

Pharmaceuticals from Plants and Animals: Baker's Yeast as an Alternative

Berlin / Liverpool, 7th May 2014 – Squalene, a key ingredient in cosmetics and pharmaceuticals, will no longer have to be extracted from shark liver. It can also be produced using yeast, reducing pressure on natural resources. Similar options are available for fragrances obtained from whale fats and plant-based pharmaceuticals. This was emphasized by Prof. Dr. Christine Lang, a scientist from Berlin, at the Society for General Microbiology Annual Conference in Liverpool.

Products which previously relied on fossil inputs or other non-sustainable resources may now also alternatively be manufactured using microbiological and biotechnological processes. Referred to as industrial or white biotechnology, this approach helps optimise our use of limited resources and preserves Nature and the environment, said Ms. Lang, who also chairs the Federal Government's Bioeconomy Council. This was the objective of biotechnology and bioeconomy.

Another example mentioned by Ms. Christine Lang in addition to squalene and other terpenes was succinic acid (spirit of amber), which could be produced with the help of baker's yeast from renewable resources and is used as a precursor in plastics. Similar to the production of succinic acid, many conventional chemical syntheses require high temperatures with correspondingly high energy consumption and involve solvents with harmful environmental effects. "Here, yeast-based biotechnology production processes often offer a resource-friendly alternative."

Christine Lang heads the Berlin-based biotechnology company Organobalance which has a collection of more than 8,000 strains of yeast and lactic acid bacteria. The company has already discovered natural agents against bacterial infections such as caries or gastrointestinal disorders. "Nature offers many resources for us to utilise in the industrial production of everyday products or to treat or prevent diseases", says Prof. Lang. "This is why we want to and have to continue our research into these positive characteristics of microorganisms."

About Prof. Dr. Christine Lang:

Christine Lang majored in biology at the Ruhr-University Bochum and at the University of Sussex. After completing her Ph D., she worked in industrial research before moving on to the Technische Universität Berlin where she became professor of microbiology and molecular genetics. In 2001, she set up the biotechnology company Organobalance. Ms. Lang is actively involved in several trade and professional associations in the biotechnology sector. Furthermore, she is co-chair of the Federal Government's Bioeconomy Council. She has won several prizes for her entrepreneurial and scientific work.

For further information, please contact:

ORGANOBALANCE GmbH
Dr. Klaus Pellengahr
Gustav-Meyer-Allee 25
D - 13355 Berlin
Fon +49 (0)30 46307 200
Fax +49 (0)30 46307 210
www.organobalance.de