

**Elena RAKOSY (TICAN) professor dr.**



**Cursuri predate:**

- Biotehnologii vegetale
- Inginerie genetică vegetală
- Evoluționism
- Biologia dezvoltării

**Tematici de interes în cercetare:**

- Aplicarea ingineriei genetice vegetale în ameliorarea stresului biotic și abiotic la plante, hibridare somatică și transformare genetică mediată de *Agrobacterium tumefaciens*
- Aplicarea biotehnologiei combinatorii pentru a obține cartof cultivat rezistent la stres multiplu
- Citogenetica, citogenetică moleculară (GISH, FISH)
- Electrostimularea plantelor – mecanisme la plantele model

**Publicații recente:**

1. Molnár I, Besenyei E, Thieme R, Thieme T, Aurori A, Baricz A, Banciu HL, **Rakosy-Tican E** (2016) Mismatch repair deficiency increases the transfer of antibiosis and antixenosis properties against Colorado potato beetle in somatic hybrids of *Solanum tuberosum* + *S. chacoense*. *Pest. Manag. Sci.* doi:10.1002/ps.4473;
2. Cruceriu D., Molnar I, Sconta Z, Aurori A, Socaciu C, **Rakosy-Tican E** (2016) *In Vitro* Culture as a Stressful Factor Triggers Changes in Polyphenols, Flavonoids and Antioxidant Activity in Somatic Hybrids between *Solanum tuberosum* and *S. bulbocastanum* and their Respective Parents. *Not Bot Horti Agrobo*, 2016, 44(2) DOI:10.15835/nbha44210463;

3. **Rakosy-Tican E**, Aurori A (2015) Green fluorescent protein (GFP) supports the selection based on callus vigorous growth in the somatic hybrids *Solanum tuberosum* L. + *S. chacoense* Bitt. *Acta Physiologiae Plantarum* 37:201;
4. **Rakosy-Tican E**, Thieme R, Nachtigall M, Molnar I, Denes T-E (2015) The recipient potato cultivar influences the genetic makeup of the somatic hybrids between five potato cultivars and one cloned accession of sexually incompatible species *Solanum bulbocastanum* Dun. *Plant Cell Tiss Organ Cult*, 2015, 122:395–407;
5. Thieme R **Rakosy-Tican E**, Nachtigall M, Schubert J, Hammann T Antonova O, Gavrilenko T, Heimbach U, Thieme T (2010) Characterization of multiple resistance traits of somatic hybrids between *Solanum cardiophyllum* Lindl and two commercial potato cultivars. *Plant Cell Rep* 29: 1187-1201;
6. **Rakosy-Tican E**, Aurori A, Dijkstra C, Maior MC (2010) Generating marker free transgenic potato cultivars with an hairpin construct of PVY coat protein. *Romanian Biotechnological Letters* 15 (1 Suppl.): 63-71;
7. Thieme R, **Elena Rakosy-Tican**, Gavrilenko T, Antonova O, Schubert J, Nachtigall M, Heimbach U, Thieme T (2008) Novel somatic hybrids (*Solanum tuberosum* L. + *Solanum tarnii*) and their fertile BC1 progenies express extreme resistance to potato virus Y and late blight. *Theor Appl Genet* (2008) 116:691–700;
8. **Rakosy-Tican L.**, Aurori C.M., Dijkstra C., Thieme R., Aurori A., Davey M.R. (2007) The usefulness of reporter gene *gfp* for monitoring *Agrobacterium*-mediated transformation of potato dihaploid and tetraploid genotypes. *Plant Cell Rep*, 26:661-671;
9. **Rakosy-Tican E**, Aurori A, Vesa S, Kovacs K-M (2007) *In vitro* morphogenesis of sunflower (*Helianthus annuus*) hypocotyl protoplasts: the effects of protoplast density, haemoglobin and spermidine. *Plant Cell Tiss Organ Cult* (2007) 90:55–62;
10. **Rakosy-Tican L.**, Aurori C.M., Morariu V.V. (2005) Influence of near null magnetic field on *in vitro* growth of potato and wild *Solanum* species. *Bioelectromagnetics*. 26 (7): 548-557.

### **Cărți, manuale, materiale didactice:**

- Carmen Liliana Bădărău, **Elena Rakosy-Tican**, Adriana Aurori, Sorin Claudian Chiru (2016) Tulpinile necrotice ale virusului Y al cartofului - prezentare sintetică, repere documentare. (*Potato Virus Y necrotic strains* – synthetic presentation and references). Editura ART SOLEIL Brașov;
- **Rakosy-Tican E** (2013) Genetic engineering in potato improvement. In: OMICS applications in Crop Science – D. Barth (ed). CRC Press Taylor&Francisc p. 139-161
- **Thieme R, Rakosy-Tican E** (2017) Somatic Cell Genetics and Its Application in Potato Breeding. In: Chakrabarti SK, Xie C, Tiwari JK (Eds)The Potato Genome. Springer International Publishing AG Cham, Switzerland pp. 217-269

### **Linkuri web de interes:**

- **Pagina web personala:**  
[https://www.researchgate.net/profile/Elena\\_Rakosy-Tican](https://www.researchgate.net/profile/Elena_Rakosy-Tican)
- **Pagina Grupului de Cercetare:** <http://www.i-genetic.com>
- **Pagina echipamentelor gestionate:** <https://erris.gov.ro/Plant-Genetic-Engineering-Gr>
- **Alte link-uri web interesante pentru studenti si vizitatori:**  
<http://www.i-genetic.com>