

SALIMED

Targeted Salix crossing and chemoprofiling for improved medicinal potential of willow bark

Projektlaufzeit:

2017 bis 2020

Beteiligte externe Organisationen:

- Humboldt Universität Berlin
- Technische Universität München
- Industrie

Mittelgeber:

BMBF

Zusammenfassung:

With increasing life expectancy and growth of the elderly population, an alarming escalation of age-related chronic, inflammatory disease conditions are noted demanding new treatments and preventive approaches. The therapeutic and health-promoting effects of willow (*salix spp.*) bark preparations, especially against inflammatory diseases and pain conditions in humans, are known, however the correlation of therapeutic effects to certain individual bioactive small molecules or their complex mixtures is still lacking consequently impairing product optimization. To date, willow bark has mainly been evaluated according to its salicin content. Further, plant breeding programs and deforestation of Salix species focused on biomass production as renewable sources for energy use. Usually whole Salix shoots are then used for bioenergy purposes, which results in an unclean combustion due to the bark.

Objective of the project is to identify suitable willow clones which exhibit high phytochemical levels with best medicinal effects to use as phytopharmaceutical and which also show a high biomass production and rust resistance. Extracts from these willow barks should achieve specific therapeutic benefits with few undesirable side effects and should be suitable to extend standard medications such as Aspirin™ in the treatment of inflammation related diseases.