University of Genova

Department of Earth, Environmental and Life Sciences

Doctorate Course in Earth and Environmental Science and Technology

Università degli Studi di Genova

STAT

Dottorato in Scienze e Tecnologie per l'Ambiente e il Territorio

Curriculum in biology applied to agriculture and the environment

Research Theme n. 6

Titolo (Italiano) I funghi come strumenti forensi Title (inglese) Fungi as a forensic tools
Tutor (name and email) and eventual co-tutor Mirca Zotti mirca.zotti@unige.it and Simone Di Piazza simone.dipiazza@unige.it
Program description including the formation program abroad Micro and macrofungi have great potential as forensic tool. In recent years, many of the applications of mycology went to forensic science. The project will improve basic biological mycological knowledge necessary for forensic interpretation. The aimed is to improve the knowledge of funga occurring on victims, belongings, and crime scenes. In this context, the focus will be on comparing the funga present in/on the victims with those present at the location where the corpse was discovered. To this goal, fungi will be studied by direct examination, cultured strain, isolation, long term preservations and DNA analysis. Moreover, the research will investigate the aging activity caused by growth of mycelia, through in vitro and in vivo experiment, exploiting the biodeterioration and biodegradation ability of fungi. The topics of the study are part of a Horizon 2020 MSCA called Natural Grace, which provides for training periods abroad among the various partners involved in the project.
Financial support Doctoral Networks (DN) - HORIZON MSCA 2022-DN-01-01 -Natural Traces
Tutor's publications (max 3) Barranco R, Castelletti L, Fossati F, Zotti M, Fraternali Orcioni G, Verdiani S, Ventura F, *Blunt head trauma in a peculiar case of partial mummification. Murder or accidental event?* Med Leg J. 2022. 90: 81-85. Di Piazza S, Barranco R, Cecchi G., Rosa E, Ventura F, Vanin S, Zotti M *Contribution to the knowledge of fungal community colonizing mummified bodies in the Mediterranean area.* Rom J Leg Med, 2021, 250-254 Di Piazza S, Zotti M, Barranco R, Cecchi G, Greco G, Ventura F,. *Post-mortem fungal colonization pattern during 6 weeks: two case studies*. Forensic Sci. Int. 2018. 289: e18-e23. https://doi.org/10.1016/j.forsciint.2018.05.037