



FOCUSED MEETING  
**2017**

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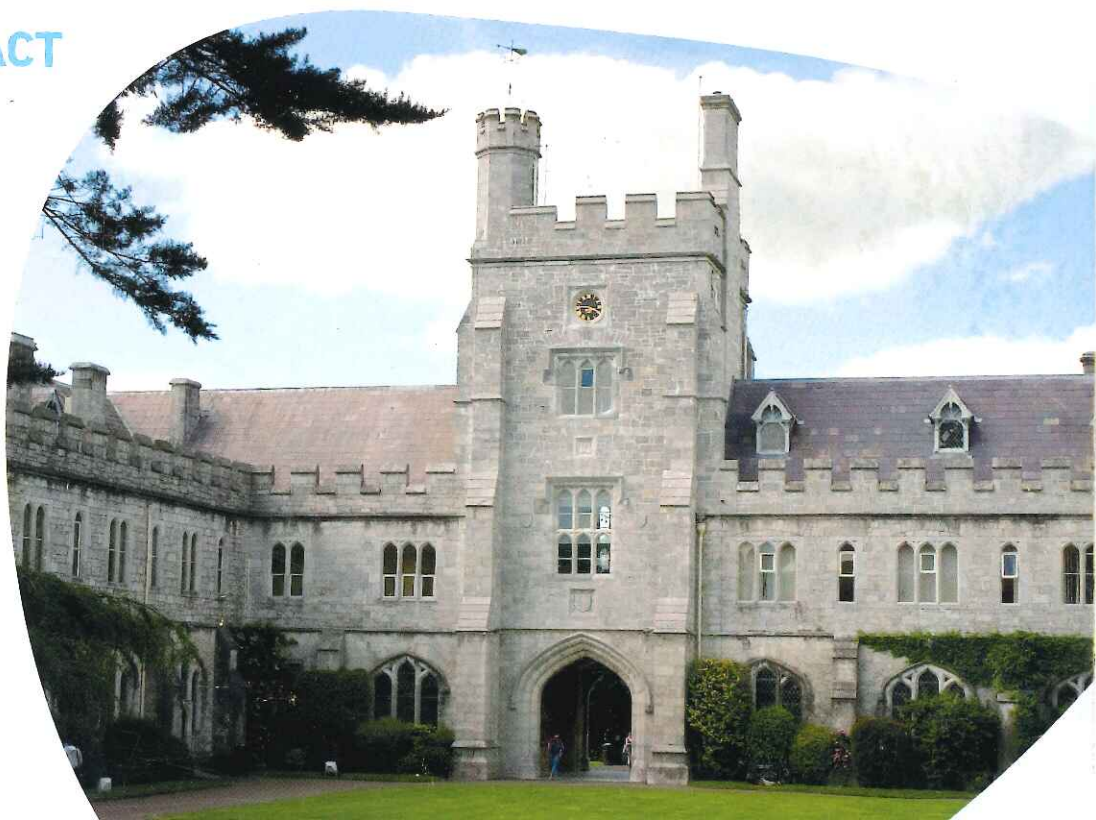
# **Exploring and Engineering Yeasts for Industrial Application**

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**POSTER ABSTRACT  
BOOK**



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**Differentiation of *Kluyveromyces marxianus* strains isolated from Mezcal fermentations by MALDI-TOF MS**

Manuel Kirchmayr, Francisco De la Torre Gonzalez, Juan Carlos Leyva Uriostegui, Anne Gschaedler  
*Centro de Investigacion y Asistencia en Tecnologia y Diseño del Estado de Jalisco A.C., Guadalajara, Jalisco, Mexico*

Since its development in the late 1980s, Matrix-assisted laser desorption/ionization time-of-flight mass spectrometry (MALDI-TOF MS) has been applied for the determination of molecular masses of organic compounds. During the last decade, it has been shown that this technique possesses the capacity to identify microorganisms at the genus and species levels directly from the biomass of isolated colonies generating a phenotypic profile or "molecular fingerprint". MALDI TOF MS is rapidly gaining popularity for this purpose in microbial ecology studies due to its time and cost effectiveness as compared to morpho-physiological or other molecular biology based methods.

In the present work, the capacity of MALDI-TOF MS for the differentiation of isolates of *Kluyveromyces marxianus* from different mezcal production regions was evaluated. In order to examine the validity of this approach the resulting dendrogram was compared with that obtained by rep-PCR, a commonly applied gene-based fingerprinting technique.