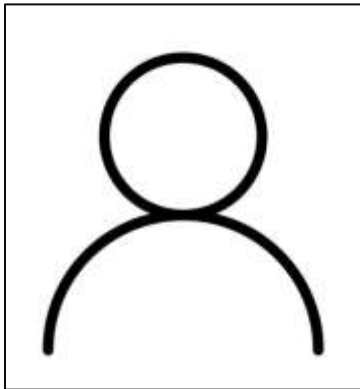


Marek Szklarczyk, dr hab., prof. URK



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Consultation hours: Fridays, 2 – 3:30 pm

Research interest:

- molecular genetics of plant mitochondria
- cytoplasmic male sterility (CMS) in plants
- DNA markers

Research experience: gene cloning, DNA amplification, gene expression analysis (RNA and protein level), next-generation sequencing

Visiting Scholar

University of Birmingham (UK), 1994 (8 months)

Humboldt-Universität zu Berlin (Germany), 1997/98 (10 months)

University of Wisconsin – Madison (USA), 2000 (2 months)

University of Wisconsin – Madison (USA), 2001 (3 months)

Humboldt-Universität zu Berlin (Germany), 2002 (2 months)

Integrated DNA Technologies Inc. (USA), 2003 (3 weeks)

Beckman-Coulter Ltd. (UK), 2004 (1 week)

DSc (habilitation)

2018, The search for mitochondrial polymorphisms differentiating cytoplasmic male-sterile and male-fertile beets

PhD

2000, Differences in structure and expression of mitochondrial DNA between fertile and male-sterile forms of carrot (*Daucus carota* L.)

Professional profiles:

Research Gate: https://www.researchgate.net/profile/Marek_Szklarczyk2

Google Scholar: <https://scholar.google.pl/citations?user=ZBJyYNQAAAAAJ&hl=pl>

List of publications:

Grzebelus E, Szklarczyk M, Barański R (2012) An improved protocol for plant regeneration from leaf and hypocotyl-derived protoplasts of carrot. *Plant Cell Tiss Organ Cult* 109: 101-109

Grzebelus E, Szklarczyk M, Greń J, Śniegowska K, Jopek M, Kacińska I, Mrozek K (2012) Phytosulfokine stimulates cell divisions in sugar beet (*Beta vulgaris* L.) mesophyll protoplast cultures. *Plant Growth Regul* 67: 93-100

Iorizzo M, Senalik D, Szklarczyk M, Grzebelus D, Spooner D, Simon PW (2012) De novo assembly of the carrot mitochondrial genome using next generation sequencing of whole genomic DNA provides first evidence of DNA transfer into an angiosperm plastid genome. *BMC Plant Biol* 12: 61

Iorizzo M, Grzebelus D, Senalik D, Szklarczyk M, Spooner D, Simon P (2012) Against the traffic: The first evidence for mitochondrial DNA transfer into the plastid genome. *Mob Genet Elem* 2: 261-266

Simlat M, Stobiecki M, Szklarczyk M (2013) Accumulation of selected phenolics and expression of PAL genes in carrots differing in their susceptibility to carrot fly (*Psila rosae* F.). *Euphytica* 190: 253-266

Szklarczyk M, Szymański M, Wójcik-Jagła M, Simon PW, Weihe A, Börner T (2014) Mitochondrial *atp9* genes from petaloid male-sterile and male-fertile carrots differ in their status of heteroplasmy, recombination involvement, post-transcriptional processing as well as accumulation of RNA and protein product. *Theor Appl Genet* 127:1689-1701

Bieniek W, Mizianty M, Szklarczyk M (2015) Sequence variation at the three chloroplast loci (*matK*, *rbcl*, *trnH-psbA*) in the Triticeae tribe (Poaceae): comments on the relationships and utility in DNA barcoding of selected species. *Pl Syst Evol* 301: 1275-1286

Wesołowski W, Szklarczyk M, Szalonek M, Słowińska J (2015) Analysis of the mitochondrial proteome in cytoplasmic male-sterile and male-fertile beets. *J Prot* 119: 61-74

Szklarczyk M (2016) The search for mitochondrial polymorphisms differentiating cytoplasmic male-sterile and male-fertile beets, Publishing House of the University of Agriculture in Krakow, theses – issue 408, ISSN 1899-3486

Kwolek D, Denysenko-Bennett M, Góralski G, Cygan M, Mizia P, Piwowarczyk R, Szklarczyk M, Joachimiak AJ (2017) The first evidence of a host-to-parasite mitochondrial gene transfer in Orobanchaceae. *Acta Biol Cracov Bot* 59: 13-22