

Database for Plant Cell Cultures at DSMZ Model Systems for Research



D. Gleim, E. Heine-Dobbernack, H. Kiesecker and H.M. Schumacher

Plant Cell Lines – Tools for Reseach

Undifferentiated plant cell cultures provide a source for fundamental and applied botanical research. They are used for the isolation of compounds, enzymes and genes and as model systems for metabolic research.

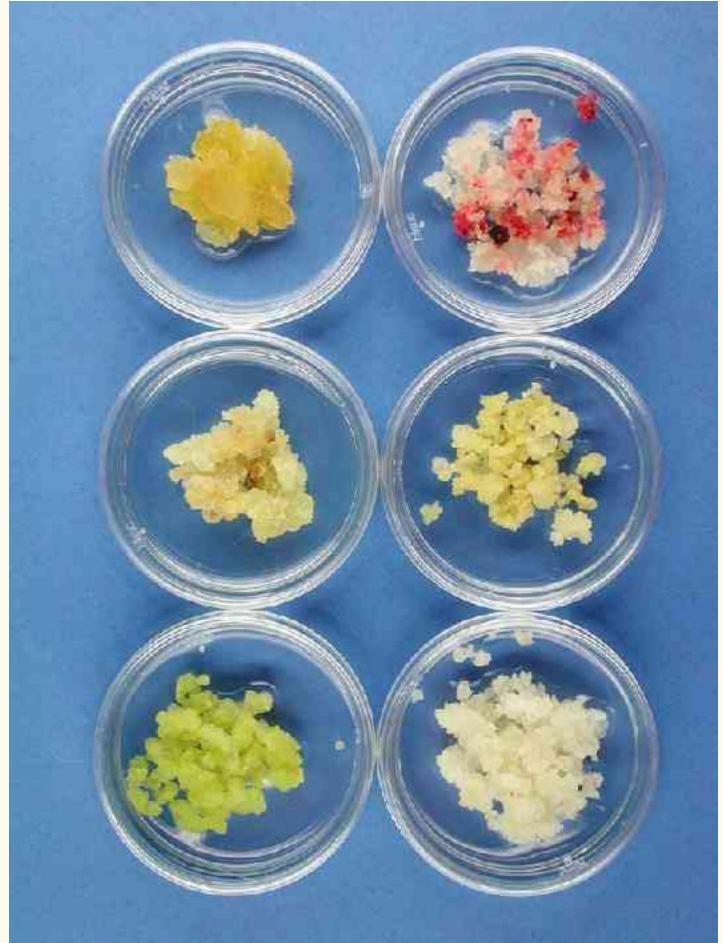


Figure 1. Callus cultures

The DSMZ Plant Cell Lines Collection

The DSMZ maintains the largest public collection of undifferentiated plant cells cultures consisting of more than 742 cell lines. 585 cell lines are in the public domain representing 534 different plant species from 92 different plant families. These cell lines have been initiated at research institutes or pharmaceutical companies and deposited at DSMZ. In most cases the initial plant material originated from botanical gardens or natural habitats.

The cell lines are maintained as callus cultures (figure 1) at DSMZ. The usual application form is that of a suspension culture (figure 2).

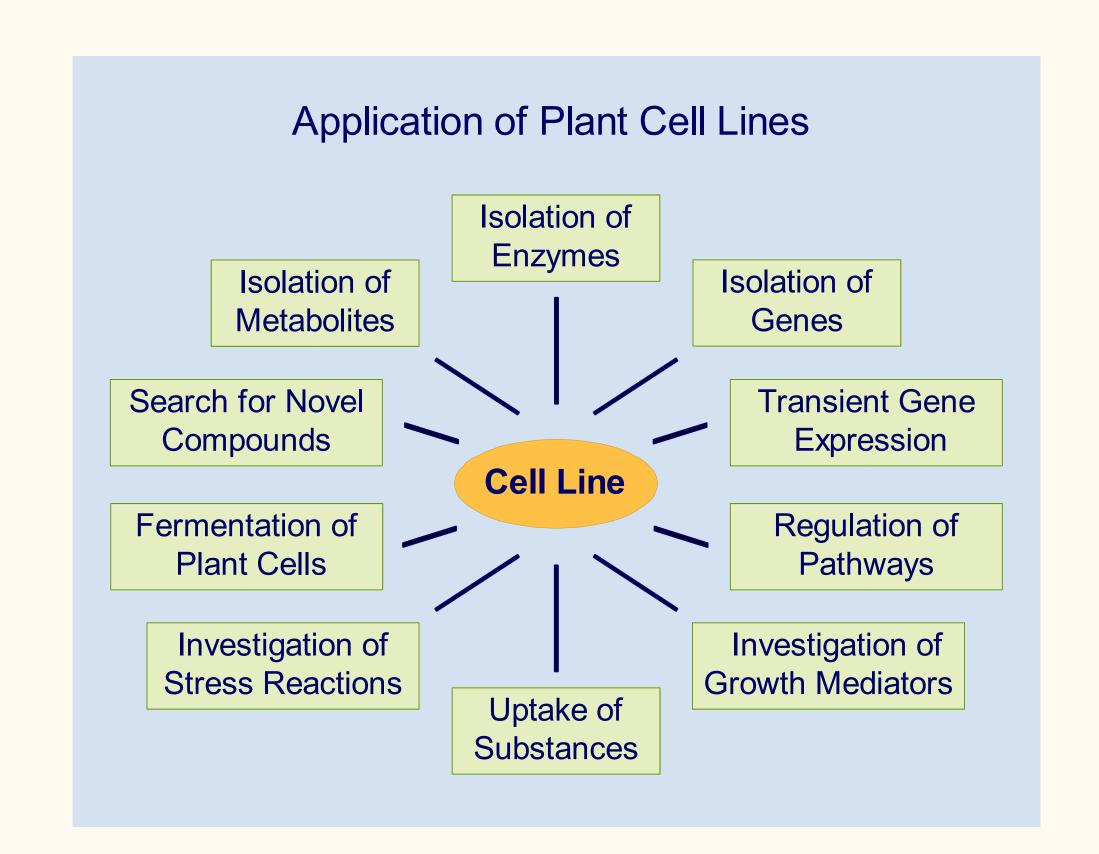




Figure 2. Suspension cultures

Using the BioCASE Wrapper software, data on 585 cell lines from 534 different plant species have been made available in GBIF Network.

