



## Antimicrobial Polymers

**INVENTORS • Samuel Gellman, Michael Gelman, Bernard Weisblum, David Lynn**

**WARF: P03315US**

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**The Wisconsin Alumni Research Foundation (WARF) is seeking commercial partners interested in developing novel amphiphilic compounds that could be used to treat microbial infections in humans and other animals.**

### OVERVIEW

The emergence of bacteria that are resistant to common therapeutic agents has resulted in a dire need for new antimicrobial compounds. One potential source of new antimicrobials is amphiphilic peptides, which contain both water-soluble and water-insoluble portions. These peptides act by disrupting bacterial membranes.

### THE INVENTION

UW-Madison researchers have developed novel amphiphilic compounds that can be used to treat microbial infections in humans and other animals. They combined a synthetic backbone of poly(styrene), poly(acrylate), poly(acrylamide) or poly(C<sub>1</sub>-C<sub>6</sub>alkylene glycol) with side-chains that can readily accept a hydrogen atom to become water-soluble. These compounds inhibited the growth of four test microorganisms to the same extent as known antimicrobials.

### APPLICATIONS

- A new source of antimicrobial compounds that potentially could be used to treat microbial infections
- Also promising as broad spectrum biocides and antiseptics, and for disinfecting and sterilizing surfaces

### KEY BENEFITS

- Production of amphiphilic compounds involves just one chemical synthesis step.
- Effective against both Gram-positive and Gram-negative bacteria

### THE WARF ADVANTAGE

#### **WARF: A Leader in Technology Transfer Since 1925**

Since its founding as a private, nonprofit affiliate of the University of Wisconsin-Madison, WARF has provided patent and licensing services to UW-Madison and worked with commercial partners to transform university research into products that benefit society. WARF intellectual property managers and licensing staff members are leaders in the field of university-based technology transfer. They are familiar with the intricacies of patenting, have worked with researchers in relevant disciplines, understand industries and markets, and have negotiated innovative licensing strategies to meet the individual needs of business clients.

#### **The University of Wisconsin and WARF – A Single Location to Accelerate Translational Development of New Drugs**

UW-Madison has the integrative capabilities to complete many key components of the drug development cycle, from discovery through clinical trials. As one of the top research universities in the world, and one of the two best-funded universities for research in the country, UW-Madison offers state-of-the-art facilities unmatched by most public universities.

These include the Small Molecule Screening Facility at the UW Comprehensive Cancer Center; the Zeeh Pharmaceutical Experiment Station, which provides consulting and laboratory services for developing formulations and studying solubility, stability and more; the Waisman Clinical Biomanufacturing Facility; the Wisconsin Institute for Medical Research, which provides UW-Madison with a complete translational research facility; and the innovative, interdisciplinary Wisconsin Institutes for Discovery, home to the private, nonprofit Morgridge Institute for Research and its public twin, WID, part of the university's graduate school. The highly qualified experts at these facilities are ready to work with you to create a library of candidates for drug development.

## ADDITIONAL INFORMATION

### Tech Fields

Pharmaceuticals & Vitamin D - Antibacterials

## CONTACT INFORMATION

For current licensing status, please contact Rafael Diaz at [rdiaz@warf.org](mailto:rdiaz@warf.org) or 608-960-9847.

