Curriculum vitae
Angela Patti

Angela Patti is currently a Senior Researcher working since 1988 in Catania at the Istituto di Chimica Biomolecolare (ICB) belonging to Consiglio Nazionale delle Ricerche, Italy.

She graduated with honors in Organic Chemistry at the University of Catania and spent some time as visiting researcher in the Keele University, Staffordshire UK (1997, COST D1/0002/94 fellowship) and in Ludwig Maximilians Universitat in Munich in the Prof. Paul Knochel laboratory (1999-2000) under the Short-term mobility and NATO-CNR Senior Fellowships Programmes.

She has been a component of the Council of the Institute in 1992-1996, 1998-2001 and 2009-2012 and coordinator of the research activity on "Asymmetric synthesis" at the ICB from 2009 up to 2016. Currently she coordinates the activity "Development of sustainable processes for the preparation of high added value molecules".

She has participated to several research project and she has been the director of two FSE funded projects "*From natural compounds to nanostructured systems: application and products for the health* (SoChimSal)" and "*Enabling technologies for health and environment* (TEACH)" both aimed at training fellows in research different fields of chemistry and in the development of innovative products for health and environment, which may be of interest to the market and which, through the creation of companies related to them, may constitute a driving force for growth for the regional economy.

In the field of dissemination, she has taken care of activities with secondary schools and for participation at public events as Biotechweek and "Night of the researchers". She has supervised the dissemination activities presented at "Festival of Science 2016 – Genova" under the topic "*I know you "little molecule"….A journey in the interpretation of signals that molecules send us or exchange between them*"

She covers the role of reviewer for different scientific journals and is in the editorial board of the "Journal of Chemistry" (Hindawi) and "Symmetry" (MDPI) section Chemistry and Symmetry/Asymmetry; in 2020 she served as guest editor for the special issue "Chiral Molecules: Properties, Synthesis and Analysis" of the journal "Symmetry"

Her first scientific activity was focused on the chemistry of natural compounds, then she turned to the use of lipases in organic solvents as selective biocatalysts for the preparation of several enantiopure compounds belonging to different structural classes. Since 2001 she has spent part of research in the study of asymmetric reduction of chiral and prochiral diketones with different procedures (oxazaborolidine/borane promoted reduction and ruthenium-catalysed transfer hydrogenation) to give the corresponding optically active diols and in the development of new ferrocenyl-based ligands as efficient catalysts in asymmetric synthesis. For her expertise in the field she edited the entry "*Tetrahydro-1-methyl-3,3-diphenyl-1H,3H-pyrrolo[1,2-c][1,3,2]oxazaborole*" for the *Encyclopedia of Reagents for Organic Synthesis, e-EROS* (Wiley).

Currently, she is interested in the study of enzymes different from lipases and has recently developed a peroxygenase-containing preparation from oat seeds as a valuable catalyst for the regioselective epoxidation of polyunsaturated fatty acids derivatives. Collaborative research activities with other

research groups deal on the study of drug stability in specific pharmaceutical formulations, the application of chiroptical spectroscopy to some chiral ferrocene derivatives and the synthesis of ferrocene analogues of established drugs for the evaluation of their biological activity.

Her scientific activity is documented by more than 75 articles on international peer-reviewed journals and 4 patents. She is the author of the monography "*Green approaches to Asymmetric Catalytic Synthesis*" edited by Springer for the series *Springerbriefs in Molecular Sciences, (*https://link.springer.com/book/10.1007%2F978-94-007-1454-0) from which more than 3300 paid chapter downloads have been confirmed from 2011 up to date.