

Press release

DEINOVE SUCCESSFULLY REACHES 2G BIOETHANOL PRE-INDUSTRIAL SCALE IN A 300-LITER FERMENTER

DEINOVE TAKES A STEP FORWARD IN ITS GOAL TOWARDS INDUSTRIALIZING THE DEINOL PROCESS

- Production was carried out at the VTT facilities with co-fermentation of glucose and xylose, major components of the second generation biomass
- Ethanol was manufactured at 7.3% v/v, consistent with the results obtained in the DEINOVE laboratories and compatible with industrial standards

Montpellier, 19 November 2015 – DEINOVE (Alternext Paris: ALDEI), a biotech company developing innovative processes for producing biofuels and bio-based chemicals from non-food biomass with its *Deinococcus* bacteria, announced today that it has produced 2G ethanol with an exceptional performance level in a 300-liter fermenter.



The trials were conducted at VTT¹, DEINOVE's long-term partner, which has the necessary infrastructure to implement and evaluate this type of pilot operation. The raw material used is a mixture of glucose (a six-carbon atoms sugar, C6) and xylose (C5), the main components obtained by the hydrolysis of non-food biomass used in the production of 2G biofuels.

Fermentation of these 2G sugars by an optimized DEINOL strain has resulted in the production of ethanol at 7.3% v/v². This performance is consistent with the results obtained by the DEINOVE team in its laboratories in 20-liter fermenters.

"We are very satisfied with these results," declares Jean-Paul LEONETTI, R&D Director of DEINOVE. *"The long-lasting collaboration between our R&D teams and those of the VTT has removed limitations due to different fermenter configuration, resulting in an adaptation of the process, and represents significant progress. In this industry, scaling up can be a real technical challenge. I congratulate our teams for this new success."*

"This is a great step towards industrialization of the process and this result confirms that the Deinococcus platform is suitable for commercialization. On the eve of COP21, a French biotech demonstrates that 2G ethanol can truly and efficiently fight against climate change" adds Emmanuel Petiot, CEO of DEINOVE. *"Based on these results, we will work with our partners on the next steps:*

¹ VTT Technical Research Centre of Finland Ltd, www.vttresearch.com

² Volume/volume: the volume of ethanol in the total volume of fermentation broth. 7.3% v/v is equivalent to 5.8 % w/v (weight / volume).

scale-up to a cubic meter scale and industrial pilots. We are confident in our capabilities to provide a technological and economically competitive solution by 2018."

About DEINOVE

DEINOVE (Alternext Paris: ALDEI) is ushering in a new era of green chemistry by designing and developing new standards of production based on bacteria of untapped potential: the *Deinococci*. Taking advantage of the bacteria's unique genetic properties and unusual robustness, DEINOVE optimizes natural fermentation and metabolic capabilities of these bacterial "micro-factories" to produce high value-added products from non-food biomass. The Company's primary markets are 2nd-generation biofuels (DEINOL) and bio-based chemicals (DEINOCHEM). On these markets, the Company offers its technology to industrial partners globally.

Listed on NYSE Alternext since April 2010, DEINOVE was founded by Dr. Philippe Pouletty, General Partner of TRUFFLE CAPITAL, and Pr. Miroslav Radman, of the Faculty of Medicine of Paris Descartes University. The company employs almost 50 people in its offices and laboratories located in Montpellier, France.

More information at www.deinove.com

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