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## Antagonistic effect of lactic acid bacteria extracted from pulque

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The current research refers to the evaluation of the antagonistic effect of a synbiotic beverage made from aguamiel, mainly, the bactericidal effect of a functional beverage on pathogens. Aguamiel is a Mexican millenary drink, whose consumption has declined significantly in recent years. To study the effect of this drink, it is necessary to mention the causes that precede it, one of them been the high number of foodborne diseases, followed by poor hygiene practices and indiscriminate use of antibiotics that ultimately constitute a health and economic problem of global relevance.

There are few studies about the functions, properties and impact of Mexican endemic foods and human health, for this reason, the purpose of this research is to generate documentation in response to the following research question: Is the synbiotic beverage based on aguamiel able to inhibit the growth of pathogens of clinical importance?

The study is developing in five phases which consisted on the selection and growth of five probiotic microorganisms and seven pathogens, production of the synbiotic drink, antagonism tests against pathogens in microplate and by antibiogram method following by the identification of the metabolites in charge of the inhibition and finally a step of intervention with murines. The tests are being carried out in triplicate.

#### **Speaker Biography**

Ana Rosa Huezo Sánchez, 28 years, is a Ph.D. student in biotechnology at UPAEP university in Mexico. Her area of research is focused on probiotics and their use as adjuvants in the treatment of gastrointestinal infections. Currently, she is a thesis advisor for undergraduate and master's students. She studied her bachelor's degree in food science and technology at Zamorano university, Honduras.

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