Potential Use of Basil and Lemongrass Essential Oils Against Human Bacterial Pathogens

Mary Riley  
*St. John Fisher College*, mmr07450@students.sjfc.edu

Jeremy Martell  
*St. John Fisher College*, jkm04147@students.sjfc.edu

Maryann Herman  
*St. John Fisher College*, mherman@sjfc.edu

Follow this and additional works at: [https://fisherpub.sjfc.edu/biology_facpub](https://fisherpub.sjfc.edu/biology_facpub)

How has open access to Fisher Digital Publications benefited you?

**Publication Information**

Riley, Mary; Martell, Jeremy; and Herman, Maryann, "Potential Use of Basil and Lemongrass Essential Oils Against Human Bacterial Pathogens" (2015). *Biology Faculty/Staff Publications*. Paper 19.  
[https://fisherpub.sjfc.edu/biology_facpub/19](https://fisherpub.sjfc.edu/biology_facpub/19)

Please note that the Publication Information provides general citation information and may not be appropriate for your discipline. To receive help in creating a citation based on your discipline, please visit [http://libguides.sjfc.edu/citations](http://libguides.sjfc.edu/citations).

This document is posted at [https://fisherpub.sjfc.edu/biology_facpub/19](https://fisherpub.sjfc.edu/biology_facpub/19) and is brought to you for free and open access by Fisher Digital Publications at St. John Fisher College. For more information, please contact fisherpub@sjfc.edu.
Potential Use of Basil and Lemongrass Essential Oils Against Human Bacterial Pathogens

Abstract
The increasing prevalence of multi-drug resistant bacterial infections fuels a continuing need to find effective antimicrobial agents. Basil (Ocimum basilicum) and lemongrass (Cymbopogon citratus) essential oil activity against sixteen true and opportunistic human pathogenic bacterial strains was tested, including: S. aureus, S. epidermidis, B. cereus and E. aerogenes. Inhibition of microbial growth by both essential oils was determined using a Kirby-Bauer disc diffusion assay and results compared to common antibiotics. Results indicated that both essential oils possess antimicrobial compounds against select bacterial strains. Our data support phytomedicine as a plausible option to combat antibiotic resistance.

Keywords
fsc2015

Disciplines
Biology

Comments
Presented at the Western NY American Society of Microbiology Regional Conference in Amherst, New York, May 20, 2015.

This poster presentation is available at Fisher Digital Publications: https://fisherpub.sjfc.edu/biology_facpub/19
The increasing prevalence of multi-drug resistant bacterial infections fuels a continuing need to find effective antimicrobial agents. Basil (*Ocimum basilicum*) and lemongrass (*Cymbopogon citratus*) essential oil activity against sixteen true and opportunistic human pathogenic bacterial strains was tested, including: *S. aureus*, *S. epidermidis*, *B. cereus* and *E. aerogenes*. Inhibition of microbial growth by both essential oils was determined using a Kirby-Bauer disc diffusion assay and results compared to common antibiotics. Results indicated that both essential oils possess antimicrobial compounds against select bacterial strains. Our data support phytomedicine as a plausible option to combat antibiotic resistance.