Anti-infections

OCR Number: OCR 5549

Description:

A novel, effective anti-bacterial peptide-morpholino oligomer

- Novel composition combining novel cell penetrating peptide (CPP) with morpholino oligomer
- The conjugate transports morpholino oligomer sequence into bacteria with 10-100 fold more efficiency than previous known peptides
- The conjugate has a broad range of potency against pathogenic bacteria
- Patent: U.S. patent application claims allowed

Table 1: Loss of viability of bacterial phenotype (containing drug resistant genes) when mixed with CPP-PMO conjugate

<table>
<thead>
<tr>
<th>Bacterium</th>
<th>Conjugate</th>
<th>Conc., µM</th>
<th>Viability</th>
</tr>
</thead>
<tbody>
<tr>
<td>E. coli</td>
<td>AB2-gyr313-14</td>
<td>0.5</td>
<td>$10^{-4}$</td>
</tr>
<tr>
<td>S. typhimurium</td>
<td>gyr313-14</td>
<td>0.5</td>
<td>$10^{-5}$</td>
</tr>
<tr>
<td>B. subtilis</td>
<td>gyr313-14</td>
<td>0.5</td>
<td>$6 \times 10^{-5}$</td>
</tr>
<tr>
<td>P. syringae</td>
<td>gyr313-14</td>
<td>2</td>
<td>$6 \times 10^{-5}$</td>
</tr>
<tr>
<td>Acinetobacter</td>
<td>gyr313-11</td>
<td>0.5</td>
<td>$3 \times 10^{-5}$</td>
</tr>
<tr>
<td>K. pneumoniae</td>
<td>gyr313-14</td>
<td>0.5</td>
<td>$4 \times 10^{-5}$</td>
</tr>
<tr>
<td>S. aureus</td>
<td>Sepg313-14</td>
<td>5</td>
<td>$7.5 \times 10^{-4}$</td>
</tr>
</tbody>
</table>

Enterococcus

| Enterococcus | AB1-CAT   | 5 | 0.02 |
| Entrobacter  | AB2-gyr313-11 | 5 | 0.08 |
| S. aureus    | AB2-gyr313-14 | 1 | 0.30 |
| E. faecalis  | AB2-gyr313-11 | 2 | 0.03 |
| M. marinum   | AB1-emm20a | 1 | 0.27 |
| M. marinum   | AB1-gyr313 | 1 | 0.12 |

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