In the Name of God

Dr. Ahmad Moieni

Faculty of Agriculture
Department of Plant Breeding & Biotechnology

E-mail: moieni_a@modares.ac.ir
moieni _ahmad@yahoo.com

Last updated: April 23, 2014

I. Personal Information:

Name: Ahmad

Family Name: Moieni

Date of Birth: 1960

Place of Birth: Ghazvin, Iran

Nationality: Iranian

Marital Status: Married, 2 children

Address: Dept. of Plant Breeding and Biotechnology, Faculty of Agriculture, P. O. Box: 14115-336 Tehran, Iran

Tel: +98 21 48290 (Ext.: 2242; Lab.: 2101 room)

E-mail: moieni _a@modares.ac.ir or moieni_ahmad@yahoo.com

II. Educational Records:

Degree	Institution	Place	Field	Date
B.Sc.	Univ. of Tehran	Iran	Agronomy & Plant Breeding	1985
M.Sc.	INP-ENSAT	France	Plant Breeding	1992, 1993
Ph.D.	INP-ENSAT	France	Plant Biology	1997

III. Academic Experiences:

1) Head of Department of Plant Breeding and Biotechnology, Faculty of Agriculture, Tarbiat Modares Univ., Tehran, Iran (1998-2000 & 2002-2004)
2) Associate professor, Department of Plant Breeding and Biotechnology, Faculty of Agriculture, Tarbiat Modares Univ., Tehran, Iran (Oct 2005 – continued)
3) Assistant professor, Department of Plant Breeding and Biotechnology, Faculty of Agriculture, Tarbiat Modares Univ., Tehran, Iran (Mar 1997 – Sep 2005)
4) Member of Doctoral Thesis Examination Committee at the Faculty of Agriculture, Tarbiat Modares Univ.
5) Member of Doctoral Comprehensive Examination Committee at the Faculty of Agriculture, Tarbiat Modares Univ.

6) Member of M.Sc. Thesis Examination Committee at the Faculty of Agriculture, Tarbiat Modares Univ.
7) Member of Research Committee at the Faculty of Agriculture, Tarbiat Modares Univ.
8) Establishment of Plant cell, Tissue and Organ Culture Laboratory in the Faculty of Agriculture, Tarbiat Modares Univ.
9) Establishment of 5 *in vitro* and *in vivo* controlled plant growth rooms in the Faculty of Agriculture, Tarbiat Modares Univ.
10) Representative of Post-Graduate Study at the Faculty of Agriculture, Tarbiat Modares Univ.

IV. Membership of Editorial Board of Journals:

- Iranian Journal of Genetics and Plant Breeding
- Journal of Crop Biotechnology (In Farsi)
- **J**ournal of **A**pplied **C**rop **B**reeding (In Farsi)

V. Membership of Scientific Societies:

1) Iranian Society of Crop Production and Breeding (I.S.C.P.B.)
2) Iranian National Society of Biotechnology

VI. Research Interests:

1) Plant haploid production by anther culture and isolated microspore culture
2) Secondary metabolite production in hairy roots and cell suspension
3) Micropropagation
4) Gene transfer in plant haploid material

XII. Courses Taught:

1) Plant cell, tissue and organ culture, Course, M.Sc., Tarbiat Modares Univ., Iran
2) Advanced plant breeding (Part 1), Course, M.Sc., Tarbiat Modares Univ., Iran
3) New subjects in plant breeding, M.Sc., Tarbiat Modares Univ., Iran

VII. Publications and Journal Papers:

Books:

Abdollahi, Mohammad Reza & Moieni, Ahmad (2011) Rapeseed Androgenic haploids: Production and genetics Transformation. LAP, LAMBERT, Academic Publishing, Germany.

Papers:

1) Abdollahi M., **Moieni A.** &. Jalali M **(2004)** Interactive effects of heat shock and culture density on the embryo induction in isolated microspore culture of *Brassica napus* L. cv. Global. **Iranian Journal of Biotechnology** 2(2):97-100.

2) Abdollahi M.R., **Moieni A.** Mousavi A., Salmanian **A.H.**., Jalali Javaran M. & Majdi M. **(2007)** Effect of integrated bombardment and *Agrobacterium* transformation system on transient GUS expression in hypocotyls of rapeseed (Brassica napus L. cv. PF.704) microspoe-derived embryos. **Pakistan Journal of Biological sciences** 10(18):3141-3145.

3) Abdollahi M.R., **Moieni A.** Mousavi A. & Salmanian **A.H (2010)** High frequency production of rape seed transgenic plants via combination of microprojectile bombardment and secondary embryogenesis of microspore-derived embryos. Mol.Biol. Rep.

4) Abdollahi M.R., Moieni A. Mousavi A., Salmanian A.H. (2009) Secondary embryogenesis and transient expression of the β-glucuronidase gene in hypocotyls of rapeseed microspore-derived embryos . Biologia Plantarum 53 (3): 573-577.

5) Abdollahi M.R., Corral-Martı´nez **P.,** Mousavi A., Salmanian **A**.H.., Moieni **A.**. Seguı´-Simarro J. M **(2009)** An efficient method for transformation of pre-androgenic, isolated Brassica napus microspores involving microprojectile bombardment and Agrobacterium-mediated transformation .Acta Physiol. Plant 31: 1313-1317.

6) Abdollahi M.R., Ghazanfari P., Corral-Martı´nez **P.,** , Moieni **A.**. Seguı´-Simarro J. M **(2012)** Enhancing secondary embryogenesis in Brassica napus by selecting hypocotyls-derived embryos and using plant-derived smoke extract in culture medium. Plant Cell Tiss Organ Cult.

7) Abdoli M., **Moieni A.** & Dehghani H. **(2003)** Effects of genotype and cotyledon section on organogenesis in sunflower. **Iranian Journal of Biotechnology** 1(4):234-238.

8) Abdoli M., **Moieni A**. & Dehghani H. **(2007)** Effects of cultivar and agar concentration on *in vitro* shoot organogenesis and hyperhydricity in sunflower *(Hellianthus annuus* L.). **Pak. J. Bot.**, 39(1);31-35.

9) Abdoli M., Moieni A. & Naghdi Badi H. (2013) Influence of KNO_3, $CaCl_2$ and $MgSO_4$ concentrations on growth and cichoric acid accumulation in hairy root culture of purple coneflower (*Echinacea purpurea* L.). Journal of Medicinal Plants, 12 (45): 75-84.

10) Abdoli M., Moieni A. & Naghdi Badi H. **(2013)** Morphological, Physiological, Cytological and Phytochemical Studies in Diploid and Colchicine-induced Tetraploid Plants of *Echinacea purpurea* (L.). Acta Physiol Plant 35:2075-2083.

11) Asgari M., Jalali Javaran M, Moieni A., Masoumiasl A. (2013) The human tissue-plasminogen activator gene was transformed to cucumber cells. Minerva Biotechnologica, 25 (2):75-80.

12) Azadi P., **Moieni A.** & Ahmadi M.R**. (2002)** Shoot organogenesis from cotyledons of sunflower. HELIA 25(37):19-26.

13) Bagheri KH., Jalali Javaran M., Mahboudi F., Moieni A. , Zebarjedi R. (2010) Expression of human interferon gamma in brassica napus seeds. Aferican Journal of Biotechnology. 9 (32):5066-5072.

14) Bayati Sh., Shams-Bakhsh M. & Moieni A. (2011) Elimination of grapevine a (GVA) by cryotherapy and electrotherapy. J. Agr. Tech.,13:450-443.

15) Dolatabadi H.K., Goltapeh E.M., Moieni A.& Varma A. (2012) Evaluation of different densities of auxin and endophytic fungi (Piriformospora indica and Sebacina vermifera) on Mentha piperita and Thymus vulgaris growth. Aferican Journal of Biotechnology,11(7) pp:1644-1650.

16) Dolatabadi H.K., Goltapeh E.M., Moieni A., Jaimand K., Sardrood B.P. & Varma A. (2012) Effect of Piriformospora indica and Sebacina vermifera on plant growth and essential oil yield in Thymus vulgaris in vitro and in vivo experiments, Symbiosis 53(1) pp:29-35.

17) Ekhveh MJ, Moieni A. and Jalali Javaran M. (2013) The evaluation of response to isolated microspore culture in some Iranian hexaploid wheat (Triticum aestivum L.) cultivars. Journal of Agricultural Science, 5(7):206-216.

18) Gharanjik Sh., Moieni Ahmad, Mousavi Amir and Alizadeh H.(2008) Optimization of transient expression of uidA gene in androgenic embryos of wheat (*Triticum aestivum* L. cv. Falat) via particle bombardment. **Iranian Journal of Biotechnology** 6(4):207-213.

19) Ghazanfari P., Abdollahi M.R.; Moieni A.& Moosavi S.S. (2012) Effect of plant-derived smoke extract on in vitro plantlet regeneration from rapeseed (Brassica napus L. cv. Topas) microspore-derived embryos. International Journal of Plant Production. 6(3): 309-324.

20) Haddadi P., **Moieni** A.,. Karimzadeh Gh and. Abdollahi M.R (2008) Effects of Gibberellin, Abscisic Acid and Embryo Desiccation on Normal Plantlet Regeneration, Secondary Embryogenesis and Callogenesis in Microspore Culture of Brassica napus L. cv.PF704" **, International Journal of Plant Production** 2(2): 153-162.

21) Javadian, N., **Karimzadeh, G.**, Sharifi, M. and Moieni, A. (2014). *In vitro* regereration in *Linum album* Kotschy Ex Boiss. Journal of Plant Researches (Accepted)

22) Kahrizi D., Salmanian AH., Afshari A., **Moieni A**. & Mousavi A.(2007) Simultaneous substitution of Gly96 to Ala and Ala183 to Thr in 5-enolpyruvylshikmate-3-phosphate synthethase gene of *E.coli*(k12) and transformation of rapeseed (*Brassica napus* L.) in order to make tolerance to glyphosate**. Plant Cell Reports** 26: 95-104.

23) Kashani K., Javaran M.J., Mohebodini M, Moieni A.,& Abadi M.S.D. (2012) Regeneration and agrobacterium-mediated transformation of three potato cultivars (Solanum tuberosum cv. Desiree, Agria and Marfona) by human proinsolin gene.Australian Journal of Crop Science. pp.1212-1220.

24) Lokos-toth K. ; **A. Moieni** & A. Sarrafi (**1999**) Nehany androgenetikus parameter genetikai vizsgalata buza (*Triticum aestivum L)* vonal**ak** diallel keresztezesi kiserleteben. **Novenytermeles**, Tom 48, No.1, pp : 1-12.

25) Mahmoudi Noodezh H., **Moieni A.** & Baghizadeh A. (2012) *In vitro* propagation of the Damask rose (*Rosa damascena* Mill.). In vitro propagation of the damask rose (Rosa damascena Mill.). In vitro Cellular & Developmental Biology-Plant.

26) Mirzaee M., Moieni A. & Ghanati A. (2013) Effects of drought stress on the lipid peroxidation and antioxidant enzyme activities in two canola (*Brassica napus* L.) cultivars. Journal of Agricultural Science and Technology, 15 (3): 593-602 .

27) **Moieni A.** & Sarrafi A. **(1998)** Haploid regeneration by anther culture and its relationship to agronomic traits in the parents and progeny pure lines of a composite cross of hexaploid wheat. **Cereal Research Communications**, vol. 26 No. 2, pp: 127-135.

28) **Moieni A.** & Sarrafi A**. (1997)** Potential use of doubled haploid lines for the screening of resistance to yellow rust (*Puccinia striiformis*) in hexaploid wheat. **Plant Breeding** 116: 595-597.

29) **Moieni A.** & Sarrafi A**. (1997)** Genetic improvement of androgenetic haploid formation in hexaploid wheat. **Cereal Research Communications**, vol. 25 No1, pp: 15-20.

30) **Moieni A. K. lokos-toth & Sarrafi A. (1997**) Evidence for genetic control and media effect on haploid regeneration in the anther culture of hexaploid wheat (*Triticum aestivum L),* **Plant Breeding** 116: 502-504

31) **Moieni A.** & Sarrafi A**. (1996)** The effects of gibberelic acid, phenylethylamine 2,4-D and genotype on androgenesis in hexaploid wheat (*Triticum aestivum* L*)*,**Cereal Research Communications**, vol. 24 No 2, pp: 139-145.

32) **Moieni A.** & Sarrafi A**. (1996)** Effects of donor plant genotype and media composition on androgenesis of Iranian spring wheat genotypes and F1 hybrids. **Journal of genetics and Breeding**, vol. 50. pp: 383-386.

33) **Moieni A.** & Sarrafi A**. (1995)** Genetic analysis for haploid regeneration responses of hexaploid-wheat anther culture. **Plant Breeding** 114: 247-249.

34) Molsaghi M., Moieni & Kahrizi D.(2014) Efficient protocol for rapid Aloe vera micropropagation. Pharmaceutical biology,

35) Mortazavi, M.H. Arzani, K.& **Moieni, A.** (2010) Optimizing Storage and In vitro Germination of Date Palm (phoenix dactylifera) Pollen. JAST, 12:181-189.

36) Nazary Moghaddam Aghaye R., Yadollahi A., **Moieni, A.** & Sepahvand S. (2013) In vitro culture of Gisela 6 Semi-dwarf rootstock. J.Biol. Environ.Sci. 7(20):57-64.

37) Pourmohammadi P., **Moieni** A. & Jalali –Javaran M. (2007) Colchicine induced embryogenesis and doubled haploid production in maize (*Zea mays* L.) anther culture. **Iranian Journal of Biotechnology** 5(3)140-146.

38) Pourmohammadi P., **Moieni** A., Ebrahimi A. & Javidfar F (2011) Doubled haploid plants following colchicines treatment of microspore-derived embryos of oilseed rape (Brassica napus L.). Plant Cell Tiss Organ Cult.,108(2):251-256.

39) Pourmohammadi P., **Moieni** A., Hiraga S. & Komatsu S.(2012) Organ-specific proteomic analysis of drought-stressed soybeen seedlings. Journal of Protomics, 75:1906-1923.

40) Pourmohammadi P., **Moieni** A., Komatsu S. (2012) Comparative proteome analysis of drought-sensitive and drought-tolerant rapeseed roots and their hybrid F1 line under drought stress. Amino acids,43(5):2137-2152.

41) Raouf Fard F., Moieni A. & Omidbaigi R (2008) Effects of different concentrations of α –naphthaleneacetic acid and 6-benzylaminopurine on shoot regeneration of *Vinca minor* L. J.Agric. Sci. Technol.10: 337-344

42) Sarrafi A., A. Mentewab, **A. Moieni &** G.Alibert **(1999)** Transformation genetique chez le ble. **Notes de l'ASEDIS-SO**, No. 21, pp: 36-47.

43) Shahvali R., Moieni A. & Baghizadeh A. (2013) Positive effects of cold pretreatment, iron source, and silver nitrate on anther culture of strawberry (*Fragaria × ananassa* Duch.). Plant Biotechnol Rep, ( ): .

44) Shirdelmoghanloo H., Moieni A. & Mousavi A. (2009) Effect of embryo induction media and pretreatments in isolated microspore culture of hexaploid wheat (*Triticum aestivum* L. cv. Falat). African Journal of Biotechnology 8 (22): 6134-6140.

45) Zebarjadi A., Jalali Javaran M.,Karimzadeh GH., **Moieni A**., Mousavi A.& Salmanian AH**. (2006)** Transformation of rapeseed (*Brassica napus* L.) plants with sense and antisense constructs of the fatty acid elongase gene. **Iranian Journal of Biotechnology** 4(2)79-86.

46) Yadollahi A, Abdollahi MR, Moieni A & Danaee M (2011) Effects of carbon source, polyethylene glycol and abscisic acid on secondary embryo induction and maturation in rapeseed (Brassica napus L.) microspore-derived embryos. Acta Physiol Plant (33):1905-1912.

IX. Papers Presented in Conferences:

1) Abdollahi M.R., **Moieni A.** Mousavi A., Salmanian **A.H.**. **(2008)** Effect of integrated microprojectile bombardment and secondary embryogenesis for generating doubled haploid transgenic plants in rapeseed (Brassica napus L). Paris, France

2) Bagheri Kh., Jalali Javaran M., Mahboudi F., **Moieni A**. & Zebarjadi A. (2007) Transformation of *Brassica napus* with construct of fusion gene (oleosin-gamma interferon). The 6th Asian Crop Science Association Conference & The 2th international Conference on Rice for the Future. 5-9 November, Bangkok, Thailand.

3) Ebadi A, **Moieni A** & Bozorgipour R (2001) The response of anther culture in several genotypes of Iranian spring wheat (Triticum *aestivum),* The second international Iran & Russia conference " Agriculture and Natural Resources", Moscow, Russia**.**

4) **Hadi N., Moieni A & Omidbaigi R.(2011)** Responses of zygotic embryos of galbanum in in vitro conditions. 59th International Congress and Annual Meeting of the Society for Medicinal Plant and Natural Product Research. Turkey.

5) Mansouri N**., Moieni A**. & Khosroshahli M. (2007) Improvement in normal plant regeneration from microspore-derived embryos in *Brassica napus* L. The 6th Asian Crop Science Association Conference & The 2th international Conference on Rice for the Future. 5-9 November, Bangkok, Thailand.

6) **MOIENI A.** & SARRAFI A. (1994) Role du genom "D" dans la regeneration haploide du croisement " ble × mais ". Quel avenir pour l'amelioration des plantes ? Ed.AUPELF-UREF.John Libbey Eurotext. , Paris, pp : 331-336

7) **Moieni A**, Azadi P. & Ahmadi MR (2001) Plant regeneration from cotyledons of sunflower, The second international Iran & Russia conference " Agriculture and Natural Resources", Moscow, Russia

8) Mortazavi, M.H. Arzani, K.& **Moieni, A.** (2006) The effects of some chemicals on in vitro pollen germination of three male date cultivars, 27th international horticultural congress 7 exhibition, Seoul, Korea.

9) Mortazavi, M.H. Arzani, K.& **Moieni, A.** (2006) The effects of stprage conditions on pollen viabilty of three male date (Phoenix dactylifera L.) cultivars, 27th international horticultural congress 7 exhibition, Seoul, Korea.

10) Rouzban MR, Arzani K & **Moieni A** (2001) Plant regeneration via lateral buds of Asian pear under in vitro conditions. The second international Iran & Russia conference " Agriculture and Natural Resources", Moscow, Russia.

11) Saharkhiz M.J, Omidbaigi, R and Moeini A. (2007).Determination of genomic DNA of feverfew (Tanacetum parthenium L.) in diploid and tetraploid situations. Proceedings of 5 the 5 th Iranian Horticultural Sciences Congress.3-6 Sep. Shiraz University, Shiraz, Iran

12) Sepahpour Sh., Moieni A., Baghizadeh A. & Shamsbakhsh M. (2008) The effects of electric current value and time treatments on *in vitro* plant growth and regeneration of carnation (*Dianthus caryophullus*). Sixth International Symposium on *in vitro* Culture and Horticultural Breeding, 24-28 Auguest, Brisbane, Queensland, Australia.

13) Sepahpour Sh., Moieni A., Baghizadeh A. & Shamsbakhsh M. (2009) Effects of electric current value and time treatments on *elimination* of carnation motle virus and *in vitro* plantlet regeneration of carnation (*Dianthus caryophullus*). Acta Hort.,829**:** 395-398.

14) Pourmohammadi P., **Moieni** A.. & Komatsu S.(2011) Proteomic analysis of leaf, hypocotyls and root in soybeen seedlings under drought-stresse. 3rd international symposium on frontiers in agriculture Proteome research, 8-12 Nov, Takezono, Japan .

X. Research Students Supervised:

M.Sc. Students:

1) Ebadi, A.A., Genetic analysis for haploid regeneration responses of hexaploid wheat (*Triticum aestivum* L*)* anther culture, 1999.
2) Kahrizi, D.: Effect of donor plant genotype and media composition on androgenesis (anther culture) of hexaploid wheat (*Triticum aestivum* L.), 1999.
3) Bagheri H., Study of response to isolated microspore culture in some rapeseed (*Brassica napus* L.) genotypes, 2000.
4) Abedini E., Study of androgenesis in barley, 2001.
5) Azadi P., Plant regeneration from cotyledons of sunflower (*Helianthus annuus* L.) via direct organogenesis, 2001.
6) Abdollahi M., Effect of some factors on embryo induction and plant regeneration in isolated microspore culture of rapeseed (*Brassica napus* L.), 2002.
7) Mohammadi M., Study on resistance to yellow rust (*Puccinia striiformis*) in hexaploid wheat (*Triticum aestivum* L.) doubled haploid lines and in their donor plants, 2002.
8) Khonji, Y. : Study on Androgenesis in some Rapeseed (*Brassica napus* L.) and Hexaploid wheat (*Triticum aestivum* L.) cultivars, 2002.
9) Abdoli M., Study on some factors affecting plant regeneration of mature sunflower (*Helianthus annuus* L.) cotyledons, 2003.
10) Ekhvah, MJ: Response to microspore culture in some spring wheat cultivars, 2008.
11) Jahanipour P., Optimization of plantlet regeneration in isolated microspore culture of rapeseed (*Brassica napus* L.), 2004.
12) Sharifi P., Optimization of embryogenesis and plant regeneration in isolated microspore culture of rapeseed (*Brassica napus* L.), 2004.

13) Haddadi P., Effects of Gibberellin, Abscisic Acid and Embryo Desiccation and type of container on plant regeneration in isolated microspore culture of rapeseed (*Brassica napus* L.), 2005.

14) Shirdelmoghanloo H., Effects of genotype, growth conditions of donor plants, pretreatment and embryo induction media in isolated microspore culture of wheat (*Triticum aestivum* L.), 2007.

15) Rahpeima S., Study of anther culture in rose (*Rosa hybrida* and *Rosa miniatures*), 2007.

16) Sepahpoor, Sh., Comparison of methods to eliminate Carnation Mottle Virys (CarMV) from Dianthus caryophyllus, 2008.

17) Mahmoudi Noodezh, Haleh: *In vitro* optimization of shoot proliferation and rooting in Damask Rose (Rosa damascena Mill.), Dec. 2008.

18) Maleki Choreh, J.: Study on anther culture in some cultivars of strawberry (*Fragaria × ananassa* Duch.), 2009.

19) Naghsh M., Study on strawberry (*Fragaria × ananassa* Duch. cvs. Pajaro and Paros) meristem culture in runners and in vitro plantlets, 2009.

20) Mirzaee, M., Effect of drought stress on germination and seedling growth in some canola (*Brassica napus* L.) cultivars, 2010.

21) Shahvali Kohshoor, R., Study on the effects of cold pretreatment, silver nitrate and amino acids on strawberry (*Fragaria × ananassa* Duch.) anther culture, 2011.

22) Jafari, R., Investigation of in vitro shoot proliferation and rooting in lisianthus plant (Eustoma grandiflurom), 2011.

23) Mahdavi Mashaki, K.: Effect of medium composition on anther culture in *Rosa damascena* Mill. And Rose (cultivar Sanaz), 2011.

24) Kiani, d.: Effects of pretreatments on anther culture in *Rosa damascena* Mill. and *Rosa hybrida*, 2011.

25) Molsaghi, M.: Study of micropropagation and autoploidy in *Aloe vera* (*Aloe barbadensis*), 2011.

26) Bordbar L.,:*In vitro* improvement of shoot proliferation in Damask Rose (Rosa damascena Mill.),

27) Hesabi H., *In vitro* optimization of shoot proliferation in Damask Rose (Rosa damascena Mill.), 2011.

28) Rahimian N., Evaluation of yield and efficiency of virus elimination methods in the early generations (V_0 and V1) of the produced virus-free plant in two commercial potato (*Solanum tuberosum* L.) cultivars, 2013.

29) Tabatabaie poor, Z., Cryopreservation of rice (*Oryza sativa* L.) zygotic embryos, 2014.

30) Moghaddam, F., Investigation of elicitation in suspension cell culture of yew (*Taxus baccata*),

Ph.D. Students:

1) Abdollahi M., Applications of androgenetic haploids in production of transgenic rapeseed (*Brassica napus* L.) plant, 2008.
2) Mirzaie Asl, A., Transformation of herbicide glyphosate resistant gene into sugar beet and molecular analysis of transgenic plants, 2009.
3) Movahedi, Z, Assessment of effect of cultivar and environmental factors on in vitro potato plantlets on minituber production in aeroponic condition, 2012.
4) Pourmohammadi P., Identification of molecular markers and proteins link to drought stress tolerance in doubled haploid lines of rapeseed (*Brassica napus* L.), 2012.

XI. Research Students Co-Supervised:

1) Tehrani, S.: Study of secondary embryogenesis in rapeseed (*Brassica napus* L.) microspore-derived embryos, 2008.

Ø