SUPPLEMENTAL INFORMATION



Figure S1. Effect of modulating the Put content on polyamine levels and symptom development in *R. fascians*-infected Arabidopsis Col-0.

Error bars represent standard errors (n=3). Student's *t*-tests did not reveal any statistical differences. A, Free and conjugated Spd and Spm levels measured at 14 dpi. Plants were placed on 1 mM Put 10 days before infection. B, Free and conjugated Spd and Spm levels measured at 14 dpi. Plants were placed on the SPDS inhibitor CHA (1 mM) just before infection. C, Percentage of symptomatic plants at different time points after infection.





Figure S2. Importance of cytokinins on Spd and Spm production.

Error bars represent standard errors (n=3). Student's *t*-tests did not reveal any statistical differences (A-E). A-B, Free Spd (A) and (B) Spm levels in Col-0 plants treated with 10 μ M of different cytokinins or with an equimolar mix of 1 μ M each of iP, tZ, cZ, and their 2MeS derivatives (eq6) for 14 days. C, Fold-change in transcript levels of polyamine biosynthesis genes in D188-infected (D188 versus mock-infected) and eq6-treated (treated versus non-treated) Col-0 plants at 14 dpt. D-E, Free Spd (D) and Spm (E) levels in D188- and mock-infected (control) Col-0 and *ahk3ahk4* plants at 14 dpi. F, Fold-change in transcript levels of polyamine biosynthesis genes in D188 versus mock-infected Col-0 and *ahk3ahk4* plants at 14 dpi. Asterisks mark statistical differences (p<0.05) between wild-type and mutant plants according to a Student's *t*-test.



Figure S3. Free Spd (A) and Spm (B) levels in D188- and mock-infected (control) Col-0 and *cycd3;1-3* plants at 14 dpi.

Error bars represent standard errors (n=3). Student's *t*-tests did not reveal any statistical differences.

Table S1. *In vitro* and *in planta* bacterial growth and *fas*A gene expression in the presence and absence of Put.

To assess the effect of exogenous Put on bacterial growth, the turbidity of cultures (OD₆₀₀) and the colony forming units (CFU/mg fresh weight (FW)) present in infected Arabidopsis plants were determined, both upon growth in the presence or absence of 1 mM Put. We also monitored the expression of the *fas*A gene involved in cytokinin production in cultures of the GUS reporter strain D188-pSPIP*fasAgus* (Pertry et al., 2010) incubated under optimal conditions for *fas* gene expression (see "Material and Methods") and in bacterial cells present in plant tissues, again in the presence or absence of 1 mM Put. No significant differences were measured for either of these parameters using Student's *t*-tests.

| Treatment | OD ₆₀₀ | CFU/mg FW | GUS activity |
|-----------------|-------------------|-----------------------|----------------------|
| In vitro | | | |
| Pyr | 0.837 ± 0.018 | | 612.34 ± 124.36 |
| His + Pyr | 0.834 ± 0.011 | | 7740.21 ± 517.57 |
| Put + Pyr | 0.893 ± 0.017 | | 506.01 ± 111.50 |
| Put + His + Pyr | 0.997 ± 0.061 | | 9404.64 ± 824.89 |
| In planta | | | |
| Control | | 3615.22 ± 1401.66 | 40.06 ± 9.50 |
| +Put | | 3477.66 ± 1177.51 | 58.08 ± 8.22 |

| Gene | AGI | | Primer sequence | Reference |
|---------|-----------|----------|----------------------------|---------------------------|
| ACT2 | At3g18780 | Forward: | GGCTCCTCTTAACCCAAAGGC | Simón-Mateo et al. (2006) |
| | | Reverse: | CACACCATCACCAGAATCCAGC | |
| ADC1 | At2g16500 | Forward: | CCAAGGTGTGTATCCTGTGAAAT | Jubault et al. (2008) |
| | | Reverse: | AGCTTCTAAACCGAATCGAAAAC | |
| ADC2 | At4g34710 | Forward: | GCGATGGACCACACAGCTTT | Jubault et al. (2008) |
| | | Reverse: | AGAACATCCGCTGAGGACTGA | |
| AIH | At5g08170 | Forward: | TCGAGAATGCAAGAGAGATCGTT | Jubault et al. (2008) |
| | | Reverse: | CATTTTCGGCGACGGAAGTA | |
| CPA | At2g27450 | Forward: | GATCAAGTCGAAAAGGCAAAGCT | Jubault et al. (2008) |
| | | Reverse: | CCATCCATAGTAAGAAGCACCTTGT | |
| SPDS1 | At1g23820 | Forward: | AATCACCACCTCTCACAAACCC | Jumtee et al. (2008) |
| | | Reverse: | TCGGTGGCAGAGGTTTCTTTA | |
| SPDS2 | At1g70310 | Forward: | TTGCCCGTGAAGAGACCTAGA | Jubault et al. (2008) |
| | | Reverse: | TCCACCGTTCTCTGTTTCCAT | |
| SPMS | At5g53120 | Forward: | TGGCTCCATACTCATCTTATTGAA | Jubault et al. (2008) |
| | | Reverse: | CGCATAGTGAACACTTTTGAATG | |
| ACL5 | At5g19530 | Forward: | CCATCATTTGCGGACACATG | Jubault et al. (2008) |
| | | Reverse: | GAGACGAAAGAAGGAGCGTTTAGA | |
| SAMDC1 | At3g02470 | Forward: | TCTTTGAGCCAAGCATCTTTCA | Jubault et al. (2008) |
| | | Reverse: | GCAGCAGGTGTAAGAATTTCATCA | |
| SAMDC2 | At5g15950 | Forward: | TCTCCGAGATCTACCTTGAAATG | Jubault et al. (2008) |
| | | Reverse: | GATTCCCTATTCCTTCTCGTCCT | |
| SAMDC3 | At3g25570 | Forward: | GGTGGATAGGGTTCTGGTTTG | Cui et al. (2010) |
| | | Reverse: | GGTGAGCAACATTCAACAGTC | |
| SAMDC4 | At5g18930 | Forward: | GGTGACCGTTACTCAACTATCCA | This work |
| | | Reverse: | CGAAGCTCGCGTAGCTAAA | |
| ARR5 | At3g48100 | Forward: | TTTAAAAGCTCAAAGATTCACACACA | Jasinski et al. (2005) |
| | | Reverse: | ATCAGCAAAAGAAGCCGTAATGT | |
| CYCD3;1 | At4g34160 | Forward: | CGTTCGTAGACCACATTATCAGGAG | Depuydt et al. (2009) |
| | | Reverse: | CGGAGATTACAGAGAGGAGGAGAC | |
| CDKB1;1 | At3g54180 | Forward: | GGTGGTGACATGTGGTCTGTTGG | Boudolf et al. (2004) |
| | | Reverse: | CGCAGTGTGGAAACACCCGG | |

Table S2. Primers used for qRT-PCR amplifications.

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