



Press Release  
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## **Technological breakthrough for environmentally low-impact fuel**

**The biotech company, Taurus Energy, has developed a new yeast strain for producing second-generation ethanol using a new technique. The new yeast strain offers considerable advantages, as it ensures rapid fermentation and a high ethanol yield, combined with the ability to convert all available sugars into ethanol. This exciting innovation is the result of a long-term collaboration between Taurus Energy, Chalmers University of Technology in Gothenburg and the Faculty of Engineering (LTH) at Lund University. Taurus Energy's research has also benefitted from working closely with major international ethanol producers who are in the process of building new facilities, particularly in the USA.**

Taurus Energy focuses on developing yeast strains capable of converting sugars from a wide range of plant materials into ethanol. The plant materials used are derived from the waste products from forestry and agriculture, which makes it an excellent alternative fuel as far as the environment is concerned. Over the past 12 months, Taurus Energy has used a yeast-hybridization technique, which involves taking different properties from several yeasts to create a new, more effective strain. This effort has resulted in a yeast hybrid with an impressive fermentability and a high ethanol yield, which converts all available sugars, such as xylose and glucose, into ethanol. In addition, it is free from ampicillin-resistant genes (antibiotic-free), which means that the yeast can be used freely in the processing industry.

"Extensive testing has shown that our new yeast strain easily exceeds our customers' requirements for high fermentability in respect of both speed of production and ethanol yield. Our yeast also demonstrates improved resistance to inhibitors, the undesirable substances such as acetic acid which are present. This enables our yeast to cope better in industrial environments with a relatively high concentration of inhibitors," says Lars Welin, CEO of Taurus Energy.

Taurus Energy has now applied for a patent for its new yeast strain. The patent will provide global protection for a period of 20 years. The new yeast strain can ferment both cellulose and hemicellulose, and is intended particularly for cellulose-based raw materials.

The new yeast strain is the fruit of a long-term collaboration between Taurus Energy, Chalmers University of Technology in Gothenburg and the Faculty of Engineering at Lund University. Professor Lisbeth Olsson and Elia Tomas-Pejo from Chalmers and Taurus Energy's Nicklas Bonander led the research team.

"We utilized an innovative technique involving remodeling genes. On the basis of their chromosomal DNA strings, we recombined different yeast strains to give a new yeast

with the properties we were looking for”, explains Nicklas Bonander, who bears principal responsibility for the technique.

The new yeast strain will be marketed under the registered trade mark, XyloFerm®.

”For us, this technological breakthrough is of massive commercial significance. In the USA alone, eight production facilities for second-generation ethanol are currently under construction. When the majority of these come on stream during 2014, they will need our type of yeast”, says Lars Welin.

**For more information, please contact:**

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**About Taurus Energy AB**

Taurus Energy AB is a research and development company, which aims to commercialize its extensive research and development program in the field of ethanol production. Since 2006, the company’s mission has been to license energy producers to use the methods developed by the company on a global market. Taurus holds over 10 world-leading patents which have been developed with the help of around 20 internationally recognized scientists. The company is based in the Ideon Science Park in Lund, Sweden. Taurus is listed on the Aktietorget equities market. For more information, please visit [www.taurusenergy.eu](http://www.taurusenergy.eu)