Who we are...

AG Botany & Arboretum (Prof. Zoglauer) Institute for Biology Humboldt-Universität zu Berlin



Main research topic:

Somatic embryogenesis in conifers

- as future-oriented alternative to seed propagation/breeding of elite trees

Conifer species in our repertoire:

Larix decidua, Larix x eurolepis, Pseudotsuga menziesii, Abies spp. (Christmas trees), Picea spp., Pinus spp.

Our competences:

Somatic embryogenesis (induction, maturation, germination, acclimatisation)

Cryopreservation

Establishment of a large data and clone collection

Protoplast techniques (isolation, fusion)

Molecular analyses, genetic transformation

Current joined projects:

DendroMax (funded by FNR)

OptiTanne (funded by BMBF)

Our ideas and interests for ForestValue...

(with regard to Charter for wood 2.0 (BMEL))

Sustainable management of forests

Ressource wood and forest:

- Longterm increase of available wood potentials
- Securing availabilty of conifer woods

and

Cluster forest and wood:

- Increase of turn-over and EVA in the cluster forest & wood



1. Development of an automated mass propagation system for somatic embryos



2. Design a strategy to unfold the potential of somatically generated trees with superiour characteristics for forestry (trade ability)

New production technologies, industrial processing, products and services in the forestry-wood sector

Material- and energy efficiency

- Energy efficiency in wood and paper economy



3. Establishment of an alternative and sustainable system for cellulose delivery

Research and development



4. Basics and genetic regulation of somatic embryo initiation, development and mass propagation



5. Analysis and enrichment of specific ingredients/contents in somatic embryo cultures

We are looking for...

- Partners from the field of horticulture, nursery, tree breeding, forest owners and foresters who are interested in growing of somatic plants and evaluation of their economic and growth specific advantages
- Biotechnological enterprises for the generation of a bioreactor and a production line
- Partners who are looking for alternatives for paper- and polymer- products (industry/research)
- Laboratories with expertise in analytical methods (HPLC, GC/MS, etc.)



We are looking forward to an engaging and mutually beneficial cooperation!