

# Ethan Bogosian, Biology

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## **An unusual alpha galactosidase**

Ethan Bogosian & Linda Chapman

The n-acetyl galactosaminidase from *Clostridium perfringens* removes the terminal n-acetyl galactosamine from the A trisaccharide of human blood group A glycotypes thereby converting cells of Blood Type A to cells of the universal donor, Blood Type O. Although the enzyme has important applications in seroconversion, its physiological function in the bacterium has not been investigated. I am investigating the following possibilities: 1. The sugar is used as a carbon/energy source. 2. The sugar plays a role in biofilm formation. 3. The sugar is incorporated into a cell surface polysaccharide.