

Federica Pollastro

Curriculum vitae

PERSONAL DATA

Born: 08/06/1976 at Novara

Telephone: (+39) 0321 375844

BIO AND EDUCATION

Five years' degree in Pharmaceutical Chemistry and Technology at Università del Piemonte Orientale (UPO), Novara, Italy. PhD in Science of Bioactive Substances at the Department of Pharmaceutical Sciences (UPO), Novara, Italy sponsored by Indena S.p.a. (Milano- Italy). Supervisor: Prof. Giovanni Appendino. Title of the PhD thesis: Alpine and Mediterranean biodiversity as source of bioactive compounds. Actually, she is Researcher at the Department of Pharmaceutical Sciences, Università del Piemonte Orientale (UPO), Novara, Italy. She is lecturer of Medicinal plants and Phytochemistry and Laboratory of herbalist preparation, coordinator of a phytochemical lab group.

UNIVERSITY CAREER

2014-	Researcher, Università del Piemonte Orientale
2008-2014	Post-Doc

UNIVERSITY POSITIONS

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SCIENTIFIC POSITIONS

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MAIN FIELDS OF INTEREST

1. Phytochemistry
2. Natural compounds
3. Isolation and purification of natural compounds
4. Cannabinoids
5. Sesquiterpene lactones

CURRENT ISSUES OF RESEARCH

1. Resinous plant

Characterization of the second metabolites phytochemical profile in resins from Burseraceae plant family. Purification and identification of triterpenic acids and of the cembrane component. Cembrane anxiolytic action on TRPV3 receptor and their structural modification for structure-activity relationship.

2. Minor constituent of *Cannabis sativa*

Exploration of the biomedical potential of neglected classes of cannabinoids and phenolics from Cannabis, with the twofold aim of discovering new medicinal chemistry lead structures and identifying new avenues of exploitation of Cannabis in the health food market

3. Sesquiterpenic lactones

Chemoreception based on sesquiterpene- γ -lactones from different species of alimentary plant (*A. umbelliformis*, *A. absinthium*, *T. parthenium*) and allergenic plant (*A. artemisiifolia*) discovering their involvement in nociception (TRPs) and on bitter taste receptor (hTAS2R46).

4. Plant with antiinflammatory action

Attention focused on molecules able to interact with lipid peroxidation, eicosanoids biosynthesis, PGE2 synthase, cellular proliferation, endoplasmic reticulum to identify important bioactive lead-compounds.

5. Polyacetilene

Identification of the target and mechanism of action of alimentary and neurotoxic polyacetilenes.

CURRENT FUNDED PROJECTS

PROGRAMME	FUNDED PROJECT
TriForC	TRIFORC – TriForC is an acronym for the project "A pipeline for the discovery, sustainable production and commercial utilisation of known and novel high-value triterpenes with new or superior biological activities". This is an EU-funded collaborative project on establishing an integrative and innovative pipeline for the exploitation of plant triterpenes. http://triforc.eu/
Regional competition for project of industrial research and/or sperimental development on allergic or autoimmunitary deseases	ACTA- "Absinthine and its derivaties in colloidal formulation for treatment of allergenic asthma"

Local research project DSF 2015	<i>Cannabis sativa</i> minor phytocannabinoids and new cannibinoids sources
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TOP FIVE PAPERS

1. del Río, C.; Navarrete, C.; Collado, J. A.; Bellido, M. L.; Gómez-Cañas, M.; Pazos, M. R.; Fernández-Ruiz, J.; Pollastro, F.; Appendino, G.; Calzado, M. A.; Cantarero, I & Muñoz, E. The cannabinoid quinol VCE-004.8 alleviates bleomycin-induced scleroderma and exerts potent antifibrotic effects through peroxisome proliferator-activated receptor- γ and CB2 pathways *Scientific Reports* | 6:21703 | DOI: 10.1038/srep21703
2. Materazzi, S.; Benemei, S.; Fusi, C.; Gualdani, R.; De Siena, G.; Vastani, N.; Andersson, D., A.; Trevisan, G.; Moncelli, M., R.; Wei, X.; Dussor, G.; Pollastro, F.; Patacchini, R.; Appendino, G.; Geppetti, P.; Nassini, R.: Parthenolide inhibits nociception and neurogenic vasodilatation in the trigeminovascular system by targeting the TRPA1 channel. *Pain* **2013**, 154 (12), 2750-8
3. Pollastro F.; Tagliatela-Scafati O.; Allarà M.; Muñoz E.; Di Marzo V.; De Petrocellis L. and Appendino G.: Bioactive prenylogous cannabinoid from fiber hemp (*Cannabis sativa*) *J Nat Prod.* **2011**, 74 (9), 2019-22
4. Avonto, C.; Tagliatela-Scafato, O.; Pollastro F.; Minassi A.; Di Marzo, V.; De Petrocellis, L. and Appendino, G.: An NMR Spettroscopic Method to Identify and Classify Thiol-Trapping Agents: Revival of Michael Acceptors for Drug Discovery? *Angew.Chem.*, **2010**, 50(2), 467-471
5. Pollastro, F.; Minassi, A.; Fresu, L. G. Cannabis phenolics and their bioactivities *Curr. Med. Chem.* **2017** 24, 1-26

AWARDS

1. Winner of the Phytochemical Society of Europe's Best PCA Awards, 2008

FURTHER INFORMATION

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