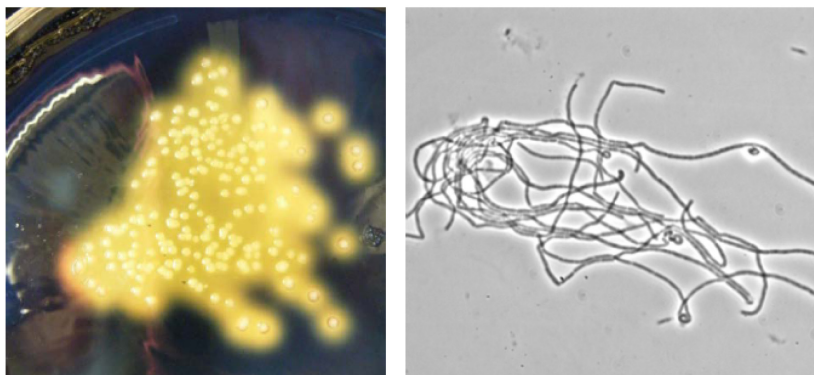


Caloramator sp. Tolerance of Pretreatment Inhibitors from Lignocellulosics

UT-B ID 201002449



Technology Summary

ORNL inventors discovered a novel microorganism that displays exceptional tolerance to several growth inhibitors generated during dilute acid pretreatment of lignocellulosic biomass. Vanillin, furfural, hydroxymethylfurfural and lignin are known to inhibit the growth of microorganisms, such as yeast, during fermentation of sugars to alcohols. The new, isolated organism can be used as a source of resistance factors which could then be engineered into advanced biocatalysts for consolidated bioprocessing of biomass into fuels.

Advantages

- Tolerant to inhibitors vanillin, furfural, and hydroxymethylfurfural

Potential Applications

- Biofuel production
- Chemical production

Patent

Application in preparation

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