



Microbial Identification

Academic researchers needed to identify microbial flora in rain water samples to study the potential environmental impact.

Client's Challenge:

Attempted to identify microbial flora but with limited equipment for definitive microbial classification.

ACGT, Inc.'s Solution:

Provided scientific expertise in designing microorganism enrichment procedures and microbial identification procedures based on 16S rRNA (bacteria) or 28S rRNA (fungus) gene sequencing.

Outcome:

Through the preliminary findings, the researchers were able to prepare subsequent research proposals to expand their study scope. ACGT scientists were included as co-investigators in grant proposals.

A veterinary research institute tried to correlate mare abortion incidents with pathogenic microbial isolates sampled from pregnant mares.

Client's Challenge:

Attempted to accurately identify pathogenic bacteria but with limited internal molecular biology expertise and no suitable laboratory equipment.

ACGT, Inc.'s Solution:

Provided thorough identification of submitted samples by full sequencing of 16S rRNA gene.

Outcome:

Bacterial identification findings were used for correlation analysis between microbial isolations, such as *Salmonella abortus equi* and *Streptococcus equi*, and mare abortion syndrome.

A probiotics manufacturer needed to characterize its seed culture bank and product bulks for quality control purpose.

Client's Request:

Genetically characterized seed cultures and finished products to ensure product quality.

ACGT, Inc.'s Solution:

Used ACGT, Inc microbial identification protocols along with customized procedural modifications to evaluate both glycerol stocks and lyophilized products for source material characterization and genetic stability testing.

Outcome:

Client was able to identify potentially contaminated seed cultures and the quality of the finished product batches. Client has incorporated the process in future QC program.

Notice: This report is intended only for the addressee shown above and may contain confidential information. The data and other information in this report represent only the sample(s) analyzed and are rendered upon condition that is not to be reproduced without the approval from ACGT, Inc.