

S E M I



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Concordia University

Determining The Function Of ntdABC: Not As Easy As 1-2-3

3,3'-Neotrehalosadiamine (NTD) is a natural product synthesized by some species of Bacillus. Although the function of NTD is not clear, it does show weak antibiotic properties, including against *Staphylococcus aureus*. NTD is a disaccharide containing an unusual 1,1' α , β -glycosidic linkage, and the biosynthetic pathway for this compound is a matter of speculation. One set of three genes has been shown to be essential for NTD synthesis in *Bacillus subtilis*. This presentation describes the organic synthesis and enzymology required to determine the functions of these three genes.