

Academic curriculum vitae – Monika Schmoll

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English - fluent

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Summary of track record

Publications (books, reviews, articles in peer reviewed journals)	92
(Co-)Editorship on books	4
Book chapters	12
Invited reviews	12
Total impact factor of publications (2020)	>450
Total citations (Scopus/Google Scholar)	6169 (in 3653 articles)/9443
Average citation per item (Scopus/Google Scholar)	61.4/91.1
h-index (Scopus/Google Scholar)	36/41

Professional Experience

2019, March	Chairperson of the concurrent session “Circadian rhythms and photobiology” at the 30 th Fungal Genetics Conference, Asilomar, Pacific Grove, CA, USA
2018, September	Scientific committee member of the 10 th ÖGMBT Annual Meeting 2018, Vienna, Austria
2017, March	Chairperson of plenary session “Sensing and Signaling: Perception of the Complex World in which Fungi Thrive or Survive” at the 29 th Fungal Genetics Conference, Asilomar, Pacific Grove, CA, USA
2016, Nov.	Scientific committee member of the 14 th International Trichoderma Meeting, Nagpur, India
2015-2019 -	Board member of the Austrian Association for Research Integrity (www.oewi.at/en); since 2017 Vice Chair of the Board
2013, April	Promotion to Senior Scientist at AIT, Tulln
2013, March	Habilitation in the field of “Molecular genetics and genomics”
2012, Nov -	Group leader at the AIT (Austrian Institute of Technology), UFT Tulln
2011, July	Chairperson of the session “Fungal Genetics and Genomics” at the Annual World congress of Microbes, July 30 – August 1, Beijing, China
2008, Sep.-Oct.	Guest researcher with Prof. N. Louise Glass, Plant and Microbial Biology Department, University of California, Berkeley
2008, April	Chairperson of Symposium 6, Regulation of Gene Expression at the 9 th European Conference on Fungal Genetics, Edinburgh, UK (together with Mark Caddick)
2007-2012	Group leader in the Research Area Gene Technology and Applied Biochemistry, Vienna University of Technology.
April 2006	Member of the local organizing committee for the 8 th European Conference on Fungal Genetics (ECFG8), April 8 – 11, Vienna, Austria Member of the local organizing committee for the First European <i>Neurospora</i> Meeting (Satellite Meeting of the ECFG8), April 8 th , Vienna, Austria
2005, Sept.	Chairperson of this Meeting (together with L. Corrochano, University of Sevilla) Guest researcher at the Dipartimento di Protezione delle Piante, University degli Studi di

Sassari, Sassari, Italy
 Guest researcher at the Hungarian Academy of Sciences and University of Szeged,
 Microbiological Research Group, Szeged, Hungary
 2003, Sept. Guest researcher at the Dipartimento di Biotecnologie, Cellulari Ed Ematologia, Sezione di
 Genetica Molecolare, Universita' di Roma "La Sapienza", Italy

Education

2003 **Ph. D.** (with distinction) at the Vienna University of Technology on "Regulation of cellulase
 expression and signal transduction in the filamentous fungus *Hypocrea jecorina*
 (*Trichoderma reesei*)"; date: march 25th
 1999 Master degree at the Vienna University of Technology; date: june 28th

Fellowships

2004 – 2006 Postdoctoral fellow with FWF (Austrian Science Fund) -Project P17325-B12 as PI
 2006, May - Dec Project with industry partner BASF, Ludwigshafen, Germany "Production and secretion of
 heterologous proteins with *Trichoderma reesei*"

Funding - current (total acquired funding sum since 2007 : 4 211 000 EUR)

Recent and ongoing projects

2017 - 2021 **Project leader** NFB life sciences research project on "Chemical communication in fungi"
 (sum: 277 000 EUR)
 2018 - 2022 **Project leader** with FWF stand alone project "Posttranscriptional regulation in
Trichoderma reesei" (sum: 390252 EUR)
 2019 - 2023 **Project leader** with FWF standalone project "Missing links in signal transduction in
Trichoderma reesei" (sum 404 000EUR)
 2021 – 2025 **Project leader** FFG BRIDGE Project "Disruptive production technology to debottleneck
 application of fungal organisms in agriculture" (sum 422.406 EUR; abandoned)
 2021 – 2025 **Project partner** EU Marie Curie RISE project "Mycobiomics"
 (sum 32200 EUR; abandoned)

Relevant industrial collaboration

Of the above mentioned sum, 240 000 EUR were contributed by one 2-year project and one short term project funded
 by industry in the field of enzyme biotechnology (partners and topic confidential due to contractual obligation).

Academic teaching and supervision

Since 2004 Principal advisor of 8 Bachelor students, 18 Master students, 12 PhD students and 4
 Postdocs at TU Vienna and AIT
 since 2013 **Regular supervision of FEMtech internships (1-6 months, 4 Bachelor thesis, 8 Master
 thesis and 16 internships) for female "talents for science"**
 2004 - 2012 Various lab courses for undergraduate students (2 – 6 weeks) dealing with selected topics
 of the ongoing research projects
 2004 - 2012 Lectures "Molecular physiology of fungi" and "Genetics and industrial genomics"
 Lab courses "Protein chemistry", "Biochemistry 2" and "Biotechnology 2"
 Participation in the educational program FIT "Frauen in die Technik", which intends to
 encourage young women to start a technical education
 2009 - 2018 Participation in "Lange Nacht der Forschung" and "Open days" showing extraction of DNA
 from diverse vegetables using predominantly household materials and chemicals to pupils,
 students and the interested public
 2009 - 2012 Member of the female junior faculty for the "AB-Tech" PhD-program
 2020- Lecture and exercise "Writing and assessing scientific publications" (VU, 2.5 ECTS);
 Lecture on "Microbial signaling pathways in biotechnology" (VO, 1.5 ECTS)

Experience as a publisher (editorial functions) and functions in societies

2018 -	Editorial Board member of “Frontiers in Microbiology” and “Frontiers in Fungal Biology”
2015 -	Member of the EUROFUNG consortium
2015-2019	Board member of the Austrian Association for Research Integrity (www.oeawi.at/en) since 2017 Vice Chair of the board
2012 -	Member of the Editorial Board of “Applied and Environmental Microbiology”, and “PLoS ONE”; Senior Editor of “Fungal Biology and Biotechnology”
2011	Management committee member of COST action FP0602 “Biotechnology for lignocellulose biorefineries”

Reviewer assignments for journals and funding bodies (selection)

Nature Communications	NSF, National Science Fund, USA
Applied and Environmental Microbiology	BSF, Israel Binational Science Foundation
Molecular Microbiology	STW, Technology Foundation, The Netherlands
BMC Genomics	EU project evaluations (incl. onsite reviews in Brussels)
PLoS Genetics, PLoS ONE	Genome BC (Canada)

Continuing education (courses and trainings)

Project management (2 parts)	Bioinformatics with Galaxy (1 week trainings)
Privacy awareness and DSGVO	EU Project writing skills (FFG; different trainings – ERC Advanced Grant, Marie Curie ITN, general training etc)
Controlling intense (1 d)	
Difficult conversational situations training (3 d)	Business development training (tecnnet, 2 parts)
Contract knowhow for non-jurists (2 d)	IP Protection (1 d)

Awards

APART fellowship of the Austrian Academy of Sciences (ÖAW; 2007-2009)
Young group leader presentation ÖGMBT 2010
Science award of the state of Lower Austria 2013
Recognized as World Expert in Fungal Gene Expression Regulation (expertscape.com) 2021

International Collaborations (selection)

Antonio di Pietro (University of Cordoba, Spain)	Chemotropic responses of <i>Trichoderma</i> to carbon sources and plants
Joseph Strauss (BOKU University, Austria)	Epigenetic regulation in <i>Trichoderma reesei</i>
Ting-Fang Wang (Academia Sinica, Taipei, Taiwan)	Molecular mechanisms in sexual development of <i>Trichoderma reesei</i>
Scott E. Baker (Pacific Northwest National Laboratories, Richland, USA)	Sexual development and female sterility in <i>Trichoderma reesei</i> ; Circadian rhythmicity in <i>Trichoderma</i>
Marc Stadler (HZI Braunschweig, Germany)	Secondary metabolite identification of <i>Trichoderma reesei</i> , production of secondary metabolites in fungi

Invited Keynote lectures at international conferences and selected invited talks

M. Schmoll (2020) **How *Trichoderma reesei* interacts with its environment – carbon sensing, chemical communication and epigenetics.** Invited keynote lecture; 16th International Workshop of Trichoderma and Gliocladium (TG2020), March, Guanajuato, Mexico (cancelled due to COVID-19 pandemic)

M. Schmoll (2019) **Understanding signal transduction and gene regulation to optimize enzyme production in *Trichoderma reesei*;** invited talk at the IV International Congress of Science, Technology and Innovation and Annual Meeting of Scientific Initiation of UNIPAR (Universidade Paranaense), Oct. 24th, Umuarama, Paraná, Brazil

M. Schmoll (2019) **Sexual development and plant sensing in *Trichoderma reesei* – how a fungus optimizes adaptation to its habitat**; invited seminar talk at the Institute of Molecular Biology, Sept. 27th, Academia Sinica, Taipei, Taiwan

M. Schmoll (2019) **Understanding the life of *Trichoderma reesei***; invited seminar talk at Novozymes, Davis, CA, USA, March 18th

M. Schmoll (2018) ***Trichoderma reesei* – a biotechnological workhorse from the fermentor to the environment and back**; invited talk at the International Workshop on Multifunctional Agriculture – Management and Utilization of Bioresources, Nov. 18 – 20; Northwest A&F University Yangling, Shaanxi, China

M. Schmoll (2017) **Sensing of plants, microbes and nutrients by *Trichoderma***; Keynote at the Special Symposium on “Microbial Antagonists and their role in biological control of plant diseases”, October 5-7, Anand (Gujarat), India

M. Schmoll (2017) **Environmental signaling in *Trichoderma reesei* and its relevance for industrial applications**; invited talk at Dupont, March 9th, Palo Alto, CA, USA

M. Schmoll (2014) **Environmental signaling in *Trichoderma reesei* and its use for bioprocess optimization**; invited keynote lecture; 13th International Workshop of *Trichoderma* and *Gliocladium* (TG2014), October 19 – 23, Shanghai, China

M. Schmoll (2012) **Environmental sensing and its regulation in *Trichoderma reesei* (*Hypocrea jecorina*)**, invited Keynote Lecture at the 12th International *Trichoderma* and *Gliocladium* Workshop, August 27th to 30th, Christchurch, New Zealand.

Achievements relevant beyond my own research field

1. Has shown regulation of cellulase gene expression by light and photoreceptors in *T. reesei*.
2. Has achieved sexual development under laboratory conditions for *T. reesei*, which had been considered asexual for decades.
3. Has discovered and characterized the novel class of h-type peptide pheromone precursors in fungi, which harbour characteristics of a-type and alpha-type peptide pheromone precursors and assume a-type function in *T. reesei*.
4. Has introduced posttranscriptional regulation of cellulase gene expression in *T. reesei* in contrast to the previous dogma that cellulases are regulated exclusively at the transcriptional level.
5. Has elucidated the function of fungal class XIII G-protein coupled receptors to be in glucose sensing, which is essential for posttranscriptional regulation of enzyme expression.
6. Has shown that due to an amino acid shift in the photoreceptor ENV1 *T. reesei* integrates stress response with light signaling and that this function is conserved in *Hypocrea*, in contrast to other fungi like *Neurospora crassa*.
7. Has shown that the uptake of sulphate is dependent on the light status upon growth on cellulose, but not glucose and that it is essential for growth in light.
8. Has discovered that chemical communication between fungi beyond pheromone response changes upon recognition of a mating partner and is required for successful sexual development.
9. Has shown that the functions of the heterotrimeric G-protein pathway in fungi are dependent on light.
10. Has shown that carbon catabolite repression influences secondary metabolite production in a light dependent manner and hence constitutes a link between carbon and secondary metabolism in fungi.