

List of Publications – Monika Schmoll

Important review articles discussing work of me and my group are shaded.

2022

Sabrina Beier, Marlene Stiegler, Eva Hitzenhammer and Schmoll Monika (2022) **Novel compounds of the cellulase regulation machinery expressed under the control of a novel constitutive promoter in *Trichoderma reesei***; *manuscript in revision*

Wolfgang Hinterdobler, Guofen Li, David Turrá, Miriam Schalamun, Stefanie Kindel, Ursula Sauer, Sabrina Beier, Aroa Rodriguez Iglesias, Stephane Compant, Stefania Vitale, Antonio Di Pietro and Monika Schmoll (2022) **Integrating glucose sensing with carbon catabolite repression and development to adapt to living plants versus decaying litter**. *BioRxiv* doi: <https://doi.org/10.1101/2021.05.06.442915> ;

Articles in peer reviewed journals

Monika Schmoll (2022) ***Trichoderma reesei***; *Trends Microbiol* 30 (4):403-404

Monika Schmoll, Catalina Sanz and Weiwen Zhang (2022) **Editorial: Light regulation of metabolic networks in microbes**; Research topic "Light regulation of metabolic networks in microbes", *Frontiers in Microbiology*; 13:829106

Book chapters

Monika Schmoll (2022) **The relevance of light for enzyme expression in fungi**. In: Key insights in biomass valorization using fungi: Focus on biorefinery technology; Eds: M'Barek, H. N., Perré P. and Hajaj H., Springer Nature, London, UK, *manuscript accepted*

2021

Articles in peer reviewed journals

Hinterdobler W., Bacher M., Shi B.B., Baurecht D., Krisai-Greilhuber I., Schmoll M., Brecker L., Valant-Vetschera K., Schinnerl J. (2021) **New cytochalasans from an endophytic *Xylaria* species associated with Costa Rican *Palicourea elata* (Rubiaceae)**; *Nat Prod Res*, Jul 27, 1-8

Hinterdobler W., Li G., Spiegel K., Basyouni-Khamis S., Gorfer M. and Schmoll M. (2021) ***Trichoderma reesei* isolated from Austrian soil with high potential for biotechnological application**. *Frontiers in Microbiology*, 12:552301; Research Topic: Fungal Genetics in Plant Biomass Conversion;

Book chapters

Monika Schmoll and Susanne Zeilinger (2021) **Resistance marker- and gene gun-mediated transformation of *Trichoderma reesei***. *Methods in Molecular Biology*, 2234:55-62

2020

Articles in peer reviewed journals

Hinterdobler W., Beier S., Monroy AA, Berger H., Dattenböck C. and Schmoll M (2020) **The G-protein coupled receptor GPR8 regulates secondary metabolism in *Trichoderma reesei***. *Front. Bioeng. Biotechnol.* 8:558996

Verena Speckbacher, Veronika Ruszanyi, Ainhoa Martinez-Medina, Wolfgang Hinterdobler, Maria Doppler, Ulrike Schreiner, Stefan Böhmendorfer, Marzia Beccaccioli, Rainer Schuhmacher, Massimo Reverberi, Monika Schmoll, and Susanne Zeilinger (2020) **The lipoxygenase Lox1 is involved in light- and injury-response, conidiation, and volatile organic compound biosynthesis in the mycoparasitic fungus *Trichoderma atroviride***; *Frontiers in Microbiology* 11:2004

Sabrina Beier, Wolfgang Hinterdobler, Alberto Alonso Monroy, Hoda Bazafkan and Schmoll Monika (2020) **The kinase USK1 regulates cellulase gene expression and secondary metabolites in *Trichoderma reesei***; *Frontiers in Microbiology*, Research Topic: Fungal Genetics in Plant Biomass Conversion; 11:974.

Sabrina Beier, Wolfgang Hinterdobler, Hoda Bazafkan, Lukas Schillinger and Monika Schmoll (2020) **CLR1 and CLR2 are light dependent regulators of xylanase and pectinase genes in *Trichoderma reesei***. *Fungal Genetics and Biology*, 136:103315

Guzman Carro-Huerga, Stephane Compant, Markus Gorfer, Rosa E. Cardoza, Monika Schmoll, Santiago Gutierrez and Pedro A. Casquero (2020) **Niches of colonization of *Vitis vinifera* L. by an endophyte *Trichoderma* sp. T154 strain and its biocontrol activity against *Phaeoacremonium minimum***; Research topic: The Plant Holobiont Volume II: Impacts of the Rhizosphere on Plant Health; *Frontiers in Plant Science*, 11:1170

David Gramaje, Carmen Berlanas, Maria del Pilar Martinez-Diz, Emilia Diaz-Losada, Livio Antonielli, Sabrina Beier, Markus Gorfer, Monika Schmoll and Stephane Compant. (2020) **Comparative genomic of *Dactyloctenietia torresensis* strains from grapevine, soil and weed highlights potential mechanisms in pathogenicity and endophytic lifestyle**; *J fungi*, 6(4):E255

Book chapters

Wolfgang Hinterdobler, Sabrina Beier, Stefanie Kindel and Monika Schmoll (2020) **Sexual development, its determinants and regulation in *Trichoderma reesei***. In: *Recent Developments in Trichoderma Research*; eds: Susanne Zeilinger, Irina Druzhinina, H. B. Singh and V. K. Gupta; Book series: New and Future Developments in Microbial Biotechnology and Bioengineering; Elsevier, Amsterdam, The Netherlands; pp 186-206

2019

Articles in peer reviewed journals

Maria Augusta C. Horta, Nils Thieme, Yuqian Gao, Kristin E. Burnum-Johnson, Carrie D. Nicora, Marina A. Gritsenko, Mary S. Lipton, Karthikeyan Mohanraj, Leandro José de Assis, Liangcai Lin, Chaoguang Tian, Gerhard H. Braus, Katherine A. Borkovich, Monika Schmoll, Luis F. Larrondo, Areejit Samal, Gustavo H. Goldman and J. Philipp Benz (2019) **Broad substrate-specific phosphorylation events are associated with the initial stage of plant cell wall recognition in *Neurospora crassa***. *Frontiers in Microbiology*, 10:2317

Wolfgang Hinterdobler, Andre Schuster, Doris Tisch, Ezgi Özkan, Hoda Bazafkan, Johann Schinnerl, Lothar Brecker, Stefan Böhmendorfer and Monika Schmoll (2019) **The role of PKAc1 in gene regulation and trichodermerol production in *Trichoderma reesei***. *Fungal Biol Biotechnol* 6:12

Aroa Rodriguez-Iglesias and Monika Schmoll (2019) **Protein phosphatases regulate growth, development, cellulases and secondary metabolism in *Trichoderma reesei***. *Scientific reports* 9(1):10995

Eva Hitzenhammer, Christoph Büschl, Michael Sulyok, Rainer Schuhmacher, Bernhard Kluger Elisabeth Wischnitzki, and Monika Schmoll (2019) **YPR2 is a regulator of light modulated carbon and secondary metabolism in *Trichoderma reesei***. *BMC Genomics* 20(1):211

With this omics analysis we could show that regulation of carbon metabolism and secondary metabolism are connected. Moreover, this transcription factor acts predominantly in darkness.

2018

Articles in peer reviewed journals

Christoph Dattenböck, Doris Tisch, André Schuster, Alberto Alonso Monroy, Wolfgang Hinterdobler, Monika Schmoll (2018) **Gene regulation associated with sexual development and female fertility in different isolates of *Trichoderma reesei***. *Fungal Biol Biotechnol*, 5:9

Invited review articles in peer reviewed journals

Monika Schmoll (2018) **Regulation of plant cell wall degradation by light in *Trichoderma***. Invited review in *Fungal Biol Biotechnol*, 5:10

This review provides an overview on the work by me and my group in the past ~15 years along with perspectives and implications for further research.

Schmoll M (2018) **Light, stress, sex and carbon - the photoreceptor ENVOY as a central checkpoint in the physiology of *Trichoderma reesei***; *Fungal Biology*, 122(6):479-486, paper available online already: <https://doi.org/10.1016/j.funbio.10.007>

This review summarizes our work on the photoreceptor ENVOY in the past 15 years. We could show striking and unexpected differences of the functions of ENV1 to other fungi.

Alene Alder-Rangel, Alexandre M. Bailão, Anderson F. da Cunha, Célia M. A. Soares, Chengshu Wang, Diego Bonatto, Ekaterina Dadachova, Elias Hakalehto, Elis C. A. Eleutherio, Éverton K. K. Fernandes, Geoffrey M. Gadd, Gerhard H. Braus, Gilberto U. L. Braga, Gustavo H. Goldman, Iran Malavazi, John E. Hallsworth, Jon Y. Takemoto, Kevin K. Fuller, Laura Selbmann, Luis M. Corrochano, Marcia R. von Zeska Kress, Maria Célia Bertolini, Monika Schmoll, Nicolás Pedrini, Octavio Loera, Roger D. Finlay, Rosane M. Peralta, Drauzio E.N. Rangel (2017) **The Second International Symposium on Fungal Stress: ISFUS; Fungal Biology**, 122(6):479-86

2017

Articles in peer reviewed journals

Stappler E, Walton JD and Schmoll M (2017) **Abundance of secreted proteins of *Trichoderma reesei* is regulated by light of different intensities**. Front Microbiol, 8:2586. doi: 10.3389/fmicb.2017.02586

Bazafkan H, Beier S, Stappler E, Böhmendorfer S, Oberlerchner JT, Sulyok M, Schmoll M.(2017) **SUB1 has photoreceptor dependent and independent functions in sexual development and secondary metabolism in *Trichoderma reesei***. Mol Microbiol. 106(5), 742-59

Tisch D, Pomraning KR, Collett JR, Freitag M, Baker SE, Chen CL, Hsu PW, Chuang YC, Schuster A, Dattenböck C, Stappler E, Sulyok M, Böhmendorfer S, Oberlerchner J, Wang TF, Schmoll M (2017) **Omics analyses of *Trichoderma reesei* CBS999.97 and QM6a indicate a relevance of female fertility for CAZyme and transporter levels**; Appl Environ Microbiol. 83:e01578-17.

Alberto Alonso-Monroy, Eva Stappler, Andre Schuster, Michael Sulyok and Monika Schmoll (2017) **A CRE1- regulated cluster is responsible for light dependent production of dihydrotrichotetronin in *Trichoderma reesei***; PLoS One. 2017 Aug 15;12(8):e0182530

In this study we show that the carbon catabolite regulator CRE1, previously known for regulation of cellulase gene expression, also substantially impacts regulation of secondary metabolite genes.

Gaskell J, Kersten P, Larrondo LF, Canessa P, Martinez D, Hibbett D, Schmoll M, Kubicek CP, Martinez AT, Yadav J, Master E, Magnuson JK, Yaver D, Berka R, Lail K, Chen C, LaButti K, Nolan M, Lipzen A, Aerts A, Riley R, Barry K, Henrissat B, Blanchette R, Grigoriev IV, Cullen D. (2017) **Draft genome sequence of a monokaryotic model brown-rot fungus *Postia (Rhodonia) placenta* SB12**; Genome Data. 2017 (14):21-23.

Eva Stappler, Christoph Dattenböck, Doris Tisch and Monika Schmoll (2017) **Analysis of light and carbon specific transcriptomes implicates a class of G-protein coupled receptors in cellulose sensing**; mSphere, 2 (3). pii:e00089-17 eCollection 2017 May-Jun.

Compant S, Gerbore J, Antonielli L, Brutel A, Schmoll M (2017) **Draft Genome sequence of the root-colonizing fungus *Trichoderma harzianum* B97**; Genome Announc. 2017 Mar 30;5(13). pii. e00137-17.

Hoda Bazafkan, Christoph Dattenböck, Eva Stappler, Sabrina Beier and Monika Schmoll (2017) **Interrelationships of VEL1 and ENV1 in light response and development in *Trichoderma reesei***. PLoS One, 12(4):e0175946. eCollection 2017

2016

Articles in peer reviewed journals

Lokhandwala J, Silverman Y de la Vega RI, Hopkins HC, Britton CW, Rodriguez-Iglesias A, Bogomolnii R, Schmoll M, Zoltowski BD (2016) **A native threonine coordinates ordered water to tune LOV photocycle kinetics and osmotic stress signaling in *Trichoderma reesei* ENVOY**. J Biol Chem. 291(28):14839-50

Monika Schmoll, Christoph Dattenböck, Nohemí Carreras-Villaseñor, Artemio Mendoza-Mendoza, Doris Tisch, Mario Ivan Alemán, Scott E. Baker, Christopher Brown, Mayte Guadalupe Cervantes-Badillo, José Cetz, Gemma Rosa Cristobal-Mondragon, Luis Delays, Edgardo Ulises Esquivel-Naranjo, Alexa Frischmann, Jose de Jesus Gallardo-Negrete, Monica Garcia-Esquivel, Elida Yazmin Gomez-Rodriguez, David R. Greenwood, Miguel Hernández-Oñate, Joanna S. Kruszewska, Robert Lawry, Hector M Mora-Montes, Tania Muñoz-Centeno, Maria Fernanda Nieto-Jacobo, Guillermo Nogueira Lopez, Vianey Olmedo-Monfil, Macario Osorio-Concepcion, Sebastian Pilsyk, Kyle Pomraning, Aroa Rodriguez-Iglesias, Maria

Teresa Rosales-Saavedra, J. Alejandro Sánchez-Arreguín, Verena Seidl-Seiboth, Alison Stewart, Edith Elena Uresti-Rivera, Chih-Li Wang, Ting-Fang Wang, Susanne Zeilinger, Sergio Casas-Flores, Alfredo Herrera-Estrella (2016) **The genomes of three uneven siblings – footprints of the lifestyle of three *Trichoderma* species**, Microbiol Mol Biol Reviews, Vol. 80 (1): 205-327

*With this detailed annotation of roughly 2000 genes per species, we provided an important basis for omics research in *Trichoderma* spp.*

Book chapters

Stappler E., Rodriguez-Iglesias A., Bazafkan H., Guofen Li and Schmoll M. (2016) **Relevance of signal transduction pathways for efficient gene expression in fungi**; in Schmoll M. and Dattenböck C., eds Gene expression systems in fungi; Fungal Biology Book Series, Springer, Heidelberg, ISBN 978-3-319-27949-7 <http://www.springer.com/de/book/9783319279497>

Schmoll M., and Wang T. F. (2016) **Sexual development in *Trichoderma***. In: Mycota, 3rd edition, Volume I "Growth, Differentiation and Sexuality", Ed. Wendland J., Springer International Publishing, Switzerland, pp 457 – 474; ISBN 978-3-319-25844-7

Books

Schmoll M. and Dattenböck C., eds (2016) **Gene Expression Systems in Fungi: Advancements and Applications**; Fungal Biology Book Series, Series Eds: Gupta V. C. and Tuohy, M. G.; Springer, ISBN 978-3-319-27949-7, <http://www.springer.com/de/book/9783319279497>

From this book, so far more than 27700 chapter downloads were done and it is among the top 25% of most downloaded eBooks in its respective eBook Collection (Biomedical and Life Sciences, 654 books) in 2018.

2015

Articles in peer reviewed journals

Bazafkan H, Dattenböck C, Böhmendorfer S, Tisch D, Stappler E, Schmoll M. (2015) **Mating type dependent partner sensing as mediated by VEL1 in *Trichoderma reesei***. Mol Microbiol. Jun;96(6):1103-18. Impact factor: 3.898

*Here we show **chemical communication** required for mate recognition and sexual development in *T. reesei* beyond regulation of peptide pheromone precursors. We connect the functions of VEL1 in development and secondary metabolism and show the biological meaning. We follow up our results from this study in an ongoing project (Talkouttoxins, NFB).*

Chuang YC, Li WC, Chen CL, Hsu PWC, Tung SY, Kuo SC, Schmoll M, and Wang TF (2015) ***Trichoderma reesei* meiosis generates segmentally aneuploid progeny with higher xylanase-producing capability**; Biotechnology for Biofuels, 8:30 Impact factor: 5.203

Jameela Lokhandwala, Hilary C. Hopkins, Aroa Rodriguez-Iglesias, Christoph Dattenböck, Monika Schmoll and Brian D. Zoltowski (2015) **A fungal LOV protein has evolved to integrate blue-light and oxidative stress**; Structure 23, 1-10 Impact factor: 4.945

*In this paper we describe the exciting finding that the photoreceptor ENV1 integrates oxidative stress with light response in *Hypocreales*, in contrast to other fungi, including the model *Neurospora crassa*.*

Evelyn Hackl, Margit Pacher-Zavisin, Laura Sedman, Stefan Arthaber, Ulla Bernkopf, Günter Brader, Markus Gorfer, Birgit Mitter, Aspasia Mitropoulou, Monika Schmoll, Willem van Hoesel, Elisabeth Wischnitzky and Angela Sessitsch (2015) **Literature search and data collection on RA for human health for microorganisms used as plant protection products**; EFSA Supporting publications, <http://www.efsa.europa.eu/en/supporting/pub/801e.htm>

Book chapters

Rodriguez-Iglesias A. and Schmoll M. (2015) **Protoplast Transformation – genome manipulation in fungi**, In: Genetic transformation systems in Fungi, Volume I. Eds: van den Berg M. and Maruthachalam K., Fungal Biology Book Series, Series Eds: Gupta V. and Tuohy M.; pp 21-40; Springer, Heidelberg, Germany ISBN 978-3-319-10142-2

2014

Articles in peer reviewed journals

Chiaki Hori, Takuya Ishida, Kiyohiko Igarashi, Masahiro Samejima, Hitoshi Suzuki, Emma Master, Patricia Ferreira, Francisco J Ruiz-Dueñas, Benjamin Held, Paulo Canessa, Luis F. Larrondo, Monika Schmoll, Irina S. Druzhinina, Christian P. Kubicek, Jill Gaskell, Phil Kersten, Franz St. John, Jeremy Glasner, Grzegorz Sabat, Sandra Splinter BonDurant, Syed Khajamohiddin, Jagjit Yadav, Anthony C. Mgbearuikwe, Andriy Kovalchuk, Fred O. Asiegbu, Gerald Lackner, Dirk Hoffmeister, Jorge Rencoret, Ana Gutiérrez, Hui Sun, Erika Lindquist, Kerrie Barry, Robert Riley, Igor V. Grigoriev, Bernard Henrissat, Ursula Kües, Randy M. Berka, Angel T. Martínez, Sarah F. Covert, Robert A. Blanchette, Dan Cullen (2014) **Analysis of the *Phlebiopsis gigantea* genome, transcriptome and secretome gives insight into its pioneer colonization strategies of wood.** *PLoS Genetics* 10(12):e1004759

Tisch D., Schuster A. and Schmoll M. (2014) **Crossroads between light response and nutrient signalling: ENV1 and PhLP1 act as mutual regulatory pair in *Trichoderma reesei*.** *BMC Genomics* 15 (1): 425

Book chapters

Bazafkan H., Tisch D. and Schmoll M. (2014) **Regulation of glycoside hydrolase expression in *Trichoderma*.** In: *Biotechnology and Biology of Trichoderma*, Eds: Gupta, V. K, Schmoll M., Herrera-Estrella, A., Upadhyay, R. S., Druzhinina, I. and Tuohy, M. G; Elsevier B. V., 291-308

Schmoll M., Seiboth B., Druzhinina I. S. and Kubicek C. P. (2014) **Genomics analysis of biocontrol species and industrial enzyme producers from the genus *Trichoderma*.** In: *Mycota XIII, Fungal Genomics, 2nd edition*, Ed. Nowrousian M., Springer, pp 233-264

Book

Gupta, V. K, Schmoll M., Herrera-Estrella, A., Upadhyay, R. S., Druzhinina, I. and Tuohy, M. G. (2014) **Biotechnology and Biology of *Trichoderma*.** Elsevier B. V. ISBN 9780444595768

2013

Habilitation thesis

Schmoll M. (2013) **Environmental signalling in *Trichoderma reesei* (*Hypocrea jecorina*).** TU Vienna

Articles in peer reviewed journals

Tisch, D. and Schmoll M. (2013) **Targets of light signalling in *Trichoderma reesei*.** *BMC Genomics* 14: 657

Here we show that carbon metabolism and regulation of carbohydrate active enzymes is broadly affected by light and photoreceptors.

Invited review articles in peer reviewed journals

Glass, N.L., Schmoll M., Cate, J. H. D, and Coradetti, S. (2013) **Plant cell wall deconstruction by ascomycete fungi.** *Annu Rev Microbiol*, Vol. 67, 477-498 <http://www.annualreviews.org/doi/abs/10.1146/annurev-micro-092611-150044?journalCode=micro>

Mukherjee, P. K., Horwitz, B. A., Herrera-Estrella, A., Schmoll M. and Kenerley, C. M. (2013) ***Trichoderma* research in the genome era.** *Annu Rev Phytopathol* Vol. 51, 105-129. <http://www.annualreviews.org/doi/abs/10.1146/annurev-phyto-082712-102353>

Book chapters

Schmoll M. (2013) **Sexual development in *Trichoderma* – scrutinizing the aspired phenomenon.** In: *Trichoderma – Biology and Applications*, Mukherjee, P. K., Horwitz, B. A., Singh, U. S., Mukherjee, M and Schmoll M. eds; CAB International, UK; pp 67 - 86

Mukherjee, P. K., Horwitz, B. A., Singh, U. S, Mukherjee M. and Schmoll M. (2013) ***Trichoderma* in agriculture, industry and medicine: An overview.** In: *Trichoderma – Biology and Applications*, Mukherjee, P. K., Horwitz, B. A., Singh, U. S., Mukherjee, M and Schmoll M. eds; CAB International, UK; pp 1 – 9

Books

Gupta V. K., Schmoll M., Maki M., Tuohy M. and Mazutti M. A. eds (2013) **Applications of Microbial Engineering.** June 30, 2013 CRC Press/Taylor&Francis Group LLC, USA, ISBN 9781466585775 <http://www.crcpress.com/product/isbn/9781466585775>

Mukherjee, P. K., Horwitz, B. A., Singh, U. S., Mukherjee, M and Schmoll M. eds (2013) ***Trichoderma – Biology and Applications*,** CAB International, UK, ISBN 9781780642475

2012

Articles in peer reviewed journals

Chen, C. L., Kuo, H. C., Tung, S. Y., Hsu, P. W., Wang, C. L., Seibel, C., Schmoll M., Chen, R. S. and Wang, T. F. (2012) **Blue light acts as a double-edged sword in regulating sexual development of *Hypocrea jecorina* (*Trichoderma reesei*).** *PLoS One*, 7(9): e44969

Schmoll M., Tian C, Sun J, Tisch D, Glass NL (2012) **Unravelling the molecular basis for light modulated cellulase gene expression - the role of photoreceptors in *Neurospora crassa*.** *BMC Genomics* 13: 127

This article shows that regulation of cellulase gene expression by light is a conserved phenomenon in Neurospora crassa.

Schuster A, Bruno KS, Collett JR, Baker SE, Seiboth B, Kubicek CP, Schmoll M (2012) **A versatile toolkit for high throughput functional genomics with *Trichoderma reesei*.** *Biotechnol Biofuels* 5: 1

With this study we provide the basis for high throughput gene deletion efforts in T. reesei.

Schuster A, Tisch D, Seidl-Seiboth V, Kubicek CP, Schmoll M (2012) **Roles of protein kinase A and adenylate cyclase in light-modulated cellulase regulation in *Trichoderma reesei*.** *Appl Environ Microbiol* 78: 2168-2178

Seibel C, Tisch D, Kubicek CP, Schmoll M (2012) **ENVOY is a major determinant in regulation of sexual development in *Hypocrea jecorina* (*Trichoderma reesei*).** *Eukaryot Cell* 11: 885-895

Here we show the connection of the light response machinery with sexual development in Trichoderma reesei.

Seibel C, Tisch D, Kubicek CP, Schmoll M (2012) **The role of pheromone receptors for communication and mating in *Hypocrea jecorina* (*Trichoderma reesei*).** *Fungal Genet Biol*: 49(10):814-24

Fernandez-Fueyo E, Ruiz-Duenas FJ, Ferreira P, Floudas D, Hibbett DS, Canessa P, Larrondo LF, James TY, Seelenfreund D, Lobos S, Polanco R, Tello M, Honda Y, Watanabe T, Ryu JS, Kubicek CP, Schmoll M., Gaskell J, Hammel KE, St John FJ, Vanden Wymelenberg A, Sabat G, Splinter BonDurant S, Syed K, Yadav JS, Doddapaneni H, Subramanian V, Lavin JL, Oguiza JA, Perez G, Pisabarro AG, Ramirez L, Santoyo F, Master E, Coutinho PM, Henrissat B, Lombard V, Magnuson JK, Kues U, Hori C, Igarashi K, Samejima M, Held BW, Barry KW, LaButti KM, Lapidus A, Lindquist EA, Lucas SM, Riley R, Salamov AA, Hoffmeister D, Schwenk D, Hadar Y, Yarden O, de Vries RP, Wiebenga A, Stenlid J, Eastwood D, Grigoriev IV, Berka RM, Blanchette RA, Kersten P, Martinez AT, Vicuna R, Cullen D (2012) **Comparative genomics of *Ceriporiopsis subvermispora* and *Phanerochaete chrysosporium* provide insight into selective ligninolysis.** *Proc Natl Acad Sci U S A* 109: 5458-5463

2011

Articles in peer reviewed journals

Tisch D, Kubicek CP, Schmoll M (2011) **The phosducin-like protein PhLP1 impacts regulation of glycoside hydrolases and light response in *Trichoderma reesei*.** *BMC Genomics* 12: 613

Schuster, A., Kubicek, C. P. and Schmoll, M. (2011) **The dehydrogenase GRD1 represents a novel component of the cellulase regulon in *Trichoderma reesei* (*Hypocrea jecorina*).** *Appl Env Microbiol*, 77(13): 4553 – 63

Kubicek CP, Herrera-Estrella A, Seidl-Seiboth V, Martinez DA, Druzhinina IS, Thon M, Zeilinger S, Casas-Flores S, Horwitz BA, Mukherjee PK, Mukherjee M, Kredics L, Alcaraz LD, Aerts A, Antal Z, Atanasova L, Cervantes-Badillo MG, Challacombe J, Chertkov O, McCluskey K, Couplier F, Deshpande N, von Doehren H, Ebbole DJ, Esquivel-Naranjo EU, Fekete E, Flipphi M, Glaser F, Gomez-Rodriguez EY, Gruber S, Han C, Henrissat B, Hermosa R, Hernandez-Onate M, Karaffa L, Kosti I, Le Crom S, Lindquist E, Lucas S, Lubeck M, Lubeck PS, Margeot A, Metz B, Misra M,

Nevalainen H, Omann M, Packer N, Perrone G, Uresti-Rivera EE, Salamov A, Schmoll M, Seiboth B, Shapiro H, Sukno S, Tamayo-Ramos JA, Tisch D, Wiest A, Wilkinson HH, Zhang M, Coutinho PM, Kenerley CM, Monte E, Baker SE, Grigoriev IV (2011) **Comparative genome sequence analysis underscores mycoparasitism as the ancestral life style of *Trichoderma***. *Genome Biol.* 2011 Apr 18;12(4):R40.

Tisch, D., Kubicek, C. P. and Schmoll, M. (2011) **New insights into the mechanism of light modulated signaling by heterotrimeric G-proteins: ENVOY acts on *gna1* and *gna3* and adjusts cAMP levels in *Trichoderma reesei* (*Hypocrea jecorina*)**, *Fungal Genet Biol*, 48 (6): 631 – 40

In this study we show a positive feedback loop for the G-protein alpha subunits GNA1 and GNA3, which is in part impacted by the photoreceptor ENV1. Additionally our findings indicated an involvement of a phosphodiesterase in light dependent cellulase regulation, which we could confirm recently.

Invited review articles in peer reviewed journals

Schmoll, M. (2011) **Assessing the relevance of light for fungi: Implications and insights into the network of signal transmission**. In: *Advances in Applied Microbiology*, Volume 76, Elsevier, 27-78

Book chapters

Tisch, D. and Schmoll, M. (2011) **Novel approaches to improve cellulase biosynthesis for biofuel production – adjusting signal transduction pathways in the biotechnological workhorse *Trichoderma reesei* (*Hypocrea jecorina*)**, in: *Biofuel production – recent developments and prospects*, Ed: MA dos Santos Bernardes, Intech, Rijeka, Croatia, 199-224

2010

Articles in peer reviewed journals

Gyalai-Korpos M., Nagy G., Mareczky Z., Schuster A., Réczey K. and Schmoll M. (2010) **Relevance of the light signaling machinery for cellulase expression in *Trichoderma reesei* (*Hypocrea jecorina*)**, *BMC Res Notes*, 3:330

Schmoll M., Seibel C., Tisch D., Dorrer M. and Kubicek C. P. (2010) **A novel class of peptide pheromone precursors in ascomycetous fungi**, *Mol Microbiol*, 77(6): 1483-501

*Here we defined and investigated the h-type peptide pheromone precursor HPP1 in *Trichoderma reesei*.*

Schmoll M., Kottowski, C., Seibel, C., Liebmann B., Kubicek, C. P. (2010) **Recombinant production of an *Aspergillus nidulans* class I hydrophobin, (DewA) in *Hypocrea jecorina* (*Trichoderma reesei*) is promoter-dependent**, *Appl Microbiol Biotechnol*, 88(1):95-103.

Castellanos, F.* , Schmoll, M.* , Martínez, P., Tisch, D., Kubicek, C. P., Herrera-Estrella, A., Esquivel-Naranjo, E. U. (2010) **Crucial factors of the light perception machinery and their impact on growth and cellulase gene transcription in *Trichoderma reesei***. *Fungal Genet Biol*, 47 (5): 468 - 76

*These authors contributed equally to this work

Invited review articles in peer reviewed journals

Schmoll, M., Esquivel-Naranjo, E. U. and Herrera-Estrella, A. (2010) ***Trichoderma* in the light of day – physiology and development**. Invited review, *Fung Genet Biol* 47(11): 909 - 916.

Schuster, A. and Schmoll M. (2010) **Biology and Biotechnology of *Trichoderma***. invited review, *Appl Microbiol Biotechnol* 87(3):787-99

Tisch, D. & Schmoll, M. (2010) **Light regulation of metabolic pathways in fungi** (invited review). *Appl Microbiol Biotechnol* 85 (5): 1259 - 1277.

2009

Articles in peer reviewed journals

Seidl, V., Song, L., Lindquist, E. A., Gruber, S., Koptchinskiy, A., Zeilinger, S., Schmoll, M., Martínez, P., Sun, J., Grigoriev, I., Herrera-Estrella, A., Baker, S. E & Kubicek C. P. (2009) **Transcriptomic response of the mycoparasitic fungus *Trichoderma atroviride* to the close presence of a fungal prey**. *BMC Genomics* 10: 567
Impact factor: 3.729

Seibel, C., Gremel, G., do Nascimento Silva, R., Schuster, A., Kubicek, C.P. & Schmoll, M. (2009) **Light-dependent roles of the G-protein alpha subunit GNA1 of *Hypocrea jecorina* (anamorph *Trichoderma reesei*)**. *BMC Biology* 7: 58.
Impact factor: 6.779

Schuster, A. & Schmoll, M. (2009) **Heterotrimeric G-protein signaling and light response: Two signaling pathways coordinated for optimal adjustment to nature**. *Communicative & Integrative Biology* 2, 308-310. (addendum paper)

Seidl, V., Seibel, C., Kubicek, C. P., & Schmoll, M. (2009) **Sexual development in the industrial workhorse *Trichoderma reesei***. *Proc Natl Acad Sci USA* 106, 13909-13914.
Impact factor: 9.661

Schmoll, M., Schuster, A., Silva Rdo, N., & Kubicek, C. P. (2009) **The G-alpha protein GNA3 of *Hypocrea jecorina* (Anamorph *Trichoderma reesei*) regulates cellulase gene expression in the presence of light**. *Eukaryot Cell* 8, 410-420.
Impact factor: 2.992

In this paper we show for the first time a light dependent function of a G-protein alpha subunit in fungi.

Martinez, D., Challacombe, J., Morgenstern, I., Hibbett, D., Schmoll, M., Kubicek, C.P., Ferreira, P., Ruiz-Duenas, F.J., Martinez, A.T., Kersten, P., Hammel, K.E., Vanden Wymelenberg, A., Gaskell, J., Lindquist, E., Sabat, G., Bondurant, S.S., Larrondo, L.F., Canessa, P., Vicuna, R., Yadav, J., Doddapaneni, H., Subramanian, V., Pisabarro, A.G., Lavin, J.L., Oguiza, J.A., Master, E., Henrissat, B., Coutinho, P.M., Harris, P., Magnuson, J.K., Baker, S.E., Bruno, K., Kenealy, W., Hoegger, P.J., Kues, U., Ramaiya, P., Lucas, S., Salamov, A., Shapiro, H., Tu, H., Chee, C.L., Misra, M., Xie, G., Teter, S., Yaver, D., James, T., Mokrejs, M., Pospisek, M., Grigoriev, I.V., Brettin, T., Rokhsar, D., Berka, R., & Cullen, D. (2009) **Genome, transcriptome, and secretome analysis of wood decay fungus *Postia placenta* supports unique mechanisms of lignocellulose conversion**. *Proc Natl Acad Sci USA* 106, 1954-1959.
Impact factor: 9.661

Scherm, B.* , Schmoll, M.* , Balmas, V., Kubicek, C. P., & Migheli, Q. (2009) Identification of potential marker genes for *Trichoderma harzianum* strains with high antagonistic potential against *Rhizoctonia solani* by a rapid subtraction hybridization approach. *Curr Genet* 55, 81-91.

*These two authors contributed equally
Impact factor: 3.764

Guangtao, Z., Hartl, L., Schuster, A., Polak, S., Schmoll, M., Wang, T., Seidl, V., and Seiboth, B. (2009) **Gene targeting in a nonhomologous end joining deficient *Hypocrea jecorina***. *J Biotechnol* 139, 146-151.
Impact factor: 2.599

Invited review articles in peer reviewed journals

Kubicek, C. P., Mikus, M., Schuster, A., Schmoll, M., & Seiboth, B. (2009) **Metabolic engineering strategies for the improvement of cellulase production by *Hypocrea jecorina***. *Biotechnology for Biofuels* 2: 19
Impact factor: 5.203

2008

Schmoll, M. (2008) **The information highways of a biotechnological workhorse-signal transduction in *Hypocrea jecorina***. *BMC Genomics* 9, 430.
Impact factor: 3.729

Gremel, G., Dorrer, M., & Schmoll, M. (2008) **Sulphur metabolism and cellulase gene expression are connected processes in the filamentous fungus *Hypocrea jecorina* (anamorph *Trichoderma reesei*)**. *BMC Microbiol* 8, 174.
Impact factor: 2.644

In this article we show a light - and carbon source dependent relevance for the availability of a sulphur source in fungi.

Martinez, D., Berka, R.M., Henrissat, B., Saloheimo, M., Arvas, M., Baker, S.E., Chapman, J., Chertkov, O., Coutinho, P.M., Cullen, D., Danchin, E.G., Grigoriev, I.V., Harris, P., Jackson, M., Kubicek, C.P., Han, C.S., Ho, I., Larrondo, L.F., de Leon, A.L., Magnuson, J.K., Merino, S., Misra, M., Nelson, B., Putnam, N., Robbertse, B., Salamov, A.A., Schmoll, M., Terry, A., Thayer, N., Westerholm-Parvinen, A., Schoch, C.L., Yao, J., Barabote, R., Nelson, M.A., Detter, C., Bruce, D., Kuske, C.R., Xie, G., Richardson, P., Rokhsar, D.S., Lucas, S.M., Rubin, E.M., Dunn-Coleman, N., Ward, M., and Brettin, T.S. (2008) **Genome sequencing and analysis of the biomass-**

degrading fungus *Trichoderma reesei* (syn. *Hypocrea jecorina*). *Nat Biotechnol* 26, 553-560.

Impact factor: 41.667

Friedl, M. A., Schmoll, M., Kubicek, C. P., & Druzhinina, I. S. (2008) Photostimulation of *Hypocrea atroviridis* growth occurs due to a cross-talk of carbon metabolism, blue light receptors and response to oxidative stress. *Microbiology (Reading, England)* 154, 1229-1241.

Impact factor: 2.151

2007 and earlier

Articles in peer reviewed journals

Schuster, A., Kubicek, C. P., Friedl, M. A., Druzhinina, I. S., & Schmoll, M. (2007) Impact of light on *Hypocrea jecorina* and the multiple cellular roles of ENVOY in this process. *BMC Genomics* 8, 449.

Impact factor: 3.729

Pel, H.J., de Winde, J.H., Archer, D.B., Dyer, P.S., Hofmann, G., Schaap, P.J., Turner, G., de Vries, R.P., Albang, R., Albermann, K., Andersen, M.R., Bendtsen, J.D., Benen, J.A., van den Berg, M., Breestraat, S., Caddick, M.X., Contreras, R., Cornell, M., Coutinho, P.M., Danchin, E.G., Debets, A.J., Dekker, P., van Dijk, P.W., van Dijk, A., Dijkhuizen, L., Driessen, A.J., d'Enfert, C., Geysens, S., Goosen, C., Groot, G.S., de Groot, P.W., Guillemette, T., Henrissat, B., Herweijer, M., van den Hombergh, J.P., van den Hondel, C.A., van der Heijden, R.T., van der Kaaij, R.M., Klis, F.M., Kools, H.J., Kubicek, C.P., van Kuyk, P.A., Lauber, J., Lu, X., van der Maarel, M.J., Meulenber, R., Menke, H., Mortimer, M.A., Nielsen, J., Oliver, S.G., Olsthoorn, M., Pal, K., van Peij, N.N., Ram, A.F., Rinas, U., Roubos, J.A., Sagt, C.M., Schmoll, M., Sun, J., Ussery, D., Varga, J., Verweken, W., van de Vondervoort, P.J., Wedler, H., Wosten, H.A., Zeng, A.P., van Ooyen, A.J., Visser, J., & Stam, H. (2007) Genome sequencing and analysis of the versatile cell factory *Aspergillus niger* CBS 513.88. *Nat Biotechnol* 25: 221-231.

Impact factor: 41.667

Kratzer, C., Tobudic, S., Schmoll, M., Graninger, W., & Georgopoulos, A. (2006) In vitro activity and synergism of amphotericin B, azoles and cationic antimicrobials against the emerging pathogen *Trichoderma* spp. *The Journal of Antimicrobial Chemotherapy* 58, 1058-1061.

Impact factor: 5.071

Seidl, V., Schmoll, M., Scherm, B., Balmas, V., Seiboth, B., Migheli, Q., and Kubicek, C.P. (2006) Antagonism of *Pythium* blight of zucchini by *Hypocrea jecorina* does not require cellulase gene expression but is improved by carbon catabolite derepression. *FEMS Microbiol Lett* 257, 145-151.

Impact factor: 1.765

Druzhinina, I. S., Schmoll, M., Seiboth, B., & Kubicek, C. P. (2006) Global carbon utilization profiles of wild-type, mutant, and transformant strains of *Hypocrea jecorina*. *Appl Env Microbiol* 72, 2126-2133.

Impact factor: 3.807

Schmoll, M., Franchi, L., & Kubicek, C. P. (2005) Envoy, a PAS/LOV domain protein of *Hypocrea jecorina* (anamorph *Trichoderma reesei*), modulates cellulase gene transcription in response to light. *Eukaryot Cell* 4, 1998-2007.

Impact factor: 2.992

In this paper we showed for the first time that light influences cellulase regulation. This finding was recognized worldwide and was the basis for numerous follow up papers and grants..

Schmoll, M. & Kubicek, C. P. (2005) *ooc1*, a unique gene expressed only during growth of *Hypocrea jecorina* (anamorph: *Trichoderma reesei*) on cellulose. *Curr Genet* 48, 126-133.

Impact factor: 3.764

While the precise function of ooc1 remained elusive at the time, we recently found indications that ooc1 is involved in carbon catabolite repression and regulation of growth (under investigation).

Schmoll, M., Zeilinger, S., Mach, R. L., & Kubicek, C. P. (2004) Cloning of genes expressed early during cellulase induction in *Hypocrea jecorina* by a rapid subtraction hybridization approach. *Fung Genet Biol* 41, 877-887.

Impact factor: 3.072

Zeilinger, S., Schmoll, M., Pail, M., Mach, R. L., & Kubicek, C. P. (2003) Nucleosome transactions on the *Hypocrea jecorina* (*Trichoderma reesei*) cellulase promoter *cbh2* associated with cellulase induction. *Mol Genet Genom* 270, 46-55.

Impact factor: 2.979

Invited review articles in peer reviewed journals

Schmoll, M. & Kubicek, C. P. (2003) Regulation of *Trichoderma* cellulase formation: lessons in molecular biology from an industrial fungus. A review. *Acta microbiologica et immunologica Hungarica* 50, 125-145.

Patents

Fungal strain of the phylum ascomycota (#EP16174174): Patent submitted to the European Patent office on June 13th, 2016

This patent deals with potentially harmful secondary metabolites produced by T. reesei and their regulation by a gene cluster, which also impacts cellulase production.

Filamentous fungi with improved properties (#13196402.5): Patent submitted to the European Patent office on December 10th, 2013; (currently: US20160304887A1)

This patent describes mutations responsible for female sterility of QM6a, the parental strains of all strains currently applied in research and industry. It went until nationalization phase with an industry partner (confidential), but was not followed up due to a competing patent.

Microbicidal Peptides of *Trichoderma reesei*, (# 08 157 639.9): Patent with industry partner BASF, submitted to the European Patent Office on June 5th, 2008.

(<http://www.wipo.int/pctdb/en/wo.jsp?WO=2009147180>)

This patent shows the antimicrobial effect of the peptide pheromone precursor HPP1 (previously designated MIN1) with expected applications against the dermatophyte Malassezia furfur (among others) and potentially as biocontrol agent for plant protection. The patent was brought to the nationalization phase, but not followed up further by BASF.

Invited Talks

Miriam Schalamun, Sabrina Beier, Ida Scalmani, Stephane Compant, Wolfgang Hinterdobler, and Monika Schmoll (2022) Talking to your inner self – on the interaction between *Trichoderma reesei* QM6a and its endophyte *Methylobacterium*, invited talk at the 31st Fungal Genetics Conference, March 15-20, Pacific Grove, CA, USA

Monika Schmoll (2022) Learning the language of *Trichoderma reesei* – deciphering nature's signaling highways. Invited talk at the IPS 8th International conference on "Plant Pathology: Retrospect and Prospects" – TG2022 *Trichoderma* spp. Research in the omics era. March 23-26, Sri Karan Narendra Agriculture University, Jobner-Jaipur, Rajasthan, India

Wolfgang Hinterdobler, Guofen Li, David Turrà, Miriam Schalamun, Stefanie Kindel, Ursula Sauer, Sabrina Beier, Aroa Rodriguez Iglesias, Stephane Compant, Stefania Vitale, Antonio Di Pietro and Monika Schmoll (2021) Integrating glucose sensing with carbon catabolite repression and development to adapt to living plants versus decaying litter; invited lecture at Botany 2021 Virtual! July 18-23, online

M. Schmoll (2020) How *Trichoderma reesei* interacts with its environment – carbon sensing, chemical communication and epigenetics; invited keynote lecture at the 16th International *Trichoderma* and Gliocladium Meeting TG2020 in Guanajuato, Mexico, March 29th – April 2nd; cancelled due to COVID19 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

Verena Unterwurzacher, Harald Berger, Eva Hitzzenhammer, Guofen Li and Monika Schmoll (2019) Light dependent gene regulation and its connection to glucose sensing and nucleosome rearrangements in *T. reesei*; invited talk at the 30th Fungal Genetics Conference, Asilomar, Pacific Grove, CA, USA March 12-17

- 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 (2018) Chemical communication and sensing of nutrients, mating partners and plants by fungi of the genus *Trichoderma*; invited talk at the University of Vienna, Institute of Systematic and Evolutionary Botany, May 30, Vienna, Austria
- M. Schmoll (2017) Sensing of plants, microbes and nutrients by *Trichoderma*; invited talk at University of Innsbruck, December 21, Innsbruck, Austria
- M. Schmoll (2017) Sensing of plants, microbes and nutrients by *Trichoderma*; Special Symposium on "Microbial Antagonists and their role in biological control of plant diseases", October 5-7, Anand (Gujarat), India
- M. Schmoll (2017) Cellulose signal transduction impacts posttranscriptional regulation of cellulase gene expression in *Trichoderma reesei*; invited talk at the 2nd Symposium on Plant Biomass Conversion by Fungi, August 28th- 29th, Utrecht, The Netherlands
- Samira Basyouni-Khamis, Guofen Li, Clara Pogner and Monika Schmoll (2017) Working with nature to preserve nature: using natural molds to sustainably improve biofuel production; invited talk at the 22nd International conference on environmental indicators, August 1-5, Helsinki, Finland
- M. Schmoll (2017) Light dependent regulation of carbon and secondary metabolism in *Trichoderma reesei*; invited talk at the International Symposium on Fungal Stress (ISFUS), May 8-12, Goiana, Brazil
- 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, J. Lokhandwala, H. H. Hopkins, A. Rodriguez-Iglesias, C. Dattenböck, and B. D. Zoltowski (2015) Functions of ENVOY in *Trichoderma reesei*; invited talk at the 28th Fungal Genetics Conference, March 17 – 22, Asilomar, Pacific Grove, California, USA
- M. Schmoll (2014) Environmental signaling in *Trichoderma reesei* and its use for bioprocess optimization; invited keynote lecture; 13th International Workshop of *Trichoderma* and *Glucocladium* (TG2014), October 19 – 23, Shanghai, China
- M. Schmoll (2014) Adjusting signal transduction pathways of *Trichoderma reesei* for bioprocess optimization; Talk at 6th ÖGMBT Annual Meeting, Wien (invited); 15.09.2014 - 18.09.2014
- M. Schmoll, D. Tisch, C. Dattenböck, J. Collett, M. Freitag, K. Pomraning, S. Baker, C.-L. Chen, P. Wei-Che Hsu, A. Schuster, T.-F. Wang (2014) Sexual development and female fertility in *Trichoderma reesei*; European Conference on Fungal Genetics, March 23 – 28, Seville, Spain
- M. Schmoll (2013) Light response in *Trichoderma reesei* – mechanisms and relevance for biotechnology. Invited seminar talk at the minisymposium "Secondary metabolism", November 17th, Bochum, Germany
- M. Schmoll (2013) *Trichoderma reesei* and its environment – challenges and exploitation. Seminar talk at Novozymes, Davis, CA, USA, March 18th
- M. Schmoll (2013) Carbon source and light dependent regulation of gene clusters in *Trichoderma reesei* (*Hypocrea jecorina*), invited talk at 27th Fungal Genetics Conference, March 12 – 17, Asilomar, Pacific Grove, California, USA
- M. Schmoll (2012) Novel Approaches for Fungal Biotechnology: Understanding and Adjusting Signal Transduction Pathways and Light Response. Invited talk at the Workshop on Second Generation Bioethanol 2012 – Enzymatic Hydrolysis, November 13th, Campinas, Brazil
- M. Schmoll (2012) Environmental sensing and its regulation in *Trichoderma reesei* (*Hypocrea jecorina*), invited Keynote Lecture at the 12th International *Trichoderma* and *Glucocladium* Workshop, August 27th to 30th, Christchurch, New Zealand.
- M. Schmoll (2012) Signalling processes in fungi and their implications for biotechnology. Invited applicant lecture for the position of a full professor in Environmental Biotechnology, January 30th, IFA Tulln, Tulln, Austria
- M. Schmoll (2011) Signaling and sexual development in the industrial workhorse *Trichoderma reesei*. Invited seminar talk at the Institute of Microbiology, Chinese Academy of Sciences, Beijing, China, July 29th
- M. Schmoll (2011) Novel perspectives to improve cellulase production with *Trichoderma reesei* - Signal transduction and Sexual development. Invited seminar talk at Danisco – Genencor, Palo Alto, CA, USA, March 9th
- M. Schmoll (2010) Signaling in the industrial workhorse *Trichoderma reesei* (*anamorph* of *Hypocrea jecorina*), Young group leader presentation, ÖGMBT annual meeting, Vienna, Sept. 28th
- M. Schmoll (2010) Sexual development in the filamentous fungus *Trichoderma reesei*: perspectives and challenges; invited seminar talk at the Institute of Molecular Biology, Feb. 4th, Academia Sinica, Taipei, Taiwan
- M. Schmoll (2009) Caught in the act – the long denied sexuality of the biotechnological fungus *Trichoderma reesei*; invited lecture at the GZMB-Kolloquium Microbiology and Molecular biology, December 15th, at the University of Göttingen, Germany
- M. Schmoll (2009) Environmental sensing in *Trichoderma reesei* and its implications for biotechnology, invited seminar talk at Novozymes, Davis, California, USA (declined)
- Schmoll M. (2008) How does an industrial workhorse sense its environment: Insights into signal transduction processes of *Trichoderma reesei*; invited lecture at the MB seminar series, University of California, Berkeley, October 1st
- Schmoll, M. (2005) The blazing senses of a biotechnological cell factory: Cellulase expression of *Hypocrea jecorina* is influenced by light. Invited seminar talk at the University of Szeged, Hungary, October 21st

Conference Talks

Wolfgang Hinterdobler, Miriam Schalamun and Monika Schmoll (2022) Chance favours the prepared spore – how to jumpstart cellulase production. Talk and poster at the 31st Fungal Genetics Conference, March 15-20, Pacific Grove, CA, USA

Miriam Schalamun, Wolfgang Hinterdobler, Nicole Wanka and Monika Schmoll (2022) Genome wide insights into signal integration by the G-protein pathway for regulation of carbon- and secondary metabolism. Talk and poster at the 31st Fungal Genetics Conference, March 15-20, Pacific Grove, CA, USA

Wolfgang Hinterdobler, Guofen Li, David Turrà, Miriam Schalamun, Stefanie Kindel, Ursula Sauer, Sabrina Beier, Aroa Rodriguez Iglesias, Stéphane Compant, Stefania Vitale, Antonio Di Pietro and Monika Schmoll (2021) Interkingdom communication and its connection to glucose sensing, development and enzyme production. Talk at the Environmental Molecular Sciences Laboratory (EMSL) Integration Meeting 2021 on "Environmental Sensors", October 4-7, virtual (online)

Wolfgang Hinterdobler, Julia Scholda, Guofen Li, Stefan Böhmendorfer and Monika Schmoll (2020) Austrian *Trichoderma* spp. impact mycotoxin production of the plant pathogen *Fusarium graminearum*; Talk at the ECFG15 Satellite Workshop "Trichoderma, Clonostachys and other biocontrol fungi", February 17th, Rome, Italy

Guofen Li, Wolfgang Hinterdobler, David Turrà, Stefanie Kindel, Ursula Sauer, Aroa Rodriguez Iglesias, Stéphane Compant, Antonio Di Pietro and Monika Schmoll (2019) How a fungus integrates glucose sensing with carbon catabolite repression and development to adapt to living plants versus decaying litter; talk at the Asian Mycological Congress 2019; October 1-4, Tsu, Japan

Wolfgang Hinterdobler, Sabrina Beier, Jana Krautloher, Irene Schwartz, Stefan Böhmendorfer, Johann Schinnerl, Hoda Bazafkan, Christoph Dattenböck, Monika Schmoll (2019) A fungus' proposal – Chemical dialogs between mating partners as influenced by VEL1 and G-protein linked signaling; talk at the 13th Symposium of the VAAM Meeting "Molecular Biology of Fungi", September 19-21, Göttingen, Germany

Verena Unterwurzacher, Harald Berger, Eva Hitzenhammer, Guofen Li and Monika Schmoll (2019) Light dependent gene regulation and its connection to glucose sensing and nucleosome rearrangements in *T. reesei*; invited talk at the 30th Fungal Genetics Conference, March 12-17, Asilomar, Pacific Grove, CA, USA

Sabrina Beier, Stappeler Eva, Wolfgang Hinterdobler, Tisch Doris, Feiler Lukas, Sun Jianping, N. Louise Glass and Schmoll Monika (2018) Phosphodiesterases impact sexual development and the block of cellulase gene expression in light in *Trichoderma reesei*; talk at the 10th ÖGMBT Annual Meeting 2018, September 17-20, Vienna, Austria

Monika Schmoll (2018) Posttranscriptional regulation of cellulase gene expression in *Trichoderma reesei*; talk at the EUROFUNG meeting, March 19-20, Berlin, Germany

- Stappler Eva, Tisch Doris, Sabrina Beier, Feiler Lukas, Sun Jianping, N. Louise Glass and Monika Schmoll (2018) A phosphodiesterase is responsible for the block of cellulase gene expression in light in *Trichoderma reesei*; conference talk at the European Conference on Fungal Genetics (ECFG 14), February 25-28, Haifa, Israel
- Guofen Li, David Turra, Antonio Di Pietro and Monika Schmoll (2017) *Trichoderma reesei* prioritizes plant sensing and the presence of a mating partner over nutrient sensing to achieve optimal adaptation to the plant by sexual development; conference talk at the miCROPe 2017 conference, December 4-7, Vienna, Austria
- Guofen Li, Lisa Marie Pleyer, Günter Brader and Monika Schmoll (2017) Cooperation of *Trichoderma* spp. and *Bacillus* spp. in biocontrol applications; poster talk at the miCROPe 2017 conference, December 4-7, Vienna, Austria
- M. Schmoll (2017) Light dependent regulation of cellulase gene expression and secondary metabolism in *Trichoderma reesei*; Invited talk at the International Symposium on Fungal Stress (ISFUS), May 8-11, Goiania, Brazil
- M. Schmoll (2016) Exploiting novel mechanisms for strain improvement with *Trichoderma reesei*; Talk and poster at the European Summit of Industrial Biotechnology (ESIB), November 14-16, Graz, Austria
- M. Schmoll (2015) *Trichoderma* species as biocontrol agents, talk at the Annual Biocontrol Industry Meeting (ABIM) October 19 – 21, 2015, Basel, Switzerland.
- E. Stappler, C. Dattenböck, D. Tisch, A. Schuster and M. Schmoll (2015) The cellulase specific transcriptome of *Trichoderma reesei* as influenced by light, photoreceptors and CRE1, talk at the 28th Fungal Genetics Conference, March 17 – 22, Asilomar, Pacific Grove, California, USA
- C. Seibel, CP Kubicek and M. Schmoll (2012) The pheromone system of *Hypocrea jecorina* (*Trichoderma reesei*) and its regulation by photoreceptors upon sexual development. 11th European Conference on Fungal Genetics (ECFG11), Marburg, Germany, March 31st
- M. Schmoll (2011) Signal transduction processes connecting light response to cellulase gene regulation in *Trichoderma reesei*. BIT's 1st Annual World Congress of Microbes, Beijing, China, July 30th – August 1st
- M. Schmoll (2010) Assessing the relevance of light for fungi – implications and insights into the network of signal transmission; invited talk; SGM Autumn meeting, Nottingham, United Kingdom, Sept. 7th
- D. Tisch, C. P. Kubicek and M. Schmoll (2009) Assessing signal relevance: How *Hypocrea jecorina* (*Trichoderma reesei*) adjusts the interplay between heterotrimeric G-protein signaling and light response; talk at the 10th International Fungal Biology Conference, December 6 – 10, Ensenada, Baja California, Mexico
- Schmoll M. (2008) Novel signals and their impact on cellulase gene expression in *Hypocrea jecorina* (*Trichoderma reesei*); talk at the Second Annual Workshop of COST FP0602 (Biotechnology for lignocellulose biorefineries), Biel, Switzerland, December 4 – 5
- Schmoll M. (2008) The toolkit of *Hypocrea jecorina* (anamorph *Trichoderma reesei*) for adjusting to its environment; Eurofungbase workshop, April 2nd – 3rd, Edinburgh, UK
- Schmoll M., Dorrer M., and Kubicek C. P. (2007) MINUTE, the unusual a-type pheromone of *Hypocrea jecorina* (*Trichoderma reesei*) mediates light regulation of cellulase gene expression. Talk at 24th Fungal Genetics Conference, Asilomar, California, USA
- Schmoll M., Friedl M., Silva dN. R., Dorrer M., and Kubicek C. P. (2006) Stages and impact of crosstalk between light response and cellulase signal transduction in *Hypocrea jecorina* (*Trichoderma reesei*). 8th European Conference on Fungal Genetics, Vienna Austria
- Schmoll M., Dorrer, M. and Kubicek, C. P. (2006) Limpet, a light-responsive WD-repeat/F-box protein involved in cellulose signalling and sulphur metabolite repression in *Hypocrea jecorina* (*Trichoderma reesei*). 9th International Workshop on Trichoderma and Gliocladium, Vienna, Austria
- Schmoll M. (2005) The blazing senses of a biotechnological cell factory: Cellulase expression of *Hypocrea jecorina* is influenced by light. 1st Central European Forum for Microbiology (CEFORM), Keszthely, Hungary.
- Schmoll M., Kredics, L., Kratzer, C., and Kubicek, C. P. (2005) Elucidation of pathogenicity related gene expression in *Trichoderma longibrachiatum* EUROFUNGBASE start up Meeting, Sevilla, Spain
- Schmoll M., Dorrer, M., and Kubicek, C. P. (2005) Minute, a novel and unique protein of *Hypocrea jecorina* (*Trichoderma reesei*) modulates light regulation of cellulase gene expression, Talk at VAAM-Symposium "Molecular Biology of Fungi", Bochum, Germany
- Schmoll M., Franchi, L., and Kubicek, C. P. (2005) ENVOY, a novel PAS/LOV domain protein, regulates cellulase gene transcription dependent on light and connects carbon source signaling to light response in *Hypocrea jecorina* (anamorph *Trichoderma reesei*). Talk at 23rd Fungal Genetics Conference, Asilomar, California, USA
- Schmoll M., Kubicek, C. P., (2005) Climbing up the cellulase signalling cascade of *Hypocrea jecorina* (*Trichoderma reesei*): Minute, a novel protein interacting with the light-modulator Envoy influences cellulase gene expression. EUROFUNG "The Genomic Era" 3rd Meeting, Wageningen, The Netherlands
- Schmoll M., Kubicek, C. P., (2004) Increasing complexity of cellulase gene expression by *Hypocrea jecorina*: interaction of light and carbon source signals. EUROFUNG "The Genomic Era" 2nd Meeting, Wageningen, The Netherlands
- Schmoll M., Dorrer, M., Kubicek, C. P., (2004) Envoy and minute, two novel genes influencing cellulase gene expression in *Hypocrea jecorina*. EUROFUNG "The Genomic Era" 1st Meeting, Wageningen, The Netherlands
- Schmoll M., Seiboth B., Druzhinina I., Pail M., Seidl V., Hartl L., Gamauf C., Komon M., Dorrer M., Huemer B., and Kubicek C. P. (2004) Microbial enzymes for industrial application of renewable raw materials: molecular basis for strain improvement in *Trichoderma*. 1st Minisymposium for renewable Resources and Energy, Vienna, Austria

Posters

Wolfgang Hinterdobler, Sabrina Beier, Jana Krautloher, Irene Schwartz, Stefan Böhmderfer, Johann Schinnerl, Hoda Bazafkan, Christoph Dattenböck, Monika Schmoll (2020) The interplay between ENV1 and VEL1 is crucial for appropriate mating partner recognition and chemical communication in *Trichoderma reesei*; poster presentation at the 15th European Conference on Fungal Genetics (ECFG15), February 17-20, Rome, Italy

Sabrina Beier, Wolfgang Hinterdobler, Jana Krautloher, Hoda Bazafkan, Eva Hitzenhammer and Monika Schmoll (2020) Sensing by GPR16 impacts balanced regulation of enzyme production and chemical communication in *Trichoderma reesei*; poster presentation at the 15th European Conference on Fungal Genetics (ECFG15), February 17-20, Rome, Italy

Wolfgang Hinterdobler, Sabrina Beier, Marlene Stiegler, Jana Krautloher, Stefan Böhmderfer and Monika Schmoll (2020) RGS domain containing G-protein coupled receptors impact chemical communication in *Trichoderma reesei*; poster presentation at the 15th European Conference on Fungal Genetics (ECFG15), February 17-20, Rome, Italy

Sabrina Beier, Wolfgang Hinterdobler, Jana Krautloher, Hoda Bazafkan, Eva Stappler and Monika Schmoll (2019) A G-protein coupled receptor impacts secondary metabolism and enzyme production in *Trichoderma reesei*; poster presentation at the 13th Symposium of the VAAM Meeting "Molecular Biology of Fungi", September 19-21, Göttingen, Germany

Guofen Li, Wolfgang Hinterdobler, David Turra, Stefanie Kindel, Ursula Sauer, Aroa Rodriguez Iglesias, Stephane Compant, Antonio Di Pietro and Monika Schmoll (2019) From posttranscriptional regulation to plant sensing – integration of glucose sensing with carbon catabolite repression to distinguish litter from plants; poster presentation at the 13th Symposium of the VAAM Meeting "Molecular Biology of Fungi", September 19-21, Göttingen, Germany

Wolfgang Hinterdobler, Sabrina Beier, Jana Krautloher, Irene Schwartz, Hoda Bazafkan, Stefan Böhmderfer, Monika Schmoll (2019) Chemical communication upon mating is associated with distinct, partner dependent gene regulation and metabolite patterns and involves G-protein coupled receptors and VEL1; presentation at the 30th Fungal Genetics Conference, March 12-17, Asilomar, Pacific Grove, CA, USA

Guofen Li, David Turra, Stefanie Kindel, Ursula Sauer, Antonio Di Pietro and Monika Schmoll (2018) Sensing and reacting to nutrients is balanced with plant and mating partner sensing in *Trichoderma reesei* and aimed at optimal association with plants; poster at the 10th ÖGMBT Annual Meeting 2018, September 17-20, Vienna, Austria

Samira Basyouni-Khamis, Guofen Li, Wolfgang Hinterdobler, Markus Gorfer and Monika Schmoll (2018) Characterization of *Trichoderma reesei* nature isolates and their improvement for biological biomass pretreatment and cellulase production by

- sexual crossing; poster at the 10th ÖGMBT Annual Meeting 2018, September 17-20, Vienna, Austria
- Wolfgang Hinterdobler, Jana Krautloher, Stefan Böhmendorfer, Monika Schmoll (2018) Functions of G-protein coupled receptors in secondary metabolite production in *Trichoderma reesei*; poster at the 10th ÖGMBT Annual Meeting 2018, September 17-20, Vienna, Austria
- Guofen Li, David Turra, Stefanie Kindel, Ursula Sauer, Antonio Di Pietro and Monika Schmoll (2018) *Trichoderma reesei* prioritizes plant sensing and the presence of a mating partner over nutrient sensing to achieve optimal adaptation to the plant by sexual development; Poster presentation on the Gordon conference on Cellular and Molecular Fungal Biology, June 17-22, Holderness, NH, USA
- Eva Stappler, Hoda Bazafkan, Sabrina Beier, Josua T. Oberlechner, Stefan Böhmendorfer and Monika Schmoll (2017) HPTLC as a tool to investigate chemical communication in fungi; Poster at the International Symposium for High Performance Thin-Layer Chromatography (HPTLC 2017), July 4-8, Berlin, Germany
- Eva Stappler, Guofen Li, David Turra, Stefanie Kindel, Ursula Sauer, Antonio Di Pietro, and Monika Schmoll M. (2017) *Trichoderma reesei* forms surface attachment structures and senses cellulosic biomass using class XIII GPCRs. Poster at the 29th Fungal Genetics Conference, March 14-19, Asilomar, Pacific Grove, California, USA
- Guofen Li, David Turra, Antonio Di Pietro and Monika Schmoll (2017) Plant sensing enhances sexual development and overrides nutrient sensing in *Trichoderma reesei*. Poster at the 29th Fungal Genetics Conference, March 14-19, Asilomar, Pacific Grove, California, USA
- Alberto Alonso Monroy, Eva Stappler, Andre Schuster, Stefan Böhmendorfer, Rainer Schuhmacher, Michael Sulyok and Monika Schmoll (2017) A CRE1-regulated cluster is responsible for light dependent production of Dihydrotrichotetronine in *Trichoderma reesei*. Poster at the 29th Fungal Genetics Conference, March 14-19, Asilomar, Pacific Grove, California, USA
- Guofen Li, Marija Gumze and Monika Schmoll (2016) Austrian *Trichoderma* species as efficient plant protectors; Poster at the European Summit of Industrial Biotechnology (ESIB), November 14-16, Graz, Austria
- Alberto Alonso Monroy, Eva Stappler, Andre Schuster, Stefan Böhmendorfer, Rainer Schuhmacher, Michael Sulyok and Monika Schmoll (2016) Feed or fight – the light dependent balance of secondary metabolites and enzymes in *Trichoderma reesei*; poster at the Gordon Conference on Cellular and Molecular Fungal Biology, Holderness, NH, USA, June 19-24
- Hoda Bazafkan, Eva Stappler, Stefan Böhmendorfer, Josua T. Oberlechner and Monika Schmoll (2016) Functions of SUB1 and its position in the light signaling cascade in *Trichoderma reesei*, poster at the 13th European Conference on Fungal Genetics, Paris, France, April 4-7, 2016
- H. Bazafkan and M. Schmoll (2015) The light signaling pathway and its influence on development in *Trichoderma reesei*, poster at the 11th VAAM Conference "Molecular Biology of Fungi MBF 2015", October 7 – 9, 2015, Berlin, Germany
- A. Rodriguez-Iglesias and M. Schmoll (2015) Investigation of protein phosphatases in *Trichoderma reesei*, poster at the 28th Fungal Genetics Conference, March 17 – 22, Asilomar, Pacific Grove, California, USA
- E. Stappler, M. Borrusch, J. Walton, M. Schmoll (2014) Light dependent regulation of protein secretion in *Trichoderma reesei* upon growth on cellulose. Poster: 6th ÖGMBT Annual Meeting, Vienna; September 15th- 18th
- H. Bazafkan, C. Dattenböck, S. Böhmendorfer, D. Tisch, M. Schmoll (2014) The role of VELVET in communication between potential mating partner. Poster: ÖGMBT 2014, Vienna; September 15th- 18th
- C. Dattenböck, D. Tisch, J. Collett, M. Freitag, K. Pomraning, S. Baker, C.-L. Chen, P. Wei-Che Hsu, A. Schuster, T.-F. Wang and M. Schmoll (2014) The relevance of mating type and sexual competence for enzyme production in *Trichoderma reesei*; European Conference on Fungal Genetics, March 23 – 28, Seville, Spain
- A Rodriguez-Iglesias and M. Schmoll (2014) Investigation of protein phosphatases in *Trichoderma reesei*; European Conference on Fungal Genetics, March 23 – 28, Seville, Spain
- Bazafkan, H., Tisch D and Schmoll M. (2013) VELVET is regulated by ENV1 and impacts development of *Trichoderma reesei*. 27th Fungal Genetics Conference, March 12 – 17, Asilomar, Pacific Grove, California, USA
- Tisch D and Schmoll M (2012) Insights into the mechanism for integration of nutrient and light signals in *Trichoderma reesei* (*Hypocrea jecorina*). 11th European Conference on Fungal Genetics (ECFG11), Marburg, Germany, March 30 to April 2
- Tisch D and Schmoll M (2011) Transmission of environmental signals is different in light and darkness in fungi. ÖGMBT Meeting 2011, September 28 – 30, Fachhochschule Salzburg, Campus Urstein
- Schuster A, Bruno KS, Collett JR, Baker SE, Seiboth B, Kubicek CP, Schmoll M (2012a) A versatile toolkit for high throughput functional genomics with *Trichoderma reesei*. ÖGMBT Meeting 2011, September 28 – 30, Fachhochschule Salzburg, Campus Urstein (talk by A. Schuster)
- D. Tisch, A. Schuster and M. Schmoll (2011) Cellulase expression specific gene regulation in *Trichoderma reesei*, Final workshop of the COST action FP0602, September 6 – 7, Viterbo, Italy
- D. Tisch and M. Schmoll (2011) Is there a light- and dark-reaction to environmental cues in fungi? Poster at the 26th Fungal Genetics Conference, March 15-20, Asilomar, California, USA
- A. Schuster, D. Tisch, C. P. Kubicek, and M. Schmoll (2010) Targets of the cAMP signalling pathway in *Trichoderma reesei* (*Hypocrea jecorina*) ÖGMBT annual meeting, Vienna, Sept. 28th
- D. Tisch, C. P. Kubicek and M. Schmoll (2010) Heterotrimeric G-protein signaling in *Trichoderma reesei* (*Hypocrea jecorina*): The role of phosducins in cellulase regulation, ÖGMBT annual meeting, Vienna, Sept. 28th
- M. Schmoll, C. Seibel and C. P. Kubicek (2010) Sexual development in the biotechnological workhorse *Trichoderma reesei*: How can we use this new tool to improve biofuel production? COST FP602 workshop, September 21 – 24, Izmir, Turkey
- M. Schmoll, C. Seibel and C. P. Kubicek (2010) Applications of sexual development of *Trichoderma reesei* in research and industry: Perspectives and challenges. 10th European Conference on Fungal Genetics, March 29th – April 1st, Noordwijkerhoed, Amsterdam, Netherlands.
- M. Schmoll, C. Tian, J. Sun and N. L. Glass (2009) Interconnection of light signaling and cellulase gene expression in *Neurospora crassa* – a conserved phenomenon in ascomycetous fungi? ITALIC5 – Science and Technology of Biomasses: Advances and Challenges and COST FP602 workshop; September 1 – 4, Varenna, Italy
- D. Tisch, G. Gremel, C. P. Kubicek and M. Schmoll (2009) Regulatory interactions among G-alpha subunits and their connection to the light response pathway. Poster at the Gordon Research Conference "Mechanisms of Cell Signaling" August 23 – 28, Magdalen College, Oxford, UK
- A. Schuster, C. P. Kubicek and M. Schmoll (2009) A cellulase related dehydrogenase of *Hypocrea jecorina* (*Trichoderma reesei*) specifically responsive to soluble inducing compounds. Poster presented by A. Schuster at the 31st Symposium on Biotechnology for Fuels and Chemicals, May 3 – 6, San Francisco, California, USA Received the award "Outstanding Student Presentation in Fundamental Research"
- M. Schmoll, C. Tian, J. Sun and N. L. Glass (2009) The *Neurospora crassa* photoreceptors WHITE COLLAR-1, WHITE COLLAR-2 and VIVID impact carbohydrate metabolism in different ways. Poster at the 25th Fungal Genetics Conference, March 17 – 22, Asilomar, California, USA
- V. Seidl, C. Seibel, C. P. Kubicek and M. Schmoll (2009) Sex and the *Trichoderma*: New perspectives for industrial strain improvement. Talk and poster presented by V. Seidl at the 25th Fungal Genetics Conference, March 17 – 22, Asilomar, California, USA
- M. Schmoll, G. Gremel, M. Dorrer, R. do Nascimento Silva and C. P. Kubicek (2008) Light-dependent Cellulase Regulation in *Hypocrea jecorina* (anamorph *Trichoderma reesei*) and the Influence of Heterotrimeric G-protein Signaling on this Process. Poster at the 9th European Conference on Fungal Genetics, April 5th – 8th, Edinburgh, UK
- V. Seidl, C. P. Kubicek and M. Schmoll (2008) Sexual development and morphological consequences of mating partner recognition in *Hypocrea jecorina*. Poster at the 9th European Conference on Fungal Genetics, April 5th – 8th, Edinburgh, UK
- C. Seibel, L. Kredics, C. Kratzer, Z. Antal, C. P. Kubicek and M. Schmoll (2008) Pathogenesis related gene expression in the opportunistic fungal pathogen *Trichoderma longibrachiatum*. Poster at the 9th European Conference on Fungal Genetics, April 5th – 8th, Edinburgh, UK

- A. Schuster, D. Tisch, V. Seidl, C. P. Kubicek and M. Schmoll (2008) The cAMP-protein kinase A pathway is dispensable for cellulase gene expression in *Hypocrea jecorina* (= *Trichoderma reesei*). Poster at the 9th European Conference on Fungal Genetics, April 5th – 8th, Edinburgh, UK
- D. Tisch, G. Gremel, C. Kubicek and M. Schmoll (2008) ENVOY is a circuit breaker between light response and heterotrimeric G-protein signaling in *Hypocrea jecorina* (anamorph *Trichoderma reesei*) Poster at the 9th European Conference on Fungal Genetics, April 5th – 8th, Edinburgh, UK
- Schmoll M., Dorrer M., and Kubicek C. P. (2007) MINUTE, the unusual a-type pheromone of *Hypocrea jecorina* (*Trichoderma reesei*) mediates light regulation of cellulase gene expression. Poster at 24th Fungal Genetics Conference, March 20 – 25, Asilomar, California, USA
- Dorrer M., Gremel G., Kubicek C. P. and Schmoll M. (2007) *Hypocrea jecorina* adjusts cellulase levels to sulphur availability in dependence of light. Poster at 8th VAAM Symposium Molecular Biology of Fungi, September 23 – 26, Hamburg, Germany
- Seibel C., Gremel G., Kubicek C. P. and Schmoll M. (2007). The G-alpha protein GNA1 of *Hypocrea jecorina* impacts both light response and cellulase gene transcription. Poster at 8th VAAM Symposium Molecular Biology of Fungi, September 23 – 26, Hamburg, Germany
- Schuster A., Kubicek C. P., Friedl M. A., Druzhinina I. S. and Schmoll M. (2007). Novel functions of the light response regulatory protein ENVOY in *Hypocrea jecorina*. Poster at 8th VAAM Symposium Molecular Biology of Fungi, September 23 – 26, Hamburg, Germany
- Tisch, D., Gremel G., Kubicek C. P. and Schmoll M. (2007) ENVOY – a circuit breaker between light response and heterotrimeric G-protein signaling? Poster at 8th VAAM Symposium Molecular Biology of Fungi, September 23 – 26, Hamburg, Germany
- Castellanos-Juarez F. X., Sánchez, A., Schmoll M., Kubicek C. P. and Herrera-Estrella A. (2007) Molecular Characterization of Light Responses in the Cellulolytic Fungus *Trichoderma reesei*. 24th Fungal Genetics Conference, Asilomar, California, USA
- Xie G., Berka R. M., Henrissat B., Saloheimo M., Magnuson J., Lopez De Leon A., Cullen D., Nelson B., Arvas M., Westerholm-Parvinen A., Merino S., Baker S. E., Schmoll M., Harris P., Ward M., Larrondo L. F., Yao J., Penttilä M., Jackson M., Misra M., Goodstein D., Thayer N., Terry A. Y., Huang W., Rash S., Dehal P., Putnam N., Chapman J., Robbertse B., Kubicek C. P., Rokhsar D. S., Gilna P., Brettin T., Lucas S., Martinez D. A. (2006) Community involved in fungal genome annotation at the JGI-LANL. 8th European Conference on Fungal Genetics, Vienna, Austria
- Silva dN R., Kubicek C. P. and Schmoll M. (2006) Light- and inducer dependent modulation of cellulase gene expression by the G-alpha protein GNA3 of *Hypocrea jecorina* (*Trichoderma reesei*). 8th European Conference on Fungal Genetics, Vienna, Austria
- Friedl M., Schmoll M., Kubicek C. P. and Druzhinina I. (2006) Light stimulation of growth and conidiation by *Hypocrea atroviridis* is carbon source dependent. 8th European Conference on Fungal Genetics, Vienna, Austria
- Schmoll M., Kredics L., Kratzer C., Antal Z. and Kubicek C. P. (2006) Gene regulation in the emerging fungal pathogen *Trichoderma longibrachiatum* during its growth in the presence of bronchial epithelial cells. 8th European Conference on Fungal Genetics, Vienna, Austria
- Martinez D. A., Berka R. M., Saloheimo M., Henrissat B., Cullen D., Magnuson J., Lopez De Leon A., Arvas M., Baker S. E., Harris P., Larrondo L. F., Merino S., Nelson B., Robbertse B., Schmoll M., Westerholm-Parvinen A., Ward M., Yao J., Grigoriev I. V., Salamov A., Xie G., Thayer N., Terry A. Y., Lucas S., Misra M., Jackson M., Richardson P., Rokhsar D. S., Chertkov O., Han C., Kubicek C. P., Rubin E. (2006) Sequencing, Annotation and Whole Genome Analysis of the *Trichoderma reesei* Genome. 9th International Workshop on Trichoderma and Gliocladium, Vienna, Austria
- Scherm B., Demontis M., Ghignone S., Schmoll M., Kubicek C. P., and Migheli Q. (2006) A Rapid Subtraction Hybridization approach for identifying and cloning differentially expressed genes during the interaction between *Trichoderma harzianum* and *Rhizoctonia solani*. 9th International Workshop on Trichoderma and Gliocladium, Vienna, Austria
- Kredics, L., Kratzer, C., Kubicek, C. P. and Schmoll, M. (2005) Application of Rapid Subtraction Hybridization for the study of opportunistic pathogenicity related gene expression in *Trichoderma longibrachiatum*, Poster presented at 1st Central European Forum for Microbiology (CEFOM), Keszthely, Hungary.
- Silva, R., Kubicek, C. P. and Schmoll, M., (2005) The *Hypocrea jecorina* (*Trichoderma reesei*) G-alpha protein Tga3 is involved in cellulase (*cbh1* and *cbh2*) gene expression in a light-dependent manner. Poster: Life Sciences 2005. Vienna, Austria.
- Schmoll M., Friedl, M., Herrera-Estrella, A. and Kubicek C.P. (2005) Light modulates cellulase induction in *Trichoderma*, Poster presented at the Japanese-European Workshop on Cellulose and Functional Polysaccharides, Vienna, Austria
- Schmoll M., Kubicek, C.P., (2004) Differences in gene expression between growth on cellulose and the soluble cellulase inducer sophorose in *Hypocrea jecorina* (*Trichoderma reesei*) suggest at least partially different signalling pathways for cellulase induction depending on the carbon source. Joint Annual Meeting ÖGBM, ÖGGGT, ÖGBT, ANGT. Innsbruck, Austria.
- Seidl, V., Schmoll, M., Scherm, B., Balmas, V., Seiboth, B., Migheli, Q. and Kubicek, C.P. (2004). The use of *Hypocrea jecorina* (anamorph *Trichoderma reesei*) as a model system for *Trichoderma* biocontrol of *Pythium* blight identifies new targets for genetic strain improvement. Joint Annual Meeting ÖGBM, ÖGGGT, ÖGBT, ANGT. Innsbruck, Austria.
- Seidl, V., Schmoll, M., Scherm, B., Balmas, V., Seiboth, B., Migheli, Q., Kubicek, C.P. (2004). Use of *Hypocrea jecorina* (anamorph *Trichoderma reesei*) as a model system for *Trichoderma* biocontrol of *Pythium* blight identifies new targets for genetic strain improvement. Proceedings of Eighth International Workshop on *Trichoderma* and *Gliocladium*. Hangzhou, China. Journal of Zhejiang University (Agriculture and Life Science). 30(4): 404.
- Schmoll, M., Dorrer, M., and Kubicek, C. P. (2004) *Envoy* and *minute*, two novel genes influencing cellulase gene expression in *Hypocrea jecorina*. Poster presented at the 7th European Conference on Fungal Genetics, Copenhagen, Denmark
- Druzhinina, I., Koptchinski, A., Schmoll, M., Seiboth, B., and Kubicek, C. P. (2004) Characterization of physiological diversity in recombinant and chemical mutant strains of *Hypocrea jecorina* by phenotype array analysis. Poster presented at the 7th European Conference on Fungal Genetics, Copenhagen, Denmark
- Schmoll M., Mach R. L. and Kubicek C. P. (2003) Cellulase Regulation in *Hypocrea jecorina*: analysis of a DNA-bound transcription factor complex by oligonucleotide affinity chromatography and mass spectrometry. Poster presented at the 14th International Congress of the Hungarian Society for Microbiology, Balatonfüred, Hungary
- Schmoll M., Mach R. L. and Kubicek C. P. (2003) Cellulase Regulation in *Hypocrea jecorina*: analysis of a DNA-bound transcription factor complex by oligonucleotide affinity chromatography and mass spectrometry. Poster presented at the Joint Annual Meeting ÖGBM, ÖGGGT, ÖGBT, ANGT. Graz, Austria.
- Zeilinger S., Schmoll M., Pail M., Mach R. L. and Kubicek C. P. (2002) Nucleosome transactions on the *Hypocrea jecorina cbh2* promoter reveal a novel role for the carbon catabolite repressor protein Cre1 in chromatin rearrangement. Poster presented at the 6th European Conference on Fungal Genetics, Pisa, Italy
- Schmoll M., Zeilinger S., Mach R. L. and Kubicek C. P. (2002). A rapid subtraction hybridization protocol (RaSH) for identification of genes whose expression is impaired in the cellulase-negative mutant strain *Hypocrea jecorina* QM9978. Poster presented at the Joint Annual Meeting ÖGBM, ÖGGGT, ÖGBT, ANGT. Salzburg, Austria.
- Schmoll M., Zeilinger S., Mach R. L. and Kubicek C. P. (2002). A rapid subtraction hybridization protocol (RaSH) for identification of genes whose expression is impaired in the cellulase-negative mutant strain *Hypocrea jecorina* QM9978. Poster presented at the 6th European Conference on Fungal Genetics (2002), Pisa, Italy
- Zeilinger S., Leonhartsberger M., Mach R. L. and Kubicek C. P. (2001) Nucleosome positioning in the *cbh2* promoter of *Trichoderma reesei* is dependent on the *cbh2* activating element CAE. Joint Annual Meeting ÖGBM, ÖGGGT, ÖGBT, ANGT. Vienna, Austria.
- Leonhartsberger M., Zeilinger S., Schulz A., Marosits T., Mach R. L. and Kubicek C. P. (2000) Nucleosome positioning in the *cbh2* promoter of *Trichoderma reesei* under inducing and repressing conditions. Poster presented at the 5th European Conference on Fungal Genetics, Arcachon, France

