

Supplementary Table S1: DDH and ANI values between *M. rosea* and selected myxobacteria. Color intensity changes from green to orange corresponding with higher to lower values, respectively.

| Query | Sub order | Family | Members | Genome size (Mbp) | DDH | ANI value (%) |
|------------------------------------|---------------------------|-------------------------------------|--|--|-------|---------------|
| <i>Minicycstis roseae</i> DSM 2400 | Sorangineae | <i>Labilitrichaceae</i> | <i>Labilitrix luteola</i> DSM 27648 | 12.19 | 19.1 | 70.26 |
| | | <i>Polyangiaceae</i> | <i>Chondromyces apiculatus</i> DSM 436 | 11.49 | 19.8 | 72.93 |
| | | | <i>Polyangium fumosum</i> DSM 14668 | 12.88 | 20.1 | 73.42 |
| | | | <i>Polyangium</i> sp. SDU3-1 | 12.28 | 19.7 | 73.6 |
| | | | <i>Sorangium cellulosum</i> So ce26 | 14.56 | 20.7 | 74.34 |
| | | | <i>Sorangium cellulosum</i> So ce56 | 13.03 | 20.9 | 74.64 |
| | | | <i>Sorangium cellulosum</i> So ce836 | 14.59 | 21.1 | 74.73 |
| | | | <i>Sorangium cellulosum</i> So ceGT47 | 11.26 | 20.9 | 75 |
| | | | <i>Sorangium cellulosum</i> So0003-19-2 | 10.09 | 21.4 | 75 |
| | | | <i>Sorangium cellulosum</i> So0007-03 | 12.39 | 21.4 | 74.97 |
| | | | <i>Sorangium cellulosum</i> So0008-312 | 11.21 | 20.8 | 75 |
| | | | <i>Sorangium cellulosum</i> So0157-2 | 14.78 | 21 | 75 |
| | | | <i>Sorangium cellulosum</i> So0163 | 12.46 | 21.2 | 74.86 |
| | | | <i>Sandaracinaceae</i> | <i>Sandaracinus amylolyticus</i> DSM 53668 | 10.33 | 18.3 |
| | Cystobacterineae | <i>Anaeromyxobacteraceae</i> | <i>Anaeromyxobacter dehalogenans</i> 2CP-1 | 5.03 | 18.8 | 69.52 |
| | | <i>Archangiaceae</i> | <i>Archangium gephyra</i> DSM 2261 | 12.49 | 18.4 | 68.51 |
| | | | <i>Cystobacter fuscus</i> DSM 52655 | 12.35 | 19.1 | 68.72 |
| | | | <i>Hyalangium minutum</i> DSM 14724 | 10.12 | 18.8 | 66.39 |
| | | <i>Myxococcaceae</i> | <i>Myxococcus hansupus</i> mixupus | 9.49 | 18.5 | 68.19 |
| | <i>Vulgatibacteraceae</i> | <i>Vulgatibacter incomptus</i> | 4.35 | 18.1 | 68.56 | |
| Nannocystineae | <i>Nannocystaceae</i> | <i>Enhygromyxa salina</i> DSM 15201 | 10.26 | 17.3 | 67.32 | |

Supplementary Table S2: Excel file has been provided.