

Daniela Giunta, PhD

CURRICULUM VITAE

Working experiences

Researcher at the Institute of Biomolecular Chemistry-National Research Council

From 30/11/2018 (Permanent position)

Activity Application of a greener approach (atom economy reactions, reduced derivatives and by-products, use of catalytic transformations) to the design and synthesis of new nitrogen containing heterocyclic molecules, aiming to develop both new organometallic catalysts and to obtain new bioactive compounds.

From 01/05/2017 to 31/10/2017 (BIT3G project)

Activity Development of chemical transformations aimed at enhancing the phenolic and polyphenolic component obtained from the extraction of biomasses.

From 15/11/2012 to 15/05/2015 (*Ricerca di Base* project n. 25257)

Activity

- Design and synthesis of new molecules with positive allosteric modulator (PAM) activity for the GABA_B receptor. Study of the structure-activity relationship (SAR) of the new structures. The aim of the research work was the identification of new molecules for the treatment of addictions including alcoholism.
- Study of the lipase catalyzed esterification reaction of non-conventional substrates such as benzoic, substituted benzoic and heteroaromatic acids.

From 1/1/2007 to 28/02/2009

Activity

- Multistep organic synthesis for the preparation of new ureido-derived sugars as potential new Caspase inhibitors.

Research fellow at Porto Conte Ricerche

From 01/07/2010 to 30/06/2012 (Research fellow financed by the Sardinian Autonomous Region)

Activity

Design and synthesis of new Leads compounds as ligands of the GABA_B receptor:

- Synthesis and characterization of thiophenic heterocyclic compounds.
- Characterization of molecules and intermediates by GC-MS, MALDI and NMR.

From 20/07/2009 to 30/06/2010 (WHETLAC European project n. 222400)

Activity

- Development of HPLC methods for the quantification of (L)-lactic acid obtained from fermentation residues (whey, scotta)

- Development of a green method that by means of supercritical CO₂ extraction allows the isolation of lactic acid derivatives from dairy industry residues.

Post-Doctoral Research Fellow at the University of Nottingham, Nottingham, UK.

Supervisor: Prof. Simon Woodward

From 1/3/2005 to 31/12/2006

Activity

- High-throughput screening of chiral ligands for the Michael-like asymmetric addition of Grignard reagents to amides and α,β -unsaturated esters (DowPharma fellow).
- Design and development of a cascade process having as a key step Michael's asymmetric addition catalyzed by copper complexes.

Education

PhD at the "MPI für Kohlenforschung", Mülheim/Ruhr and at the "ITMC", RWTH Aachen, Germany

Supervisor: Prof. Walter Leitner

From 15/11/2000 to 31/10/2004

Activity

- Synthesis and characterization of new ruthenium complexes containing heterocyclic N-carbenes and non-classical hydrides in the same coordination sphere.
- Study of the activity of metal-carbene complexes in various catalytic processes such as C-H activation of aromatic and aliphatic compounds, C-C coupling reactions and hydrogenation of double and triple bonds.
- Study of the reaction of metathesis in the biphasic system Ionic Liquids/supercritical CO₂.

22/3/2000 Degree in Chemistry at the University of Sassari, Italy

Supervisor: Prof. Serafino Gladiali
