NEWS RELEASE

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INTERNATIONAL CONSORITUM KICKS OFF R&D PROJECT TO LOWER CELLULASE COST THROUGH ENZYME RECYCLING

In November 2015, an international consortium led by Autodisplay Biotech GmbH has started PATHWAY EFB, a €1.6 million collaborative R&D project to significantly lower cellulase cost in the production of biofuels and bio-based chemicals. The project builds onto Autodisplay Biotech's proprietary cell surface display technology which enables a low-cost recovery and re-use of cellulases after the biomass saccharification step. The PATHWAY EFB consortium is focused on the development of a cellulase blend as well as a corresponding process, fine-tuned for the conversion of empty fruit bunches (EFB) to fermentable sugars for the production of high value biochemicals. Empty fruit bunches are a waste by-product from the production of palm oil.

Autodisplay Biotech's CEO, Dr. Ruth Maas, explains how PATHWAY EFB complements Autodisplay Biotech's new company strategy: "In early 2015, we closed a series A financing round to fund the development of cellulase blend products. In that round, AUM Capital, located in the Malaysian capital city Kuala Lumpur, joined Autodisplay Biotech as an investor. AUM Capital's director, Prashant Patel, was looking for value-adding solutions for the biomass feedstock EFB and, as a palm oil producer, he is very eager to test and ultimately use our recyclable cellulases in his facilities." With Autodisplay Biotech's core expertise being the expression of enzymes, the company management is very happy that PATHWAY EFB helps to strengthen existing collaborations with partners along the biofuel and biochemical value chains.

Every year, approximately 20 million metric tons of EFB are being generated in Malaysia alone. Most of the EFB piles up at waste disposal sites or plantations. Disposal has become a serious concern for palm oil producers in recent years, as the natural degradation of EFB leads to formation of the greenhouse gas methane. All large scale approaches to utilize the biomass have been unsuccessful, so far. Therefore, the PATHWAY EFB project significantly contributes to the fight against climate change.

Aim of the PATHWAY EFB project is the build-up of a pilot plant in Malaysia to convert EFB. Autodisplay Biotech intends to leverage the cellulase technology created during PATHWAY EFB to expand into other biomass substrates. New cellulase blends can easily be developed within a short time frame due to the flexible nature of Autodisplay Biotech's cellulase technology.

About the project:

PATHWAY EFB project partners are Autodisplay Biotech GmbH (Düsseldorf, Germany), FraunhoferUMSICHT (Oberhausen, Germany), Westfälische Wilhelms-Universität (Münster, Germany), Universiti Malaysia Sabah (Kota Kinabalu, Malaysia) and Aumkar Plantations Sdn Bhd (Tawau, Malaysia). The three-year project will be funded by the German Federal Ministry of Education and Research under the Bioeconomy International program.