

## **Description of Additional Supplementary Files**

File Name: Supplementary Data 1

Description: Grafting experiments performed with a root-parasitic plant, *P. japonicum*.

File Name: Supplementary Data 2

Description: Expression data for parasitism between *P. japonicum* and *Arabidopsis*.

File Name: Supplementary Data 3

Description: Expression data for grafting between *P. japonicum* and *Arabidopsis*.

File Name: Supplementary Data 4

Description: List of GO terms in six clusters shown in Supplementary Fig. 1a (BP category,  $P < 0.01$ ).

File Name: Supplementary Data 5

Description: List of GO terms in six clusters shown in Supplementary Fig. 1a (CC category).

File Name: Supplementary Data 6

Description: List of GO terms in six clusters shown in Supplementary Fig. 1a (MF category,  $P < 0.01$ )

File Name: Supplementary Data 7

Description: List of genes overlapping between parasitism and grafting of *P. japonicum* shown in Fig. 4c.

File Name: Supplementary Data 8

Description: List of GO terms in genes overlapping between parasitism and grafting of *P. japonicum* shown in Fig. 4c (BP category).

File Name: Supplementary Data 9

Description: List of GO terms in genes overlapping between parasitism and grafting of *P. japonicum* shown in Fig. 4c (CC category).

File Name: Supplementary Data 10

Description: List of GO terms in genes overlapping between parasitism and grafting of *P. japonicum* shown in Fig. 4c (MF category).

File Name: Supplementary Data 11

Description: Primers used in this study

File Name: Supplementary Data 12

Description: Data for Fig. 7f.

File Name: Supplementary Data 13

Description: Data for Fig. 7i.