CURRICULUM VITAE DR KATIA GINDRO

PERSONAL DATA

Birth : 15.05.1971 in Pully (VD) Switzerland. Single, one child Julie (17.01.2004)
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https://scholar.google.com/scholar?start=0&q=%22katia+gindro%22&hl=fr&as_sdt=2007

EDUCATION

School in Pully (VD, Switzerland)
Master (1994), MAS (1996) and PhD (2000) in Biology at Lausanne University (Switzerland)

EMPLOYMENT HISTORY AND INSTITUTIONAL RESPONSIBILITIES

Since 2021 : Deputy head of the Plant Protection Research department at Agroscope
Since 2019 : Lecturer at the University of Geneva, mycology education module
2008-2011 : Head of the Mycology group since 2008
2008-2009 : Lecturer at the University of Lausanne (2008-2009): fundamental mycology
2000-2002 : First assistant University of Lausanne, botanical institute (Prof. Nicole Galland)
Since 2000 : Researcher as senior scientist in the mycology group (Plant Protection) at Agroscope

APPROVED RESEARCH PROJECTS

Main Applicant: ***GIE Reflexion scientifiques et techniques des 9*** 2011-2019: / ***Fungal biodiversity of forest reserves in Montricher*** 2016-2018 / ***SAVI*** 2018-2019 / ***DGAV*** 2019-2023
Co-Applicant: ***NCCR*** (National Centre of Competence in Research) 2001-2009 / **COST action n° 858** 2005-2009 / **SINERGIA** 2009–2013 / **FNS** 2012-2016 / **CTI/KTI** 2016-2020 / **Bridge and Innosuisse** 2017-2020/ / **FNS** 2019-2023.

SUPERVISION OF STUDENTS

Supervision of PhD Students

Stefania Rigotti, Sylvain Schnee, Françoise Briand, Nadine Bohni, Antonio Azzolini, Quentin favre-Godal, Davide Righghi, Josep Massana Codina, Abdulelah Alfthani, Léonie Pélissier, Sébastien Hévin, Robin Huber, Vinciane Monod, Alexandre Bory, Augustine Jaccard.

Supervision of Post docs

Dr Hannes Richter, Dr Sophie Godard, Dr Leonardo Casieri, Dr Virginia Alonso Villaverde Iglesias, Dr Sylvain Schnee, Dr Olga Dubey, Dr Florian Guignard, Dr Rémy Marcellin.

AWARDS AND MEDIA

First price from OIV (International Organization of Vine) for the book *La Vigne*, volume 1, fungal diseases of grapevine (2015) and La Vigne volume 3, Virus, bactéries et phytoplasmes (2020) /

SOCIETY MEMBERSHIPS

Swiss Society for microbiology: board Member of the Swiss mycological Society inside the SSM (www.swissmicrobiology.ch) / Société Suisse de Phytiatrie / Scientific Board of Agrosustain / Scientific Board of Biorem Engineering

PUBLICATION SUMMARY

1997-2021: Author of >120 peer reviewed scientific papers, 3 books, 4 book chapters, 25 conference papers and 4 patents; **H-Index**: **30** and 2816 citations. Web of knowledge all database consulted 11.05.2021

MAJOR SCIENTIFIC ACHIEVMENTS – DR KATIA GINDRO

Dr Katia Gindro is a biologist, who completed a PhD in mycology with Prof H. Clémençon (UNIL, Switzerland, 2000). After being responsible for the formation of the mycology lab after the retirement of Prof Clémençon, during two years, she was at the same time engaged in Agroscope as senior scientist in mycology and fungal plant pathology in 2000. Since 2008, she becomes the head of the Mycology research group at the Swiss Research Station Agroscope. She is leading a very dynamic team of more than 25 collaborators. Her national and international recognition has allowed us to successfully obtain funding grants from different industrial partners, private financing organizations and from the Swiss National Fund. Her most important research interests include : the biology and epidemiology of pathogenic fungi attacking grapevine (*Vitis vinifera*) and the metabolic/biochemical events occurring during their **primary infection processes**; the role of fungal spores in primary infection steps and their constitutive and induced lytic enzymes produced during fungal development; resistance mechanisms of grapevine to fungal disease; wood fungal disease in grapevine (in situ detection, fungal community and succession (ESCA), zone lines, fungal confrontation and **secondary metabolites** production[1 to 4]; generation of antifungal compounds using the enzymatic **secretome** of fungi [5]. Her research group ensures legal tasks such as the evaluation of the efficacy of fungicides within the framework of the registration process, allowing a thorough knowledge of the problems related to pesticides and the urgent need to **discover new bioactive substances**. For more than 10 years, she has been closely collaborating with the laboratory headed by Prof. Jean-Luc Wolfender. This **fruitful collaboration**, combining mycology and chemistry of natural products has enabled us to obtain several research funds and to publish a great number of scientific articles. This essential synergy is a major strength of this project.

Her research interests and expertise in mycology has allowed her to define multidisciplinary research axes that have led to some academic projects as well as technology transfer projects, publications and **innovative tools** to optimize the **sustainability** of viticulture. These projects include for example the study of the **interactions** between mildew, grey rot, black rot and powdery mildew in grapevines and the identification of new mechanisms of induced or constitutive resistance. These mechanisms are used as tools in the development of new naturally resistant grape varieties created by Agroscope [6-9]. The study of the dynamics of fungal communities associated with grapevine and other cultivated or exotic plants, their roles in symptom expression [10] and/or their use in the discovery of new biologically active chemical diversity as well as **the development of new strategies** to induce bioactive chemical diversity in isolated fungi (confrontation, abiotic and/or biotic shock-induction) [11].

The research group has created a fungal library integrating all isolated fungal strains from the large panel of mycology projects. These are identified by sequencing and maintained alive in the dynamic fungal library of the research group. This latter is available on the web (www.mycoscope.ch) and lists more than 3'000 fungal strains representing the Swiss biodiversity and other fungal communities from other exotic environments, available to national and international scientists. Currently, the fungal library and the available living fungal strains are the focus of several projects submitted in 2021, related to the study of mycoviruses, bioactive **chemical diversity** and metabolomic, as well as secretomes.

As part of her research, Katia Gindro collaborates with many extra-national universities, private companies and start-ups allowing her to host many researchers, such as post-docs, independent researchers, funded by the different institutions mentioned. Therefore, it is strongly involved in the transfer of technology, skills and expertise.

1. Dubey O., et al. *Plant Physiol. and Biochem*. **2020**, 150, 39-48 (10.1016/j.plaphy.2020.02.026)
2. Hofstetter V., et al. *Fungal Diversity*. **2019**, 96, 243-284 (10.1007/s13225-019-00428-3)
3. Bertrand S., et al. *Biotech. Advances*. 2014, 32, 1180-1204 (10.1016/j.biotechadv.2014.03.001)
4. Favre-Godal Q., et al. *Mycorrhiza*. **2020** (10.1007/s00572-020-00934-2)
5. Gindro K., et al. *J. of Nat. Prod*. **2017**. 80, 887-898 (10.1021/acs.jnatprod.6b00760)
6. Gindro K., et al. *Plant defence: biological control*. **2012**. pp.25-54 (10.1007/978-94-007-1933-0)
7. Bruisson S., et al. Phytochemistry. 2016. 131, 92-99 (10.1016/j.phytochem.2016.09.002)
8. Marti G., et al. *Molecules*. **2014**. 19, 14004-14021 (10.3390/molecules190914004)
9. Schnee S., et al. *J. Agric. Food Chem*. **2013**. 61, 5459-5467 (10.1021/jf4010252)
10. Hofstetter V., et al. *Fungal Diversity*. **2012**. 54, 51-67 (10.1007/s13225-012-0171-Z)
11. Azzollini A., et al. *Frontiers in Microbiology*. **2018**. (10.3389/fmicb.2018.00072)