

## ***Curriculum Vitae et Studiorum – Prof. Nicola Margiotta (January 2021)***

### ***Education and professional experience.***

Nicola Margiotta obtained the Degree in Pharmaceutical Chemistry and Technology in 1995 at the University of Bari, Italy (First Class Honour Cum Laude).

In 1996 he worked, under the supervision of Professor Peter J. Sadler, as Research Assistant at the Chemistry Department (Birkbeck College, University of London and Chemistry Department, University of Edinburgh) to a project called: "The application of NMR techniques to the structural characterisation of bioinorganic compounds".

After the military service under the Italian Navy in 1997, he obtained a Ph.D. in Pharmaceutical Chemistry in 2000 at the Department of Pharmaceutical Chemistry of the University of Bari, Italy (title of the Ph.D. Thesis: "Interaction of antitumoral Platinum(II) complexes with nucleobases, oligonucleotides and nucleobase derivatives with antiviral activity"; supervisors: Prof. Giovanni Natile and Prof. Vincenzo Tortorella).

After a PostDoc (2000-2001) under the supervision of Prof. Luciana Maresca, in 2002 Dr. Margiotta became Researcher at the Faculty of Pharmacy, University of Bari (Italy) and lately Permanent Researcher in 2005. In the period 2007-2015 Dr. Margiotta was Tenured Assistant Professor (Professore Aggregato) in General and Inorganic Chemistry.

Since October 31, 2015 Dr. Margiotta is Associate Professor in General and Inorganic Chemistry at the Department of Chemistry (University of Bari, Italy).

Dr. Margiotta achieved the National Qualification (ASN - Bando 2016, primo quadrimestre) as Full Professor in General and inorganic chemistry for the period 12/04/2017-12/04/2026.

### ***Teaching, management and institutional activities:***

- 2004-2007: General and Inorganic Chemistry, Faculty of Mathematical, Physical and Natural Sciences, University of Salento (Lecce, Italy);
  - 2005-2014: Complementary Chemistry, Master Degree in Pharmaceutical Chemistry and Technology, University of Bari;
  - 2008-2010: Bioinorganic Chemistry, Faculty of Pharmacy, University of Bari;
  - 2009-2014: Nuclear Chemistry and Coordination Chemistry, Master (II level) in Radiopharmacy, Faculty of Pharmacy, University of Bari;
  - 2013-2015: General and Inorganic Chemistry, Master Degree in Pharmacy, University of Bari;
  - 2016-present: General and Inorganic Chemistry, Master Degree in Pharmaceutical Chemistry and Technology, University of Bari;
  - 2016-present: Complementary Chemistry, Master Degree in Pharmaceutical Chemistry and Technology, University of Bari.
  - 2017-present: Laboratory Chemical Safety, Master Degree in Chemistry; University of Bari.
- He was founder member of the Teaching Board of the II level Master on "REACH (EC 1907/2006) and CLP (EC 1272/2008)", faculties of Mathematical, Physical and Natural Sciences and Pharmacy.

- From 2009 to 2012 he has been member of the Boarding Committee and of the Standing Health and Safety Committee of the Department of Pharmaceutical Chemistry.
- Dr. Margiotta was member of the Steering Committee of the project "Laboratorio SISTEMA" of the University of Bari, that was funded (13 million euros) in the frame of "P.O.N. Ricerca e Competitività 2007-2013". Decreto Direttoriale prot. 254/Ric. 18/05/2011.
- He is member of the Teaching Board of the Research Doctorate in Chemical and Molecular Sciences of the University of Bari. In the period 2002-2018 Dr. Margiotta has been supervisor of 25 undergraduate students and 12 PhD students.
- From 03/12/2015 to June 2019 Dr. Margiotta has been Delegate of the Rector of the University of Bari to the monitoring of the legislation relevant to the academic members.
- From Dec. 2018 he is in charge for the Department of Chemistry for the management of the Agilent 500 MHz NMR instrument.
- From April 2020 he is member of the Anti-COVID commission of the Department of Chemistry.

### **Research activity:**

Main research interests are in the fields of Medicinal Inorganic Chemistry and of Organometallic chemistry.

In the field of Organometallic chemistry Dr. Margiotta investigated tetra- and penta-coordinate platinum compounds with ethylene and polycyclic heteroaromatic ligands.

In the field of Medicinal Inorganic Chemistry chemistry Dr. Margiotta investigated extensively "non-classical" antitumor-active platinum compounds with atypical ligands such as aminophosphines, aromatic heterocycles, antiviral drugs, sulphanylphosphonates, trifluorurated aminoacids, and ligands having high affinity towards the Translocator Protein 18kDa (peripheral benzodiazepinic receptor; TSPO).

More recently his research interests have been directed to 1) the investigation of inorganic delivery systems for the local treatment with antitumoral platinum drugs using the "drug targeting and delivery" approach; 2) the synthesis of cold nonradioactive Rhenium radiopharmaceutical agents with ligands having high affinity and selectivity towards the TSPO; 3) the development of platinum(II) and platinum(IV) complexes with marked activity against colorectal cancer and, in particular, oxaliplatin-resistant colorectal cancer.

### **Publications.**

Since 1997 the research activity of Dr. Margiotta is documented by more than 72 publications in peer-reviewed international journals. Total number of citations: 1578, h-index = 23 (data obtained from Scopus, January 2021).

Prof. Margiotta has also been an active participant to International Conferences with oral communications (ca. 21) and posters (ca. 86). He has been invited speaker for a Keynote Lecture at the XL Congresso Nazionale di Chimica Inorganica (Sestri Levante, Italy; 9-13 September 2012) and Speaker and Chairman of one session at the 11th European Biological Inorganic Conference (Granada, Spain; 12-16 September 2012).

Other important lectures were given at the following conferences: 1) 14th International Symposium on Applied Bioinorganic Chemistry (ISABC14). Toulouse, France. June 7th-10th, 2017. 2) International Conference "Metallo-drugs I: Design and Mechanism of Action" Olomouc (Czech Republic), 6-9 December 2012. 3) ISABC11. International Symposium on Applied Bioinorganic Chemistry (Barcelona, Spain. 2-5- December 2011). 4) COST D39 "Metallo-drug Design and Action", Working Group #4 meeting Brno (Czech Republic), May 13-14, 2011. 5) 10th European Biological Inorganic Chemistry Conference (Thessaloniki, Greece. June 22-26, 2010). 6) ISABC10. International Symposium on Applied Bioinorganic Chemistry (Debrecen, Hungary. 25-28 September 2009). 7) FIGIPAS9 Meeting in Inorganic Chemistry (Wien, Austria. 4-7 July 2007). 8) Gordon Research Conferences Metals in Medicine (Oxford, UK. July 9-14, 2006). 9) COST D20 WORKING GROUP 0003/00 – Bari (Italy), 20-21 February 2004.

### **Grants.**

Prof. Margiotta has been the Scientific Coordinator of the following projects:

- PRIN2004 project financed by the Italian Ministry of University and Research (MIUR, PRIN2004 Research Project n. 2004032118\_003 "Synthesis and characterization of bisphosphonates and their platinum(II) complexes as active molecules in bone graft materials".
- 2007: PRIN COFIN 2006 "Synthesis of bisphosphonates to be encapsulated in inorganic/organic matrices and subsequent activation with antitumoral platinum compounds" granted by the University of Bari.
- 2008: PRIN COFIN 2007 " Functionalization of inorganic biomaterials to be used as delivery agents for antitumoral platinum complexes and as scaffold for tissue engineering" granted by the University of Bari.
- 2009: PRIN COFIN 2008 " Inorganic functionalized biomaterials to be used as delivery agents for antitumoral platinum complexes and as scaffold for tissue engineering" granted by the University of Bari.
- 2013: PRIN COFIN 2009 "Synthesis and characterization of bisphosphonates and of the corresponding platinum complexes to be used as prodrugs in the treatment of bone tumors after inclusion in bone graft materials" granted by the University of Bari.

Dr. Margiotta also supported the application of the following projects by other group leaders:

- PRIN2003 project "Genomics-based pharmacological development of antitumour platinum-iminoether complexes" financed by the Italian Ministry of University and Research (MIUR, PRIN2003 Research Project n. 2003058859\_007).
- FIRB ACCORDI DI PROGRAMMA 2011 "Integrated net in Nanomedicine (RINAME)" funded by the Italian Ministry of University and Research (2011 – Protocol nr. RBAP114AMK\_009).
- PON 2011 "Identification of biomarkers and development of diagnostic and therapeutic methods in oncology and vascular biology" financed by the Italian Ministry of University and Research (MIUR, PON Research Project n. 01\_01078).
- 2014: Radboud Institute for Molecular Life Sciences (RIMLS) PhD grant in collaboration with Prof. Sander Leeuwenburgh and Prof. John Jansen (Radboud University Medical Center, Nijmegen, The

Netherlands). PhD research project title: "Combating bone metastases by delivering bone-seeking, theranostic platinum-based anticancer drugs".

***Affiliations, Scientific collaborations, Editorial Boards Membership.***

- Prof. Margiotta is member of the Italian Chemical Society. He has been an active participant in the EU COST actions D8, D20, D39, and CM1105. He is member of the Inter-University Consortium for Research on the Chemistry of Metal Ions in Biological Systems (C.I.R.C.M.S.B., Bari).

- He has established collaborations with Peter J. Sadler (University of Warwick, UK), Einar Sletten (University of Bergen, Norway), Gianni Sava (Fondazione Callero, Trieste, Italy), Francesco De Angelis (Università dell'Aquila, Italy), Norberto Roveri (University of Bologna, Italy), Domenico Osella (University of Piemonte Orientale, Italy), Luigi G. Marzilli (Louisiana State University, USA), James D. Hoeschele (Eastern Michigan University, USA), Jamie Platts (University of Cardiff), Viktor Brabec (Academy of Sciences of the Czech Republic, Brno, Czech Republic), and Sander Leeuwenburgh (Radboud University, The Netherlands).

- Prof. Margiotta is Topic Editor of the *International Journal of Molecular Sciences* (IF = 4.183) and Editorial Board Member of *Materials* (IF = 3.057).