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POSTER SESSION ABSTRACTS
Session CS2 Pathogenesis and symbiosis
CS2M54

Monday 4th April
14:00 - 16:00

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LeptoLife: deciphering the life and pathogenicity cycle of a fungal phytopathogen using metatranscriptomics

Leptosphaeria maculans, the agent of stem canker of oilseed rape (OSR, *Brassica napus*) displays an unusually complex pathogenic cycle and interactions with its host plant. Its life cycle encompasses a saprophytic stage on stem debris, during which sexual reproduction takes place, and contrasted pathogenicity programs including two biotrophic stages and two necrotrophic stages. One of the biotrophic stages consists of an exceptionally long endophytic life within the apoplast of plant tissues during which no symptoms are expressed and no apparent damages are caused to the plant. In addition, a closely related species, *L. biglobosa*, has a very similar pathogenic strategy and may interact with *L. maculans* within the plant. To have a complete insight into the different programs set up by the fungus to complete its life cycle, we undertook an extensive RNAseq analysis of the fungal life in isolated conditions or in multiple combinations of interactions with the plant or other fungi/microbes. A total of 420 biological samples corresponding to 11 distinct stages of the life/pathogenic cycle (and numerous time points) were obtained and submitted to RNAseq sequencing. The data are in the process of being analysed but already shade light on unexpected interaction between *L. maculans* and *L. biglobosa* in planta.
