

Curriculum Vitae

Name **DR. AFAQUE QURAISHI**
Father's Name Dr. G.M. Quraishi
Date of Birth January 12, 1969
Present Status Asst Professor
SoS in Biotechnology
Pt. Ravishankar Shukla University
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Ward No. 12, Kota,
Raipur CG 492010 India

Education:

Ph.D. in Bioscience (4.7.1998) from Pt. Ravishankar Shukla University, Raipur (CG),
on: "Studies on *in vitro* regeneration of some fuel-wood species"
M.Sc. Botany (1990): 63% from Guru Ghasidas University, Bilaspur (CG)

FELLOWSHIPS RECEIVED:

Research Associate, CSIR:

Project Title: Micropropagation and Somaclonal variation assessment of Neem
& Mangium
Agency: Council of Scientific and Industrial Research, New Delhi
Period: 1st February 2002 to 16th Aug. 2004

Project Fellow (JRF / SRF):

Project Title: Biomass Research Center
Agency: Ministry of Non-Conventional Energy Sources, New Delhi
Period: July 1991 to June 1996

POSITIONS HELD:

1. Asst Professor in Biotechnology

UTD: Pt. Ravishankar Shukla University, Raipur CG
Period: 15/09/2008 to continue

2. Lecturer (Botany) (Under Section 28):

College: MATS College, Pandri, Raipur CG
Period: 21/09/2007 to 15/09/2008

3. Coordinator (Life Science Dept):

College: Mahaveer Academy of Technology & Sciences, Pandri, Raipur CG
Period: 10/07/2006 to 21/09/2007

4. Lecturer in Biotechnology:

College: Rai Foundation College (Erstwhile Rai University), Raipur (CG)
Period: 17/08/2004 to 10/7/06

5. Scientist:

Biotech Industry: Plant Tissue Culture Unit, Shrishrimal Plantation Ltd, Raipur CG
Period: 01/07/1996 to 31/05/2001

Awards and Recognitions:

Judge for Life Sciences stream in 36th Young Scientist Congress organized by Madhya Pradesh Council of Science & Technology, Bhopal and Viram University, Ujjain (MP), 23-26 March 2021 (Online mode)

Judge for Life Sciences stream in 35th Young Scientist Congress organized by Madhya Pradesh Council of Science & Technology, Bhopal at Shri Govindram Seksari Institute of Technology and Science, Indore (MP), 28-29 Feb 2020

Best Oral presentation: Quraishi Afaque, Keshavkant S & Chauhan R (2018) Impact of elicitors on production of diosgenin in micro-tubers of Safed Musli. National Conference on 'Plant and Microbial Products: Progress, Potential & IPR issues' at Dept of Botany, Guru Ghasidas Vishwavidyalaya, Bilaspur (CG), 7-9 Feb 2018, pp 34

Chairperson for the Poster Presentation Session I in the 3rd International Congress of the Society for Ethno-pharmacology, India- "Ethno-pharmacology & Evaluation of Medicinal Plants – Global Perspectives". National Center for Natural Resources, Pt. Ravishankar Shukla University, Raipur, Feb 19-21, 2016

Young Scientist Award, 1994 by Madhya Pradesh Council of Science and Technology; at Sagar (MP), on paper "*In vitro* micropropagation from nodal segments of *Cleistanthus collinus* Benth."

TRAINING:

S N	Training Program	Agency	Duration
1.	Refresher Course on "Fundamentals of Research Methodology"	UGC-Human Resource Development Center, Pt. Ravishankar Shukla University, Raipur CG	Three weeks: 01.12.2017 – 21.12.2017
1.	'Special Summer School' on "Paradigm shift in Higher Education."	UGC-Human Resource Development Center, Pt. Ravishankar Shukla University, Raipur CG	Three weeks: 20.07.2015 – 09.08.2015
2.	'Refresher Course' on "Biotechnology-21 st Century"	UGC-Academic Staff College,	Three weeks: 17/07/2012 -

		Pt. Ravishankar Shukla University, Raipur CG	06/08/2012
3.	‘Orientation Program’ on “Education & Development”	UGC-Academic Staff College, Pt. Ravishankar Shukla University, Raipur CG	Four weeks: 28/01/2012 - 24/02/2012

RESEARCH PROJECTS:

PI: “Herbal Treatment for the Rheumatoid Arthritis” Pt. Deendayal Upadhyay Memorial Health Sciences and AYUSH University of Chhattisgarh, Raipur. Rs. 3 Lakh (2018-19). Sanction No. F-178/2482/DUHS/Acad/2018 dated 16.05.2018 (15.10.18 to 15.10.19)

PI: “True-to-type *in vitro* conservation of Safed Musli (*Chlorophytum borivillianum* Sant. Et Fernand.): a rare medicinal plant of India” Chhattisgarh Council of Science & Technology, Raipur. Rs. 5 Lakh (2014-17). Endt. No. 1089/CCOST/MRP/2014 dated 04.09.2014 (1.9.14 to 31.8.17)

Co-PI: “National Centre for Natural Resources” (NCNR) Dept. of Science & Technology, New Delhi, Rs. 9.05 Cr. (2012-17)

Co-PI: “Screening of Microbes for Bioethanol production from Mahua (*Madhuca indica*) flowers” UGC Major Project: Rs. 7.41 Lakh (2011-14)

Co-PI: “Development & standardization of micropropagation protocol for banana & sugarcane” CG COST: Rs. 3.63 Lakh (2008-09)

PUBLICATIONS:

Research Papers:

Chauhan R, Singh V, Keshavkant S, **Quraishi Afaq** (2021) Vitrification-based cryopreservation of *in vitro*-grown apical meristems of *Chlorophytum borivillianum* Sant et Fernand: a critically endangered species. Proceedings of the National Academy of Sciences India Section B-Biological Sciences doi: 10.1007/s40011-021-01260-z [SCI & Scopus indexed]

Paul JS, Jadhav SK, **Quraishi Afaq**, Naik ML (2020) Ferret out a Natural Bio-Pesticide: *Ophicordyceps nutans* in Central India and its interaction analysis with Tree Stink Bug. Proceedings of the Zoological Society <https://doi.org/10.1007/s12595-020-00328-4> [Scopus indexed]

Singh Vikram, Chauhan R, **Quraishi Afaq** (2020) Sensitive and closed tube plant DNA virus detection via PCR. Research Journal of Biotechnology 15(6):111-116 [SCI, Scopus]

- Ekka G, Jadhav SK, **Quraishi Afaq** (2020) Effect of exogenous additives on oxidative stress and defense system of a tree – *Zanthoxylum armatum* DC. under *in vitro* conditions. *Plant Cell, Tissue and Organ Culture* 140:671-676 [JIF: 2.200]
- Kaur Inderpal, Khandwekar S, Chauhan R, Singh V, Jadhav SK, Tiwari KL, **Quraishi Afaq** (2019) Exploring the efficiency of native tree species grown at mine tailings for phytoextraction of Iron and Lead. *Proceedings of the National Academy of Sciences India Section B-Biological Sciences* 89(3):951-956 (SCI, Scopus)
- Singh Vikram, Koche Vijaya, **Quraishi Afaq** (2019) *In vitro* antiviral chemical treatment to BBTV-infected banana cultures for production of virus-free plants. *Research & Reviews: A Journal of Life Sciences* 9(3):11–16 (UGC Journal no. 62799)
- Agrawal T, Jadhav SK, **Quraishi Afaq** (2019) Bioethanol production from *Madhuca latifolia* L. flowers by a newly isolated strain of *Pichia kudriavzevii*. *Energy & Environment* 30(8):1477–1490 [JIF: 1.092]
- Agrawal T, Jadhav SK, **Quraishi Afaq** (2019) Bioethanol production from an agrowaste, deoiled rice bran by *Saccharomyces cerevisiae* MTCC 4780 via optimization of fermentation parameters. *EnvironmentAsia* 12(1):20-24 (Scopus Indexed)
- Kaur Inderpal, Jadhav SK, Tiwari KL, **Quraishi Afaq** (2018) Lead tolerance and its accumulation by a tree legume: *Dalbergia sissoo* DC. *Bulletin of Environmental Contamination and Toxicology* 101:506-513 [JIF: 1.65]
- Singh Vikram, Koche Vijaya, **Quraishi Afaq** (2018) Viral Elimination Strategies for *Musa* spp. *Research & Reviews: A Journal of Microbiology and Virology* 8(1):7-14 (UGC Journal no. 48607)
- Chauhan R, Keshavkant S, **Quraishi Afaq** (2018) Enhanced production of diosgenin through elicitation in micro-tubers of *Chlorophytum borivillianum* Sant et Fernand. *Industrial Crops & Products* 113:234-239 [JIF: 4.191]
- Quraishi Afaq**, Mehar Snigdha, Sahu Durga, Jadhav SK (2017) *In vitro* mid-term conservation of *Acorus calamus* L. via cold storage of encapsulated micro-rhizome. *Brazilian Archives of Biology and Technology* 60:e17160378; DOI 10.1590/1678-4324-2017160378 [JIF: 0.758]
- Chauhan R, **Quraishi Afaq**, Jadhav SK, Keshavkant S (2016) A comprehensive review on pharmacological properties and biotechnological aspects of Genus *Chlorophytum*. *Acta Physiologiae Plantarum* 38:116; DOI 10.1007/s11738-016-2132-8 [JIF: 1.608]
- Chauhan R, Keshavkant S, Jadhav SK, **Quraishi Afaq** (2016) *In Vitro* Slow-Growth Storage of *Chlorophytum borivillianum* Sant et Fernand: A Critically Endangered Herb. *In vitro Cellular & Developmental Biology: Plant* 52(3):315-321; DOI: 10.1007/s11627-016-9756-7 [JIF: 1.454]
- Sethia Kiran, Kaushik Alka, Jadhav SK, **Quraishi Afaq** (2015) Effect of operational parameters on cow dung mediated microbial fuel cell. *World Journal of Engineering* 12(6):541-550 (Scopus indexed)
- Chandrawanshi NK, Jadhav SK, Tiwari KL, **Quraishi Afaq** (2015) *In vitro* tuberization and colchicine content analysis of *Gloriosa superba* L.

- Biotechnology 14(3):142-147 DOI: 10.3923/biotech.2015.142.147 (Scopus indexed)
- Chauhan R, Jadhav SK, **Quraishi A** (2014) An efficient seed germination and seedling establishment protocol hybrid *Carica papaya* Linn. with application of plant growth regulator. Biotechnology 13(3): 139-142 (Scopus indexed)
- Quraishi A**, Jadhav SK, Gupta S (2011) *In vitro* clonal propagation of *Cassia tora* L. (Coffee Pod): A medicinal plant. Biotechnology 10(6): 546-550 (Scopus indexed)
- Sharma P, Koche V, **Quraishi A**, Mishra SK (2005) Somatic embryogenesis in *Buchanania lanzan* Spreng. *In vitro Cellular & Developmental Biol.: Plant* 41: 645-647 [JIF: 1.454]
- Quraishi A**, Koche V, Sharma P, Mishra SK (2004) *In vitro* clonal propagation of neem (*Azadirachta indica*). *Plant Cell, Tissue & Organ Culture* 78(3): 281-284 [JIF: 2.200]
- Quraishi A**, Mishra SK (1998) Micropropagation of nodal segments from adult trees of *Cleistanthus collinus*. *Plant Cell Reports* 17(5): 430-433 [JIF: 3.499]
- Quraishi A**, Koche V, Mishra SK (1997) Micropropagation of *Lagerstroemia parviflora* through axillary bud culture. *Silvae Genetica* 46(4): 242-245 [JIF: 0.741]
- Quraishi A**, Koche V, Mishra SK (1996) *In vitro* micropropagation from nodal segments of *Cleistanthus collinus*. *Plant Cell Tissue & Organ Culture* 45: 87–91 [JIF: 2.200]
- Quraishi A**, Biswas J, Mishra SK (1996) Seed weight related germination capacity in *Cleistanthus collinus*. *Indian Journal of Forestry* 19(1): 79 – 82 [NAAS score: 3.78]

Book edited:

- Jadhav SK, Sahu KK, **Quraishi A**, Shukla KK, Chandrawanshi NK (2014) Biotechnology and traditional knowledge. Biotech Books, New Delhi (ISBN: 978-81-7622-330-0)

Book Chapters:

- Ekka G, Jadhav SK, **Quraishi Afaque** (2020) An overview of Genus *Zanthoxylum* with special reference to its herbal significance and application. In: M Akram, RS Ahmad (Eds) *Herbs and Spices*, IntechOpen, London, UK; <http://dx.doi.org/10.5772/intechopen.92459> (ISBN 978-1-83962-936-5)
- Chauhan R, Singh Vikram, **Quraishi Afaque** (2019) *In vitro* conservation through slow-growth storage. In: M Faisal, AA Alatar (Eds) *Synthetic Seeds*, Springer Nature Switzerland AG 2019, pp 397-416; https://doi.org/10.1007/978-3-030-24631-0_19 (ISBN 9783030246303)
- Quraishi A** (2013) *In vitro* clonal propagation of forests trees: By bud culture technique. In: *Modern Biotechnology and its Applications: Part 1*. KK Behera (Ed.) New India Publishing Agency, New Delhi, pp 47-56 (ISBN: 9789381450833)

Paper presented in Seminars / Conferences:

- Quraishi Afaq** (2019) Rapid, sensitive and closed-tube detection of plant DNA virus through PCR. Second International Conference on Fostering Interdisciplinary Research in Health Sciences (ICFIRHS) at AIMST University, Bedong, Malaysia, 14-15 Sept 2019
- Quraishi Afaq** (2019) A rapid assay to diagnose banana bunchy top virus in various symptomatic and asymptomatic banana plants. International Conference on 'Fostering Interdisciplinary Research in Medicines' at University Institute of Pharmacy, Pt. Ravishankar Shukla University, Raipur CG, 19-21 Jan 2019
- Quraishi Afaq**, Keshavkant S & Chauhan R (2018) Impact of elicitors on production of diosgenin in micro-tubers of Safed Musli. National Conference on 'Plant and Microbial Products: Progress, Potential & IPR issues' at Dept of Botany, Guru Ghasidas Vishwavidyalaya, Bilaspur (CG), 7-9 Feb 2018, pp 34
- Chauhan R, **Quraishi Afaq**, Jadhav SK & Keshavkant S (2016) *In vitro* conservation of *Chlorophytum borivilianum* Sant et Fernand, via vitrification based cryopreservation. 3rd International Congress of the Society for Ethno-pharmacology, India- "Ethno-pharmacology & Evaluation of Medicinal Plants – Global Perspectives. National Center for Natural Resources, Pt. Ravishankar Shukla University, Raipur, Feb 19-21, 2016, pp 73
- Naik ML, Jadhav SK, Lader S, Bhushan S, Sharma DK, Nishad CK & **Quraishi A** (2016) A phyto-sociological analysis of forests of Raigarh (CG) district. National Seminar on 'Innovations & Prospects in Biotechnology' School of Studies in Biotechnology, Pt. Ravishankar Shukla University, Raipur CG, 2 – 4 Jan 2016, pp 36
- Mehar S, Jadhav SK & **Quraishi A** (2012) *In vitro* conservation of *Acorus calamus* L. National Seminar on 'Changing Environment and its Impact on Biodiversity.' Dept of Botany, Govt. DB Girls PG Autonomous College, Raipur CG, 11 - 12 Oct 2012, pp 49
- Quraishi A** (1994) *In vitro* micropropagation from nodal segments of *Cleistanthus collinus* Benth. Ninth M.P. Young Scientist Congress by Madhya Pradesh Council of Science and Technology at Dr. HS Gour Vishwavidyalaya,, Sagar (MP), 28th Feb to 2nd March 1994, pp 22-23.
- Quraishi A**, Koche V, Mishra SK (1997) Studies on *in vitro* propagation of *Lagerstroemia parviflora*. IUFRO Symposium on Innovations in Forest Tree Seed Science & Nursery Technology at School of Life Sciences, Pt. Ravishankar Shukla University, Raipur, 22nd to 25th Nov 1997, pp 104.

Invited Lectures

“Critical aspects for tissue culture of the woody plant species” (22.02.2019) During International Training Program on Commercial Plant Tissue Culture at Raipur (India), organized by- Biotech India Consortium Limited, New Delhi, under the aegis of Ministry of External Affairs, Govt. of India

“Key Steps of Micropropagation” (20.11.2017) During International Training Program on Commercial Plant Tissue Culture at Raipur (India), organized by- Biotech India Consortium Limited, New Delhi, an organization created by an initiative of the Department of Biotechnology, Government of India

“Prevention of Contamination and Elimination of Endophytes during tissue culture” (28.11.2017) During International Training Program on Commercial Plant Tissue Culture at Raipur (India), organized by- Biotech India Consortium Limited, New Delhi, an organization created by an initiative of the Department of Biotechnology, Government of India

“Plant Tissue Culture: Techniques & Applications” (27.02.2016) In two days workshop on ‘Implication of plant tissue culture on plant biodiversity’ 26 -27 Feb 2016 at Sai College, Sector 6, Bhilai (CG)

Program organized:

Organizing Secretary of ‘Science Promotion Activity’. A one day program organized by Pt. Ravishankar Shukla University, Raipur CG and catalyzed by Chhattisgarh Council of Science & Technology, Raipur. A science quiz on ‘Green Energy’ and a popular science talk. 15th Feb 2020.

International Training program- Organized a four-day training program on ‘banana virus indexing’ and ‘genetic fidelity testing in tissue-cultured banana plants’, for 13 African candidates from July 23 to 26, 2018; funded by Biotech Consortium India Ltd. (BCIL), New Delhi. BCIL is an organization created by the Dept. of Biotechnology, New Delhi, GoI.

Reviewer of the Journals:

- Bulletin of Environmental Contamination and Toxicology [JIF: 1.48]
- Industrial Crops & Products [JIF: 4.191]
- European Journal of Plant Pathology [JIF: 1.582]

Ph.D. Supervisor:

S N	Name of the Scholar	Status/ Award Year	Title
1	Vikram Singh	12.3.2021	Development and standardization of <i>in vitro</i> propagation protocol for virus free Banana (<i>Musa</i> sp. AAA) cv 'Grand Naine'
2	Ms Smriti Adil	Registered	Exploration of electrotherapy to eliminate banana bunchy top virus from <i>Musa</i> spp. (AAA) cultivar ‘Grand Nain’
3	Ms Tripti Agrawal	Registered	Genetic diversity analysis, <i>in vitro</i> seed germination and propagation strategies for <i>Buchanania lanzan</i> Spreng.
4	Ms Afreen Anjum	Registered	<i>In vitro</i> propagation, elicitation of active component and conservation of Kali haldi (<i>Curcuma caesia</i> Roxb.)

Supervised M.Sc./M. Phil. Biotechnology Dissertation:

S N	M. Phil. Students	Year	Title of the Dissertations
1	Ms Shabina	2015	Effect of different pre-treatment methods on biohydrogen production from de-oiled rice bran using <i>Clostridium acetobutylicum</i> NCIM 2877
2	Ms Anjali Kosre	2015	<i>In vitro</i> plant regeneration through meristematic zone of pseudo stem of <i>Costus pictus</i> D. Don
3	Ms Rakhi Thakur	2014	Heavy metal 'Lead' tolerance and phytoextraction by <i>in vitro</i> grown seedlings of <i>Leucaena leucocephala</i> (Lam.) de Wit
4	Ankush Kerketta	2014	Lead tolerance and phytoextraction by <i>in vitro</i> grown seedlings of <i>Dalbergia sissoo</i> Roxb.
5	Ms Sneha Harishchandra	2014	Lead uptake and effects on <i>in vitro</i> grown seedlings of leguminous tree <i>Peltophorum pterocarpum</i> (DC.) Backer ex Heyne
6	Ravishankar Chauhan	2013	<i>In vitro</i> germination of papaya seeds to develop healthy and disease-free planting material.
7	Ms Poonam Kumari	2013	<i>In vitro</i> production of secondary metabolites from <i>Cleistanthus collinus</i> (Roxb.) Hook. f.
8	Ms Nikita Admane	2013	Banana bunchy top virus indexing of cultivated and tissue cultured banana plants of Chhattisgarh region.
9	Ms Shraddha Churendra	2013	<i>In vitro</i> production of Azadirachtin from Neem tree leaf culture.
10	Satyajit Kanungo	2012	<i>In vitro</i> Propagation of <i>Plumbago zeylanica</i> L.; A valuable medicinal plant
11	Ms Smriti Adil	2012	Uptake and accumulation of iron and analysis of accumulated metal concentration in Indian Mustard (<i>Brassica juncea</i>)
12	Ms Snigdha Mehar	2012	<i>In vitro</i> mid-term conservation of <i>Acorus calamus</i> L. (Bach)
13	Ms Sheetal Gupta	2011	Micropropagation and characterization of secondary metabolites of <i>Cassia tora</i> L. (Charota)
14	Ms Durga Sahu	2011	<i>In vitro</i> microrhizome induction, encapsulation and cold storage for germplasm conservation of <i>Acorus calamus</i> L. (Bach)
15	Ms Tripti Motgare	2011	Micropropagation in <i>Vigna radiata</i> (L.) Wilczek
M.Sc. Students:			
16	T Abhilasha	2020	Screening of phytoconstituents, antioxidant and antibacterial potentials of <i>Hardwickia binata</i> crude extract
18	Riya Chandrakar	2019	Effect of Lead stress on morphological and biochemical parameters of <i>Cicer arietinum</i> L.
19	Nikita Patil	2019	Study the changes in morphological and biochemical parameters under the <i>in vitro</i> influence of Pb stress in <i>Glycine max</i> L.
20	Gitanjali Sahu	2019	Morphological and biochemical response of Chickpea (<i>Cicer arietinum</i> L.) to water stress
21	Manisha Verma	2019	Salinity induced morphological and physiological changes in <i>Cicer arietinum</i> L.
22	Monika Yadav	2018	Effect of plant growth regulators in <i>in vitro</i> culture of banana (<i>Musa spp.</i>) cv. 'Grand Naine'
23	Surabhi Sen	2018	A PCR-based method for the detection of Banana Bunchy Top Virus (BBTV) in banana (<i>Musa spp.</i>) cv. 'Grand Naine'
24	Sayali Khandwekar	2017	Dendroremediation of Lead (Pb) and Iron (Fe) from a Tailing discharge canal.
25	Hemlata Markandey	2016	<i>In vitro</i> propagation and callus induction in two dicotyledonous species: <i>Argyrea nervosa</i> Burm. F. and <i>Cleistanthus collinus</i> Roxb.

Supervised B.Sc. Dissertations:

SN	Student	Year	Title of the Dissertations
1	Vargobi Mukherjee	2016	Standardization of Genomic DNA isolation from BBTV infected Banana (<i>Musa Spp.</i>)
2	Neha Shrivastav	2017	Extraction and evaluation of the genomic DNA of <i>Dalbergia sissoo</i> Roxb. by CTAB method.
3	Harsh Singh Shandilya	2017	Isolation and analysis of genomic DNA from different animal tissues
4	K Minakshi	2018	<i>In vitro</i> propagation of <i>Croton roxburghii</i> – a valuable medicinal plant
5	Subir Kumar Parey	2018	<i>In vitro</i> culture of a valuable medicinal plant – <i>Plumbago zeylanica</i> L.

DECLARATION:

I declare that information given above is true to the best of my knowledge.

Place: Raipur CG (India)

Date: 11.06.2021

Dr. Afaque Quraishi