

### **Lanthipeptides from the Anaerobe *Ruminococcus flavefaciens* FD-1**

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Lanthipeptides are a class of ribosomally synthesized and post-translationally modified natural products that display a range of different activities. Genome mining revealed a lanthipeptide gene cluster with unusual genetic features encoded in the genome of the anaerobic organism *Ruminococcus flavefaciens* FD-1. Based on the genetic information, it was hypothesized that a pair of enzymes is responsible for the modification of twelve different substrate peptides. In order to systematically assess the structures and bioactivities of the peptides encoded within the cluster, a heterologous host and in vitro production strategy was employed to access the modified peptides. The presence of characteristic post-translational modifications in the processed peptides was confirmed and a preliminary assessment revealed that the modified peptides have some antibacterial activity.