The expanding history of endosporulation

1. Introduction
   1. Endosporulation is an ancient trait.
   2. Firmicutes can be thought of as highly over split.
   3. *Exoguobacterium* is an example of a genus level loss of sporulation within the Bacillales.
   4. While *Bacillus selenitireducens* is an example of a species level loss.
   5. Roseburia hominis A2-183 does not cluster near other endosporulators, in fact it is a recent human-associated bacteria who is not mentioned to sproulators, but is flagged as one in our test.