

## **Elena Savino \_CV**

**Personal data:** born at Pavia (Italy) on December 7<sup>th</sup> 1957

**Current position:** Assistant professor and Senior Researcher (Professore aggregato e Ricercatore confermato) - **SSD:** BIO/02

**Work Address:** Dipartimento di Scienze della Terra e degli Ambienti (DSTA) – Università degli Studi di Pavia  
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### ***Education and training***

1997 – present: Senior Researcher and Assistant Professor (SSD BIO/02), University of Pavia (Italy), DSTA

1991 - Winner of National competition to teach “mathematics, chemistry, physics and natural sciences” at the middle school level (Secondary School)

1991-1997: Tenured position as teacher in Italian Secondary School - Province of Pavia (Italy)

1988-1991: Volunteer researcher at Institute of Medical Mycology, University of Pavia (Italy);  
Temporary teacher of “mathematics, chemistry, physics and natural sciences” at the middle school level, Province of Pavia (Italy)

1986-1988: Assistant Biologist, Clinic of Work Foundation “S. Maugeri” – I.R.C.C.S., Pavia (Italy)

1980-1996: Research Fellow Assistant or Volunteer, Institute of Medical Mycology, University of Pavia (Italy).

1985: Refresher Course for health professionals responsible for the diagnosis and treatment of poisoning from mushrooms, and the inspection of mushrooms (Lombardy Region)

1984 and 1985: XXth and XXIth National Course of Training for health professionals responsible for the control of mushrooms (Province of Trento-I).

1983 - present: Member of the National Order of Biologists

1987 – Master in Histochemistry and Cytochemistry, University of Pavia

1980 – Degree (= MSc) in Biological Sciences, University of Pavia (Experimental Thesis on Aeromycology); awarded maximum grade, 110/110 with praise

1971-1976: Scientific high school degree.

### ***Professional experience***

During the last ten years research activities are focused on studying ecology of macrofungi in Italy, collecting any information useful for data-base regarding check-list and mapping of Basidiomycota. Really, the main interest concerns wood decay fungi (WDF): collecting wild types from Italian woods and isolating mycelium in order to maintain a culture collection of this kind of strains for further investigation. This field has now also a new application as regards to nutraceutical aspects which involves medicinal mushrooms.

Previous researches were carried on in different fields of Mycology: studies on unusual substrata like rock and glass from which fungi with morphological, genetic and metabolic characteristics indicating adaptation were isolated. Strains obtained from various habitat were tested to show the presence of antagonistic metabolic activity toward pathogenic strains (bacteria or fungi).

– 1998 - present: Group Leader in Mushroom Ecology and Wood Decay Fungi applications, University of Pavia (Italy), DSTA

- 2000 - present: Teaching activities (main courses – University of Pavia): Botany and Mycology (Biological Science Degree), Applied Mycology (Pharmaceutical Degrees), “Riconoscimento di funghi di interesse alimentare e loro uso sostenibile” (Science and Technology for Nature Degree); Master in Forensic Sciences and SILSIS (2002-2009)
- 1981 - present: Tutor and co-tutor in many Graduation Thesis (Degree in Biology, in Natural Sciences and Pharmacy, University of Pavia), 5 PhD thesis and a few Master thesis.
- Teacher in National Courses for Inspector Mycologists and Mycological counselling too.
- 1995 - 1996: Province of Pavia (Italy):
  - Teaching on truffles (to obtain licence to pick up truffles);
  - Responsible to a project to write a mycology guide and an index cards on “poisonous and edible mushrooms” (Savino E. is the author of them).

### ***Scientific Publications (since 2007) and Congress-Oral Communications (since 2013)***

1. Savino E., C. Buratti, E. Salerni, C. Perini, (2007). Presenza di basidiomiceti sul territorio lombardo: confronto fra le diverse province. In “Pagine di Micologia” – AMB, Trento, 27: 31-34.
2. Bernicchia, Annarosa, Elena Savino & Sergio Pérez Gorjón, (2007). Aphyllophoraceous wood-fungi on *Pinus* spp. in Italy. Mycotaxon, 101: 5–8.
3. Bernicchia, Annarosa, Elena Savino & Sergio Pérez Gorjón, (2007). Aphyllophoraceous wood-inhabiting fungi on *Abies alba* in Italy. Mycotaxon, 100: 185–188.
4. Isocrono, D., Bono, C., Rossi, G., Rampa, A., Savino, E., Valcuvia, M., Mangano, L., Santamaria G. & Sartori F., (2009). “Carta Naturalistica della Lombardia”: a geographic information system for managing and visualizing data. — *Bocconea* 23: 403-409.
5. Venturella G., E. Altobelli, A. Bernicchia, S. Di Piazza, D. Donnini, M. L. Gargano, S. P. Gorjòn, V. M. Granito, A. Lantieri, D. Lunghini, A. Montemartini, F. Padovan, M. Pavarino, L. Pecoraro, C. Perini, G. Rana, C. Ripa, E. Salerni, **E. Savino**, P. E. Tomei, A. Vizzini, A. Zambonelli & M. Zotti, 2011. Fungal biodiversity and *in situ* conservation in Italy. *Plant Biosystems*, 145 (4): 950-957.
6. Varese G. C., P. Angelini, M. Bencivenga, P. Buzzini, D. Donnini, M. L. Gargano, O. Maggi, L. Pecoraro, A. M. Persiani, **E. Savino**, V. Tigini, B. Turchetti, G. Vannacci, G. Venturella & A. Zambonelli, 2011. *Ex situ* conservation and exploitation of fungi in Italy. *Plant Biosystems*, 145 (4): 997-1005.
7. Savino E., 2011. *Eva Mameli Calvino. In: Domina Doctrix Pioniere della cultura e del sociale nell'Università di Pavia. A cura di P. Mosconi Bernardini, L. Favalli e J. Maffei. Ibis, Como-Pavia, 119-127*
8. Altobelli E., A. Bernicchia, L. Pecoraro E. Savino, (2012). Raccolta, isolamento e coltivazione di funghi poliporoidi con proprietà medicinali. *Micologia Italiana*, XLI (1): 3-10.
9. Savino E., S. Tosi, C. Buratti, S. Florio. (2012). Didattica e divulgazione della micologia sul territorio pavese. In: *Storia, Didattica, Scienze, Pavia 1975-2010. A cura di F. Bevilacqua e P. Contadini. Atti del Convegno Università di Pavia, 7 maggio 2010. Pavia University Press (ed): 137-142.*
10. Donnini D., Gargano M. L., Savino E., Perini C., Murat C., Di Piazza S., Altobelli E., Salerni E., Rubini A., Rana G. L., Bencivenga M., Venanzoni R., Zambonelli A. 2013. Wild and cultivated mushrooms as a model of sustainable development. *Plant Biosystems*, 147:1, 1-11.
11. Maggi O., Tosi S., Angelova M., Lagostina E., Fabbri A.A., Pecoraro L., Altobelli E., A.M. Picco, Savino E., Branda E., Turchetti B., Zotti M., Vizzini A., Buzzoni P., 2013. Adaptation of fungi, including yeasts, to cold environments. *Plant Biosystems* 147:1, 247-258.
12. Taffetani F., Bagella S., Bruschi P., Caneva G., Donnini D., Nicoletti M., Picchi G., Savino E., Signorini M.A., Urso V., Camangi F. (2013). *Etnobotanica e prospettive di sviluppo agricolo e*

forestale. In: Caneva G., Pieroni A., Guarrera P.M. ed.. Etnobotanica - Conservazione di un patrimonio culturale come risorsa per uno sviluppo sostenibile. p. 219-256, Bari: Edipuglia srl, ISBN: 9788872287248

13. Rossi P., Buonocore D., Altobelli E., Brandalise F., Cesaroni V., Iozzi D., Savino E., Marzatico F. (2014). Improving training condition assessment in endurance cyclists: effects of *Ganoderma lucidum* and *Ophiocordyceps sinensis* dietary supplementation. Evidence-Based Complementary and Alternative Medicine, Vol. 2014: 1-11, <http://dx.doi.org/10.1155/2014/979613>
14. Doria E., E. Altobelli, C. Girometta, E. Nielsen, T. Zhang, E. Savino (2014). Evaluation of lignocellulolytic activities of ten fungal species able to degrade poplar wood, Intern.Biodet. & Biodegradation, 94: 160-166.
15. Rodolfi M., Longa C.M.O., Pertot I., Tosi S., Savino E., Guglielminetti M., Altobelli E., Del Frate G., Picco AM. (2016). Fungal biodiversity in the periglacial soil of Dosedé Glacier (Valtellina, Northern Italy). J. Basic Microbiol., 56: 263 – 274.
16. Tatiana B. Gibertoni, Priscila S. Medeiros, Adriene M.S. Soares, Allyne C. Gomes-Silva, Paulo J.P. Santos, Helen M.P. Sotao, Leandro V. Ferreira, Elena Savino. (2016) The distribution of polypore fungi in endemism centres in Brazilian Amazonia. Fungal Ecology 20: 1-6.
17. Sillo F., Savino E., Giordano L., Girometta C., Astegiano D., Picco AM, Gonthier P. (2016). Analysis of genotypic diversity provides a first glimpse on the patterns of spread of the wood decay fungus *Perenniporia fraxinea* in an urban park in northern Italy. Journal of Plant Pathology (2016), 98 (3), 617-624.
18. Savino E., Girometta C., Miteva-Staleva J., Kostadinova A., Krumova E. (2016). Wood decay macrofungi: strain collection and studies about antioxidant properties. Comptes rendus de l'Academie bulgare des Sciences, Tome 69 (6): 747-754.
19. Brandalise F., Cesaroni V., Gregori A., Repetti M., Romano C., Orrù G., Botta L., Girometta C., Guglielminetti M.L., Savino E., Rossi P. (2017). Dietary Supplementation of *Hericium erinaceus* Increases Mossy Fiber-CA3 Hippocampal Neurotransmission and Recognition Memory in Wild-Type Mice. Evidence-Based Complementary and Alternative Medicine, Vol. 2017, Article ID 3864340: 1-13, <https://doi.org/10.1155/2017/3864340>
20. Sturini M., Girometta C., Maraschi F., Savino E., Profumo A. (2017). A Preliminary Investigation on Metal Bioaccumulation by *Perenniporia fraxinea*. Bulletin of Environmental Contamination and Toxicology, BECTS, 98 (4): 508-512. DOI 10.1007/s00128-017-2038-1

#### Oral communication in International Congresses:

- 4th National Conference with International Participation and Youth Scientific Session "Ecological Engineering and Environment Protection" (EEEP 2015), Burgas (BULGARIA). SAVINO E., GIROMETTA C., MITEVA-STALEVA J., KRUMOVA E. (2015). Wood decay macrofungi: strain collection and studies about antioxidant properties.
- 8th Int. Conf. Mush. Biology and Mush. Prod. (ICMBMP8), New Delhi (India): Savino E., Girometta C., Chinaglia S., Guglielminetti M., Rodolfi M., Bernicchia A., Perini C., Salerni E., Picco A.M. (2014). Medicinal mushrooms in Italy and their ex situ conservation through culture collection. Proceed., Vol. 1: 50 – 54.
- 7th Inter. Medicinal Mushroom Conference (IMMC7), Beijing (China): Rossi P., Buonocore D., Altobelli E., Brandalise F., Cesaroni V., Iozzi D., Savino E., Marzatico F. (2013). Cordyceps sinensis and Ganoderma lucidum dietary supplements: effects on testosterone/cortisol ratio in sports. Proceed., 687-697

#### Grants

Ongoing Research Support (E. Savino is the project coordinator of the Italian Research Unit)

- 2015-2018: "ITALIAN-BULGARIAN BILATERAL PROJECT FUNGI AS SOURCE OF LIGNOLYTIC ENZYMES. PRODUCTION AND POSSIBLE APPLICATIONS."

Completed Research Support (E. Savino was a component of the Research Units in the first and second project and responsible for the third and fourth ones)

- 2012-2014: MIUR and Lombardy Region Project grant for the project entitled “Agromatrici bioattive” (Bioactive Agro matrix)
- 2008-2010: MIUR grant for the project entitled “Study of fungal communities in the context of arctic-alpine vegetation threatened by climatic change in Northern and Central Italy”
- 2007-2009: Responsible for the “Mapping of Lombardy’s macrofungus” Project.

***Tutor\_PhD projects:***

- 2000-2003 (XVI ciclo): Sofia Florio – “Studio dei funghi presenti in monumenti lapidei di interesse storico-artistico”
- 2002-2005 (XVIII ciclo) tutor: ML Guglielminetti; co-tutor: E. Savino: Chiara Buratti – “Studio delle comunità fungine deteriogene di vetri antichi”
- 2005-2008 (XXI ciclo): Tatiana B. Gibertoni - PhD project with Brazil entitled “Polyporoid fungi (agaricomycetidae) in the Estação científica Ferreira penna (State of Pará, brazilian amazonia): diversity and ecological aspects.
- 2008-2011 (XXIV ciclo): Elisa Altobelli – “Funghi lignicoli con proprietà medicinali”
- 2012-2015 (XXVIII ciclo): Carolina Girometta – “Caratterizzazione di funghi lignicoli”. Co-tutor: dott.ssa Michela Sturini
- 2016-present: Valentina Cesaroni – “Improving the researches on *Hericium erinaceus* for a better use of its medicinal properties in central nervous system”. Co-tutor: prof. Paola Rossi