**Docket #:** S21-211

# Thiourea-enhanced antimicrobial peptoids as a treatment against antibiotic resistant microbes

Antimicrobial peptoids are promising leads for novel antibiotics; however, their activity is often compromised under physiological conditions. Inventors at Stanford enhanced the efficacy of antimicrobial peptoids by using thiourea and thiourea derivatives. The minimum inhibitory concentration (MIC) of antimicrobial peptoids against Pseudomonas aeruginosa, Staphylococcus aureus, and Ciprofloxacin-resistant Klebsiella pneumoniae significantly decreased when determined in the presence of thiourea as compared to antimicrobial peptoid only. In addition, combination with thiourea enhances the efficacy of antimicrobial peptoids against bacterial biofilms. The combination of thiourea with antimicrobial peptoids has potential to be used in therapeutic applications to treat acute and chronic bacterial infections.

## Applications

- Antibiotic medications
- Antibacterial products

## Advantages

- Enhances efficacy of treatment against antibiotic-resistant bacteria
- Can be used with gram-positive and gram-negative bacteria
- Does not synergize with the peptoid, preventing unwanted mutations to the compound

## Patents

- Published Application: WO2023288065
- Published Application: 20240316141

## Innovators

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