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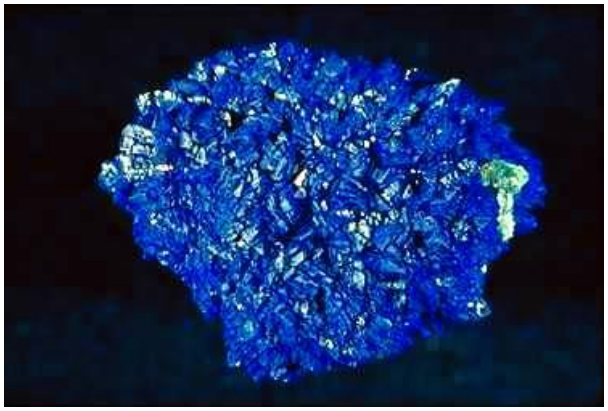

# Examination of the arbuscular mycorrhiza specific blue copper-binding proteins of *Medicago truncatula*

**I. PARADI, D. Morandi, F. Robert, D. van Tuinen, S. Ochatt and E. DUMAS-GAUDOT**

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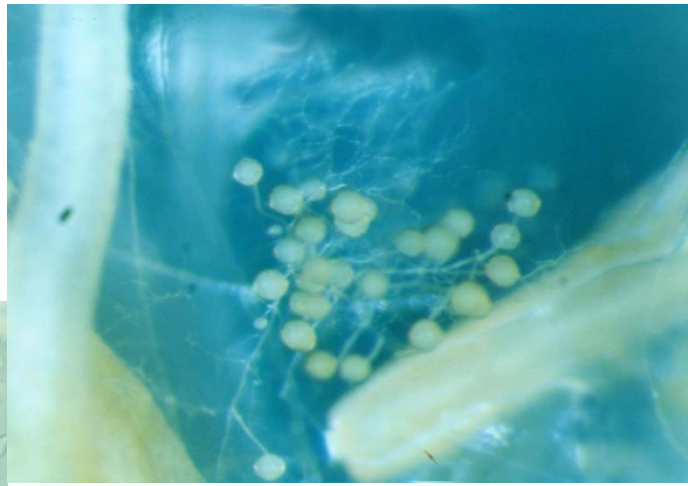
# Mycorrhiza: fungal symbiosis of plant roots

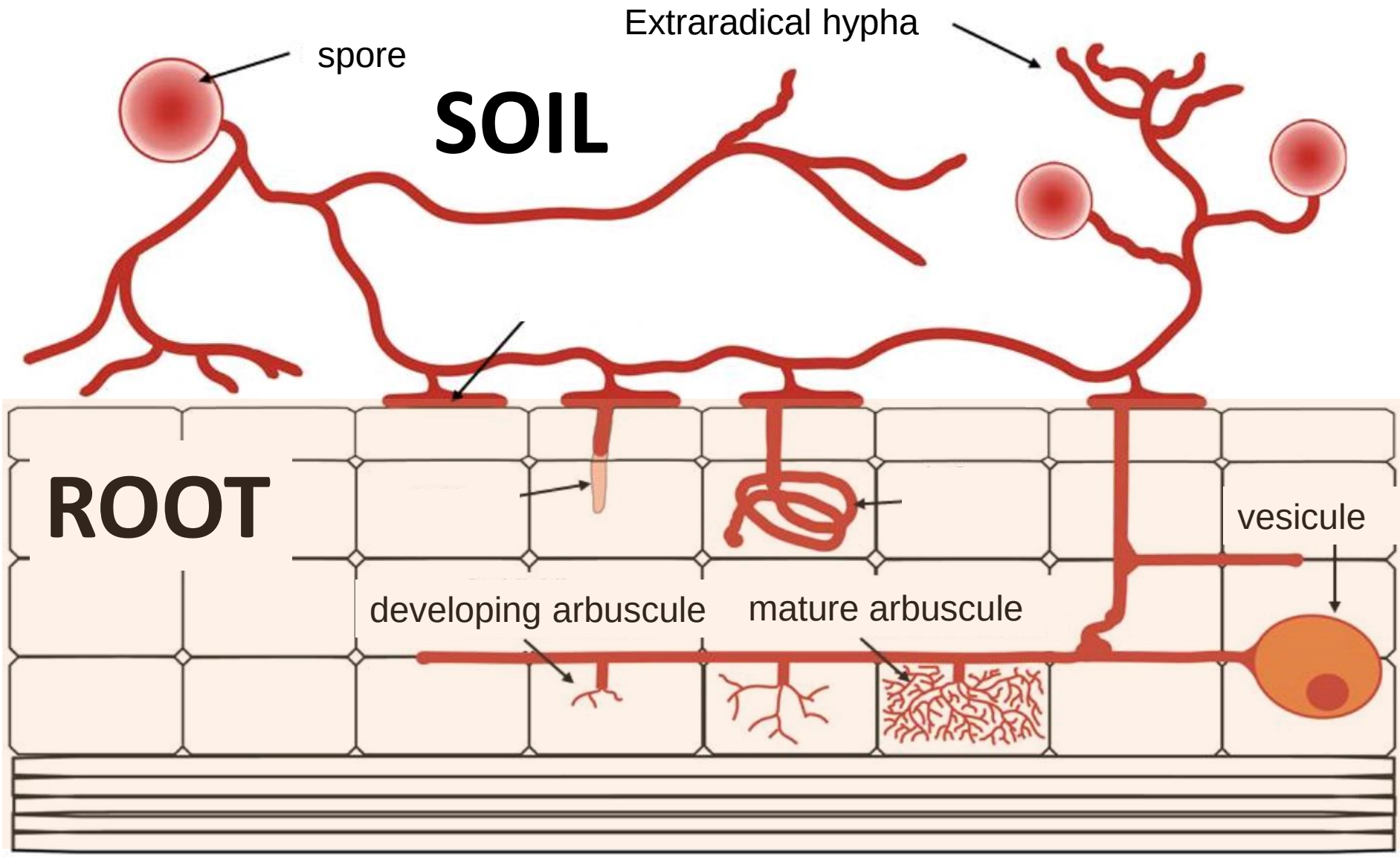
- 80-90 % of plant species are mycorrhizal
- Global presence
- Substantial evolutionary role
- Bidirectional nutrient exchange
- Improves plant stress resistance
- Basic role in biodiversity
- Belowground hyphal net: communication network

## Ectomycorrhiza

## Arbuscular mycorrhiza

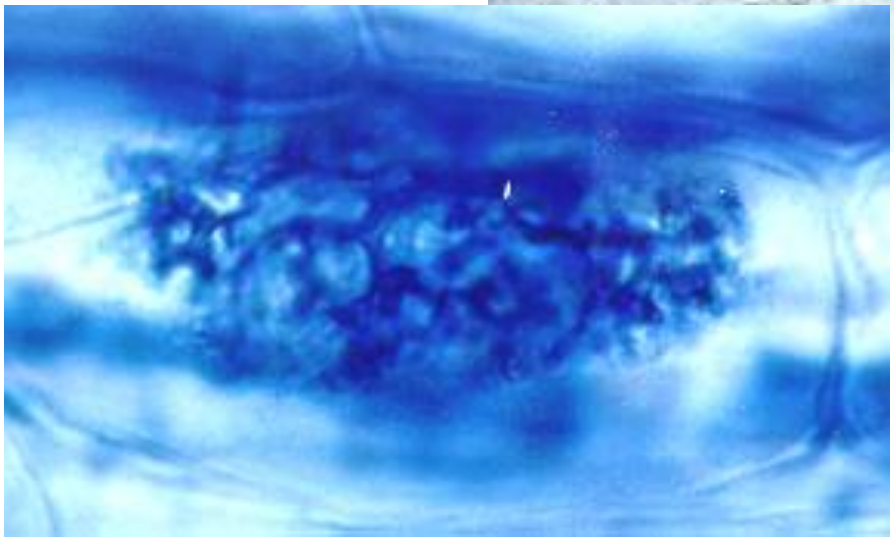


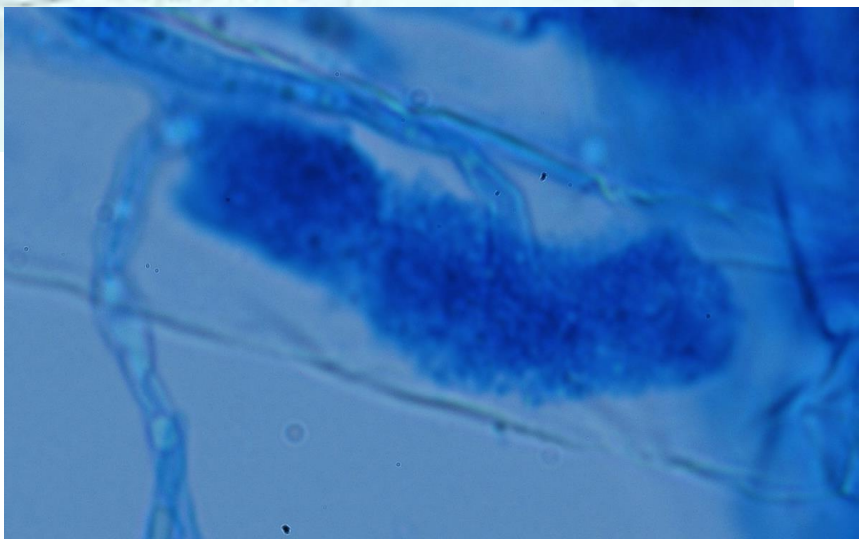
# Arbuscular mycorrhiza (AM)



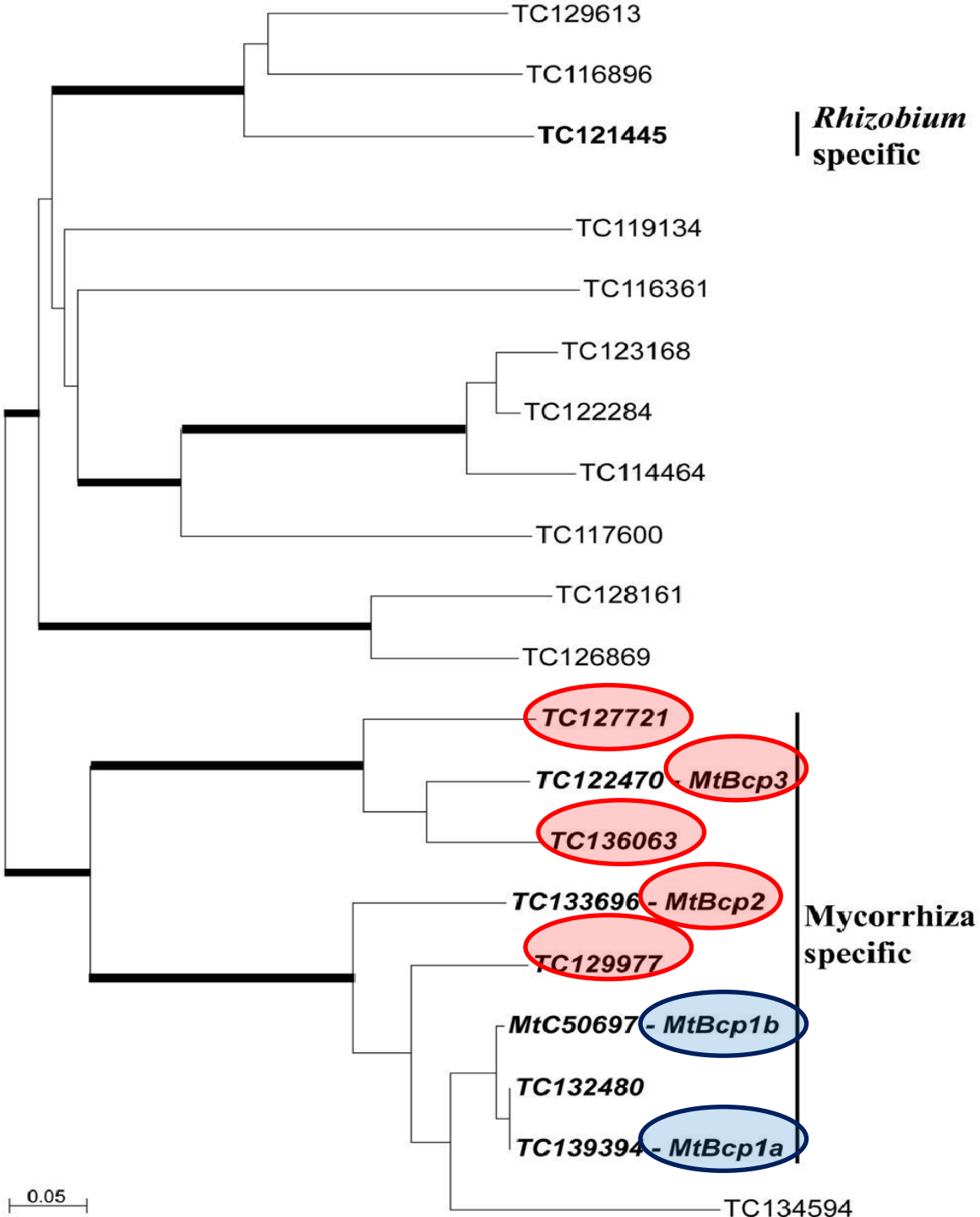

PARÁDI István

# Arbuscule: ”floral placenta”

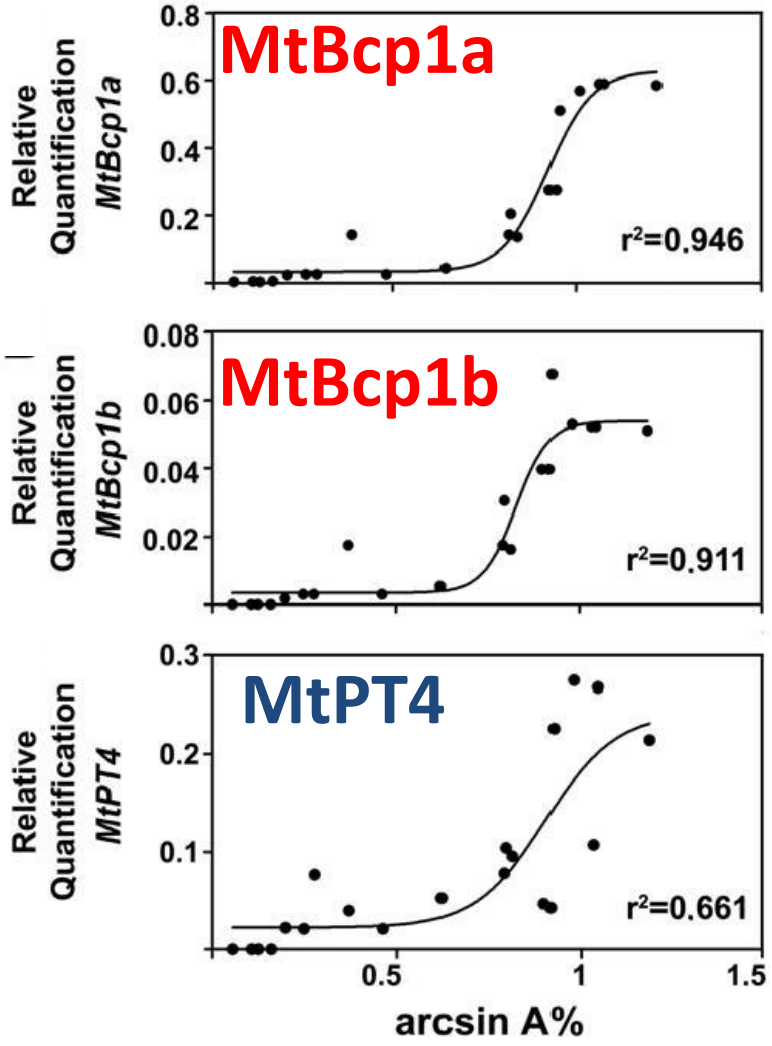




**Phylogenetic tree (nj) of amino acid sequences of the *Medicago truncatula* blue-copper binding proteins (MtBcps)**



# Correlation of arbuscular intensity and AM-specific gene expression in the model legume *Medicago truncatula*

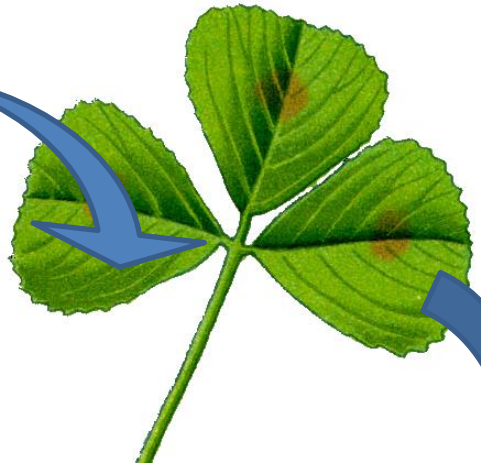



Parádi et al. (2010) MPMI 1175-1183.

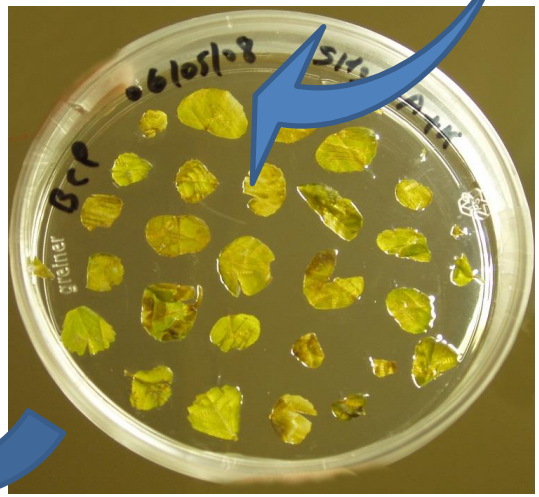
# Creation of MtBcp RNA interference transformant *Medicago truncatula* and regeneration by somatic embryogenesis

RNAi

*Agrobacterium tumefaciens*

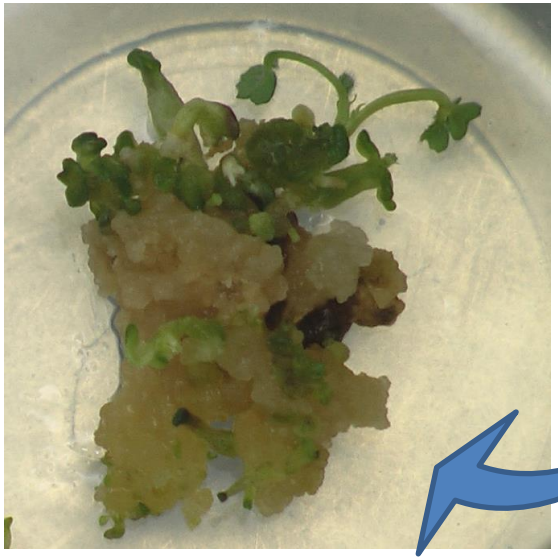


Callus stage

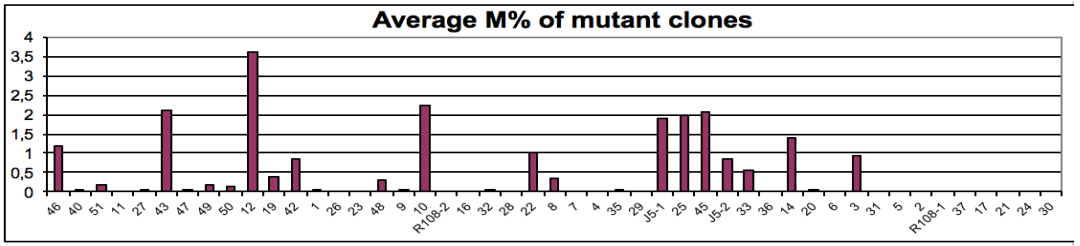


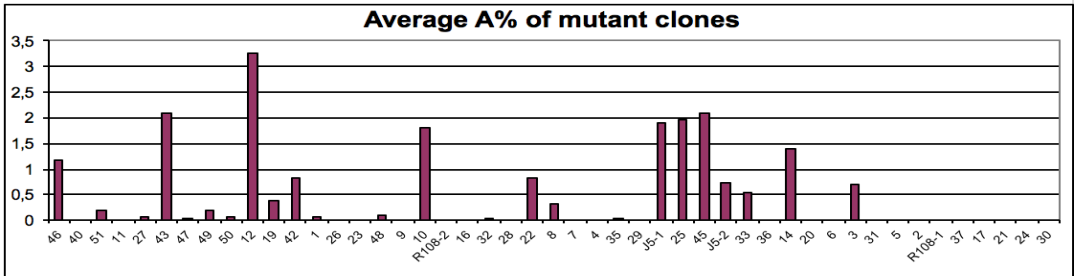
Mt line R108 (derived from A-17)

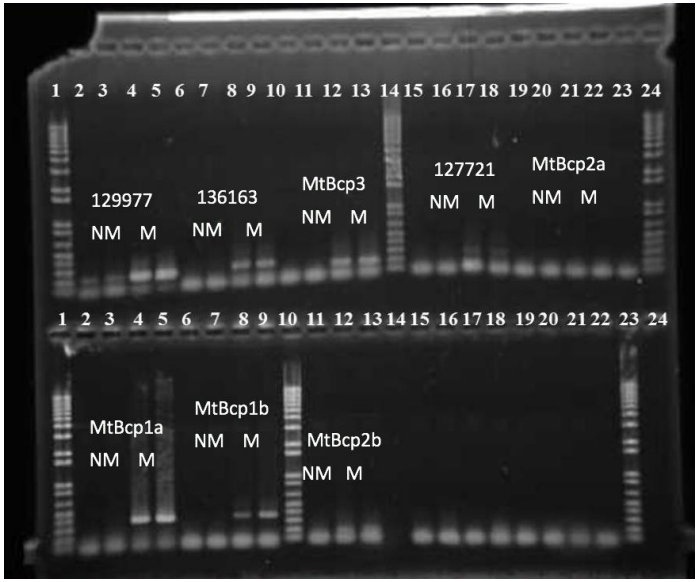
Embryo stage

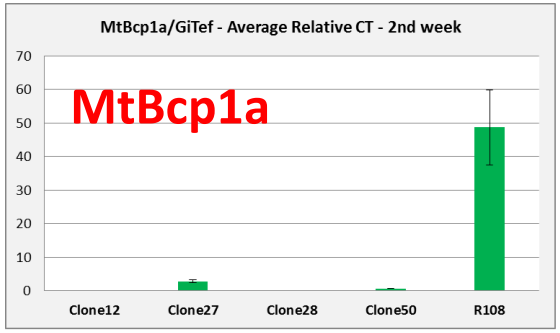


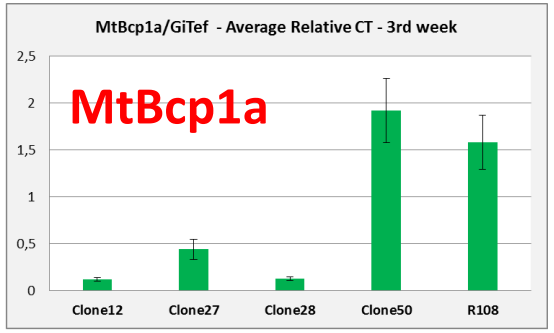
# Selection of transformed *Medicago truncatula* clones

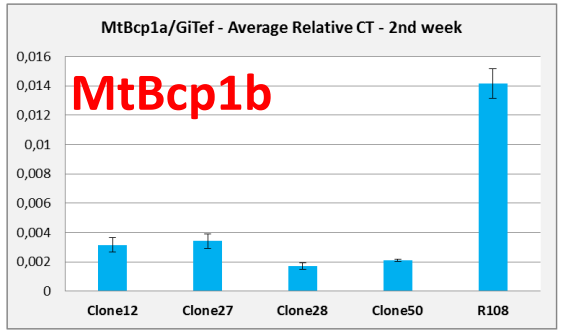


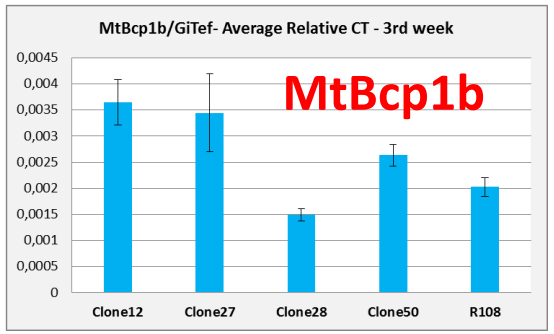



# Merci baeucoup!
# Köszönöm!
# Thank you!

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