



FALL 2022

**Biochemistry and Molecular Biology
Brown Bag Series**

Brant Bandow

Master's Student

***“Pomegranate juice and the Impact it has on
the Gut Microbiome”***

Tuesday, October, 25, 2022

11:00 AM

135 Oelman Hall

Lab: Oleg Paliy, Ph.D.



Boonshoft
School of Medicine
WRIGHT STATE UNIVERSITY



<https://science-math.wright.edu/biochemistry-and-molecular-biology>

Abstract

Pomegranate is known to have antioxidant and prebiotic qualities that have shown to promote the growth of beneficial bacteria while reducing inflammation in the gut. Inflammation in the gut is an issue that results in many health problems including obesity and colon cancer. In this study, an experimental group would receive a daily pomegranate supplement for three weeks where a control group did not receive any supplement. After sequencing fecal samples from both before and after the trial period there was a significant difference between the two groups. The largest amount of variability is attributed to the individual the sample came from. However, pomegranate did significantly contribute to a change in the gut microbiome. One of the genera that changed the most between the before and after samples was *Limosilactobacillus*. This genus is a type of lactic acid bacteria that is known to have anti-inflammatory qualities within the gut. Overall, this study shows that pomegranate consumption results in a significant change to the gut microbiome by promoting anti-inflammatory bacteria.