

Umesh B Jagtap MSc, PhD,

Assistant Professor (AL-11)

Botany Department,

Government of Maharashtra's Rajaram College Kolhapur, Vidyanagar Kolhapur, India (MS)-416004

**Academic Details**

2013	Ph.D., Shivaji University Kolhapur
2007	M.Sc., Botany (Cytogenetics & Plant Breeding), Shivaji University Kolhapur
2005	B.Sc., Botany, S.G.M. College Karad, Shivaji University Kolhapur

Research Specialization

I became interested in basic, strategic and applied research that has resulted into new research dimensions in biotechnology in general and plant biotechnology.

Plant tissue Culture	Conduct research on <i>in vitro</i> studies in Jackfruit (<i>Artocarpus heterophyllus</i> Lam.).
Biochemical analysis	Identification and bioactivity evaluation of antioxidant compounds from jackfruit and custard apple by using HPLC technique.
Wine Biotechnology	Preparation and evaluation of antioxidant properties of Jackfruit and custard apple wine and its protective role against radiation induced DNA damage.
Nanobiotechnology	Conduct research on green synthesis and characterization of silver nanoparticles by using jackfruit seed and Custard apple leaf extract and studied its antibacterial activity.
Phytoremediation	Phytoremediation of textile dyes using <i>Blumea</i> and <i>Typhonium</i> (In vitro plants), <i>Blumea</i> (Cell culture), <i>Brassica</i> (Hairy root culture).
Rescue of Endangered plant	Demonstrated feasibility of tissue culture technology for the rescue of endangered plant <i>Aponogeton bruggenii</i> .

Personal Details

Designation: Assistant Professor (AL-11)

✉: Department of Botany, Government of Maharashtra's Rajaram College Kolhapur, Vidyanagar Kolhapur, India-416004

☎: +91-9881502808

✉: umeshiaqtap93@gmail.com

Date of Birth: 27th June, 1984.

Teaching Experience

UG	July 2016 Onwards
PG	May 2015-Aug 2021

Professional Experience

Aug 2021-Onwards	Assistant Professor, Department of Botany, Government of Maharashtra's Rajaram College Kolhapur, Vidyanagar Kolhapur, India-416004 (Affiliated to Shivaji University Kolhapur)
July 2016-Aug 2021	Assistant Professor, Department of Botany, Government Vidarbha Institute of Science & Humanities, Amravati, India-444604 (Affiliated to Sant Gadage Baba Amravati University, Amravati)
May 2015- July 2016	Assistant Professor (DBT-IPLS), Department of Biotechnology, Shivaji University Kolhapur, India-416004
May 2013-May 2015	UGC's Dr D S Kothari Postdoctoral Scholar, Department of Biotechnology, Shivaji University Kolhapur, India-416004

Research IDs**Research IDs****Links**

ORCID ID	http://orcid.org/0000-0002-3937-3774
Researcher ID	http://www.researcherid.com/rid/C-5130-2013
Google Scholar ID	4jLgkB0AAAAJ&hl=en
Vidwan ID	https://vidwan.inflibnet.ac.in/profile/114783

Research Guidance**Research Guidance**

Supervision of Doctoral Thesis	Working (02)
Supervision of MSc Dissertation	Nil

Grants**Grants**

Nil

Awards and Distinctions

Awards and Distinctions

2013	UGC's Dr D S Kothari PDF in Life-Sciences, Shivaji University Kolhapur, India
2011	CSIR-Senior Research Fellowship, CSIR New Delhi
2007	Junior Research Fellowship, CSIR New Delhi

Membership

Membership

2022	Board of Studies in Botany Government of Maharashtra, Government Vidarbha Institute of Science and Humanities, Amravati (Autonomous)
2019	Board of Studies in Botany Rayat Shikshan Sanstha's Sadguru Gadge Maharaj College Karad (Autonomous)

Additional Education and Training (Fellowships/Post-Doctoral)

Additional Education and Training (Fellowships/Post- Doctoral)

2013	UGC's Dr D S Kothari PDF in Life-Sciences, Shivaji University Kolhapur, India
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Research Publications (34)

Research Articles

2014	U. B. Jagtap, M. M. Lekhak, D. P. Fulzele, S. R. Yadav, V. A. Bapat Analysis of selected <i>Crinum</i> species for galanthamine alkaloid: an anti-Alzheimer drug. Current Science.2014; 107(12):2008-2010.
2014	Jagtap, Umesh B; Bapat, Vishwas A Phenolic composition and antioxidant capacity of wine prepared from custard apple (<i>Annona squamosa</i> L.) fruits. Journal of Food Processing and Preservation.2014; DOI: 10.1111/jfpp.12219.
2013	Jagtap, UB; Bapat, VA Biosynthesis, characterization and antibacterial activity of silver nanoparticles by aqueous <i>Annona squamosa</i> L. leaf extract at room temperature. Journal of Plant Biochemistry and Biotechnology. 2013; 22(4): 434-440. DOI: 10.1007/s13562-012-0172-8.
2013 Highly Cited Article	Jagtap, Umesh B; Bapat, Vishwas A Green synthesis of silver nanoparticles using <i>Artocarpus heterophyllus</i> Lam. seed extract and its antibacterial activity. Industrial Crops and Products Volume. 2013; (46):132-137. DOI: 10.1016/j.indcrop.2013.01.019
2013	Chavan, Jaykumar J; Jagtap, Umesh B; Gaikwad, Nikhil B; et al. Total phenolics, flavonoids and antioxidant activity of Saptarangi (<i>Salacia chinensis</i> L.) fruit pulp. Journal of Plant Biochemistry and Biotechnology.2013; 22(4):409-413.
2012	Jagtap, Umesh Balkrishna; Bapat, Vishwas Anant Antioxidant activities of various solvent extracts of custard apple (<i>Annona squamosa</i> L.) fruit pulp. Nutrafoods. 2012;11(4):137-144.
2011	Telke, Amar A; Kagalkar, Anuradha N; Jagtap, Umesh B; et al. Biochemical characterization of laccase from hairy root culture of <i>Brassica juncea</i> L. and role of redox mediators to enhance its potential for the decolorization of textile dyes. Planta. 2011; 234(6):1137-1149. DOI: 10.1007/s00425-011-1469-x
2011	Adki, Vinayak S; Shedbalkar, Utkarsha U; Jagtap, Umesh B; et al. Detoxification of a carcinogenic paint preservative by <i>Blumea malcolmii</i> Hook cell cultures. Journal of hazardous materials, 2011;191(1):150-157.DOI: 10.1016/j.jhazmat.2011.04.055
2011	Jagtap, Umesh B; Waghmare, Shailesh R; Lokhande, Vinayak H; et al. Preparation and evaluation of antioxidant capacity of Jackfruit (<i>Artocarpus heterophyllus</i> Lam.) wine and its protective role against radiation induced DNA damage. Industrial Crops and Products. 2011; 34(3):1595-1601.DOI: 10.1016/j.indcrop.2011.05.025
2010	Jagtap, Umesh B; Panaskar, Shrimant N; Bapat, VA

Evaluation of antioxidant capacity and phenol content in jackfruit (*Artocarpus heterophyllus* Lam.) fruit pulp.
Plant Foods for Human Nutrition. 2010; 65(2): 99-104. DOI: 10.1007/s11130-010-0155-7

2010	Jagtap, Umesh B; More, Laxman B; Yadav, Shirirang R; et al. In Vitro multiplication and conservation of an endemic and critically endangered plant species <i>Aponogeton bruggenii</i> Yadav & Govekar. National Academy Science Letters (India). 2010; 33(7):217.
2010	Kagalkar, Anuradha N; Jagtap, Umesh B; Jadhav, Jyoti P; et al. Studies on phytoremediation potentiality of <i>Typhonium flagelliforme</i> for the degradation of Brilliant Blue R. Planta. 2010; 232(1):271-285. DOI: 10.1007/s00425-010-1157-2
2009	Kagalkar, Anuradha N; Jagtap, Umesh B; Jadhav, Jyoti P; et al. Biotechnological strategies for phytoremediation of the sulfonated azo dye Direct Red 5B using <i>Blumea malcolmii</i> Hook. Bioresource technology.2009;100(18):4104-4110.DOI: 10.1016/j.biortech.2009.03.049

Review Articles (9)

Review Articles (9)

2022	Vishwas A Bapat, Umesh B Jagtap, P Suprasanna Medicinal phytometabolites synthesis using yeast bioengineering platform. The Nucleus. 2022, 1-7
2019	Bapat, V.A., Jagtap, U.B., Ghag, S.B. and Ganapathi Molecular Approaches for the Improvement of Under-Researched Tropical Fruit Trees: Jackfruit, Guava, and Custard Apple International Journal of Fruit Science, pp.1-49. DOI:10.1080/15538362.2019.1621236
2019	Kshirsagar, P.R., Jagtap, U.B., Gaikwad, N.B. and Bapat, V.A Ethanopharmacology, phytochemistry and pharmacology of medicinally potent genus Swertia: An update. South African Journal of Botany, 124, pp.444-483. https://doi.org/10.1016/j.sajb.2019.05.030
2017	Jagtap, U.B., Jadhav, J.P., Bapat, V.A. and Pretorius, I.S., Synthetic biology stretching the realms of possibility in wine yeast research. International journal of food microbiology, 2017; 252, pp.24-34.
2016	Jagtap U.B and Bapat V. A. Tailoring plants by gene silencing associated with small nucleic acid molecules: An update. Endocytobiosis and Cell Research, 2016; 27(2):1-6.
2015	Jagtap, Umesh B; Bapat, Vishwas A Wines from fruits other than grapes: Current status and future prospectus. Food Bioscience . 2015; 9:80-96.
2013	Jagtap, Umesh; Bapat, Vishwas Overview of Applications of Silver Nanoparticles in Biological Sciences. Proc Indian Natn Sci Acad. 2013; (79)2: 245-263.
2011	Jagtap, Umesh Balkrishna; Gurav, Ranjit Gajanan; Bapat, Vishwas Anant Role of RNA interference in plant improvement. Naturwissenschaften.2011; 98(6):473-492.DOI: 10.1007/s00114-011-0798-8
2010	Jagtap, UB; Bapat, VA Artocarpus: a review of its traditional uses, phytochemistry and pharmacology. Journal of Ethnopharmacology. 2010; 129(2):142-166. DOI: 10.1016/j.jep.2010.03.031
Appeared in ScienceDirect top 25 hottest articles	

Book Chapters (12)

Book Chapters (12)

2022	Mohanish N Bhokhad, Umesh B Jagtap Bioactive Phytochemicals from Moringa (M. oleifera) Seed Oil Processing By-Products. Ramadan Hassanien, M.F. (eds) Bioactive Phytochemicals from Vegetable Oil and Oilseed Processing By-products. Reference Series in Phytochemistry. Springer, Cham. https://doi.org/10.1007/978-3-030-63961-7_32-1
2021	Jagtap U.B., Gurav R.G. Weed Biomass-Based Nanoparticles and Their Applications. Pant D., Bhatia S.K., Patel A.K., Giri A. (eds) Bioremediation using weeds. Energy, Environment, and Sustainability. Springer, Singapore. https://doi.org/10.1007/978-981-33-6552-0_10
2021	Ranjit G Gurav, Shashi Kant Bhatia, Umesh B Jagtap, Yung-Hun Yang, Yong-Keun Choi, Jingchun Tang, Amit Bhatnagar Utilization of Invasive Weed Biomass for Biochar Production and Its Application in Agriculture and Environmental Clean-up

Pant D., Bhatia S.K., Patel A.K., Giri A. (eds) Bioremediation using weeds. Energy, Environment, and Sustainability. Springer, Singapore. https://doi.org/10.1007/978-981-33-6552-0_9

2020	Jagtap U. B. Bioremediation Strategies for Removing Antibiotics from the Environment Antibiotics and Antimicrobial Resistance Genes, Emerging Contaminants and Associated Treatment Technologies, Springer https://doi.org/10.1007/978-3-030-40422-2_15
2020	Gore M., Jagtap U.B. Bioactive Compounds of Marking Nut (Semecarpus anacardium Linn.) Murthy H., Bapat V. (eds) Bioactive Compounds in Underutilized Fruits and Nuts. Reference Series in Phytochemistry. Springer, Cham https://doi.org/10.1007/978-3-030-06120-3_23-1
2019	Jagtap U.B., Bapat V.A. Exploring Phytochemicals of Ficus carica L. (Fig) Murthy H., Bapat V. (eds) Bioactive Compounds in Underutilized Fruits and Nuts. Reference Series in Phytochemistry. Springer, Cham https://doi.org/10.1007/978-3-030-06120-3_19-1
2018	Jagtap U.B., Bapat V.A Custard apple—Annona squamosa L Sueli Rodrigues Ebenezzer Silva Edy de Brito (eds.), Exotic Fruits Reference Guide, Academic Press, https://doi.org/10.1016/B978-0-12-803138-4.00019-8
2017	Jagtap U.B Antibiotics in the Soil: Sources, Environmental Issues, and Bioremediation M.Z. Hashmi et al. (eds.), Antibiotics and Antibiotics Resistance Genes in Soils, Soil Biology 51, Springer International Publishing AG 10.1007/978-3-319-66260-2
2017	Jagtap U.B., Bapat V.A Transgenic Approaches for Building Plant Armor and Weaponry to Combat Xenobiotic Pollutants: Current Trends and Future Prospects M.Z. Hashmi et al. (eds.), Xenobiotics in the Soil Environment, Soil Biology 49, Springer International Publishing AG DOI 10.1007/978-3-319-47744-2_14
2016	Jagtap U.B., Bapat V.A., Saladin G., Chudzińska E., Magdalena K. Pawlaczyk E.M., Komal T., Kazi A.G, Sherameti I and Ali Z. Role of Microbes and Plants in Phytoremediation: Potential of Genetic Engineering Ecological Restoration: Global Challenges, Social Aspects and Environmental Benefits.(Eds. Victor R. Squires) Nova Science Publisher; New York 89-109
2015	Bapat V. A. and Jagtap U.B. Highlights of research in medicinal plant biotechnology Advances in Plant Sciences and Biotechnology.(Ed.s- Krishnan S. and Rodrigues B. F. Goa University) pp.211-223
2015	Jagtap, Umesh B; Bapat, Vishwas A Genetic Engineering of Plants for Heavy Metal Removal from Soil Heavy Metal Contamination of Soils, Pages: 433—470.

Book Edited (1)

Book Edited (1)

2018	Mohini Gore, Umesh B. Jagtap Computational Drug Discovery and Design Methods in Molecular Biology Volume No.1762. Human Press.
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Membership of Editorial Boards, Scientific Committees and Network

Editorial Board

Since 14 Oct 2021	Serving as Review Editor Frontiers in Microbiology (Section MicroBiotechnology) Frontiers Journals https://loop.frontiersin.org/people/1517996/overview
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Springer	Journal of Plant Biochemistry and Biotechnology
Wiley	Chemistry & Biodiversity
Frontiers	Frontiers in Bioengineering and Biotechnology

