Agnieszka Kiełkowska, dr hab., prof. URK

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Consultation hours: available for active students in USOS system

Research interest:

- plant tissue cultures (regeneration, callus cultures, haploidization (anther, microspore cultures, ovule culture), protoplast cultures and fusion, *in vitro* pollination and fertilization, embryo rescue, meristem cultures, *in vitro* flowering)
- plant cytology (microsporogenesis, microgametogenesis, pollen viability), resine preparations, microscopy)
- plant biotechnology (epigenetics, molecular techniques, genome editing)
- plant breeding

Research experience:

Visiting Scholar

USDA-ARS, Department of Horticulture, University of Wisconsin Madison, USA; Postdoctoral Research Associate, 2010-2011 (16 months)

Federal Centre for Breeding, Research on Cultivated Plants (BAZ), Quedlinburg, Germany 2004-2005 (6 months)

DSc, (Habilitation) 2019 Stimulation of mitotic activity and plant regeneration in cabbage (*Brassica oleracea* L.) protoplast cultures

PhD 2007 Utilization of induced parthenogenesis for obtainment of haploids in carrot (*Daucus carota* L.)

Professional profiles:

ORCID: http://orcid.org/0000-0003-1141-2011
Research Gate: https://www.researchgate.net/profile/Agnieszka_Kielkowska
Google Scholar: https://scholar.google.com/citations?user=40z8RZYAAAAJ&hl=pl

List of publications:

1. Stajič Ester, **Kiełkowska A.**, Murovec Jana, Bohanec Borut. 2019. Deep sequencing analysis of CRISPR/Cas9 induced mutations by two delivery methods in target model genes and the CENH3 region of red cabbage (*Brassica oleracea var. capitata* f. *rubra*). Plant Cell Tissue and Organ Culture 139(2): 227-235
2. **Kiełkowska A.**, Adamus A. 2019. Peptide growth factor phytosulfokine-α stimulates cell divisions and enhances regeneration from *B. oleracea var. capitata* L. protoplast culture. Journal of Plant Growth Regulation, vol. 38:931-944
3. **Kiełkowska A**., Grzebelus E., Lis-Krzyścin A., Maćkowska K. 2019. Application of the salt stress to the protoplast cultures of the carrot (*Daucus carota* L.) and evaluation of the response of regenerants to soil salinity. Plant Cell Tissue and Organ Culture 137(2):3
4. **Kiełkowska A**., Adamus A., Baranski R. 2018. Haploid and doubled haploid plant production in carrot using induced parthenogenesis and ovule excision in Vitro. [W:] Plant Cell Culture Protocols. Methods in Molecular Biology vol. 1815, Loyola-Vargas V., Ochoa-Alejo N. (eds.), Humana Press, New York, str. 301-315
5. **Kiełkowska A**, Adamus A. 2017. Early studies on the effect of peptide growth factor phytosulfokine-α on *Brassica oleracea* var. *capitata* L. protoplasts. Acta Soc. Bot. Pol. 86(3):3558
6. **Kiełkowska A**, Karaś I, Noga A. 2017. Alteration of growth and flowering of *Cucumis sativus* L. by application of sex steroids *in vitro*. J. Anim. Plant Sci. 27(5):1649-1655
7. **Kiełkowska A**. 2017. Cytogenetic effect of prolonged *in vitro* exposure of *Allium cepa* L. root meristem cells to salt stress. Cytol Genet 51(6):478-484
8. Del Valle-Echevarria AR, **Kiełkowska A**, Bartoszewski G, Havey MJ. 2015. The mosaic (MSC) mutants of cucumber: a method to produce knock-downs of mitochondrial transcripts. *G3:* 5(6):1211–1221
9. **Kiełkowska A**, Adamus A, Baranski R. 2014. An improved protocol for carrot haploid and doubled haploid plant production using induced parthenogenesis and ovule excision *in vitro.* In Vitro Cell Dev Biol – Plant 50(3): 376-383
10. Budahn H, Baranski R, Grzebelus D, **Kiełkowska A**, Straka P Metge K, Linke B, Nothnagel T. 2014. Mapping genes governing flower architecture and pollen development in a double mutant population of carrot. Frontiers Plant Sci. 5:504.