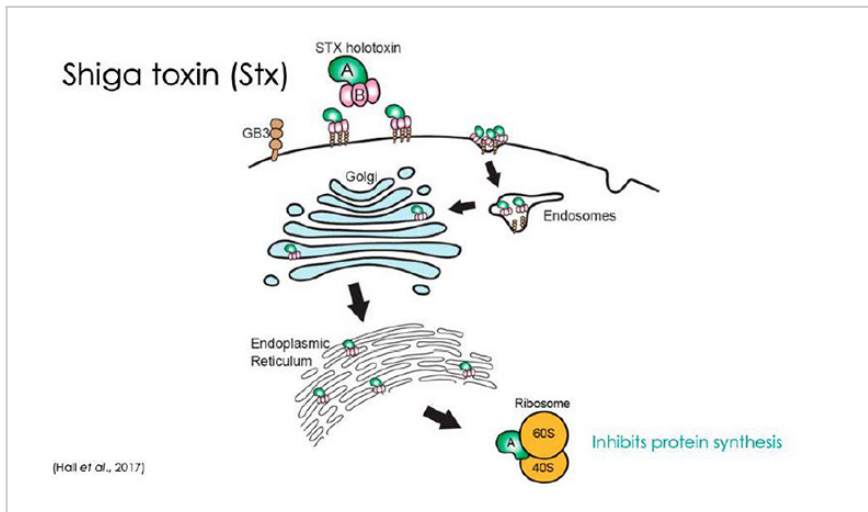


# Anti-microbial Molecule isolated from non-pathogenic E. coli

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Shiga toxin inhibits protein synthesis

## Technology Summary

Using a proprietary assay, the researchers discovered extra-intestinal E. coli isolates (ExPEC) that carry multiple bacteriocins. Five (5) isolates were sequenced and amplified. Of which, the researchers discovered a non-pathogenic isolate that encodes the molecule responsible for increasing Stx2 production within other competitive, phage infected E. coli strains. The microcin specifically inhibits E. coli strains and those of a closely related species, Shigella.

## Application & Market Utility

The invention's microcin may serve as a useful research tool for studying hemolytic uremic syndrome, including amplification of Stx. The commercial utility of this invention could also include its use as a pro-biotic composition, specially for cattle feed. The composition would kill the O157 pathogen by triggering bacteriophage-mediated killing (aka apoptosis).

## Next Steps

Patent pending. Seeking licensing opportunities.

### TECHNOLOGY READINESS LEVEL

1-3

#### Seeking

Licensing |

#### Keywords

- E. coli
- food-borne pathogen
- shiga toxin (stx)
- microcin
- hemolytic uremic syndrome

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