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## Doctoral School of Integrative Biology

1. **Alumni PhD student since 30.09.2020:** Dr. Enikő Lörincz-Besenyei  
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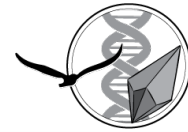
### Title of the PhD thesis:

**The influence of mismatch repair deficiency in somatic hybrids between *Solanum tuberosum* + *Solanum chacoense* and genome editing of *MSH2* gene in potato**

2. **PhD supervisor:** Prof. Dr. Elena Rakosy-Tican
3. **Subdomain of the PhD thesis:** Plant Genetic Engineering

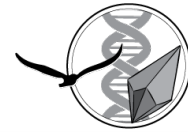
### 6. Scientific activity:

1. **Lörincz-Besenyei, E.**, Mehdi, R., Sprink, T., Sonnewald, U. and Krenz, B. (2020) Developing a viral based genome editing tool for editing, Plant Biology Europe EPSO/FESPB 2020 (postponed to 2021 due COVID-19) Congress, Turin, Italy (Awardee of the FESPB Support Grant).
2. Rakosy-Tican, E. \*, **Lörincz-Besenyei, E.\***, Molnár, I.\*, Thieme, R.\*, Hartung, F., Sprink, T., Antonova, O., Famelaer, I., Angenon, G., and Aurori, A.\* (2019). New phenotypes of potato co-induced by mismatch repair deficiency and somatic hybridization. Front Plant Sci 10, 3. doi: 10.3389/fpls.2019.00003. IF: 4.402. \*equal contribution
3. Cristea, V., **Besenyei, E.**, Jarda, L., Farkas, A., Marcu, D., Clapa, D., Halmagyi, A. and Butiuc-Keul, A. (2019). In Situ genetic variability and micropropagation of *Cerastium banaticum* (Rochel) Heuff. (Caryophyllaceae)– a Rare and Endemic Species from Romania, Acta Biologica Cracoviensia Series Botanica 61/1: 53– 62. IF=1.111
4. **Lörincz-Besenyei, E.**, Metje-Sprink, J., Sprink, T., Sonnewald, U. and Krenz, B., (2019) Inducing mutations in potato via genome editing in demand of climate change, COST



Action 1st PlantEd Conference, Plant Genome Editing - State of the Art 5th – 7th November 2019 Novi Sad, Serbia-Abstract book pg 61.

5. **Lörincz-Besenyei, E.**, Mehdi, R., Sprink, T., Sonnewald, U. and Krenz, B., (2019) Tomato bushy stunt virus (TBSV) based ribonucleoproteins (RNPs) delivery in potato, 51. Jahrestreffen des Arbeitskreises "Viruskrankheiten der Pflanzen", 25. bis 26. März 2019, Goettingen, pg.18
6. Molnár, I., **Besenyei, E.**, Thieme, R., Thieme, T., Aurori, A., Baricz, A., Banciu, H.L., and Rakosy-Tican, E. (2017). Mismatch repair deficiency increases the transfer of antibiosis and antixenosis properties against Colorado potato beetle in the somatic hybrids *Solanum tuberosum* (+) *S. chacoense*, Pest Management Science, Accepted Author Manuscript. doi:10.1002/ps.4473. IF:2.811
7. **Lörincz-Besenyei, E.**, Metje, J., Hartung, F. and Sprink, T., (2017) DNA-free genome editing in potato, 10th Young Scientist Meeting, Siebeldingen, Germany, November 08-10, 2017, Vol. 192 (08.11.2017), pg.60.
8. Rakosy-Tican, E., Molnar, I., Thieme, R., Aurori, A., **Besenyei, E.**, Denes, T., Thieme, T., Molnar-Lang, M. and Vass, I. (2017) A new potato for a new climate- using different biotechnological tools to improve multiple resistance traits, 20th EAPR Triennial Conference 09.07-14.07.2017, Versailles.
9. **Besenyei, E.**, Sprink, T., Hartung, F. and Rakosy-Tican, E., (2017) Neue Kartoffel Sorten für den Umwelt, DBU Fachkolloquium, Umweltschutz im 21 Jahrhundert, Julius-Kühn Institut, Quedlinburg 4-06.05. 2017.
10. Rakosy-Tican, E., Molnar, I., Thieme, R., Aurori, A., **Besenyei, E.**, Thieme, T. and Vass, I. (2017) New potato crop for a new climate – the application of complex biotechnological tools to improve resistance to biotic and abiotic stress, 2nd Agriculture and Climate Change Conference 26–28 March 2017, Sitges, Spain.
11. Rakosy-Tican, E., Thieme, R., Aurori, A., Erdelyi-Molnár, I., **Besenyei, E.**, Mustață, A.R., Măgineanu, A.M. and Cruceriu D (2016). The application of combinatorial biotechnology in improving potato resistance to biotic and abiotic stress, *Studia UBB Biologia*, 61(1): 79–88.
12. **Besenyei, E.**, Linc, G. and Rakosy-Tican, E. (2016) Effects of DNA mismatch repair (MMR) system deficiency on homeologous recombination in meiosis, in potato somatic hybrids, Plant Biology Europe EPSO/FESPB 2016 Congress, Prague 26-30 June.
13. Molnár, I., **Besenyei, E.**, and Rákosy-Tican, E. (2016) Antibiosis and antixenosis properties of somatic hybrids and backcross progenies (*S. chacoense*+ *S. tuberosum*) to



the Colorado potato beetle, ARCTV, Cluj-Napoca, Romania. Asociația Română de culturi de țesuturi și celule vegetale, Cluj-Napoca, Romania.

14. **Besenyei, E.**, Linc, G. and Rakosy-Tican, E. (2016) Homeológ rekombináció burgonya szomatikus hibridekben a DNS javító rendszer (MMR) gátlásakor, XXII. Növénynevelési Tudományos Nap, Magyar Tudományos Akadémia (Hungarian Academy of Sciences).
15. **Besenyei E.**, Rákosy-Tican E., Thieme R., Antonova O. and Thieme T., (2015) The analysis of microsatellite instability in MMR deficient somatic hybrids between potato and *Solanum chacoense*, Annual Conference of the German Genetics Society, Book of abstracts p.93, 28-30 September, Kiel.
16. Margineanu A., Molnar I., **Besenyei E.** and Rakosy-Tican E., (2015) Trichome density and Colorado potato beetle choice test, performed in somatic hybrids between two potato cultivars and *Solanum chacoense*, Young Researchers in Biosciences, Cluj-Napoca.
17. **Besenyei E.**, Rákosy-Tican E., Thieme R. and Thieme T. (2015) The analysis of Colorado potato beetle resistance in MMR deficient somatic hybrids between potato and high leptine producer *Solanum chacoense*, The Pannonian Plant Biotechnology Association (PPBA) Conference, Book of abstracts p. 41, 8-10 June, Ljubljana, Slovenia.

**Google scholar (link-ul):** [Eniko Lorincz Besenyei - Google Scholar](#)

**Cont pe Researchgate:** [Enikő Lörincz-Besenyei's research works | Babeş-Bolyai University, Cluj-Napoca \(UBB\) and other places \(researchgate.net\)](#)

**Data:** 08/01/2021

**Semnătură:** Enikő Lörincz-Besenyei