# Giorgio Grosa

Giorgio Grosa studied Pharmaceutical and Chemical Technology at the University of Torino and graduated in november 1980. In 1982 he graduated also in Pharmacy. He started to work at the Drug Science and Technology Department of the University of Torino, performing research work in the field of medicinal chemistry and drug metabolism. In particular, he studied the synthesis and mechanism of action of squalene 2,3-epoxide cyclase inhibitors as antifungal and hypocholesterolemic drugs. He was also interested in structure-metabolism relationships on different classes of compounds. In 1998 Giorgio Grosa moved at the Università del Piemonte Orientale where, at present, he is Associate Professor of Medicinal Chemistry and Pharmaceutical Analysis and works at the Department of Pharmaceutical Sciences. At the present time he is interested in chemical and metabolic stability of drugs and new chemical entities and in the application of hyphenated techniques (HPLC-ESI-MS/MS) to drug and bioactive substances analysis in complex matrices.

## UNIVERSITY CAREER

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| 1998- | Associate Professor, Università del Piemonte Orientale |
| 1983-1998 | Researcher, Università di Torino |
| 1981-1983 | Technician, University of Torino |

## UNIVERSITY POSITIONS

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| 2013- | President of “Commissione Paritetica Docenti Studenti”-DPS, Università del Piemonte Orientale |
| 2005-2008 | Vice-Director of Department of Chemical, Alimentary, Pharmaceutical and Pharmacological Sciences. |
| 1998-2001 | Delegate of the Rector in “Consorzio Almalaurea”, Università del Piemonte Orientale |

## SCIENTIFIC POSITIONS

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| 2008-2014 | Member of Scientific Committee of School of Pharmaceutical Analysis |

## MAIN FIELDS OF INTEREST

1. Metabolic stability of drugs and other xenobiotics
2. Chemical stability of drugs
3. Pharmaceutical analysis
4. Bioanalysis

## CURRENT ISSUES OF RESEARCH

1. Determination of the metabolic stability of drugs and other xenobiotics: determination of the structure and properties of stable metabolites and reactive metabolites. Determination of the metabolic stability and ADME properties of libraries of new chemical entities. Phenotyping studies.
2. Chemical stability of drugs : forced degradation studies on pharmaceutical active ingredient. Determination of the structure and properties of stable and reactive impurities (genotoxic impurities)
3. Development and validation of stability indicating HPLC-UV and HPLC-MS methods for the determination of drugs and their degradation products in drug substances and drug productds**.**
4. Development and validation of LC-FL and LC-MS/MS bioanalytical methods for drug metabolism and pharmacokinetic studies.

## CURRENT FUNDED PROJECTS

| **PROGRAMME** | **FUNDED PROJECT** |
|---|---|
| COMPAGNIA SAN PAOLO 2015 | Synthesis and characterization of TRPV1 channel modulators as skin-cleavable softdrugs. An innovative strategy for the management of refractory dermatological diseases (june 2015-june 2017; PI Dr. Tracey Pirali – Department of Pharmaceutical Sciences, University of Eastern Piedmont). |

## TOP FIVE PAPERS

1. New insights in oxybutynin chemical stability: Identification in transdermal patches of a new impurity arising from oxybutynin N-oxide rearrangement.
   Canavesi R, Aprile S, Giovenzana GB, Di Sotto A, Di Giacomo S, Del Grosso E, Grosa G.Eur J Pharm Sci. 2016 84:123-31.

2. Are 1,4- and 1,5-disubstituted 1,2,3-triazoles good pharmacophoric groups?
   Massarotti A, Aprile S, Mercalli V, Del Grosso E, Grosa G, Sorba G, Tron GC.
   *ChemMedChem. 2014, 9(11), 2497-508.*

3. Development and validation of a solid-phase extraction and gas chromatography-tandem mass spectrometry method for the determination of isopropyl-9H-thioxanthen-9-one in carton packaged milk.
   Allegrone G, Tamaro I, Spinardi S, Grosa G.
   *J Chromatogr A. 2008 1214(1-2):128-33.*

4. In vitro metabolism study of combretastatin A-4 in rat and human liver microsomes.
   Aprile S, Del Grosso E, Tron GC, Grosa G.
   *Drug Metab Dispos. 2007 35(12), 2252-61.*

5. Simultaneous, stability indicating, HPLC-DAD determination of guaifenesin and methyl and propyl-parabens in cough syrup.
Grosa G, Del Grosso E, Russo R, Allegrone G.
*J Pharm Biomed Anal. 2006 41(3), 798-803*.