

## Profile

This is **Dr. Mohammad Faisal** working as an Associate Professor in the Department of Botany & Microbiology, King Saud University, Saudi Arabia. I received my Ph.D. degree in Botany with special emphasis in plant tissue culture and biotechnology from the Aligarh Muslim University, India. I have done postdoctoral research at the Biological Research Centre (CIB), Madrid, Spain under a Program of Ministry Science & Education, Spain and at the Department of Botany, Aligarh Muslim University, Aligarh, India under the DST Fast-track scheme for young scientist by the Department of Science & Technology, Govt. of India. I also visited to the Kangwon National University, South Korea to learn some advance techniques in tissue culture and genetic engineering. During my research work I availed several national fellowships including Junior Research Fellowship (UGC) and Senior Research Fellowship (CSIR).

I have been awarded **Plant Biotechnologist Award (2017)** by the SESR, India and **Scientist of the Year Award 2015** by the National Environmental Science Academy, India for his achievements and contributions. I developed protocols for in vitro regeneration, synthetic seeds production of several potential medicinal plants viz., *Tylophora indica*, *Rauvolfia serpentina*, *Rauvolfia terphylla*, *Ruta graveolens*, *Ruta chalepensis*, etc. I am actively engaged in several projects and some has been successfully completed. I have published over 64 papers in peer-reviewed journals of international repute and these papers have been cited over 1362 times with Google h index of 23. He holds life membership of several academic bodies/societies and Fellow of the Society of Scientific and Educational Research (SESR). He is in the editorial board of several peer-reviewed journal and recently appointed as member of EAB of Industrial Crops and Products published by the Elsewhere Science. Currently, I am editing two books to be published by the Springer Science, The Netherlands. My current research focuses on in vitro morphogenesis, tissue culture, mass propagation and genetic transformation in plants of economic importance and characterization of regenerated plants using molecular markers and flow cytometry and encapsulation of vegetative propagules/somatic embryos for germplasm conservation, storage and transfer. My research also includes the interaction of nanoparticles with plants (uptake & translocation) and their toxicological effects and mechanism of interaction at cellular and molecular level and cell death in some edible crops.

**Mohammad Faisal**, PhD, FSESR

Associate Professor of Plant Biotechnology

Associate Editor, Journal of Horticultural Science and Biotechnology

<http://www.tandfonline.com/loi/thsb20#.VkClMqJ438h>

Editor: Biotechnology and Biotechnological Equipment

<http://www.tandfonline.com/loi/tbeq20>

EAB: Industrial Crops & Products

<https://www.journals.elsevier.com/industrial-crops-and-products>

Department of Botany & Microbiology

College of Science, King Saud University

P.O Box 2455, Riyadh 11451, Saudi Arabia

✉: [mofaisal@ksu.edu.sa](mailto:mofaisal@ksu.edu.sa); [faisalm15@yahoo.com](mailto:faisalm15@yahoo.com)

☎: +966-(0)11-4675877; 📠: +966-556691485

<http://fac.ksu.edu.sa/mofaisal/home>

## CURRICULUM VITAE

### Dr. MOHAMMAD FAISAL, PhD, FSESR

Associate Professor of Plant Biotechnology  
 Department of Botany & Microbiology,  
 College of Science, King Saud University, Riyadh-11451, KSA  
 ✉: mofaisal@ksu.edu.sa; faisalm15@yahoo.com  
 ☎: +966-(0)11-4675877; 📞: +966-556691485  
<http://fac.ksu.edu.sa/mofaisal/home>



### RESEARCH INTEREST: Plant Biotechnology

*My current research focuses on in vitro morphogenesis, tissue culture, mass propagation and genetic transformation in plants of economic importance and characterization of regenerated plants using molecular markers and flow cytometry and encapsulation of vegetative propagules/somatic embryos for germplasm conservation, storage and transfer.*

*My research also includes the interaction of nanoparticles with plants (uptake & translocation) and their toxicological effects and mechanism of interaction at cellular and molecular level and cell death in some edible crops.*

### EDUCATION

PhD	(2006)	AMU, Aligarh India	Botany (Plant Tissue Culture & Biotechnology)
MSc	(2000)	AMU, Aligarh, India	Botany (Plant Tissue Culture & Biotechnology)
BSc	(1997)	AMU, Aligarh, India	Botany

### RESEARCH ACTIVITIES/APPOINTMENTS: 08 Years of experiences after PhD

Position	Institutes/University	Dates
<b>Associate Professor</b>	Department of Botany & Microbiology, College of Science, King Saud University, Riyadh, KSA.	November 27 2017 to the date
<b>Assistant Professor</b>	Department of Botany & Microbiology, College of Science, King Saud University, Riyadh, KSA.	October 2011 November 26 2017
<b>Post-Doctoral Fellow</b>	Centro de Investigaciones Biológicas, Biological Research Centre (CIB), CSIC, <b>Madrid, Spain.</b>	July 2010 – July 2011
<b>Visiting Scientist</b>	Division of Forest Resources, College of Forest & Environmental Sciences, Kangwon National University, Chuncheon, 200-701, <b>South Korea.</b>	Oct. 2008 – Dec 2008
<b>Young Scientist-DST (Post-Doctoral Fellow)</b>	Department of Botany, Aligarh Muslim University, <b>Aligarh, India.</b>	Aug. 2007 – Aug 2009
<b>Senior Research Fellow-CSIR</b>	Department of Botany, Aligarh Muslim University, <b>Aligarh, India.</b>	June 2004 – May 2007
<b>Research Fellow-UGC</b>	Department of Botany, Aligarh Muslim University, <b>Aligarh, India.</b>	July 2001 – May 2004

**PARTICIPATION IN RESEARCH PROJECTS:**

Project title	Position	Amount	Funding body	Time span
Development of protocol for in vitro multiplication and germplasm preservation of <i>Ruta chalepensis</i> and assessment of genetic fidelity using molecular markers.	Principal Investigator	1.42 Lakh (SAR)	KASCT, SA	2015-16
Genetic transformation in elite cultivars of tomato for developing disease resistance.	Principal Investigator	1.6 Million (SAR)	NPST, SA	2015-17
Conservation and utilization of mangrove ecosystem in Saudi Arabia: from knowledge to development.	Senior Research Personal	1.8 Million SAR	NPST, SA	2014-16
Research Group Project (RG-175), Deanship of Scientific Research, King Saud University	Principal Investigator	1.50 Lakh (SAR)	DSR, KSU	2017-18
Research Group Project (RGP-VPP-175), Deanship of Scientific Research, King Saud University	Principal Investigator	1.50 Lakh (SAR)	DSR, KSU	2016-17
Research Group Project (RGP-VPP-175), Deanship of Scientific Research, King Saud University	Co-Investigator	1.50 Lakh (SAR)	DSR, KSU	2013-14
Research Group Project (RGP-VPP-175), Deanship of Scientific Research, King Saud University	Co-Investigator	1.50 Lakh (SAR)	DSR, KSU	2012-13
Molecular analysis of genetic diversity and <i>in vitro</i> approaches for conservation of two endangered medicinal plants.	Principal Investigator	16.0 Lakh INR	DST, India	2007-10

**FELLOWSHIPS/AWARDS AND HONOURS:**

- **Fellow, Society for Educational & Scientific Research (SESR), India.**
- Plant Biotechnologist Award (2017) by the SESR, India.
- **Scientist of the Year Award-2015** by the National Environmental Science Academy (NESA), New Delhi, India.
- **Post-Doctoral Fellowship (2010-2011)**, by the Spanish Ministry of Science and Innovation to work at the Centro de Investigaciones Biológicas, **Biological Research Centre (CIB), CSIC, Madrid, Spain.**
- **Visiting Scientist** (02 months) from 15 Oct. 2008-15 Dec. 2008, **Kangwon National University, Chuncheon, 200-701, South Korea.**
- **Awarded National Scholarship Programme (2008)** of the Govt. of Slovak Republic to visit the **Institute of Genetics and Biotechnology** to learn the Advanced Techniques of Plant Proteomics.
- **Junior Scientist of the Year Award-2007** in the field of Plant Biotechnology by the National Environmental Science Academy (NESA), New Delhi, India.
- **Senior Research Fellowship (Extended)** by the **Council of Scientific and Industrial Research (CSIR)**, Govt. of India, New Delhi. **(2006-07).**

- **Senior Research Fellowship** by the Council of the **Council of Scientific and Industrial Research (CSIR)**, Govt. of India, New Delhi. **(2004-06).**
- **Best Paper Award**, MAAS, India. **(2003).**

#### PROFESSIONAL TRAININGS:

- Visited from 12-19 November 2013 in Centro de Investigaciones Biológicas, **Biological Research Centre (CIB), CSIC, Madrid, Spain** to learn Cell & Molecular Biology Techniques.
- **CIMAP Winter School – 2006 (CWS-2006): Recent Techniques in Structural and Functional Genomics** from 15-24 December 2006 at Central Institute of Medicinal & Aromatic Plants, Lucknow, India.
- Short-term training course in **Plant Tissue Culture: Technique to Technology** from 07-18 January 2002 at Tata Energy Research Institute (TERI), New Delhi.

#### EDITOR/REVIEWER IN REFERRED JOURNALS:

- Editor, Biotechnology and Biotechnological Equipment, Taylor & Francis.  
<http://www.tandfonline.com/loi/tbeq20>
- Editorial Board, Industrial Crops and Products, Elsevier Science.  
<https://www.journals.elsevier.com/industrial-crops-and-products>
- Editorial Board, Austin Journal of Plant Biology, Austin Publications LLC, USA.
- Editorial Board, Journal of Functional Plant Science & Biotechnology (FPB), Global Science Books, Japan.
- Editorial Board, International Journal of Plant Developmental Biology (IJPDB), Global Science Books, Japan.
- Reviewer, Plant Cell, Tissue & Organ Culture (PCTOC), Springer Science.
- Reviewer, Biotechnology & Biotechnological Equipment, Taylor & Francis.
- Reviewer, Industrial Crops and Products, Elsevier Science.
- Reviewer, Biologia Plantarum, Springer Science.
- Reviewer, Plant Biotechnology Reports, Springer Science.
- Reviewer, Applied Biochemistry & Biotechnology, Springer Science.
- Reviewer, Annals of Applied Biology, Blackwell Publishing, UK.

#### MEMBERSHIP IN PROFESSIONAL BODIES:

- **Fellow, Society for Educational & Scientific Research**, India
- International Association of Plant Biotechnology (IAPB), USA
- Society for *In Vitro* Biology, USA.
- Indian Botanical Society.
- National Environmental Science Academy.

#### PUBLICATIONS IN ISI JOURNALS:

1. Gil K.E., Kim W.Y., Lee H.J., **Faisal M.**, Saquib Q., Alatar A.A., Park, C.M. **(2017)** ZEITLUPE contributes to a thermoresponsive protein quality control system in *Arabidopsis*. **Plant Cell** DOI: 10.1105/tpc.17.00612. **IF=9.99.**
2. Faisal M., Ahmad N., Anis M., Alatar A.A., Qahtan A.A. **(2017)** Auxin-cytokinin synergism *in vitro* for producing genetically stable plants of *Ruta graveolens* using

shoot tip meristems. **Saudi Journal of Biological Sciences**. <https://doi.org/10.1016/j.sjbs.2017.09.009>. IF=2.56.

3. Javed S.B., Alatar A.A., Anis M. and **Faisal M.** (2017) Synthetic seeds production and germination studies, for short term storage and long distance transport of *Erythrina variegata* L.: A multipurpose tree legume. **Industrial Crops and Products** 105: 41–46, Elsevier Science. IF=3.18.
4. Saquib Q., Attia S.M., Ansari S.M., Al-Salim A., **Faisal M.**, Alatar A.A., Musarrat J., Zhang X., Al-Khedhairi A.A. (2017) p53, MAPKAPK-2 and caspases regulate nickel oxide nanoparticles induce cell death and cytogenetic anomalies in rats. **Int. J. Biol. Macromolecules**. <https://doi.org/10.1016/j.ijbiomac.2017.07.032>. IF=3.67.
5. **Faisal M.**, Alatar A.A., Abdel-Salam E.M., Canto T., Saquib Q., Javed S.B., El-Sheikh M.A., Al-Khedhairi A.A. (2017) Efficient and reproducible *in vitro* regeneration of *Solanum lycopersicum* and assessment genetic uniformity using flow cytometry and SPAR methods. 24: 1430-1436, Saudi Journal of Biological Sciences. IF=2.56.
6. Javed S.B. Alatar A.A., Basahi R., Anis M. and **Faisal M.** (2017) Copper induced suppression of systemic microbial contamination in *Erythrina variegata* L. during in vitro culture L.: Combating endogenous infection. **Plant Cell, Tissue & Organ Culture**. 28: 249-258, Springer Science. IF=2.00.
7. Ali K., Abul Qais F., Dwivedi S., Abdel-Salam E.M., Ansari S.M., Saquib Q., **Faisal M.**, Al-Khedhairi A.A., Al-Shaeri M., Musarrat J. (2017) Titanium dioxide nanoparticles preferentially bind in subdomains IB, IIA of HSA and minor groove of DNA. **Journal of Biomolecular Structure Dynamics**. 10:1-13. IF=3.12.
8. Alatar A.A., Ahmad N., Javed S.B., Abdel-Salam E.M. and **Faisal M.** (2017) Two-way germination system of encapsulated clonal propagules of *Vitex trifolia* L.: an important medicinal plant. **Journal of Horticultural Science & Biotechnology**. 92: 175-182, Taylor & Francis, UK. IF=0.53.
9. **Faisal M.**, Alatar A.A., Ahmad S. (2017) Immunoglobulin-G Glycation by Fructose Leads to Structural Perturbations and Drop Off in Free Lysine and Arginine Residues. **Protein and Peptides Letters**. 24: 241-244. IF=1.06.
10. Ahmed M.R., Anis M., Alatar A.A., **Faisal M.** (2017) *In vitro* clonal propagation and evaluation of genetic fidelity using RAPD and ISSR marker in micropropagated plants of *Cassia alata* L.: a potential medicinal plant. **Agroforestry System**. 91: 637-647. Springer Science. IF=1.17.
11. **Faisal M.**, Saquib Q., Alatar A.A., Al-Khedhairi A.A., Ahmed M., Ansari S.M., Alwathnani H.A., Dwivedi S., Musarrat J. & Praveen S. (2016) Cobalt oxide nanoparticles aggravate DNA damage and cell death in eggplant via mitochondrial swelling and NO signaling pathway. **Biological Research** 49: 20 (1-13). BioMed Central. IF=1.59.
12. Saquib Q., **Faisal M.**, Alatar A.A., Al-Khedhairi A.A., Ahmed M., Ansari S.M., Alwathnani H.A., Okla M.K., Dwivedi S., Musarrat J., Praveen S., Khan S.T., Wahab R. Siddiqui M.A. and Ahmad J. (2016) Genotoxicity of ferric oxide nanoparticles in *Raphanus sativus*: Deciphering the role of signaling factors, oxidative stress and cell death. **Journal of Environmental Sciences**. 47: 49-62. Elsevier Science. IF=2.86.
13. Akhter F., Khan M.S., **Faisal M.**, Alatar A.A., Ahmad S. (2016) Detection of Circulating Auto-Antibodies Against Ribosylated-LDL in Diabetes Patients. **Journal of Clinical Laboratory Analysis**. DOI 10.1002/jcla.22039. Wiley US. IF=1.52.

14. Shahid A., Ahmad N., Anis M., Alatar A.A. & **Faisal M. (2016)** Morphogenic responses of *Rauvolfia tetraphylla* L. cultures to Cu, Zn and Cd ions. **Rendiconti Lincei** 27: 369-374. Springer Science. **IF=0.69.**
15. Saquib Q., Siddiqui M.A., Ahmeda J., Al-Salima A., Ansari S.M., **Faisal M.**, Al-Khedhairya A.A., Musarratd J. AlWathnani H.A., Alatar A.A. & Al-Arifi S.A. **(2016)** Hazards of low dose flame-retardants (BDE-47 and BDE-32): Influence on transcriptome regulation and cell death in human liver cells. **Journal of Hazardous Materials** 308: 37-49. Elsevier Science. **IF=6.06.**
16. Akhter F., Khan M.S., Alatar A.A., **Faisal M.**, Ahmad S. **(2016)** Antigenic role of the adaptive immune response to d-ribose glycated LDL in diabetes, atherosclerosis and diabetes atherosclerotic patients. **Life Sciences** 15: 151:139-46. Elsevier Science. **IF=2.93.**
17. Alatar A.A., **Faisal M.**, Hegazy A.K., Alwathnani H.A. & Okla M.K. **(2015)**. Clonal in vitro multiplication of grey mangrove and assessment of genetic fidelity using single primer amplification reaction (SPAR) methods. **Biotechnology Biotechnological Equipment** 29: 1069-1074. Taylor & Francis. **IF=1.05.**
18. Elhag M., Hegazy A.K., Alatar A.A., Faisal M., El-Bana M., Bahrawi J.A., Al-Ghamdi A.A.M. **(2015)** Population demography and global sensitivity analysis of *Avicennia marina* on the eastern and western coasts of Saudi Arabia. **Koedoe** 57: 1-9. **IF=1.41.**
19. Garg V., Permar V., Parkhi V., Mani E., Alatar A.A., **Faisal M.** & Praveen S. **(2015)**. Differentiating tomato leaf curl viruses possessing mono/bi partite genomes using replicase gene based PCR assay: implications for developing virus specific resistance. **J. Plant Biochem. Biotechnol.** 24:461–465, Springer Science. **IF=1.09.**
20. Ahmad N., Alatar A.A., **Faisal M.**, Khan M.I., Fatima N., Anis M. and Hegazy A.K. **(2015)** Effect of copper and zinc on the in vitro regeneration of *Rauvolfia serpentina*. **Biologia Plantarum** 59: 11-17. Springer Science. **IF=1.85.**
21. Kaur H., Yadav C.B., Alatar A.A., **Faisal M.**, Jyothsna P., Malathi, V.G. and Praveen S. **(2015)** Gene expression changes in tomato during symptom development in response to leaf curl virus infection. **J. Plant Biochem. Biotechnol.** 3: 347-354. DOI 10.1007/s13562-014-0280-8). **IF=0.95.**
22. Hegazy A.K., **Faisal M.**, Alatar A.A., Kabeil H.F. and Enam M.H. **(2015)** Induced mutagenesis and genotoxicity by accumulated radionuclides in some edible plants cultivated in black sand soil detected by RAPD - DNA profiles and proteomics. **Fresenius Environmental Bulletin** 24(1): 343-354, Germany. **IF=0.56.**
23. **Faisal M.**, Abdularhaman A. Alatar & Ahmad K. Hegazy **(2014)**. An efficient in vitro clonal multiplication of *Mentha arvensis* and evaluation of genetic stability using molecular markers and flow cytometry. **Industrial Crops & Products** 60: 100-106, Elsevier Science. **IF=3.18.**
24. Permar V., Singh A., Pandey V. Alatar A.A., **Faisal M.**, Jain R.K., and Praveen S. **(2014)** Tospo viral infection instigates necrosis and premature senescence by micro RNA controlled programmed cell death in *Vigna unguiculata*. **Physiological and Molecular Plant Pathology** 88: 77-84. **IF=1.13.**
25. Hegazy A.K., Kabeil H.F., Al-Rowaily S.L., **Faisal M.**, Zayed K. and Doma E. **(2014)** Temporal genetic and spatial pattern variations within and among *Anastatica hierochuntica* populations. **Rendiconti Lincei-Scienze Fisiche e Naturali** 25: 155-166, Springer Science. **IF=0.69.**



26. Siddiqui M.H., Al-Whaibi M.H., **Faisal M.** and Al Sahli A.A. (2014) Nano-silicon dioxide mitigates the adverse effects of salt stress on *Cucurbita pepo* L. **Environmental Toxicology and Chemistry** 33: 2429-2437. Wiley Science. IF=3.22.
27. Hegazy A.K. Alatar A.A. Thomas J., **Faisal M.**, Alfarhan A.H. and Krzywinski K. (2014) Compatibility and complementarity of indigenous and scientific knowledge of wild plants in the highlands of southwest Saudi Arabia. **Journal of Forestry Research** 25: 437-444. Springer Science. IF=0.77.
28. **Faisal M.**, Saquib Q., Alatar A.A., Al-Khedhairi A.A., Hegazy, A.K., Musarrat, J. (2013) Phytotoxic hazards of NiO-nanoparticles in tomato: A study on mechanism of cell death. **Journal of Hazardous Materials** 250-51: 318-332, Elsevier Science. IF=6.06.
29. Ahmad N., Khan M.I., Ahmed S., Javed, S.B., **Faisal M.**, Anis M., Khan S., Umair S.M. (2013). Change in total phenolic content and antibacterial activity in regenerants of *Vitex negundo*. **Acta Physiologia Plantarum** 35: 791-800. IF=1.36.
30. **M. Faisal**, A. Alatar and A.K. Hegazy (2013) Molecular and biochemical characterization in *Rauvolfia tetraphylla* plantlets grown from synthetic seeds following in vitro cold storage. **Applied Biochemistry and Biotechnology** 169: 408-417. IF=1.75.
31. Kabieli H.F., Hegazy A.K. **Faisal M.** and Doma EA (2013) Genetic variations within and among populations of *Anastatica heirochuntica* at microscale geographic range. **Applied Ecology and Environmental Research** 11: 343-354. IF=0.68.
32. A.K. Hegazy, S.L. Al-Rowaily, **M. Faisal**, A.A. Alatar, M.I. El-Bana, A.M. Assaeed (2013) Nutritive value and antioxidant activity of some edible wild fruits in the Middle East. **Journal of Medicinal Plants Research** 7: 938-946. IF=0.87.
33. A.K. Hegazy, S.L. Al-Rowaily, H.F. Kabieli, **M. Faisal**, M.H. Emam (2013) Variations of Plant Macronutrients and Secondary Metabolites Content in Response to Radionuclides Accumulation. **Journal of Bioremediation & Biodegradation** 4: 185-195.
34. Manzer H. Siddiqui, Mohamed H. Al-Whaibi, Ahmed M. Sakran, Hayssam M. Ali, Mohammed O. Basalah, **M. Faisal**, A. Alatar, Abdullah A. Al-Amri (2013) Calcium-induced Amelioration of Boron Toxicity in Radish. **Journal of Plant Growth Regulation** 32: 61-71. IF=2.07.
35. Ahmad N., **Faisal M.** and Anis M. (2013) Role of PGR on in vitro shoot propagation in *Cyamopsis tetragonoloba* L. (Taub.): a drought tolerant grain legume. **Rendiconti Lincei-Scienze Fisiche e Naturali** 24: 7-12. IF=0.69.
36. **M. Faisal**, A. Alatar, N. Ahmad, M. Anis and A.K. Hegazy (2012) An efficient and reproducible method for *in vitro* clonal multiplication of *Rauvolfia tetraphylla* L. and evaluation of genetic stability using DNA-based markers. **Applied Biochemistry and Biotechnology** 168: 1739-1752. IF=1.75.
37. N. Ahmad, **M. Faisal**, N. Fatima and M. Anis (2012) Encapsulation of microcuttings for propagation and short-term preservation in *Ruta graveolens* L.: a plant with high medicinal value. **Acta Physiologiae Plantarum** 34: 2303-2310. IF=1.36.
38. **M. Faisal**, A. Alatar, N. Ahmad, and M. Anis (2012) Assessment of genetic fidelity in *Rauvolfia serpentina* plantlets grown from synthetic (encapsulated) seeds following in vitro storage at 4 °C. **Molecules**. 17: 5050-5061. IF=2.63.
39. A. Alatar, **M. Faisal**, AK Hegazy and Alwathnani A. Hend (2012) High frequency shoot regeneration and plant establishment of *Rauvolfia serpentina*-an

endangered medicinal plant. **Journal of Medicinal Plants Research** 6: 3324-3329. IF=0.87.

40. A. Shahzad, **M. Faisal**, N. Ahmad, M. Anis A. Alatar and Alwathnani A. Hend (2012) An efficient system for *in vitro* multiplication of *Ocimum basilicum* through node culture. **African Journal of Biotechnology** 11: 6055-6059. IF=0.56.
41. Pilar S. Testillano, **Mohammad Faisal**, Héctor Rodríguez-Sanz, José Antonio Manzanera y M<sup>a</sup> Carmen Risueño (2011) Pollen and somatic embryogenesis in *Quercus suber*: searching for common markers and features in two *in vitro* embryo developmental pathways. **SECIVT Novena Reunion, Spain**, April 27-29, 2011, p.65.
42. **Faisal M** and Anis M (2010) Changes in photosynthetic activity, pigment composition, electrolyte leakage, lipid peroxidation, and antioxidant enzymes during *ex vitro* establishment of micropropagated *Rauvolfia tetraphylla* plantlets. **Plant Cell, Tissue & Organ Culture** 99: 125–132. IF=2.00.
43. **Faisal M** Ahmad N and Anis M (2010) *In vitro* callus induction and plant regeneration from leaf explants of *Ruta graveolens* L. **South African Journal of Botany** 99: 125–132. IF=1.42.
44. **Faisal M** and Anis M (2009) Effect of light irradiations on photosynthetic machinery and antioxidative enzymes during *ex vitro* acclimatization of *Tylophora indica* plantlets. **Journal of Plant Interactions** 5: 21-27. IF=1.58.
45. Anis M. Hussain MK, **Faisal M**, Shahzad A, Ahmad N, Siddique I & Khan H (2008). *In vitro* approaches for plant regeneration and conservation of some potential medicinal plants. In: **Recent Advances in Plant Biotechnology** (Eds) Kumar A & Sopory SK, I.K. International, Pvt. Ltd.- New Delhi-14, 407-419
46. Khan H, **Faisal M** and Anis M (2008) Plant regeneration via somatic embryogenesis in *Solanum molnigena* L. **Phytomorphology** 4: 153-157 ISPM, India.
47. **Faisal M**, Shahzad A and Anis M (2008) Somatic embryogenesis and plant regeneration from nodal explants in *Psoralea corylifolia* L. **International Journal of Plant Developmental Biology** 2: 111-113.
48. **Faisal M**, Ahmad N and Anis M (2007) An efficient micropropagation system for *Tylophora indica*: an endangered, medicinally important plant. **Plant Biotechnology Reports** 1: 155-161. IF=1.42.
49. Shahzad A, **Faisal M** and Anis M (2007) Micropropagation through excised root culture of *Clitoria ternatea* L., and comparison between *in vitro* regenerated plants and seedlings. **Annals of Applied Biology** 150: 341-349. IF=1.94.
50. **Faisal M** and Anis M (2007) Regeneration of plants from alginate-encapsulated shoots of *Tylophora indica* – an endangered medicinal plant. **Journal of Horticultural Science & Biotechnology** 82: 351-354. IF=0.53.
51. **Faisal M**, Siddique I and Anis M (2006) *In vitro* rapid regeneration of plantlets from nodal explants of *Mucuna pruriens* L. (DC.) – a valuable medicinal plant. **Annals of Applied Biology** 148: 1-6. IF=1.94.
52. **Faisal M** and Anis M (2006) Thidiazuron induced high frequency axillary shoot multiplication in *Psoralea corylifolia*. **Biologia Plantarum** 50: 437-440. IF=1.85.
53. **Faisal M**, Siddique I and Anis M (2006) An efficient plant regeneration system for *Mucuna pruriens* L. (DC.) using cotyledonary node explants. **In Vitro Cell. Dev. Biol. Plant** 42: 59-64. IF=1.02.



54. **Faisal M**, Ahmad N and Anis M (2005) Shoot multiplication in *Rauvolfia tetraphylla* L. using thidiazuron. **Plant Cell, Tissue & Organ Culture** 80: 187-190. IF=2.00.
55. **Faisal M**, Singh S and Anis M (2005) *In vitro* regeneration and plant establishment of *Tylophora indica* (Burm. f.) Merrill: petiole callus culture. **In Vitro Cell. Dev. Biol. Plant.** 41: 511-515. IF=1.02.
56. Anis M and **Faisal M** (2005) *In vitro* regeneration and mass multiplication of *Psoralea corylifolia* – an endangered medicinal plant. **Indian Journal of Biotechnology** 4: 216-264. IF=0.28.
57. **Faisal M** and Anis M (2005) *In vitro* regeneration and mass propagation of *Ruta graveolens* L. **HortScience** 40: 1478-1480. IF=0.84.
58. **Faisal M** and Anis M (2005) An efficient *in vitro* method for mass propagation of *Tylophora indica*. **Biologia Plantarum** 49: 257-260. IF=1.85.
59. **Faisal M** and Anis M (2004) *In vitro* mass propagation and conservation of some endangered medicinal plants. In: D'Souza L., Anuradha M., Nivas S., Hegde S. and Rajendra K (Eds.) **Biotechnology for a Better Future**, SAC Publications, India, pp 82 - 91.
60. **Faisal M** and Anis M (2003) Rapid mass propagation of *Tylophora indica* Merrill via leaf callus culture. **Plant Cell, Tissue & Organ Culture** 75: 125-129. IF=2.00.
61. Anis M, **Faisal M** and Singh SK (2003) Micropropagation of mulberry (*Morus alba* L.) through *in vitro* culture of shoot tip and nodal explants. **Plant Tissue Culture & Biotechnology** 13: 47-51. PTCA, Bangladesh.
62. **Faisal M** and Anis M (2002) Rapid *in vitro* propagation of *Rauvolfia tetraphylla* L. - an endangered medicinal plant. **Physiology & Molecular Biology of Plants** 8: 295-299. India. IF=0.88.
63. Shahzad A, **Faisal M**, Husain MK and Siddiqui SA (2001) Micropropagation in *Hibiscus mutabilis* L. - an ornamental plant. **Bionotes** 3: 69. India.
64. Shahzad A, Husain MK, **Faisal M**, and Siddiqui SA (2001) Nodular callus formation and production of flower buds in vitro from shoot tip culture of *Helianthus annuus*. **Bionotes** 3: 61. India.

## Books:

1. **Faisal M.**, Saquib Q., Alatar A.A., Khedhairi A.A. (2017) Phytotoxicity of **Springer Science, Germany. (Under Publication).**
2. Ahmad N. and **Faisal M.** (2017) Thidiazuron: From Urea to Plant Growth Regulators. **Springer Science. India. (Under Publication).**
3. Saquib Q. **Faisal M.** Khedhairi A.A. & Alatar A.A. (2017) Cellular and Molecular Toxicology of Nanoparticles: Advances in Experimental Medicine and Biology Series. **Springer Science, United Kingdom (Under Publication).**
4. **Faisal M.**, Anis M. and Alatar A.A. (2012) Plant Tissue Culture: An effective tool of biotechnology for conservation medicinal plants. Lambert Academic Publisher, Germany.

#### CONFERENCES/SYMPOSIA ATTENDED:

1. International Conference on **Current Trends in Biosciences (CTBio-2017)** was held at The Dunes Hotel, Kochi, Kerala, August 21-23, 2017.
2. **National Conference on "Monitoring and Management of Drinking Water Quality (MMDWQ)** was held at the Uttarakhand State Council for Science and Technology, Dehradun, Uttarakhand, December 21-23, 2015.
3. Ahmad N, Khan MI, **Faisal M** and Anis M (2012). In vitro regeneration and change in total phenolics and antimicrobial activity in *Vitex negundo*. **National Symposium on Impact of Plant Tissue Culture on Advances in Plant Biology and XXXIII PTCA (I) Annual Meeting** St. Xavier's College, Ahmedabad (India). 19-21 January, p. 183.
4. Rodríguez-Sanz H, **Faisal M**, Manzanera JA, Risueño MC, Testillano PS (2011) Cellular markers distribution patterns are common to both somatic and pollen embryogenesis in *Quercus suber*. **XIX Reunión de la Sociedad Española de Fisiología Vegetal, SEFV, Castellón de la Plana** June, Spain 21-24, 2011.
5. Pilar S. Testillano, **Mohammad Faisal**, Héctor Rodríguez-Sanz, José Antonio Manzanera y M<sup>a</sup> Carmen Risueño (2011) Pollen and somatic embryogenesis in *Quercus suber*: searching for common markers and features in two in vitro embryo developmental pathways. **SECIVT Novena Reunion, Canary Island, Spain**, April 27-29, 2011, p.65.
6. **Faisal M** and Anis M (2008) Photosynthetic activity, malondialdehyde content and antioxidant enzymes in leaves during ex-vitro establishment of micropropagated *Rauvolfia tetraphylla* plantlets. **5<sup>th</sup> International Crop Science Congress & Exhibition. International Convention Centre, Jeju, Korea**, April 13-18, 2008, p.127-128.
7. **Faisal M** and Anis M (2006) Photosynthetic pigments and antioxidant enzymes in leaves during *ex vitro* establishment of micropropagated *Tylophora indica* plantlets. **National Symposium on Plant Biotechnology**. FRI, Dehradun, Oct., 12-14, 2006. p. 95.
8. **Faisal M** and Anis M (2005) Thidiazuron Induced High Frequency Shoot Induction and Plant Regeneration in *Psoralea corylifolia* - an Endangered Medicinal Plant. **Journal of Society for In Vitro Biology**. 41 A 47. SIVB, USA.
9. **Faisal M**, Siddique I & Anis M (2005) Biotechnological intervention for conservation of biodiversity of some rare and endangered medicinal plants. **National Conference on Medicinal Plants: Resources Applications and Conservation in India**. Jadavpur University, Kolkata, Feb. 11-12, p. 10.
10. Shahzad A **Faisal M** and Anis M (2004) Somatic embryogenesis and regeneration of plantlets from nodal explants of *Santalum album* L. **IUFRO International Conference on Multipurpose trees in the Tropics: Assessment, Growth and Management**. Arid Forest Research Institute (ICFRE) Jodhpur, Nov. 22-25, p. 282.
11. Anis M, **Faisal M**, Siddique Iram & Shahzad A (2003) *In vitro* propagation of *Psoralea corylifolia* L. **National Symposium on Plant Biology and Biodiversity in Changing Environment**. Hamdard University, New Delhi. Dec. 29-31, p. 40.
12. **Faisal M** and Anis M (2003) Tissue Culture Studies in *Tylophora indica* (Burm. f.) Merrill. **National Symposium on Plant Biodiversity: Role in Sustainable**

**Development** and 25<sup>th</sup> Annual Meeting of PTCA(I), University of Rajasthan, Jaipur, Feb.17-19, p. 90.

13. **Faisal M** and Anis M (**2002**) Conservation of some rare and endangered medicinal plants adopting biotechnological approaches. **International Symposium on Plant Biodiversity: Conservation and Evaluation. Bose Institute, Kolkata**, Dec. 17-20, 2002.
14. **Faisal M** and Anis M (**2001**) *In vitro* induction of multiple shoots from nodal segment explants of *Rauvolfia tetraphylla* L.-an endangered medicinal plant. **XXIV Indian Botanical Conference, Hyderabad**, Nov. 19-21, 2001.