

The Office of Technology Management



Tech ID: UTA 14-01

Hybrid Compounds to treat Gastrointestinal Infections

INVENTOR: Dr. Julian G. Hurdle

TECHNOLOGY NEED

Clostridium difficile (C. diff) is a bacterial gastrointestinal infection that is responsible for 14,000 deaths in the US each year. It is one of the most common hospital acquired infections, and takes advantage of antibiotic weakened intestinal flora. Antibiotics not only destroy un-wanted bacteria but also the bacteria that the body has recruited for its health. Current treatment for C. diff involves the antibiotic metronidazole. Unfortunately, metronidazole is absorbed by the GI tract rapidly and requires high dosage to effectively remove C. diff and at high dosages metronidazole are toxic.

INVENTION DESCRIPTION/SOLUTION

Researchers at UTA have developed a hybrid compound that prevents metronidazole and similar antibiotics from being absorbed by the body before reaching the location of infection, thus avoiding the toxicity associated with higher doses of metronidazole. These hybrid compounds are not only effective in treating C. diff but other bacterial and parasitic infections such as *Clostridium perfringen* and *Helicobacter pylori*, and potentially Crohn's disease and other inflammatory bowel diseases.

APPLICATIONS

- Healthcare: Pharmaceuticals

KEY BENEFITS

- Improved efficacy of current anti-infective medication
- Decreased absorption of medication by the GI tract

STAGE OF DEVELOPMENT

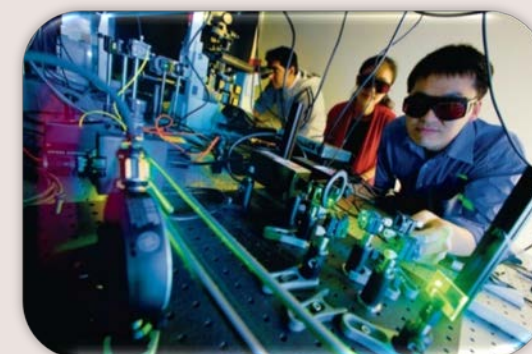
Preclinical

INTELLECTUAL PROPERTY STATUS

PCT Application Filed

PUBLICATION

Hurdle JD, *et.al.* Progress in the discovery of treatments for C. difficile infection: A clinical and medicinal chemistry review. *Medicinal Chemistry*, (2014)14, 152-175



More about the Inventors:
[Dr. Julian G. Hurdle](#)

Contact information

For licensing, please contact

Sharon Ngwenya, Ph.D.

sngwenya@uta.edu

otm@uta.edu

P: 817.272.1130

Our mailing Address:

The Office of Technology Management
701 S Nedderman drive,
Suite 333, Arlington, TX
76019

Connect with us:

