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**Supplementary information**

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# **Action of a minimal contractile bactericidal nanomachine**

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authors and unedited

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**Supplementary Table 1: Primers used for expression.**

| Gene      | Primer sequence                           |
|-----------|-------------------------------------------|
| pa0616    | 5' end: ATAGGATCCAGCTATGTCAGTGCGGAGCATGAC |
|           | 3' end: ATAAAGCTTTCGTATGTTCAATGGGTGTGGTG  |
| pa0616d # | 5' end: ATAGGATCCAGTGAGACCTGGCGTTTCGACGA  |
| pa0618    | 5' end: ATATCATATGATCATCGATCTTCCCAGTTGCC  |
|           | 3' end: TATCTCGAGCTCATCGACGCCTCCCAAGGTG   |

# The 3' end primer of the pa0616 gene was used for the amplification.

The restriction sites used for cloning are in bold and underlined

**Supplementary Table 2: Primers used to construct pyocin baseplate mutants**

| Primer Sequence                                                | Protein | Primer name          |
|----------------------------------------------------------------|---------|----------------------|
| <u><b>gagggcgggtaccgccggtggagggcg</b></u>                      | PA0618  | Upstream (Kpn1) *    |
| <b>cgcggaattcgccccggcgccaccgccggc</b>                          | PA0618  | Downstream (EcoR1) * |
| <b>gttcgccaccctgTTCgtcgaaggcgtgc</b>                           | PA0618  | H257F forward        |
| <b>gcacgccttcgacGAACagggtggcgaac</b>                           | PA0618  | H257F reverse        |
| <b>cgacatccggcgtGCCgccctgttcgccacc</b>                         | PA0618  | S250A forward        |
| <b>ggtggcgaacagggcGGCacgccgatgtcg</b>                          | PA0618  | S250A reverse        |
| <b>ttcggccctgttcTGCaccctgcatgtcgaa</b>                         | PA0618  | A254C forward        |
| <b>ttcgacatgcagggtGCAgaacagggccgaa</b>                         | PA0618  | A254C reverse        |
| <b>ggtaccggggccccccctcgagcaaggcggtgggctgaa</b>                 | PA0626  | 626TEV AE6M1F        |
| <b>gctctggaaatacagattctcgccagcgaccttgccgac</b>                 | PA0626  | 626TEV AE6M1R        |
| <b>gagaatctgtatttcagagcggggtgctgccgtcgtg</b>                   | PA0626  | 626TEV AE6M2F        |
| <b>cgctctagaactagtggatccgcaccgcgcctgggtaag</b>                 | PA0626  | 626TEV AE6M2R        |
| <b>ggtaccggggccccccctcgagggtcaaaccacgcaggaaga<br/>gaggcaag</b> | PA0626  | 626ΔWL AE19M1F       |
| <b>acttggggccagactcggcagcaccgcccca</b>                         | PA0626  | 626ΔWL AE20M1R       |
| <b>agtctggccccaagtgcgacgcccccgagcgag</b>                       | PA0626  | 626ΔWL AE20M2F       |
| <b>cgctctagaactagtggatccgcggaccagcccactgcaaggt</b>             | PA0626  | 626ΔWL AE19M2R       |

\* The same upstream and downstream primers were used for all three mutants for PA0618.