



Webinar of the Polish Phytopathological Society

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WORK PLACES

- Since 2002: Professor of Plant Pathology Department of Plant and Environmental Sciences, UCPH-SCIENCE
- 1988-2002: Associate Professor, Department of Plant Biology, Royal Veterinary and Agricultural University (KVL)
- 1987-1988: "Guest Professor", Department of Plant Physiology, KVL, supported by Danish Research Academy, Århus, and the Royal Society, London, UK
- 1985-1987: A.F.R.C. (now B.B.S.R.C.) "New initiative Postdoctoral fellow", Department of Genetics, John Innes Institute, Norwich, UK
- 1983 Post-doctoral trainee, in molecular biology Univ. Aarhus, Denmark, BAP programme, EEC
- 1979-1985: Research Associate, Dept. Genetics, University of Newcastle Upon Tyne, UK

EDUCATION

- 1979-1982 PhD, in Genetics, Department of Genetics, University of Newcastle Upon Tyne, England Thesis: "The Genetic Control of Cyanogenic Glucoside Biosynthesis" plus 4 refereed articles with Prof. M.A. Hughes
- 1976-1979 BSc (hons), in Genetics, University of Liverpool, England

SCIENTIFIC INTERESTS

- The nature of plant defence mechanisms, pathogenicity mechanisms, signal sensing and signal transduction in plants.
- Exploitation in disease control especially for developing countries.
- Nature of fungal interactions with necrotrophs, biotrophs and endophytes. Developing novel approaches for controlling diseases.
- Current research projects concern fungal endophytes in wheat and tomato. These projects concern identifying and isolating endophytic fungi and understanding the nature and role of factors such as host genotype, pathogen pressure, hormones and specialised metabolites on endophytic fungal community composition.
- Promising biological control agents for the wheat diseases Septoria blotch and Fusarium head blight are being characterised.
- Mechanisms underlying 3-way interactions studied using RNAseq.

PUBLICATIONS SINCE 2020

- Petrucci A, Cesarini M, Vicente I, Merani L, Jensen B, **Collinge DB**, Sarrocco S (2025) Exploring the synergistic potential of *Trichoderma gamsii* T6085 and *Clonostachys rosea* IK726 for biological control

of Fusarium head blight in wheat. Microbiological Research 296: 128152
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- Petrucci A, Sarrocco S, Jensen B, Collinge DB (2025) Biological control of Fusarium head blight in cereals: insights into molecular interactions within the pathosystem. CABI Plant Health Cases DOI: 10.1079/planthealthcases.2025.0004
- Behrendt RA, Toldam-Andersen TB, Arneborg ., **Collinge DB**, Jensen B (2024). Wine Yeast as Potential Biological Control Agent Against Downy Mildew of Grapevine (*Plasmopara viticola*). Proceedings of the 21st International Conference on Organic Fruit Growing, Filderstadt 2024.02.19-21. Ed. FOEKO e.V. 2024: 51-57 <https://www.ecofruit.net/proceedings/proceedings-2024/>
- Koutouleas A, **Collinge DB**, Boa E (2023). The Coffee Leaf Rust Pandemic - an ever-present danger to coffee production. Plant Pathology 73: 522-534 <https://doi.org/10.1111/ppa.13846>
- Petrucci A, Khairullina A, Sarrocco S, Jensen DF, Jensen B, Jørgensen HJL and **Collinge DB** (2023) Understanding the mechanisms underlying plant-mediated control of Fusarium diseases in cereals. Eur J. Plant Pathol. 167: 453–476 <https://doi.org/10.1007/s10658-023-02753-5>
- Koutouleas A, **Collinge DB**, Ræbild A (2023). A dawn of change in plant protection for coffee of tomorrow. Plant Pathology 72: 409-429, <https://doi.org/10.1111/ppa.13676>
- Khairullina A, Micic N, Jørgensen HJL Bjarnholt N, Bülow L, **Collinge DB**, Jensen B. (2023) Biocontrol effect of *Clonostachys rosea* on *Fusarium graminearum* infection and mycotoxin detoxification in oat (*Avena sativa*). Plants 12, 500. <https://doi.org/10.3390/plants120305>
- Kumakech A, Jørgensen HJL, **Collinge DB**, Edema R, Okori P. (2022). Plant extracts as potential control agents of black sigatoka in banana. J. Plant Pathology DOI 10.1007/s42161-022-01211-1
- Khairullina A, Renhuldt NT, Wiesenberger G, Bentzer J, **Collinge DB**, Adam G, Bülow L (2022). Identification and functional characterisation of two oat UDP-glucosyltransferases involved in deoxynivalenol detoxification. Toxins 14, 446. <https://doi.org/10.3390/toxins14070446>
- **Collinge DB**, Jensen B, Jørgensen HJL (2022). Fungal Endophytes in Plants and their Relationship to Plant Disease. Current Opinion in Microbiology 69: 102177 <https://doi.org/10.1016/j.mib.2022.102177>
- Rojas EC, Jensen B, Jørgensen HJL, Latz MAC, Esteban P, **Collinge DB**, (2022) Fungal endophyte *Penicillium olsonii* ML37 reduces Fusarium head blight via early plant defence activation of wheat spikes. Journal of Fungi 8: 345. doi:10.3390/jof8040345
- **Collinge DB**, Jensen DF, Rabiey, M, Sarrocco S, Shaw, MW, Shaw R. (2022). Biological control of plant diseases – what has been achieved and what is the direction? Plant Pathology 71: 1024-1047 DOI: 10.1111/PPA.13555 <https://bsppjournals.onlinelibrary.wiley.com/doi/10.1111/ppa.13555>
- Ntana F, Johnson RS, Hamberger B, Jensen B, Jørgensen HJL, **Collinge DB**. (2022) Regulation of tomato specialised metabolism after establishment of symbiosis with the endophytic fungus *Serendipita indica*. Microorganisms 10: 194 DOI: 10.3390/microorganisms10010194
- **Collinge DB**, Sarrocco S (2022) Transgenic approaches for plant disease control: status and prospects 2021, Plant Pathology 71: 207–225. <https://bsppjournals.onlinelibrary.wiley.com/doi/full/10.1111/ppa.13443>
- Ntana F, Bhat WW, Johnson SR, Jørgensen HJL, **Collinge DB**, Jensen B and Hamberger B. (2021) A sesquiterpene synthase from the endophytic fungus *Serendipita indica* catalyses formation of viridiflorol. Biomolecules 11: 898. doi:10.3390/biom11060898
- Chen XY, Li PP, Liu H, Chen XL, Huang JB, Luo CX, Li GT, Hsiang T, **Collinge DB**, Zheng L. (2021) A novel transcription factor UvCGBP1 regulates development and virulence of rice false smut fungus *Ustilaginoides virens*. Virulence 12: 1563-79. <https://doi.org/10.1080/21505594.2021.1936768>
- Latz MAC, Kernn MH, Sørensen H, **Collinge DB**, Jensen B, Brown JKM, Madsen AM, Jørgensen, HJL (2020) Succession of the fungal endophytic microbiome of wheat is dependent on tissue-specific interactions between host genotype and environment. Science of The Total Environment, 143804. DOI: <https://doi.org/10.1016/j.scitotenv.2020.143804>
- Zhang HX, Xie JT, Fu YP, Cheng JS, Qu Z, Zhao ZZ, Cheng SF, Chen T, Li B, Wang QQ, Liu XQ, Tian BN, **Collinge DB**, Liang DH. (2020) A 2 Kb mycovirus converts a cosmopolitan fungal pathogen to beneficial endophyte in Brassica. Molecular Plant 13: 1420-1433 <https://doi.org/10.1016/j.molp.2020.08.016>
- Manzotti A, Bergna A, Burow M, Jørgensen HJL, Cernava T, Berg G, **Collinge DB**, Jensen, B (2020) Insights into the community structure and lifestyle of the fungal root endophytes of tomato by combining amplicon sequencing and isolation approaches with phytohormone profiling. FEMS Microbiology Ecology: 96, fiae052. <https://doi.org/10.1093/femsec/fiae052>
- Rojas EC, Jensen B, Jørgensen HJL, Latz MAC, Esteban P, Ding, YW, **Collinge DB** (2020) Selection of fungal endophytes with biocontrol potential against Fusarium head blight on wheat. Biological Control 144: 104222 <https://doi.org/10.1016/j.biocontrol.2020.104222>
- Latz, MAC, Jensen B, **Collinge DB**, Jørgensen HJL (2020) Identification of two endophytic fungi that control Septoria tritici blotch in the field, using a structured screening approach. Biological Control 141: 104128 <https://doi.org/10.1016/j.biocontrol.2019.104128>