



Silvio Aprile

PERSONAL DATA

Born: Varallo (VC) Italy 11.12.1979

Residence: Prato Sesia (NO) Italy

BIO AND EDUCATION

Year 2004; degree in Chemistry and Pharmaceutical Technologies, Faculty of Pharmacy – University of Eastern Piedmont “A. Avogadro” (Novara).

Year 2008; PhD in “Sciences of Bioactive Substances”, Faculty of Pharmacy – University of Eastern Piedmont “A. Avogadro”.

UNIVERSITY CAREER

2008-	Post-doctoral research fellow; Department of Pharmaceutical Sciences, University of Eastern Piedmont.
2017-	Contract Professor “Analisi dei Medicinali I” (cohort M-Z) (degree in Pharmacy).

UNIVERSITY POSITIONS

2012-	“ <i>Cultore della materia</i> ” appointment for the teachings of Pharmaceutical Analysis (degree in Pharmaceutical Chemistry and Technology) and Medicinal Chemistry (degree in Pharmacy).
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MAIN FIELDS OF INTEREST

1. *In vitro*, *in vivo* ADME properties studies of drugs and bioactive substances (xenobiotics)
2. Development and validation of HPLC-UV/MS analytical and bioanalytical methods
3. Chemical stability studies of active pharmaceutical ingredients

CURRENT ISSUES OF RESEARCH

1. *In vitro*, *in vivo* metabolism studies of drugs and bioactive substances

Determination of the metabolic stability of drugs and xenobiotics, metabolites structural characterization with particular reference to reactive metabolites. Determination of the metabolic stability and ADME properties of libraries of new chemical entities. Phenotyping studies (UDP-glucuronosyltransferases).

2. Development and validation of HPLC-UV/MS analytical and bioanalytical methods



Development and validation of HPLC-UV and HPLC-MS analytical methods for the quantification of active pharmaceutical ingredients and their degradation products in drug substances and formulations. Development and validation of bioanalytical methods for metabolic and pharmacokinetic studies.

3. Chemical stability studies of active pharmaceutical ingredients

Chemical stability and forced degradation studies of active pharmaceutical ingredients with structural characterization and synthesis of their degradation products.

CURRENT FUNDED PROJECTS

PROGRAMME	FUNDED PROJECT
BANDO FONDAZIONE CRT (i.d.393)	ADME-guided design and synthesis of dual "soft" modulators of the TRPV1 channel receptor and cannabinoid receptors. (november 2018 - november 2019; PI Dr. Silvio Aprile – Department of Pharmaceutical Sciences, University of Eastern Piedmont).

TOP FIVE PAPERS

- [Targeting Transient Receptor Potential Vanilloid 1 \(TRPV1\) Channel Softly: The Discovery of Passerini Adducts as a Topical Treatment for Inflammatory Skin Disorders.](#)
Serafini M, Griglio A, Aprile S, Seiti F, Travelli C, Pattarino F, Grosa G, Sorba G, Genazzani AA, Gonzalez-Rodriguez S, Butron L, Devesa I, Fernandez-Carvajal A, Pirali T, Ferrer-Montiel A.
J Med Chem. 2018 May 24;61(10):4436-4455.
- [New insights in the metabolism of oxybutynin: evidence of N-oxidation of propargylamine moiety and rearrangement to enamino ketone.](#)
Aprile S, Canavesi R, Matucci R, Bellucci C, Del Grosso E, Grosa G.
Xenobiotica. 2018 May;48(5):478-487.
- [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.
- [In vitro metabolic fate of alizapride: evidence for the formation of reactive metabolites based on liquid chromatography-tandem mass spectrometry.](#)
Aprile S, Del Grosso E, Grosa G.
J Mass Spectrom. 2012, 47(6), 737-50.
- [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.