.

He was also evaluator for the ANVUR (Italian National Agency for the Evaluation of the University and Research Systems).

Personal skills and competences

Mother tongue(s)

Italian

Other language(s)

Self-assessment

European level

English French

| | Understanding | | | | Speaking | | | | Writing | |
|-----------|------------------|----|------------------|----|--------------------|----|-------------------|----|------------------|--|
| Listening | | | Reading | | Spoken interaction | | Spoken production | | | |
| C2 | Proficient user | C2 | Proficient user | C2 | Proficient user | C2 | Proficient user | C2 | Proficient user | |
| B2 | Independent user | B2 | Independent user | B2 | Independent user | B2 | Independent user | B2 | Independent user | |

Social skills and competences

Team work; mediating skills; problem solving; personnel managing

Technical skills and competences

1. NMR structure determination of peptides and proteins involved in pathological processes:

Structure-activity relationship of macromolecules:

Design of new NMR experiments;

Software development for NMR processing:

Conformational calculations.

2. Metabolomics/metabonomics of pathologies:

Metabolomics/metabonomics by high-resolution NMR;

Statistical analysis.

3. Cell systems biology:

Metabolic profiles of in-vivo cells;

Design of new NMR experiments for fast observation of metabolic fingerprint;

Metabolic pathway bioinformatics.

Computer skills and competences

Excellent knowledge of Microsoft programs and some experience with HTML.

Molecular modeling based on NMR data.

Other skills and competences

Expert in World War II and Nazi war crimes.

Love reading and listening to jazz and classical music.