CURRICULUM VITAE PEJMAN AZADI

- Assistant Professor / Agricultural Biotechnology Research Institute of Iran (ABRII), Department of Genetic Engineering, Karaj, Iran (www.abrii.ac.ir)
- Deputy Director General for Technology- Agricultural Biotechnology Research Institute of Iran (ABRII), AREEO, Karaj, Iran
- President of Iranian society for ornamental plants (ISOP) (www.isop.ir)

Tel: +98 26 3 2703536

Fax: +98 26 32701067

e-mail: azadip22@gmail.com
azadip@abrii.ac.ir

EDUCATIONAL PROFILE:

PhD (Plant Biotechnology)	Chiba University, Graduate school of Horticulture, Lab of Plant Cell Technology, Japan, 2010
MSc (Plant Breeding)	Tarbiat Modarres University, Faculty of Agriculture, Department of Plant breeding, Tehran, Iran, 2000
BSc (Agriculture)	Mohaghegh Ardebili University, Faculty of Agriculture, Ardebil, Iran,1998

RESEARCH EXPERIENCE:

PhD project (2007-2010): Genetic engineering of Lilium using *Agrobacterium tumefaciens*-mediated transformation and *Cosmos bipinnatus* CCD4 RNAi vector construction.
Achievements:

i. Established a efficient transformation protocol for Lilium.
ii. Produced transgenic Lilium engineered by seven enzyme genes involved in carotenoid pathway.
iii. Obtained increase resistance to Cucumber Mosaic Virus (CMV) in Lilium.
iv. Cloning of Carotenoid Cleavage Dioxygenase (CCD4) gene from the petal of *Cosmos bipinnatus* and construction of *CCD4* RNAi vector.

Projects as a researcher in Ornamental Plants Research Center (Iran) (2001-2007): Establishment of regeneration protocol for several ornamental plants.
Achievements:

i. A tissue culture Protocol for propagation of *Lilium ledebourii*. Patent in Iran (Reg. No: 30198-2004)
ii. Protocol for commercial propagation of Rose by tissue culture. Patent in Iran (Reg. No: 33665-2005)

iii. Protocol for commercial propagation of Gerbera by tissue culture. Patent in Iran (Reg. No: 33666-2005)
iv. Published several papers in International and Local Journals.

M Sc project (1998-2000): Plant Regeneration from Cotyledons of Sunflower (*Helianthus annuus* L.) via Direct Organogenesis.
Achievements:
i. Developed a protocol for direct organogenesis in Sunflower.
ii. Analysis of shoot regeneration traits in sunflower using Line×Tester analysis.

TEACHING EXPERIENCE:

Lecturer at Payam Noor, Mehregan and Azad University-Iran (2004-2007)
Lecturer at Tehran University (2011-2013)
Teaching Plant Biotechnology, Genetics, Genetic engineering, Tissue Culture

PEER-REVIEWED PUBLICATIONS:

Azadi, P., Bagheri, H., Nalousi, A. M., Nazari, F., & Chandler, S. F. (2016). Current status and biotechnological advances in genetic engineering of ornamental plants. *Biotechnology Advances*. doi.org/10.1016/j.biotechadv.2016.06.006

Bakhshaie, M., S. Khosravi, **P Azadi**, H Bagheri, J. M. van Tuyl (2016). Biotechnological advances in Lilium. Plant Cell Reports. 35: 1799. doi:10.1007/s00299-016-2017-8

Ahmadi, B., Masoomi-Aladizgeh, F., Shariatpanahi, M. E., **Azadi, P**., & Keshavarz-Alizadeh, M. (2016). Molecular characterization and expression analysis of SERK1 and SERK2 in Brassica napus L.: implication for microspore embryogenesis and plant regeneration. Plant cell reports, 35(1), 185-193.

Ahmadi, B, M E. Shariatpanahi, R Asghari-Zakaria, N Zare, and **P Azadi** (2015) Efficient Microspore Embryogenesis Induction in Tomato (Lycopersicon esculentum Mill.) using Shed Microspore Culture. Journal Of Pure and Applied Microbiology, 9:21-29.

Zeini Pour, M, **Azadi, P**., Majd, A., Kermani, M. J., & Irian, S. (2015): "Effect of stress factors on somatic embryogenesis of rose." International Journal of Biosciences (IJB). 6: 255-265.

Ahmadloo, F., Kochaksaraei, M. T., **Azadi, P**., Hamidi, A., & Beiramizadeh, E. (2015) Effects of pectinase, BAP and dry storage on dormancy breaking and emergence rate of Crataegus pseudoheterophylla Pojark. New Forests, 1-14.

Nazari, F., Khosh-Khui, M., **Azadi, P**., Salehi, H., and Niazi, A. (2014). Growth regulators affected in vitro propagation of pot gerbera (Gerbera jamesonii cv. Royal Soft Pink). International Journal of Agriculture and Biosciences, 3(4), 185-189.

Mojtahedi N, Koobaz P, Mojtahedi N Fathi M, Dabirashrafi O, **Azadi P**, Khosravi S (2014) Maturating,

Enlarging and Breaking Dormancy of In Vitro Lilium Bulblets International Journal of Horticultural Science and Technology 1: 101-109.

Sharafi A, H Hashemi Sohi, AA Sharafi, **P Azadi** (2014) Tissue culture and regeneration of an antimalarial plant, Artemisia sieberi Besser - Research Journal of Pharmacognosy, 1: 15-20.

Sharafi A, Hashemi Sohi H, Mirzaee, H. **Azadi P** (2014) In vitro regeneration and Agrobacterium mediated genetic transformation of Artemisia aucheri Boiss. Physiology and Molecular Biology of Plants. DOI: 10.1007/s12298-014-0248-0

Kord H, Shakib A M, Daneshvar MH, Azadi P, Bayat V, Mashayekhi M, Zarea M, Ahmad-Raji M (2014) RNAi-mediated downregulation of SHATTERPROOF gene in transgenic oilseed rape 3Biotech. DOI: 10.1007/s13205-014-0226-9

Sharafi A, Hashemi Sohi H, **Azadi P**, Sharafi A A, Mousavi A (2014) Tissue culture and regeneration of an antimalarial plant, Artemisia sieberi. Research Journal of Pharmacognosy. Accepted.

Ahmadloo F, Tabari M, **Azadi P**, Hamidi A, (2014): Effect of plant growth promoting rhizobacteria (PGPRs) and stratification on germination traits of Crataegus pseudoheterophylla Pojark. seeds, Scientia Horticulturae, 172: 61–67.

Ntui V O, Kong K, **Azadi P**, Khan R S, Chin D P, Igawa T, Mii M, Nakamura I (2014) RNAi-Mediated Resistance to Cucumber Mosaic Virus (CMV) in Genetically Engineered Tomato. American Journal of Plant Sciences, 5: 554-572

Azadi P, VO Ntui, DP Chin, Mii M (2013) Genetic Transformation and Metabolic Engineering of Lilium. In: Bulbous Plants: Biotechnology, 197. Edited by Ramawat and Merillon. CRC Press. 450 pages.

Sharafi A, Hashemi Sohi H, **Azadi P** Sharafi A A (2014) Hairy root induction and plant regeneration of medicinal plant Dracocephalum kotschyi. Physiology and Molecular Biology of Plants. DOI: 10.1007/s12298-013-0217-z

Mirmasoumi M, **Azadi P**, Sharafi A, Ntui V O, Mii M (2013) Simple protocol for plant regeneration of Lilium ledebourii using transverse thin cell layer. Progress in Biological Sciences. 3: 117-122

Ntui V, Kynet K, **Azadi P**, Sher Khan R, Chin D P, Nakamura I, Mii M (2013) Transgenic accumulation of a defective cucumber mosaic virus (CMV) replicase derived double stranded RNA modulates plant defence against CMV strains O and Y in potato. Transgenic Research DOI 10.1007/s11248-013-9721-8

Azadi P, Beyrami zadeh E and Ntui V O. (2013) A simple protocol for somatic embryogenesis in Rosa hybrida L. cv. Apollo. Journal of Horticultural Science & Biotechnology. 88: 399-402

Sharafi A, Hashemi Sohi H, Mousavi A, **Azadi P**, Razavi K (2013) Enhanced morphinan alkaloid production in hairy root cultures of Papaver bracteatum by over-expression of salutaridinol 7- o - acetyltransferase gene via Agrobacterium rhizogenes mediated transformation World Journal of Microbiology and Biotechnology DOI: 10.1007/s11274-013-1377-2

Sharafi A, Hashemi Sohi H, Mousavi A, **Azadi P**, Razavi K, Otang Ntui V (2013) A reliable and efficient protocol for inducing hairy roots in Papaver bracteatum. Plant Cell Tissue Organ Cult, 113: 1-9.

Sharafi A, Hashemi Sohi H, Mousavi A, **Azadi P**, Hosseini Khalifani B, Razavi K (2013) Metabolic engineering of morphinan alkaloids by over expression of codeinone reductase in transgenic hairy root of Papaver bracteatum. Biotechnology Letters, 35: 445-453

Azadi P, Ntui VO, Supaporn H, Khan RS, Chin DP, Nakamura I, Mii M (2011) Increased resistance to Cucumber Mosaic Virus (CMV) in *Lilium* transformed with a defective CMV replicase gene. Biotechnology Letters 33: 1249-1255

Khan RS, Alam SS, Munir I, **Azadi P**, Nakamura I, Mii M (2011) *Botrytis cineria*-resistant marker-free *Petunia hybrida* produced using MAT vector system. Plant Cell Tissue Organ Cult 106: 11-20.

Azadi P, Ntui VO, Chin DP, Nakamura I, Fujisawa M, Harada H, Misawa N, Mii M (2010) Metabolic engineering of *Lilium* × *formolongi* using multiple genes of the carotenoid biosynthesis pathway. Plant Biotechnology Reports 4: 269-280

Azadi P, Chin DP, Kuroda K, Khan RS, Mii M (2010) Macro elements in inoculation and co-cultivation medium strongly affect the efficiency of *Agrobacterium*-mediated transformation in *Lilium*. Plant Cell Tissue Organ Cult. 101: 201–209

Ntui VO, **Azadi P**, Supaporn H, Mii M (2010) Plant regeneration from stem segment-derived friable callus of "Fonio" (*Digitaria exilis* (L.) Stapf). Scientia Horticulturae. 125: 494-499. doi:10.1016/j.scienta.2010.04.017

Ntui VO, Thirukkumaran G, **Azadi P**, Khan RS, Nakamura I, Mii M (2010) Stable integration and expression of wasabi defensin gene in "Egusi" melon (*Colocynthis citrullus* L.) confers resistance to Fusarium wilt and Alternaria leaf spot. Plant Cell Reports. 29: 943–954

Ntui VO, **Azadi P**, Thirukkumaran G, Khan RS,. Chin DP, Nakamura I, Mii M (2010) Increased resistance to Fusarium wilt in transgenic tobacco lines co-expressing chitinase and wasabi defensin genes. Plant Pathology. 60: 221–231; doi: 10.11141/j.1365-3059.2010.02352.x

Azadi P, Mojtahedi N (2010) Effect of growth regulators, sucrose concentration and scale segment on micropropagation of *Lilium ledebourii* in winter harvested bulbs. Pazhohesh and Sazandeghi in Agronomy and Horticulture.

Mojtahedi N, **Azadi P** (2009) *In vitro* bulblet production comparison in two commercial lilium cultivars *Lilium longiflorum* cv. Gironde and cv. Cassandra. Journal of Agricultural Research: Seed and Plant. 24: 721-738

Khaleghi A, Khalighi A, **Azadi P** (2009) Micropropagation of *Alstroemeria* cv. Fuego. Iranian Journal of Horticultural Science 39: 39-47.

Beyramizadeh A, **Azadi P** (2008) Effect of growth regulators on shoot formation of *Anthurium andreanum*

Lind. Pajouhesh & Sazandegi Journal. 76: 179-184

Khaleghi A, Khalighi A, **Azadi P**, Mii M (2008) Induction of embryogenic callus and plant regeneration from nodes of greenhouse grown plants of *Alstroemeria* cv. Fuego. Journal of Food, Agriculture & Environment 6: 374-377

Beyramizade E, **Azadi P**, Mii M (2008) Optimization of factors affecting organogenesis and somatic embryogenesis of *Anthurium andreanum* cv. 'tera'. Propagation of Ornamental Plants 8: 198-203

Azadi P, Khush-Khui M (2007) Micropropagation of *Lilium ledebourii* (Baker) Boiss as affected by plant growth regulator, sucrose concentration, harvesting season and cold treatments. Electronic Journal of Biotechnology. 10: 582–591. doi:10.2225/vol10-issue4-fulltext-7

Azadi P, Khush-Khui M, Beiramizadeh E, Bagheri H (2007). Optimization of Factors Affecting in vitro Proliferation and Rooting Rosa hybrida L.cv. Rafaela. International Journal of Agriculture Research 2: 626-631 doi: 10.3923/ijar.2007.626.631

Azadi P, Moieni A, Ahmadi MR, (2002) Shoot organogenesis from cotyledons of sunflower, Helia 25: 19-26.

SELECTED INTERNATIONAL CONFERENCES:

Azadi P and Mii M (2012) Genetic Engineering of Lilium. XI. International Symposium on Flower Bulbs and Herbaceous Perennials. Antalya, Turkey.

Azadi P, Chin DP, Kuroda K, Khan, RS, Mii M (2009) A protocol for high rate *Agrobacterium*-mediated transformation of Lilium. 23rd Eucarpia symposium. Leiden, Netherlands.

Azadi P (2005) A protocol for micropropagation of the *Lilium ledebourii* (Baker) Boiss an endangered rare species endemic to Iran. XVII International Botanical Congress. Vienna .Austria.

Azadi P and Bagheri H. (2004) Factors affecting on in vitro proliferation and rooting of Rose. 5th International Plant Tissue Culture and Biotechnology Conference. Bangladesh.

OTHER PUBLICATIONS:

Azadi P. Bagheri H (2002) Translation (into Persian) of a book entitled ' In Vitro Plant Breeding'. Acram Taji, Prakash Kumar and Prakash Lakshmanan, Bu Ali Sina University press.

Azadi P (2004) Biotechnology of Rose (in Persian). National Research Center of Ornamnetal Plants.Mahallat- Iran.

Bagheri H. **Azadi P** (2006) Statistical Consideration for in vitro research. (in Persian). Bu Ali Sina University press.

ACHIEVEMENT / AWARD/ FELLOWSHIP:

- PhD scholarship from Ministry of Education, Culture, Sport, Science and Technology of the Japanese Government (MONBUKAGAKUSHO).
- Outstanding researcher award from Head of Agriculture Research Center of Markazi province

(Iran) in 2004 and 2005.

- Award from Deputy Minister and Head of Agricultural research and Education Organization (AREO) of Iran in 2003 for establishment of Department of Biotechnology in Ornamental Plants Research Center and successful projects on tissue culture of ornamental plants.

PERSONAL INFORMATION:

Date of Birth: 1976
Sex: Male
Nationality: Iranian