The aim of this study is to develop a protocol to study the com
from whole milk samples for sequencing.

_____: Based on problems identified in previous work with commercial extraction kits, a modified protocol of phenol-chloroform extraction along with bead beating was used to extract DNA from whole milk. Different volumes of milk sample were tested, as well as whole vs. pelleted milk.

_____: The use of a PCR product DNA purification column vs. no column was tested with extractions. Two brands of commercially available purification columns (Qiagen and Zymo) were tested for innate inhibitors, each using three different eluents: water, the provided elution buffer (EB), and TrisEDTA (TE). The columns were tested for innate PCR inhibitors by spiking increasing volumes of elution with 30 pg of Staphylococcus subsp. Aureus UAMS-1 DNA, and performing PCR for the full-length bacterial 16S gene. PCR products were visualized on a 1.5% agarose gel.

_____n: A literature review of possible PCR inhibitors inherent to the extraction was conducted. Calcium and digestive enzymes present in the milk could potentially inhibit PCR, if not eliminated in the extraction. To