

## Giulia Di Rocco-short CV

Dr. Di Rocco (ORCID: 0000-0002-3187-2210) has published 51 full papers on peer-reviewed international journals (font: Scopus), with an H index of 17. Her papers have received more than 614 citations (Scopus)

### WORK EXPERIENCE

2008–Present: Assistant Professor of General and Inorganic Chemistry (SSD CHIM/03) at the Department of Life Sciences, University of Modena and Reggio Emilia

1998–1999: Chemist, Istituto di Ricerche Agrindustria, Modena-Italy

2013–2016: Teacher at Doctoral School of Science and Technology of Products for Health

2012–Present: Coordinator Erasmus for the exchange with Universidade Nova de Lisboa, Portugal

2015–Present: Coordinator Erasmus for the exchange with BOKU University of Natural Resources and Life Sciences, Vienna

### EDUCATION AND FORMATION

1987–1992 Classical High school-Liceo San Carlo-Modena

1992–1998 BS, Chemistry, University of Modena and Reggio Emilia

1999–2001 Researcher, Universidade Nova de Lisboa (with Isabel Moura)-Portugal

2002–2003 Postdoctoral fellow, University of Modena and Reggio Emilia (Tutor: Prof. M. Sola)

2003 Visiting scholar, Leiden University (Prof. G.W. Canters) Netherlands

2002–2005 PhD, Chemistry, University of Modena and Reggio Emilia (tutor: Prof.M.Sola)

2019 Visiting Professor, University College of London, UCL, UK (collaborator: Prof. S. Purton)

### ORGANISATIONAL / MANAGERIAL SKILLS

Conference organization comitee: 29-30 October: 2013ET4HEALTH 2013-The International Workshop on Protein Electron Transfer: from Fundamentals to Applications for Health , Department of Life Sciences.

#### Tutoring:

Post Doc Tutor: Claudio Giacinto Atene 2018-2019

PhD Thesis Tutor. Martinelli Ilaria 2013-2016

From 2012 Giulia Di Rocco tutored 22 master thesis and /or thesis students

### SCIENTIFIC SKILLS

- ⇒ Cloning and production of recombinant proteins and mutagenesis techniques
- ⇒ Protein Chemistry, SDS-PAGE, WB, Chromatography
- ⇒ Spectroscopic and spectrofluorometric techniques (UV-vis, fluorometry, MCD, CD, FRET, BRET)
- ⇒ Electrochemistry on metallo-proteins and metallo-enzymes immobilized on the electrodes

### SCIENTIFIC INTERESTS

- ⇒ Production of native and mutated recombinant proteins (cofilin, myoglobin, neuroglobin, PDE5, KBTBD13, receptor sigma2) involved in various diseases (eg. breast cancer, thyroid carcinoma, cardiovascular diseases). Structure-function investigation and binding studies for design new inhibitors.
- ⇒ Voltammetric investigation of metalloproteins and metallo enzymes on solid electrodes to study the redox properties and the thermodynamic parameters of the electron exchange processes in order to understand the determinants of redox mechanism.
- ⇒ Research and production in Algae of copper-dependent oxidative metalloenzymes that can be used in the production of renewable energy
- ⇒ *In vitro* cGMP, cAMP and PDE5's inhibitors sensing

## PROJECTS

-FARSDV2020: The biomolecular and physico-chemical foundations of myoglobinopathy, a rare autosomal progressive myopathy caused by the His98Tyr myoglobin mutant – (MBRARE) Participant (10000€)-UNIMORE (ongoing)

-FAR 2019: OxiDative mEtalloenzymes for sea waste-to-energy upGRADE (DEGRADE)-PI (10000€)-UNIMORE (ongoing)

-FAR 2018: Mobility to University College of London for Cloning industrial enzymes into algae - (4000€)-UNIMORE

-FAR 2107: The Sigma receptor ( $\sigma$ R): an Innovative protein TArget for the treatment of CAncer (ITACA)-(2018-2020) Participant (11500€) -UNIMORE

-FAR 2015: "Sviluppo e validazione di una nuova metodica per lo screening di ligandi delle Fosfodiesterasi (PDE5) tramite FRET (Förster Resonance Energy Transfer)" (2015-2016) PI (6000€)- UNIMORE

-FIRB 2012: "The PDE5 catalytic domain as a model system in the study of enzyme-inhibitor binding for cancer therapy" – (2013-2016) - PI (125000€)- MIUR

-PRIN 2007:"Sviluppo di biosensori elettrochimici di terza generazione basati su eme-proteine ingegnerizzate e sintetiche" -Participant-MIUR