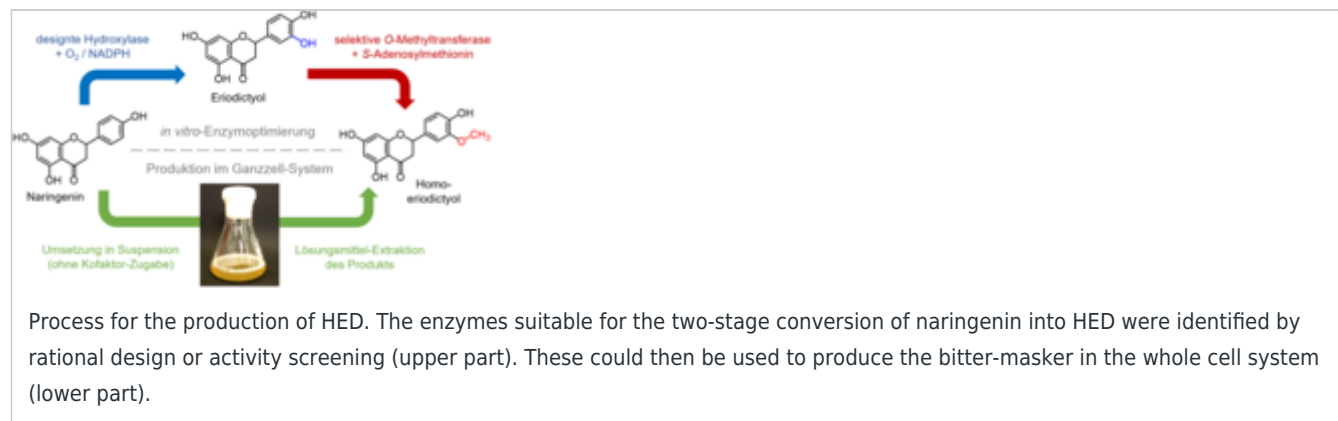


13.11.2019

IPB researchers awarded for sustainable bitter-masker production process



To honor the important field of new biotechnological processes, the [Leibniz Research Alliance Bioactive Compounds and Biotechnology](#) awarded the Prize "Leibniz Biotechnology Process 2019". The research team of [Professor Ludger A. Wessjohann](#) and [Dr. Martin Dippe](#) at the Leibniz Institute of Plant Biochemistry (IPB) was honored for their work on the sustainable large-scale production process of the bitter-masking flavanone homoeriodictyol (HED).

Homoeriodictyol (HED) represents the active principle of the desert plant *Eriodictyon californicum* - a medicinal plant already used by indigenous population of Mexico. HED shows a pronounced bitter masking effect, which is why there is great interest in using this natural product in the food and pharmaceutical industries. HED, however, cannot be obtained in sufficient quantities from plant material as *Eriodictyon* cannot be grown and the wild stocks of the plant are threatened.

The aim of the project was therefore to develop a sustainable process for the large-scale production of HED. Chemically, it is a flavanone biosynthetically derived from the plant ubiquitous precursor naringenin. Naringenin is available in large quantities, it is a cheap, but hardly economically used waste product from press residues of orange juice production. The conversion of naringenin to HED occurs in two enzymatic steps (patents WO2016/050656A1, 15188136.4, WO2016/050656A1). Advantages of the method are that (I) a waste product is biotechnologically upgraded into a high-priced drug, and (II) it does not require the external addition of the costly cofactors (NADPH and S-Adenosyl methionine), which are taken from the cellular base metabolism.