

PERSONAL INFORMATION

Chiara Nardon



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[data from Scopus database]

WORK EXPERIENCE

**2022 –
to date**

Associate Professor

Department of Biotechnology, University of Verona (Italy)

**2019 –
2022**

Assistant Professor (tenure track – RTD-b)

Department of Biotechnology, University of Verona (Italy)

**2018 –
2019**

Assistant Professor (RTD-a)

Department of Chemical Sciences, University of Padova (Italy)

**2017 –
2018**

L'Oréal – UNESCO Award - Post-doctoral Researcher

Department of Chemical Sciences, University of Padova (Italy)

**2015 –
2017**

Post-doc Senior Fellow

Supervisor: Prof. Dolores Fregona

University of Padua (Italy) - Department of Chemical Sciences

Title of the Project: Molecular Trojan horse in targeted anticancer therapy: nutrient-functionalized gold-based agents recognizable by overexpressed transporters

**2013 –
2015**

Post-doc Junior Fellow

Supervisor: Prof. Dolores Fregona

University of Padua (Italy) - Department of Chemical Sciences

Title of the Project: Widening of the studies on the mechanism of action of new anticancer gold-based complexes functionalized with bioactive molecules

**Sept. –
Dec. 2009**

Postgraduate Fellow

Fellowship granted by the University of Padova (Italy)

Dept. Chemical Sciences and Dept. Biomedical Sciences

European Project PEP MIDAS – MERG-CT-2007-204828, granted by the European Commission under the 7th Framework Program – FP7-PEOPLE-2007-2-2-ERG)

Supervisors: Prof. Dolores Fregona; Prof. Giuseppe Zanotti

EDUCATION AND TRAINING

- April 2018 – June 2019 **Master executive in *Technology Design & Strategy Innovation* (TDSI)**
University Ca' Foscari Venice (Italy)
- August 2017 **Visiting Scientist**
Massachusetts Institute of Technology (MIT)
Department of Biological Engineering
Cambridge, MA (U.S.A.)
- February 2013 – September 2013 **Training course “*New technologies in Molecular Medicine*”**
University of Padova (Italy) – Dept. Molecular Medicine (Chair: Prof. Alberto Ferlin)
Total 200 hours
- April 2011 – October 2011 **Visiting PhD student**
Mentor: Prof. Q. Ping Dou
Barbara Ann Karmanos Cancer Institute (www.karmanos.org), Department of Oncology, Pharmacology and Pathology, School of Medicine, Wayne State University, Detroit, MI (U.S.A.)
- January 2010 – March 2013 **PhD studies in Molecular Sciences**
Supervisor: Prof. Dolores Fregona - Department of Chemical Sciences, University of Padua (Italy)
Thesis title: Anti-cancer chemotherapeutics in target therapy: from advanced preclinical studies on promising Au(III) peptidomimetics toward the design of new receptor-recognizable metal-based agents.
- October 2006 – July 2009 **MSc degree in Chemistry**
University of Padova (Italy) **Mark:** 110/110 with Honors **Credits:** 324/300 (24 credits extra than required: 3 additional academic courses willingly attended and related exams successfully passed)
Thesis title: Design and development of new metal-based biosensors for the early detection of cancer antigens in oncology.
- October 2003 – October 2006 **BSc degree in Chemistry**
University of Padova (Italy) **Mark:** 110/110 with Honors **Credits:** 181/180
Thesis title: Studi di stabilità in soluzione tramite metodi spettroscopici di complessi ditiocarbammici di Ru(III) con potenziale attività antineoplastica.

RESEARCH COMMITMENT

Projects

Participation in many research projects at the national and international level, including:

- in 2024-to date as *National Scientific Coordinator* in **PRIN2022 NESTOR** Project (project n. **2022BTMYWZ** - CUP: B53D23015260006)
- in 2019-2022 **PRIN 20172M3K5N** – CHIRALAB (National coordinator: Prof. Marco Bettinelli, University of Verona)
- in 2019 **Principal Investigator** of the project POINT-LOGIN at UNIPD (P-DiSC#07BIRD2019 – not started due to University change)
- in 2015-17: **Principal Investigator** of “*Molecular Trojan horse in targeted anticancer therapy: nutrient-functionalized gold-based agents recognizable by overexpressed transporters*”, UniPD, Dept. Chemical Sciences
- in 2011-2013 **PRIN 2009WCNS5C_003** (National coordinator: Prof. G. Morelli, University of Naples)
- in 2009 **European Project PEPMIDAS** – MERG-CT-2007-204828 within the FP7-PEOPLE-2007-2-2-ERG (as post-graduate fellow; in charge: Prof. D. Fregona)
- in 2008-09: Participant in "Development of a detection system for the reading of antibody and cellular microarrays for diagnosis in oncology" (PRODESYS), **CNR-ISIB** project funded by the **VENETO REGION**, DGR n. 4073 del 19.12.2006 - AZIONE BIOTECH III

Publications

Selected papers in the biomedical chemistry field:

C. Nardon, S. M. Schmitt, H. Yang, J. Zuo, D. Fregona, Q. P. Dou

"Gold(III)-dithiocarbamate peptidomimetics in the forefront of the targeted anticancer therapy: preclinical studies against human breast neoplasia"

PLoS One, **2014**, 9(1), e84248

C. Nardon, G. Boscutti, D. Fregona

"Beyond platinum: gold complexes as anticancer agents"

Anticancer Research, **2014**, 34, 487-492

C. Nardon, G. Boscutti, L. Dalla Via, P. Ringhieri, V. Di Noto, G. Morelli, A. Accardo, D. Fregona.

"CCK8 peptide-labeled Pluronic® F127 micelles as a targeted vehicle of gold-based anticancer chemotherapeutics".

Medicinal Chemistry Communications, **2015**, 6, 155-163.

S. Scintilla, L. Brustolin, A. Gambalunga, F. Chiara, A. Trevisan, **C. Nardon***, D. Fregona*.

"Ru(III) anticancer agents with aromatic and non-aromatic dithiocarbamates as ligands: loading into nanocarriers and preliminary biological studies"

Journal of Inorganic Biochemistry, **2016**, 165, 159-169.

C. Nardon, G. Boscutti, C. Gabbiani, L. Massai, N. Pettenuzzo, A. Fassina, L. Messori, D. Fregona.

"Cell and cell-free mechanistic studies on two gold(III) complexes with proved antitumor properties".

European Journal of Inorganic Chemistry, **2017**, 1737-1744.

C. Nardon, M.F. Tomasello, V. Lanza, G. Di Natale, N. Pettenuzzo, S. Salmaso, D. Milardi, P. Caliceti, G. Pappalardo, D. Fregona

"New comprehensive studies of a gold(III) dithiocarbamate complex with proven anticancer properties: aqueous dissolution with cyclodextrins, pharmacokinetics and upstream inhibition of the ubiquitin-proteasome pathway"

European Journal of Medicinal Chemistry, **2017**, 138, 115-127.

C. Nardon, G. Boscutti, L. Marchiò, M. Crisma, B. Biondi, D. Dalzoppo, L. Dalla Via, F. Formaggio, A. Casini, D. Fregona

"Anticancer gold(III) peptidomimetics: from synthesis to in vitro and ex vivo biological evaluations"

ChemMedChem, **2018**, 13, 1131 – 1145.

C. Nardon, L. Brustolin, N. Pettenuzzo, N. Z. Fantoni, S. Quarta, F. Chiara, A. Gambalunga, A. Trevisan, L. Marchiò, P. Pontisso, D. Fregona.

"Synthesis, chemical characterization and cancer cell growth-inhibitory activities of Cu(II) and Ru(III) aliphatic and aromatic dithiocarbamate complexes"

Dalton Transactions, **2018**, 47, 15477 – 15486.

N. Pettenuzzo, L. Brustolin, E. Coltri, A. Gambalunga, F. Chiara, A. Trevisan, B. Biondi, **C. Nardon**, D. Fregona.

"Cu(II) and Au(III) complexes with glycoconjugated dithiocarbamate ligands for potential applications in targeted chemotherapy"

ChemMedChem, **2019**, 14(12), 1162-1172.

L. Brustolin, N. Pettenuzzo, **C. Nardon**, S. Quarta, L. Marchiò, B. Biondi, P. Pontisso, D. Fregona

"Au(III)-Proline derivatives exhibiting selective antiproliferative activity against HepG2/SB3 apoptosis-resistant cancer cells"

Dalton Transactions, **2019**, 48, 16017-16025.

X. Chen, **C. Nardon**, Q. P. Dou

"Editorial: Unravelling Copper-Regulatory Systems and Copper-Affected Pathways in Cancer Cells to Improve Current Therapies"

Front. Mol. Biosci., **2022**, 9, 876902.

D. Lovison, D. Alessi, L. Allegri, F. Baldan, M. Ballico, G. Damante*, M. Galasso, D. Guardavaccaro, S. Ruggieri, A. Melchior, D. Veclani, **C. Nardon***, W. Baratta*

"Enantioselective Cytotoxicity of Chiral Diphosphine Ruthenium(II) Complexes Against Cancer Cells"

Chem. Eur. Journal, **2022**, 28, e202200200.

Awards and Honors

Total ca. **30** at the national and international level, among those:

- ❖ **Fellowship for Teaching Staff** in the framework of Erasmus⁺ KA103 OUT Program (granted by European Commission @University of Padua) – teaching experience at the University of Cordoba (Spain) in 2019
- ❖ **Italfarmaco-De Santis Award** granted by Italfarmaco spa and Biological Systems Chemistry Division of Italian Chemical Society in 2018
- ❖ **Fellowship** granted by **University Ca' Foscari of Venice** for supporting brilliant students in the Master Executive in Technology Design & Strategy Innovation in 2018
- ❖ **L'Oréal-UNESCO Award "For Women in Science"** (top 6 starting from more than 450 candidates) in 2017
- ❖ **Seal of Excellence from EU Commission** - H2020-MSCA-IF-2016, Proposal n. 706384 (Global Fellowship; Acronym: STEMMETS); Role: Experienced Researcher. Score: 88.8/100 in 2017
- ❖ **Chairman in the Session "Chemotherapy/Pharmacology"** at the 20th World Congress on Advances in Oncology in Athens in 2015
- ❖ Selected among the **90 excellent Italians** by VANITY FAIR - Excellence collection (supplement to Vanity Fair Italy n. 19, page 34 – May 20, 2015; <http://www.vanityfair.it/mybusiness/news/15/5/13/le-eccellenze-italiane>)
- ❖ **HIC LABOR Award 2014**, in the section B) Scientific and technical subjects by Accademia Olimpica, Vicenza, Italy
- ❖ *Selected worldwide among the 600 Final participants*, starting from thousands of international nominated in the **63rd Meeting of Nobel Laureates** in 2013
- ❖ *First profile in the series "30 under 30"* according to the magazine **Scientific American** regarding the 600 attendees to the 63rd Meeting of Nobel Laureates who represent the future of chemistry in 2013
- ❖ **IUPAC Award** for the best oral communication presented at the 12th Eurasia Conference on Chemical Sciences in 2012 (Athens, Greece)
- ❖ **Best oral presentation Award** - 12th Workshop on PharmacoBioMetallics – BIOMET12, Padova (Italy) in 2012
- ❖ **IN TESI2009 Award** in the section Innovative Products Developed within Undergraduate Research Projects awarded by *Parco Scientifico e Tecnologico Galileo* in Padua
- ❖ **13th OLYMPIC ACADEMY biennial Award 2011** in the section B) **Scientific and technical subjects** in 2012 for the MChem Degree Thesis awarded by Accademia Olimpica, Vicenza (Italy)

PERSONAL SKILLS

Languages *Italian*: mother-tongue *English*: fluent *French*: basic

Supervising 2009-to date: Supervision of undergraduate, graduate students and post-doctoral fellows:

- At the International level [Erasmus⁺ program]: **5** students in the period 2020-24
- At the academic level: Supervisor of total **34** Bachelor/Master Thesis (Chemistry, Industrial Chemistry and Biotechnology, Molecular and Medical Biotechnology) students, PhD students and Post-doc

Technology Transfer

- in 2018 Founder & CEO of the innovative start-up *itamPharma* srl
- co-Holder and co-Inventor of 3 patents:
 - WO2018100560 A1 --- Priority: IT102016000122377; Title: Coordination compounds and formulations, preparation methods and use thereof as antiproliferative agents
 - WO2018100561 A1 --- Priority: IT102016000122363; Title: Coordination compounds, synthesis, nanoformulation and use thereof in oncology
 - WO2018100562 A1 --- Priority: IT102016000122406; Title: Coordination compounds, synthesis, nanoformulation and use thereof in oncology

Editorial Activities

- 2014 – present: **Regular referee** for the international scientific journals *Inorganic Chemistry*, *Dalton Transactions*, *Journal of Inorganic Biochemistry*, *RSC Advances*, *New Journal of Chemistry*, *Nanoscience and Nanotechnology Letters*, *Photochemical and Photobiological Sciences*, *International Journal of Molecular Sciences*, *Cancer and Metastasis Reviews*
- 2021-2022: co-Guest Editor for the special issue “*Unravelling Copper-Regulatory Systems and Copper-Affected Pathways in Cancer Cells to Improve Current Therapies*” within the scientific international peer-reviewed journal *Frontiers in Molecular Biosciences*
- 2017-2018: co-Guest Editor for the Special Issue “*Throwing light on recent advances on metallodrugs: from deemed poisons to a striking hope for the future*” within the scientific international peer-reviewed journal *Current Medicinal Chemistry*
- 2014 – 2015: co-Guest Editor for the Special Section “*Cutting-edge Nanosystems for Biomedical Applications*” within the scientific international peer-reviewed *Journal of Nanoscience and Nanotechnology*

Project Management

- In 2016 in London | **Finalist Phase: Leader** of the start-upper team “ITAM Pharma” (*top 1.3%, starting from 750 teams over 50 countries*) in the international competition *OneStart 2016 Europe* (<http://onestart.co/startups/2016/europe>)
[OneStart is the world's largest accelerator for start-ups seeking to dramatically improve human health in the technology sectors: therapeutics, diagnostics, devices and digital health / health IT]
- Collaboration with a number of companies, such as **PRIMM GLP test Center s.r.l.** (Address: Via dell'Artigianato 2, 31030 Dosson di Casier (TV) Italy; for some in vitro and in vivo testing for anticancer applications); **Fidia farmaceutici s.p.a.** (Address: Via Ponte della Fabbrica 3/A - 35031 Abano Terme (PD) – Italy; in 2010-2011 for developing new platinum-hyaluronan conjugates); **Phoenix RTO s.r.l.** (Address: Via Svizzera 6, 35127 Padova, Italy; in 2008-2009 for developing cancer-detecting biosensors); **AGROLAB Italia srl** (Address: Via Retrone 29, 36077 Altavilla Vicentina (VI)) for co-supervision of undergraduate Master and Bachelor students; **EVOTEC Italia** (Verona, Italy) for co-supervision of undergraduate Master students.

Organisation of Scientific Meetings

- ❖ 2025: Member of the Organizing Committee of the *Global Women Breakfast (accelerating equity in science)*, jointly organized in collaboration with the University of Padua and Ca' Foscari Venice under the aegis of IUPAC
- ❖ 2019: Member of the Organizing Committee of the *Global Breakfast event Empowering Women in Chemistry*, organized in collaboration with IUPAC in occasion of its 100° anniversary, Padua, Italy
- ❖ 2017: Member of the Organizing Committee of the *Global Summit on Current Stem Cell Research* – Philadelphia (USA)
- ❖ 2012: Member of the Organizing Committee of the *12° Workshop on PharmacoBioMetallics* – BIOMET12, Padua, Italy

Verona | February 25th, 2025*Chiara Nardon*