Supplementary Materials for

"The Phylotranscriptomic Hourglass Pattern in Fungi: An Updated Model"

Yichun Xie et al.

Supplementary Material 2

(Supplementary Text, Tables, Fig. S1-20 in Supplementary Material 1).

Supplementary Figures

Fig. S21. KOG annotation on genes split according to phylostrata, fungi.

Fig. S22. KOG annotation on genes split according to phylostrata, animal and plant.

Fig. S23. KOG enrichment analysis on genes following low-high-low or high-low-high expression patterns.

Fig. S24. Dynamics of relative gene expression levels across stages in *R. delemar* development.

Fig. S25. Dynamics of relative gene expression levels across stages in *F. graminearum* development.

Fig. S26. Dynamics of relative gene expression levels across stages in *C. cinerea* development.

Fig. S27. Dynamics of relative gene expression levels across stages in *D. melanogaster* embryogenesis.

Fig. S28. Dynamics of relative gene expression levels across stages in *Da. rerio* embryogenesis.

Fig. S29. Dynamics of relative gene expression levels across stages in *A. thaliana* embryogenesis.

Fig. S30. Dynamics of relative gene expression levels across stages in *A. thaliana* seed germination.

Fig. S31. Dynamics of relative gene expression levels across stages in *A. thaliana* floral transition.

Fig. S32. Cross dissection of pileus under high power microscope (400 ×).

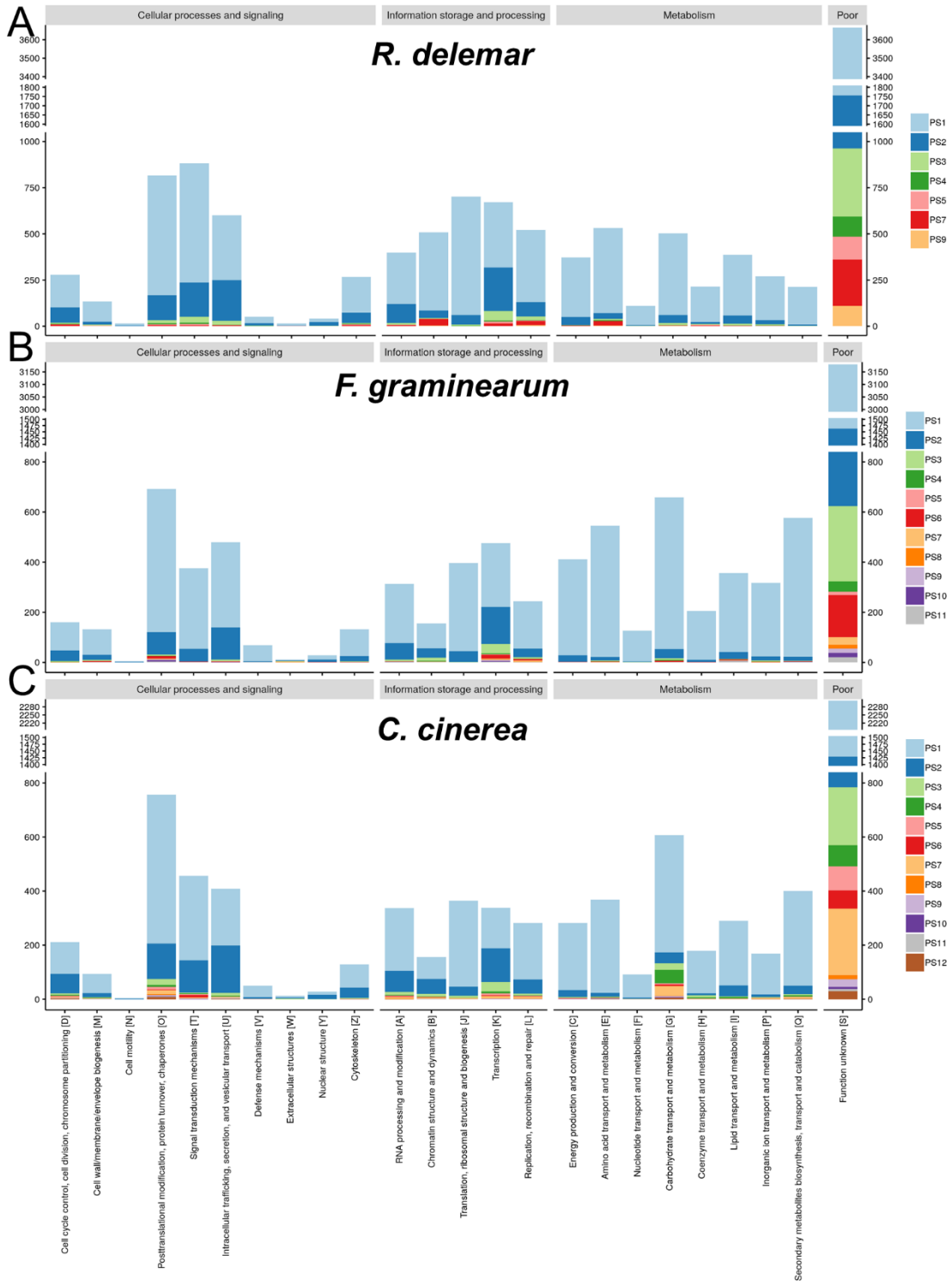

Fig. S21. KOG annotation on genes split according to phylostrata, fungi. (A) *R. delemar*; (B) *F. graminearum*; (C) *C. cinerea*.

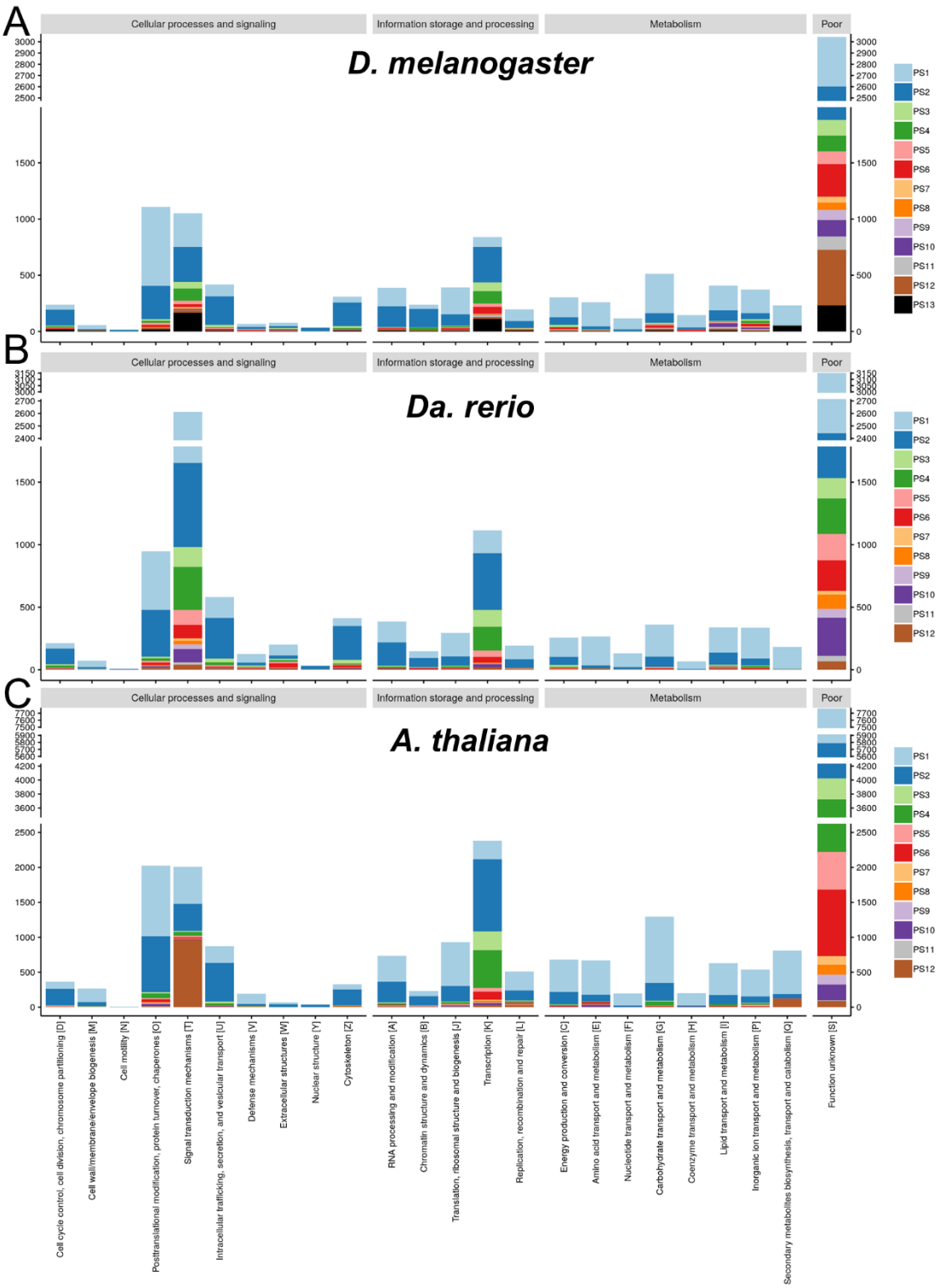

Fig. S22. KOG annotation on genes split according to phylostrata, animal and plant. (A) *D. melanogaster*; (B) *Da. Rerio*; (C) *A. thaliana.*

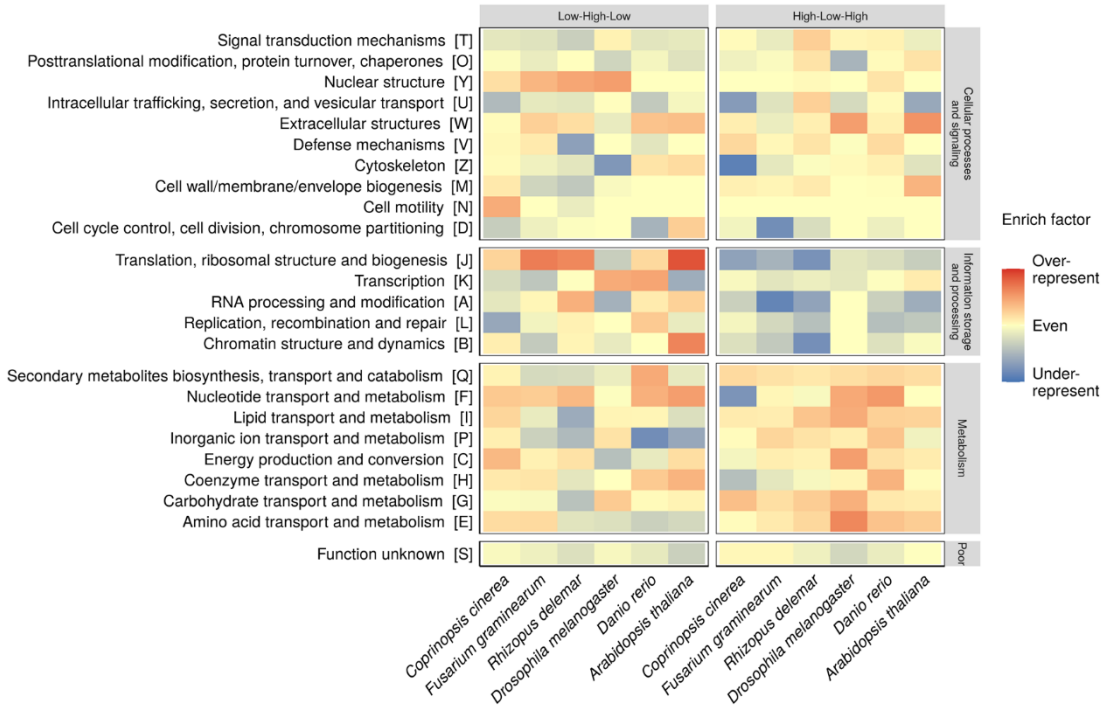

Fig. S23. KOG enrichment analysis on genes following low-high-low or high-low-high expression patterns.

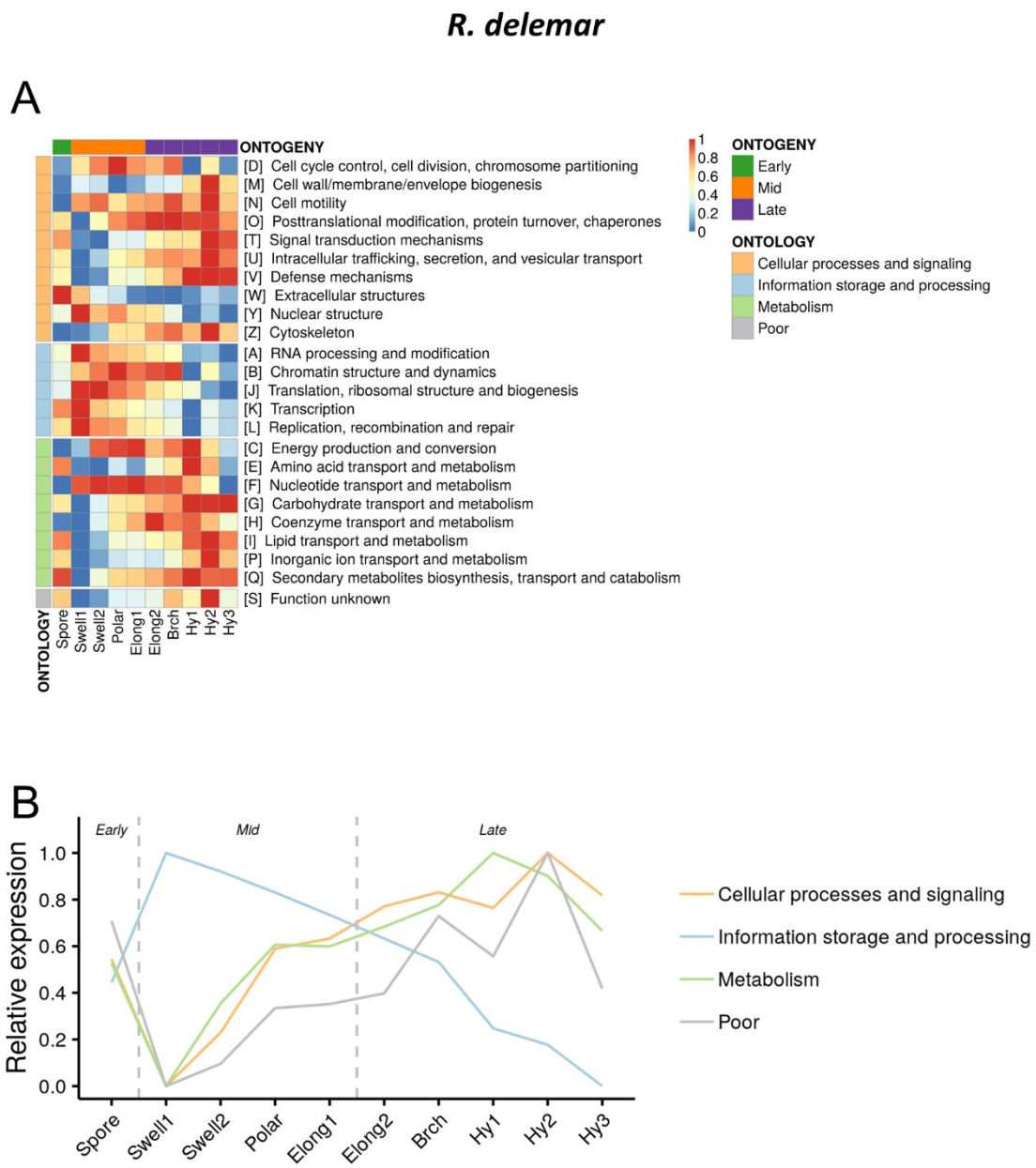

Fig. S24. Dynamics of relative gene expression levels across stages in *R. delemar* development. (A) Relative expression levels of genes of each KOG class; (B) Relative expression levels of each KOG ontology. Early-Mid-Late stages are defined according to the predicted phylotypic period.

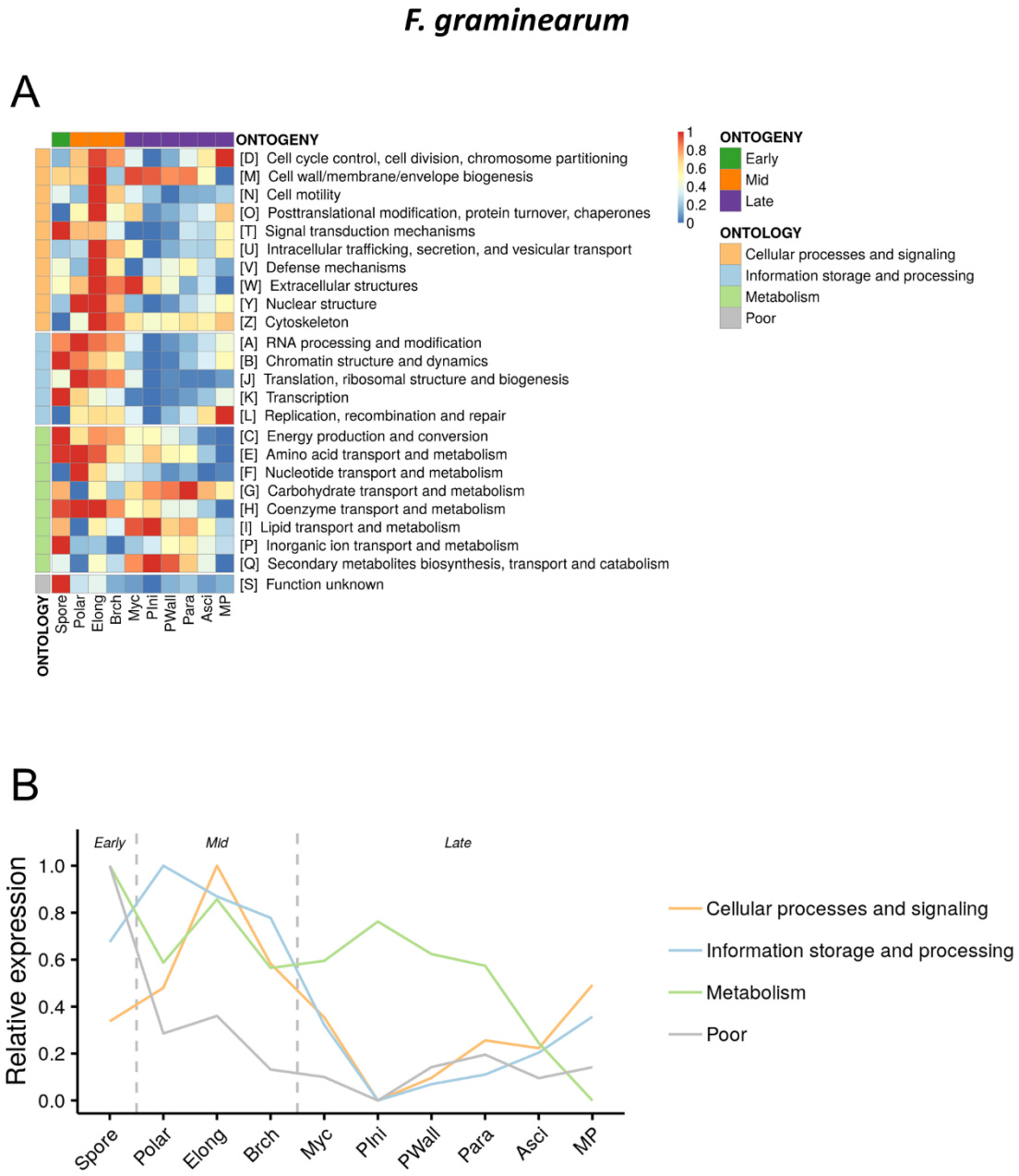

Fig. S25. Dynamics of relative gene expression levels across stages in *F. graminearum* development. (A) Relative expression levels of genes of each KOG class; (B) Relative expression levels of each KOG ontology. Early-Mid-Late stages are defined according to the predicted phylotypic period.

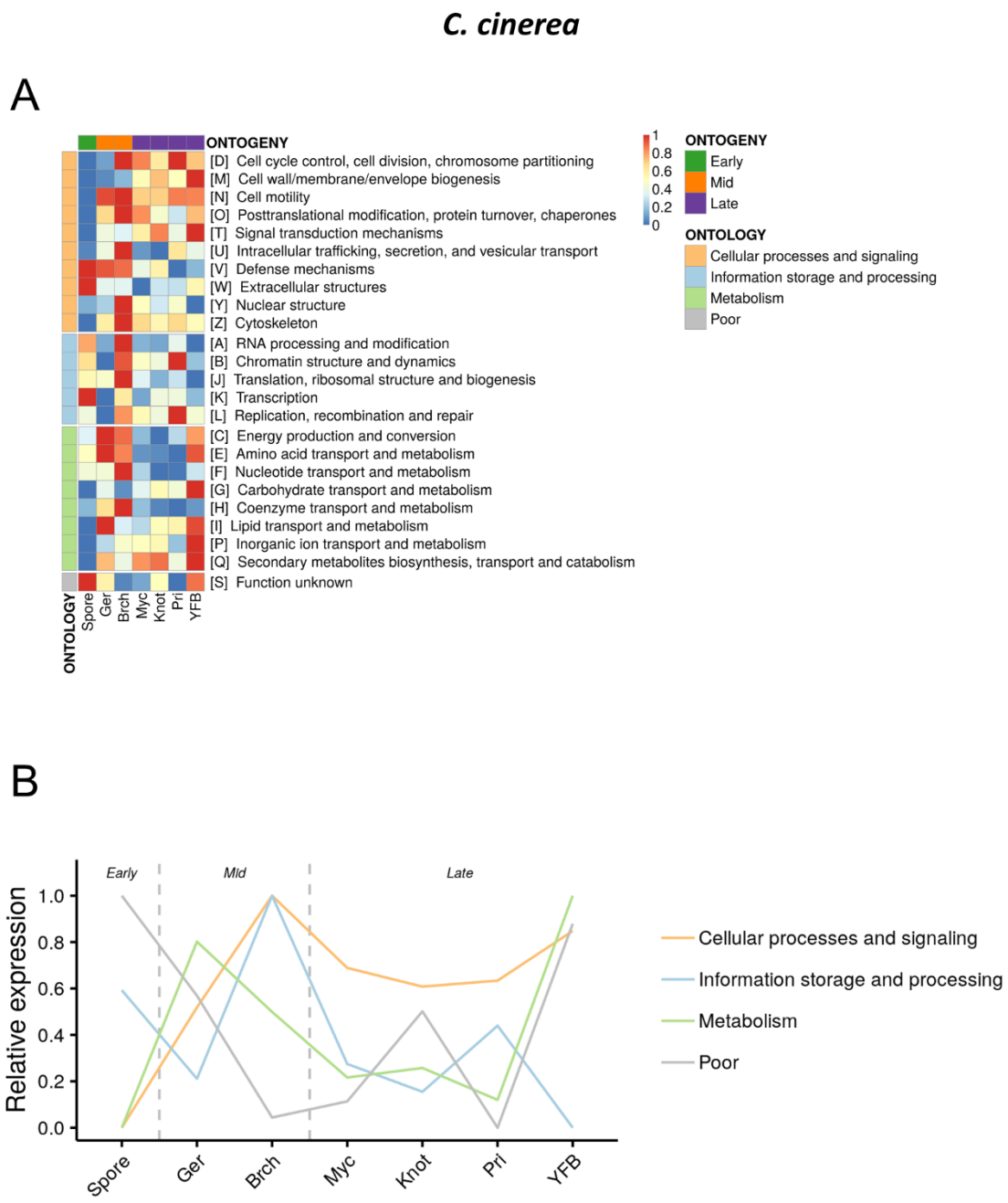

Fig. S26. Dynamics of relative gene expression levels across stages in *C. cinerea* development. (A) Relative expression levels of genes of each KOG class; (B) Relative expression levels of each KOG ontology. Early-Mid-Late stages are defined according to the predicted phylotypic period.

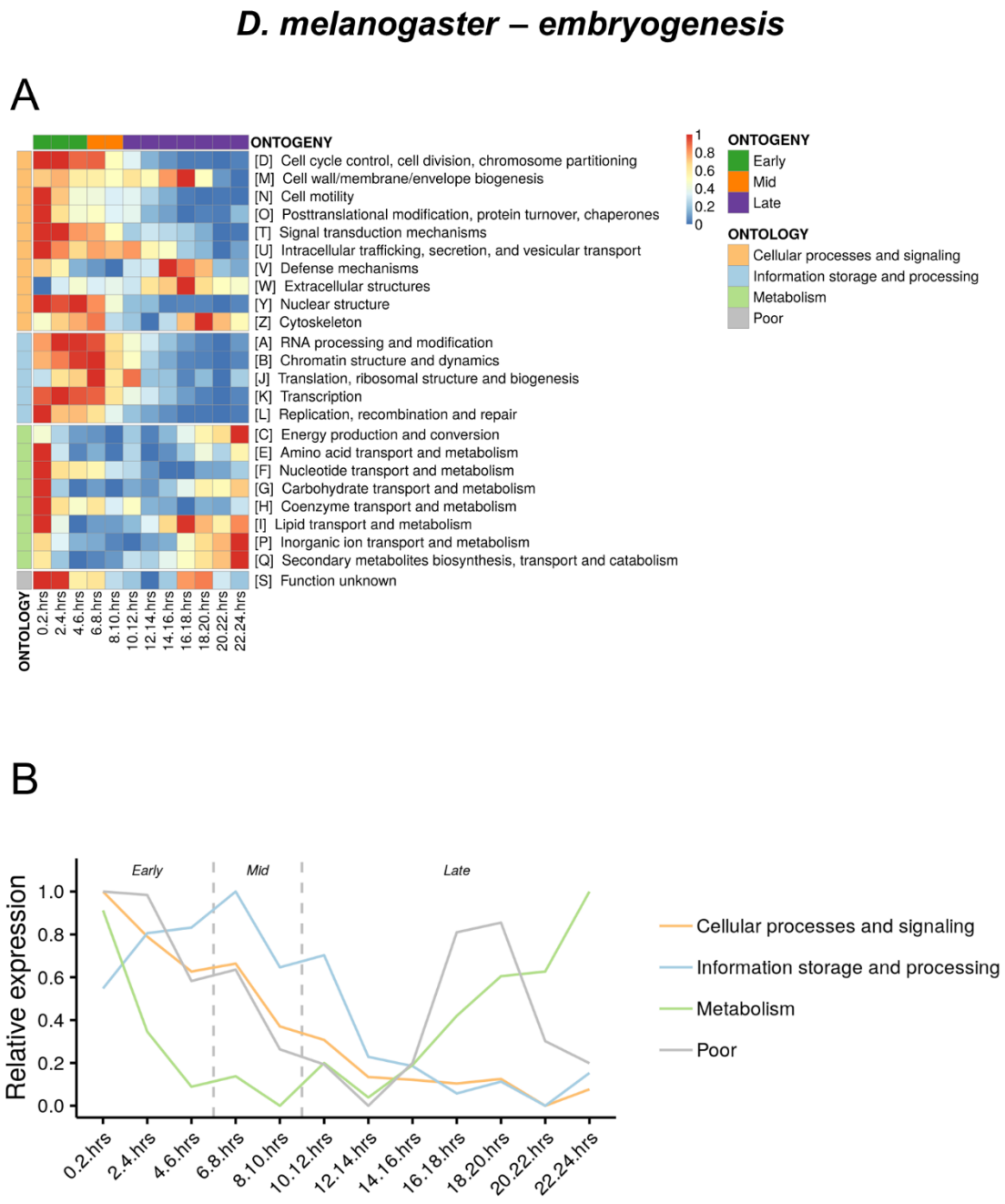

Fig. S27. Dynamics of relative gene expression levels across stages in *D. melanogaster* embryogenesis. (A) Relative expression levels of genes of each KOG class; (B) Relative expression levels of each KOG ontology. Early-Mid-Late stages are defined according to the predicted phylotypic period.

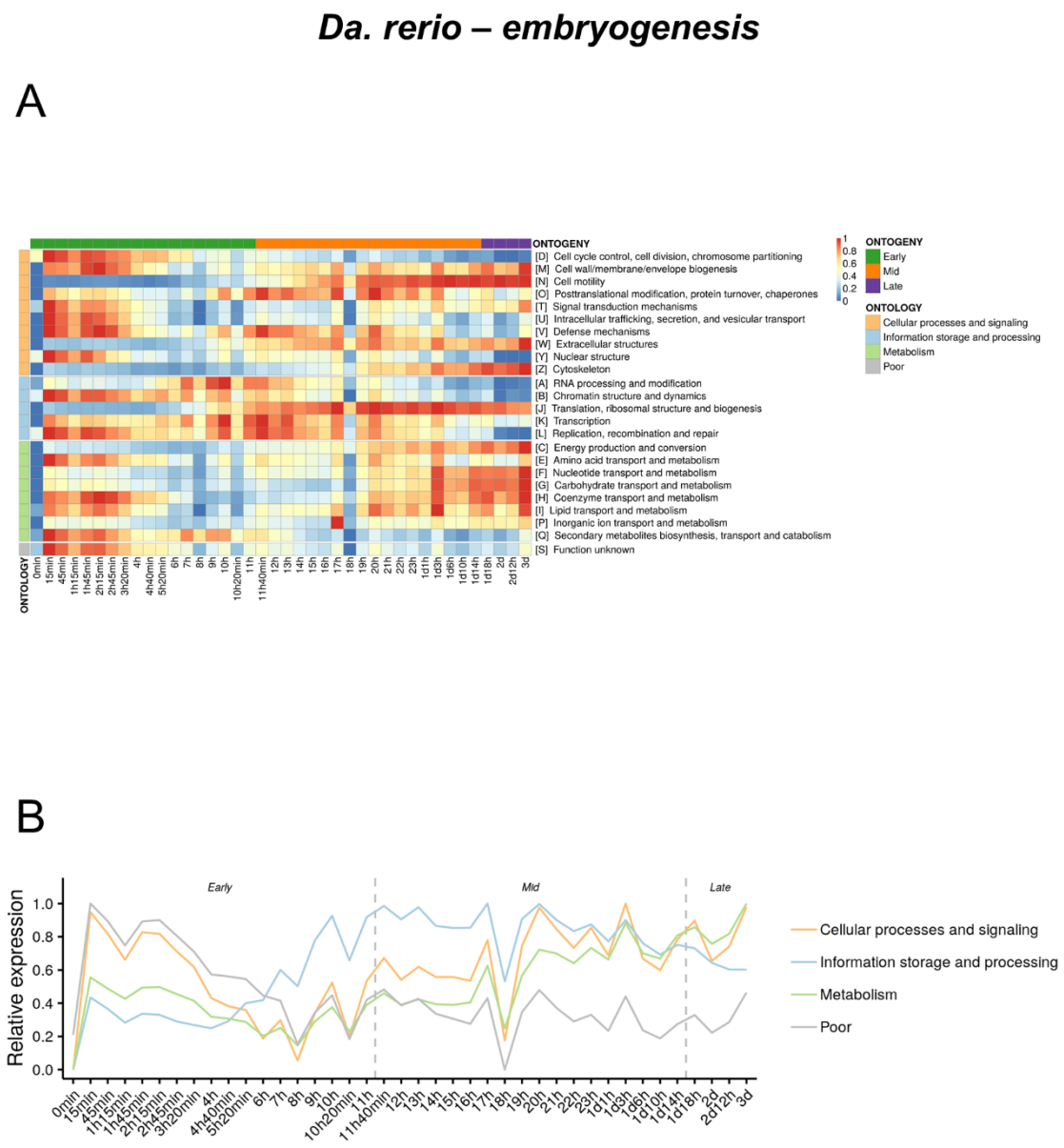

Fig. S28. Dynamics of relative gene expression levels across stages in *Da. rerio* embryogenesis. (A) Relative expression levels of genes of each KOG class; (B) Relative expression levels of each KOG ontology. Early-Mid-Late stages are defined according to the predicted phylotypic period.

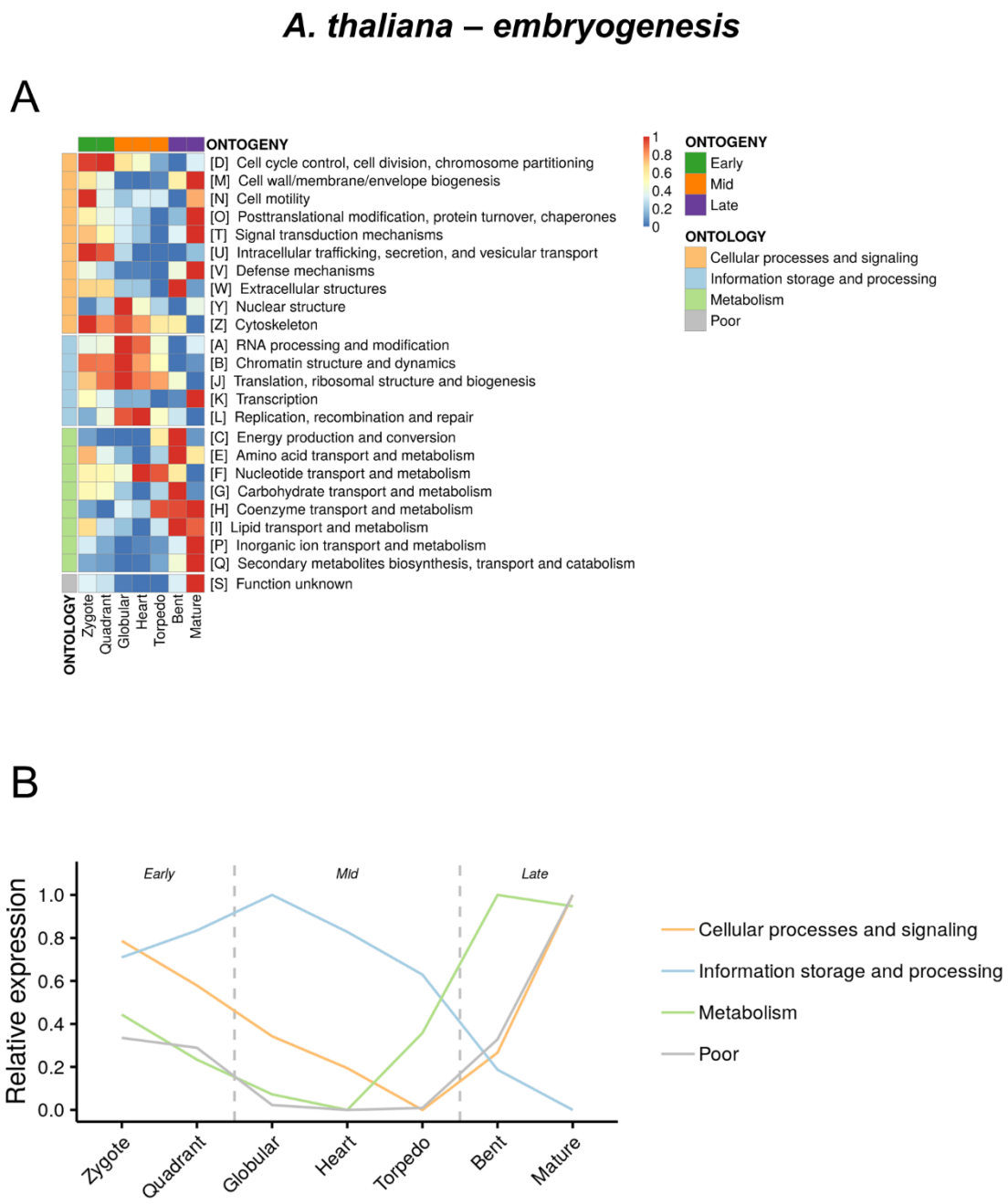

Fig. S29. Dynamics of relative gene expression levels across stages in *A. thaliana* embryogenesis. (A) Relative expression levels of genes of each KOG class; (B) Relative expression levels of each KOG ontology. Early-Mid-Late stages are defined according to the predicted phylotypic period.

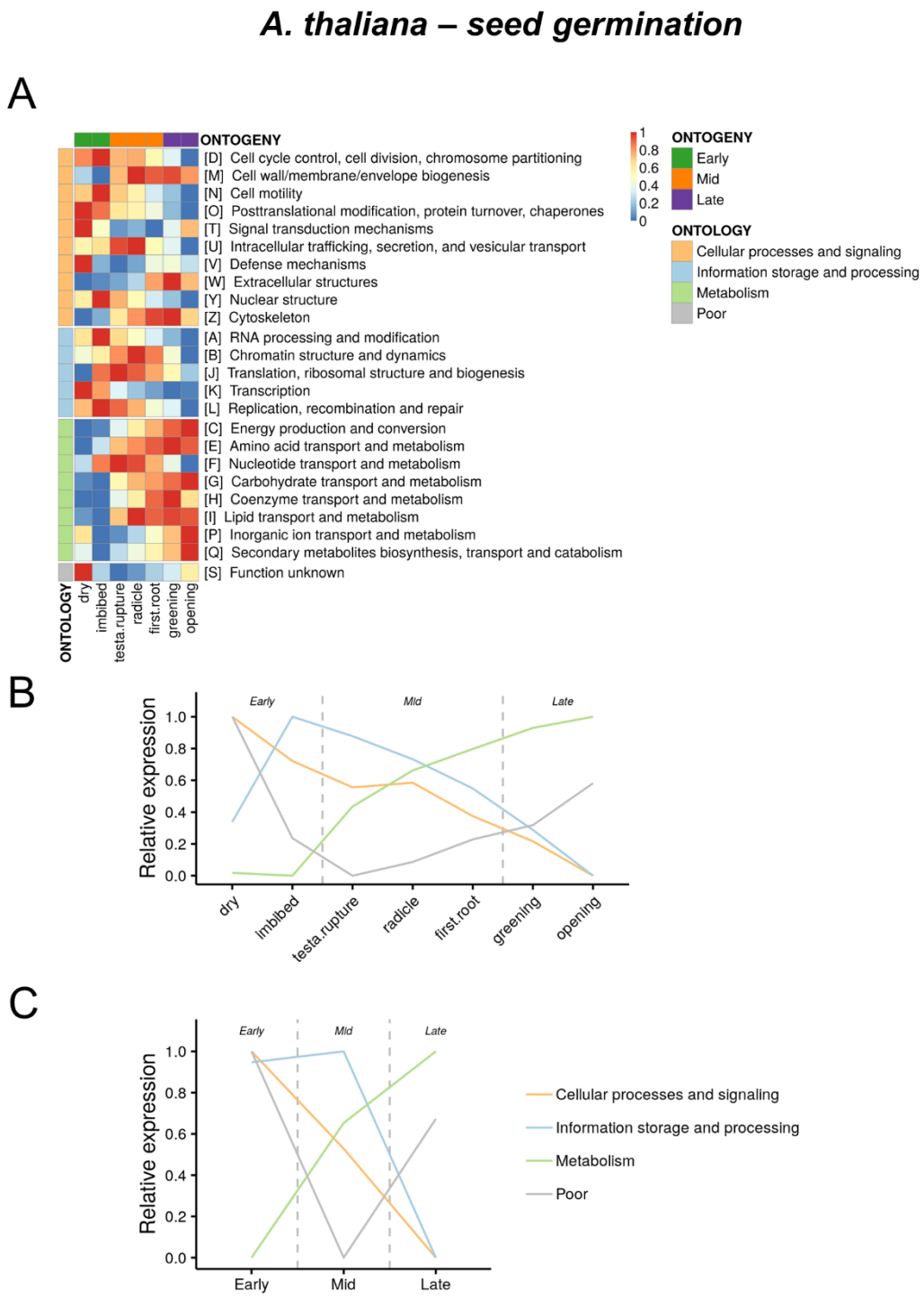

Fig. S30. Dynamics of relative gene expression levels across stages in *A. thaliana* seed germination. (A) Relative expression levels of genes of each KOG class; (B) Relative expression levels of each KOG ontology; (C) Mean relative expression levels of each KOG ontology. Early-Mid-Late stages are defined according to the predicted phylotypic period.

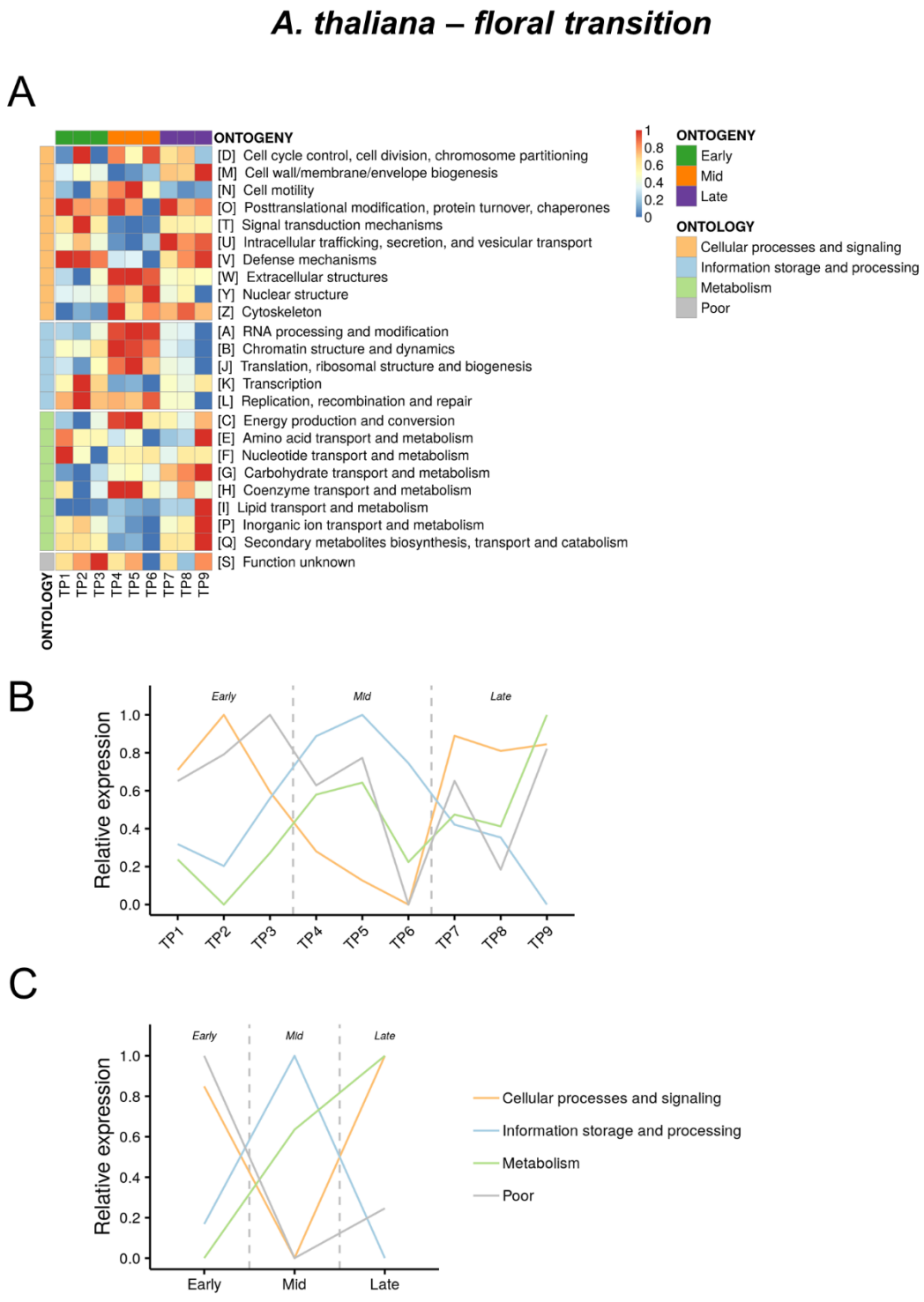

Fig. S31. Dynamics of relative gene expression levels across stages in *A. thaliana* floral transition. (A) Relative expression levels of genes of each KOG class; (B) Relative expression levels of each KOG ontology; (C) Mean relative expression levels of each KOG ontology. Early-Mid-Late stages are defined according to the predicted phylotypic period.

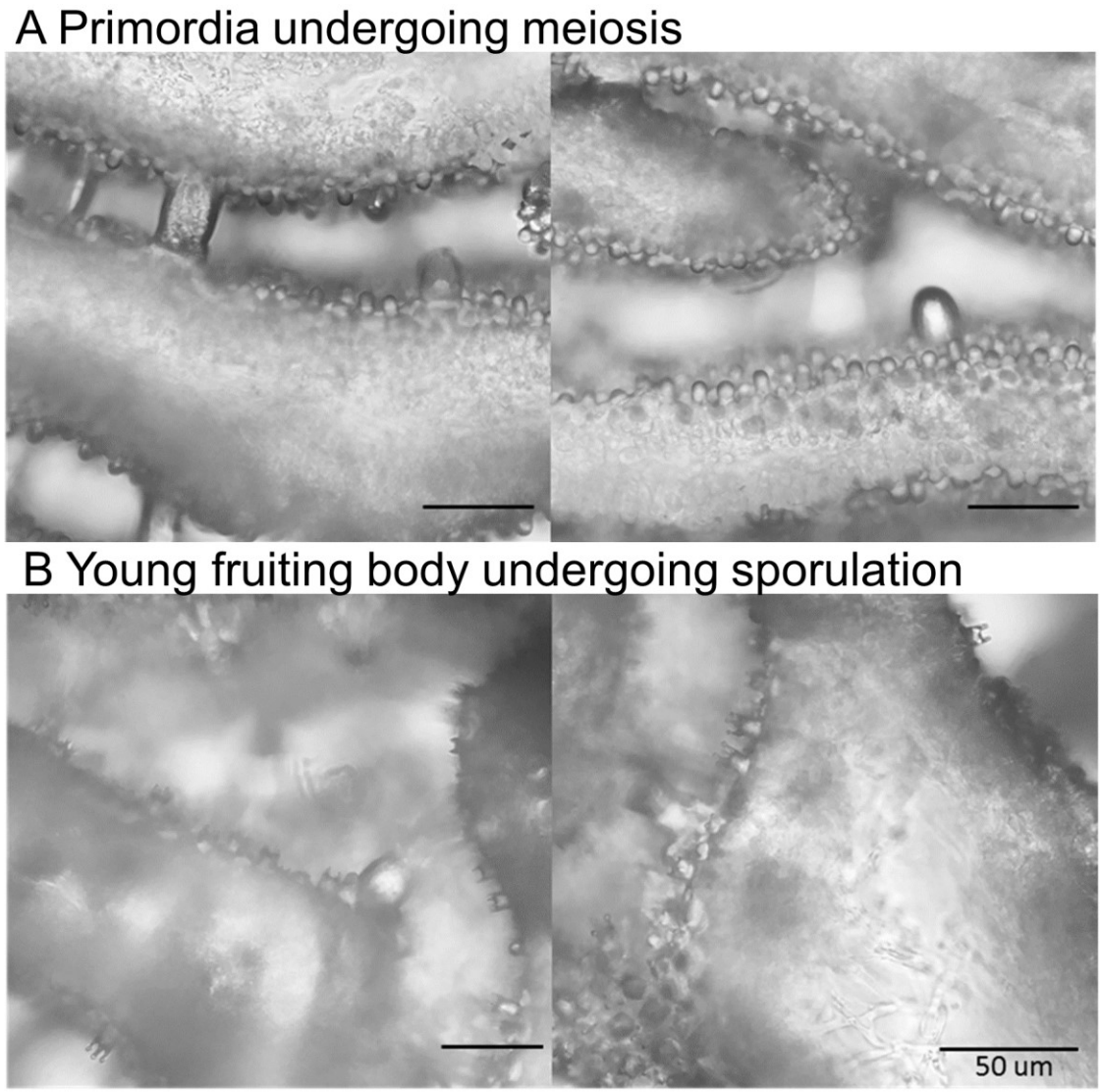

Fig. S32. Cross dissection of pileus under high power microscope (400 ×). (A) Primordia undergoing meiosis; (B) Young fruiting body undergoing sporulation.