Supplemental materials

Figure S1

Gene expression of individual *aaos* (*aao1*, *aao3*, *aao5* and *aao6*) and *ssps* at different developmental stages in the genetic background of PC9. Expression levels shown are relative to those of β -tubulin.

Figure S2

The yellow pigment is absorbed at 470 nm and associated with protein fraction

(A) Absorbance spectrum of the yellow pigment in genetic background of PC9, KD*ssp1* and OE*ssp1*. The 470 nm peak to monitor its presence in the culture medium. (**B**) The collected yellow peaks and original fraction from MPLC were separated by SDS-PAGE revealing a band ~10 kDa.

Figure S3

Effect of *ssp1* manipulation on dikaryon morphology.

The dikaryons PC9+PC15, KD*ssp1*+PC15, OE*ssp1*+ PC15 were assessed based on:

(A) Morphology of the crossing with PC15

(**B**) Morphology of the dikayons

(C) Formation of fruiting bodies

Effect of PC9+PC15, KD*ssp1*+PC15, OE*ssp1*+ PC15 on fungal growth (**A**- as measured by biomass accumulation; dry weight), and glucose utilization (**B**).

Table S1- The total secretome data of KDssp1 and OEssp1 and PC9 strains, as determined in samples from three different time points representing 8, 10 and 13-day-old cultures.







Gene expression of individual *aaos* (*aao1*, *aao3*, *aao5* and aao6) and *ssps* at different developmental stages in the genetic background of PC9. Expression levels shown are relative to those of β -tubulin.



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(A) Absorbance spectrum of the yellow pigment in genetic background of PC9, KDssp1 and OEssp1. The 470 nm peak to monitor its presence in the culture medium. (B) The collected yellow peaks and original fraction from MPLC were separated by SDS-PAGE revealing a band ~10 kDa.



1 month

2 weeks

8 days

Figure S3 Effect of *ssp1* manipulation on dikaryon morphology. The dikaryons PC9+PC15, KD*ssp1*+PC15, OE*ssp1*+ PC15 were assessed based on:

(A) Morphology of the crossing with PC15 (B) Morphology of the dikayons (C) Formation of fruiting bodies



Effect of PC9+PC15, KDssp1+PC15, OEssp1+ PC15 on fungal growth (**A**- as measured by biomass accumulation; dry weight), and glucose utilization (**B**).