

## PUBLICATIONS OF DR. IRINA S. DRUZHININA

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Top cites publication ([Google Scholar](#))

**Druzhinina IS, Seidl-Seiboth V, Herrera-Estrella A, Horwitz BA, Kenerley CM, Monte E, Mukherjee PK, Zeilinger S, Grigoriev IV, Kubicek CP (2011) 825**  
*Trichoderma*: the genomics of opportunistic success. **Nature Reviews Microbiology** 9 (10):749-759. doi:10.1038/nrmicro2637

*In revision or submitted*

## PEER-REVIEWED RESEARCH ARTICLES

(Key publications are highlighted)

Chen S, Daly P, Zhou D, Li J, Wang X, Deng S, Feng H, Wang C, Sheikh T, Chen Y, Xue T, Cai F, Wei L, **Druzhinina IS** Engineering microbial agents for biological control of plant diseases caused by *Pythium*: recent achievements versus challenges. *Revised to Fungal Biology Reviews*

1. Cai F, Zhao Z, Gao R, Chen P, Ding M, Jiang S, Fu Z, Xu P, Chenthamara K, Shen Q, Bayram Akcapinar G, **Druzhinina IS** (2021) The pleiotropic functions of Intracellular hydrophobins in aerial hyphae and fungal spores. **PLoS Genet** 17(11): e1009924.  
<https://doi.org/10.1371/journal.pgen.1009924>
2. Yuan Z, Wu Q, Xu L, **Druzhinina IS**, Stukenbrock EH, Nieuwenhuis BPS, Zhong Z, Liu ZZ, Wang X, Cai F, Kubicek CP, Shan X, Wang J, Shi G, Peng L, and FM Martin The genomic landscape in a relict fir-associated fungus reveals rapid convergent adaptation towards endophytism, **The ISME Journal**, *in press*
3. Daly P, Cai F, Kubicek CP, Jiang S, Grujic M, Rahimi MJ, Sheteiwiy MS, Giles R, Riaz A, de Vries RP, Bayram Akcapinar G, Wei L, **Druzhinina IS** 2021 From lignocellulose to plastics: knowledge transfer on the degradation approaches by fungi. **Biotechnology Advances**, DOI: 10.1016/j.biotechadv.2021.107770
4. Cai F, **Druzhinina IS** 2021 In honor of John Bissett: Authoritative guidelines on molecular identification of *Trichoderma*. **Fungal Diversity**. doi: 10.1007/s13225-020-00464-4
5. Yuan Z, **Druzhinina IS**, Gibbons JG, Zhong Z, de Peer YV, Rodriguez RJ, Liu Z, Wang X, Wei H, Wu Q, Wang J, Shi G, Cai F, Peng L, Martin FM. 2021 Divergence of a genomic island leads to the evolution of melanization in a halophyte root fungus. **The ISME Journal**, <https://doi.org/10.1038/s41396-021-01023-8>
6. Lücking, R, Aime, MC, Robbertse, B, Miller, AN, Aoki, T, Ariyawansa, HA, Cardinali, G, Crous, PW, **Druzhinina, IS**, Geiser, DM, Hawksworth, DL, Hyde, KD, Irinyi, L, Jeewon, R, Johnston, PR, Kirk, PM, Malosso, E, May, TW, Meyer, W, Nilsson, HR, Öpik, M, Robert, V, Stadler, M, Thines, M, Vu, D, Yurkov, AM, Zhang, N and Schoch, CL. 2021 Fungal taxonomy and sequence-based nomenclature. **Nature Microbiology**, <https://doi.org/10.1038/s41564-021-00888-x>
7. Brandstaetter C, Fricko N, Rahimi MJ, Fellner J, Ecker-Lala W & **Druzhinina IS**. 2021 The microbial metabolic activity on carbohydrates and polymers impact the biodegradability of landfilled solid waste. **Biodegradation** . <https://doi.org/10.1007/s10532-021-09967-6>
8. Peng L, Shan X, Yang Z, Wang Z, **Druzhinina IS**, Pan X, Jin W, He X, Wang X, Zhang X, Martin FM, Yuan Y. 2021 Facultative symbiosis with a saprotrophic soil fungus promotes potassium uptake in American sweetgum trees. **Plant, Cell & Environment**, DOI: 10.1111/pce.14053

9. Zhao Z, Cai F, Gao R, Ding M, Jiang S, Chen P J, Pang G, Chenthamara K, Shen Q, Bayram-Akcapinar G, **Druzhinina S I. 2021.** At least three families of hyphosphere small secreted cysteine-rich proteins can optimize surface properties to a moderately hydrophilic state suitable for fungal attachment. **Environmental Microbiology**. doi: 10.1111/1462-2920.15413
10. van Bohemen AI, Ruiz N, Zalouk-Vergnoux A, Michaud A, Robiou du Pont T, **Druzhinina IS**, Atanasova L, Prado S, Bodo B, Meslet-Cladiere L, Cochereau B, Bastide F, Maslard C, Marchi M, Guillemette T, Pouchus YF **2021** Pentadecaibins I–V: 15-Residue peptaibols produced by a marine-derived *Trichoderma* sp. of the *Harzianum* clade, **Journal of Natural Products** doi: 10.1021/acs.jnatprod.0c01355
11. Kredics L, Naeimi S, Hatvani L, Vágvölgyi C, Cai F, **Druzhinina IS**, and Manczinger L. **2021** The Good, the Bad and the Ugly' in the shades of green: the genus *Trichoderma* in the spotlight. **Indian Phytopathology**, <https://doi.org/10.1007/s42360-021-00352-0>
12. Ding MY, Chen W, Ma XC, Lv BW, Jiang SQ, Yu YN, Rahimi MJ, Gao RW, Zhao Z, Cai F, **Druzhinina IS** (2020) Emerging salt marshes as a source of *Trichoderma arenarium* sp. nov. and other fungal bio effectors for bio saline agriculture. **Journal of Applied Microbiology** 130: 179–195. doi:10.1111/jam.14751
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16. Cai F, Gao R, Zhao Z, Ding M, Jiang S, Yagtu C, Zhu H, Zhang J, Ebner T, Mayrhofer-Reinhartshuber M, Kainz P, Chenthamara K, Akcapinar GB, Shen Q, **Druzhinina IS** **2020** Evolutionary compromises in fungal fitness: hydrophobins can hinder the adverse dispersal of conidiospores and challenge their survival. **The ISME Journal** 14 (10):2610-2624. doi:10.1038/s41396-020-0709-0
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