A Biodegradable and Non-toxic Anti-bacterial, Anti-fungal, and Anti-Viral Formulation to Treat Infections

Challenge
Microorganisms can cause substantial hygiene and health problems. Disinfection to kill the microorganisms is required in industries (e.g., food industry), health services, household, and also in clinical settings. Most disinfectants contain non-biodegradable components, alcohol, strong oxidizing reagents, and/or toxic compounds; as such they have limited in vivo applications, and often have a narrow spectrum of bioactivity.

Solution
The invention provides antibacterial, antifungal, and antiviral formulation that is non-toxic, nonflammable, and is biodegradable. The formulation works against drug-susceptible and drug-resistant bacteria, fungi, as well as viruses.

Benefits and Features
- Non-toxic, nonflammable, and biodegradable
- Can be applied to surfaces of organisms (human, animal, and plants),
- Suitable in dosage forms such as liquid, powder, gel, aerosol, nanosuspension, nanoparticle, microgel and more.

Market Potential / Applications
This invention has applications for treatment of topical infections, environmental clean-up, and disinfection in healthcare facilities, food industries, general households, offices and places of business, educational facilities, etc..

Developments and Licensing Status
Status: Available
Commercial sponsor sought? Yes

Patent Status
US Patent Pending

Inventors
Snezna Rogelj; Danielle Turner

Keywords: bacteria, fungal, pathogenic, infections, disinfectant, drug-resistant, non-toxic, pathogens, topical

To inquire about this technology call (575) 835-5390 or email us at OIC@nmt.edu

https://www.nmt.edu/oic/