

# Supplementary Information

**Table S1.** Summary of known miRNA in each sample.

|                        | miRNA | miRNA * | miRNA-5p | MiRNA-3p | miRNA Precursors | Unique sRNAs Matched to miRNA Precursors | Total sRNAs Matched to miRNA Precursors |
|------------------------|-------|---------|----------|----------|------------------|--|---|
| Known miRNA in miRbase | 620   | 0       | 82       | 81       | 798              |  |   |
| Control group          | 358   | 0       | 53       | 51       | 488              | 8066                                     | 14,380,650                              |
| <i>S. aureus</i> group | 370   | 0       | 55       | 53       | 511              | 8539                                     | 12,890,726                              |

**Table S2.** Distribution of small RNA among different categories in control group.

| Category | Unique sRNAs | Percent (%) | Total sRNAs | Percent (%) |
|----------|--------------|-------------|-------------|-------------|
| Total    | 466,207      | 100%        | 20,444,199  | 100%        |
| miRNA    | 7957         | 1.71%       | 14,373,694  | 70.31%      |
| rRNA     | 27,108       | 5.81%       | 99,431      | 0.49%       |
| snRNA    | 1253         | 0.27%       | 2475        | 0.01%       |
| snoRNA   | 2772         | 0.59%       | 19,791      | 0.1%        |
| tRNA     | 10,378       | 2.23%       | 59,953      | 0.29%       |
| unann    | 416,739      | 89.39%      | 5,888,855   | 28.8%       |

**Table S3.** Distribution of small RNA among different categories in *S. Aureus* group.

| Category | Unique sRNAs | Percent (%) | Total sRNAs | Percent (%) |
|----------|--------------|-------------|-------------|-------------|
| Total    | 882,795      | 100%        | 19,568,797  | 100%        |
| miRNA    | 8367         | 0.95%       | 12,883,504  | 65.84%      |
| rRNA     | 70,071       | 7.94%       | 725,171     | 3.71%       |
| snRNA    | 6547         | 0.74%       | 211,311     | 1.08%       |
| snoRNA   | 4733         | 0.54%       | 24,778      | 0.13%       |
| tRNA     | 14,199       | 1.61%       | 73,380      | 0.37%       |
| unann    | 778,878      | 88.23%      | 5,650,653   | 28.88%      |

**Table S4.** Summary of small RNA sequencing data.

| Type                    | Control Group |             | <i>S. aureus</i> Group |             |
|-------------------------|---------------|-------------|------------------------|-------------|
|                         | Count         | Percent (%) | Count                  | Percent (%) |
| total_reads             | 21,293,853    |             | 18,588,177             |             |
| high_quality            | 21,253,265    | 100%        | 18,565,803             | 100%        |
| 3' adapter_null         | 5959          | 0.03%       | 3756                   | 0.02%       |
| insert_null             | 8499          | 0.04%       | 3612                   | 0.02%       |
| 5' adapter_contaminants | 330,968       | 1.56%       | 22,295                 | 0.12%       |
| smaller_than_18nt       | 60,374        | 0.28%       | 31,238                 | 0.17%       |
| polyA                   | 465           | 0.00%       | 127                    | 0.00%       |
| clean_reads             | 20,847,000    | 98.09       | 18,504,775             | 99.67%      |

**Table S5.** Injection conditions.

| Group            | Injection Sites |     |     |
|------------------|-----------------|-----|-----|
| <i>S. aureus</i> | 1RB             | 2RB | 3LB |
| Control          | 1LF             | 2LF | 3LF |