Potent Anti-Virulence Factor Against MRSA

**OCR Number:** OCR 6291

**Description:**

**Tick Antifreeze Glycoprotein to Treat Antibiotic-Resistant Bacterial Infection**

- Bacterial biofilm formation on indwelling devices is one of the mechanisms that cause antibiotic drug-resistance and bears annual healthcare burden $1$ bn in the US.
- As bacteria dispersed from a biofilm usually rapidly become susceptible to antibiotics, drugs against biofilm formation provide an alternative opportunity to combat infectious diseases.
- A tick antifreeze glycoprotein IAFGP, and a derived synthetic peptide P1 function as an anti-virulence agent against diverse bacterial species by disrupting formation of biofilm.
- IAFGP and P1 can be used as potent anti-microbial agent, alone or in combination with other antibiotics such as Ciprofloxacin and Daptomycin.

- **Intellectual property** – PCT patent application has been filed (Publication WO 2015/095349)
- **Reference:** Heisig, Martin et al. (2014) Cell Report

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