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Hoof, Jakob Blæsbjerg; Nødvig, Christina Spuur; Mortensen, Uffe Hasbro

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POSTER SESSION ABSTRACTS Session CS9 New tools for fungal biology CS9W25

Wednesday 6th April 14:00 - 16:00

HOOF Jakob (1), NØDVIG Christina Spuur (1), MORTENSEN Uffe Hasbro (1) (1) Department of Systems Biology, Technical University of Denmark (DTU), Kgs. Lyngby, Denmark

Genetic engineering in the Aspergillus genus

The genus Aspergillus comprises more than 300 species, and enormous diversity exist within the group. All the known species are currently in the pipeline for full genome sequencing. This will eventually open up for a need to perform genetic engineering endeavors, which requires that the species is amenable to it. We have recently shown that the CRISPR-Cas9 gene editing system is a versatile and useful technology to apply to Aspergillus species where no genetic markers is available. We therefore set out to examine how the CRISPR-Cas9 system performs in a selection of newly sequenced Aspergillus, where there are no reports of genetic engineering. Due to size of this project, we have decided to use the project for educational purposes where DTU students at various levels systematically attempt to test whether it is possible to transform the Aspergillus species. If possible, they investigate how CRISPR-Cas9 works in the different strains, and establish pyrG mutant strains.