Treating Clostridium Infection and Preventing Recurrence

Inventors: Richard Guerrant, Cirle Warren, John Moore and Edward van Opstal
**Clostridium difficile infection (CDI)**

- CDI is the most common cause of antibiotic-associated hospital-acquired diarrhea
- More than 100,000 CDI cases among residents of U.S. nursing homes each year

**Clinical Problem:**
- While discontinuation of the antibiotic is ideal, antibiotic therapy remains the standard due to the severity of the GI disease or other active infections
- Current antibiotic treatments lead to a high rate of relapse
  - 10-30% recurrence after first CDI
Solution: Researchers at the University of Virginia have discovered that lower doses or shorter courses of antibiotic treatment are sufficient to treat infection and prevent or reduce disease recurrence.

- Lowering CDI recurrence rate by preserving the normal gut flora
- Preserved immunologic response to infection by low-dose treatment regimen
1-day antibiotic treatment most effective for CDI treatment

Vaccomycin regimen for treatment of CDI in mice. Higher percentage survival and lowest histopathology score when treated with 1-day of antibiotics.
Relevant Publications

Intellectual Property

• UVA Tech ID: GUERRANT-DOSE
  – Title: Compositions and methods for treating Clostridium infection and preventing recurrence of infection