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Abstract

# The genus Tricholoma (Basidiomycota): a noteworthy source of diverse and bioactive metabolites

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## Abstract:

While most genera of higher mushroom produce only a few metabolite skeletons, often derived from a single biosynthetic route, genus Tricholoma (Basidiomycota, Agaricales) was found to produce metabolites belonging to almost all common biosynthetic classes, i.e, terpenoids, polyketides, aminoacid derivatives, and others. Many of them have shown important bioactivities: saponaceolides, for instance, an unusual class of terpenoids so far only found in Tricholoma, are strongly cytotoxic to some human tumour cells. In particular, saponaceolide B has an IC50 of only 0.16 μg/l against human colon adenocarcinoma tumour cells. Presently, we are investigating the metabolite contents of T. pardinum, the most toxic representative of the genus. We could isolate, from it, a few novel acetylenic compounds, never found before in nature.

## Biography:

Marco Clericuzio has got his PhD at Scuola Normale Superiore, Pisa, Italy, and has performed his Postdoctoral Studies at University of Lund, Sweden. At present, he is professor of Organic Chemistry at UPO (Università del Piemonte Orientale), Italy. He has published some 55 papers in international journals; he is part of an editorial board of an international journal, and has served as referee for several high-impact journals.

## Recent Publications:

1. Clericuzio M, et al Molecules, 2020.
2. Clericuzio M, et al Nat Prod Res, 2020.
3. Clericuzio M, et al Drug Chem Toxicol, 2020.
4. Clericuzio M, et al Mar Drugs, 2018.
5. Clericuzio M, et al Int J Legal Med, 2018.
6. Clericuzio M, et al Pharm Biol, 2017.
7. Clericuzio M, et al Chem Biodivers, 2017.
8. Clericuzio M, et al Mini Rev Med Chem, 2017.
9. Clericuzio M, et al J Pharm Biomed Anal, 2017.
10. Clericuzio M, et al Nat Prod Commun, 2016.