Dr. Krishnapriya P.J

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Summary

I had done my Ph. D in strain improvement of oyster mushrooms through protoplast fusion and came out with improved strains of *Pleurotus cystidiosus*, *Pleurotus opuntiae* as well as promising high yielding fusants. I have characterised the plant viruses associated with papaya ring spot disease, cowpea aphid borne mosaic disease and snake gourd mosaic disease in Kerala. My current research interest is developing integrated management strategies for important viral diseases in Kerala.

Research Highlights

Developed improved high yielding strains of oyster mushrooms by protoplast fusion between *P. cystidiosus* and *P. opuntiae.*

Molecular characterization of *Papaya ring spot virus*, *Black eye cowpea mosaic virus* and *Cucumber mosaic virus* associated with the important viral diseases of crops.

Experience

Joined Kerala Agricultural University as Assistant Professor (Plant Pathology) in the year 2021

Education

- Graduated in Agricultural Science from Kerala Agricultural University (2013)
- Post Graduation in Plant Pathology from Kerala Agricultural University (2015)
- Ph.D in Plant Pathology from Kerala Agricultural University (2020)

Area of Specialization

Mushroom breeding, Plant virology

Awards & Recognitions

Dr. P.K.R. Nair Prize for best Ph.D. thesis - Kerala Agricultural University

M.Sc. (Ag.) First rank in Plant Pathology - Kerala Agricultural University

Research Projects

Completed

Observational trial on 'Evaluation of *Pleurotus cystidiosus* at areas of high elevation of Kerala at Cardamom Research Station, Pampadumpara' funded by Kerala Agricultural University.

Publications

Journal Articles

1. Krishnapriya, P. J. and Geetha, D.2020. Protoplast fusion between *P. cystidiosus* and *P. opuntiae*. *Mushroom Research*. 29 (2): 171-191.

2. Krishnapriya, P. J. and Geetha, D. 2017. First report of *Tricholoma giganteum* from Kerala. *Mushroom Research.* 20(1): 112-115.

3. Krishnapriya, P.J., Umamaheswaran, K., and Harikrishnan, P. J. 2016. Variation in isoperoxidase profile in papaya in Response to Papaya ringspot virus (PRSV) Infection. *Research Journal of Agricultural Sciences.* 7(2): 469-470.

4. Krishnapriya, P. J., Umamaheswaran, K., and Harikrishnan, P. J. 2015. Biochemical basis of resistance in cowpea genotypes systemically infected with Bean common mosaic virus (BCMV). *Trends in Biosciences*. 8(16): 4263-4266.

5. Jose, A., Geetha, D., and Krishnapriya, P. J. 2018. Cultivation and nutritional studies on *Ganoderma lucidum* (Curt. Fr.) P. Karst, the leader of medicinal mushrooms. *Trends in Biosciences*. 11(9): 1928-1932.

6. Nesma A. S, Susha S. Thara, K. B. Soni, K. P. Sindura and Krishnapriya P. J. *Molecular Biology Reports*. July 2023. Expression profiling of laccase and B-glucan synthase genes in Pleurotus ostreatus during different developmental stages.

7. Krishnapriya, P.J., and Geetha, D. 2023. Study of different spawn and bed substrates for cultivation of *Pleurotus cystidiosus*. *J. Farm Science*. 36 (1):40-46.

8. Krishnapriya, P. J, Umamaheswaran, K, Harikrishnan, P. J. 2014. Biochemical basis of resistance in papaya genotypes systemically infected with Papaya Ring Spot virus. *International Journal of Applied and Pure Science and Agriculture*. 1(6): 41-46

9. Krishnapriya, P. J, and Umamaheswaran, K. 2015. Variation in isoperoxidase profile in cowpea In Response to Bean Common Mosaic Virus (BCMV) Infection. *Journal of Agricultural Science and Research.* 2(2): 79-82.

10. Krishnapriya, P. J, Umamaheswaran, K, Harikrishnan, P. J. 2016. Immunomolecular detection and characterisation of potyvirus causing mosaic in cowpea in kerala. *Journal of Agricultural Science and Research.* 3(1):57-64

11. Proximate Constitution and Antiproliferative Activity of Pleurotus opuntiae (Durieu and Lev.) Sacc. against Colon Cancer. P.J. Krishnapriya and D. Geetha. 2017. *Int. J. Curr. Microbiol. App. Sci*. 6(5).

12. Priya R. U, Geetha D. and Krishnapriya P. J. 2017. Survey and Studies on Morphological Characters of Black Ear Mushroom (Auricularia spp.). *Int. J. Pure App. Biosci*. 5 (3): 159-163.

13. P.J. Harikrishnan, P.V. Satyanarayana, B.N.V.S.R. Ravi kumar and P.J. Krishnapriya. 2015. Variability for Yield and Component Traits in Elite Parental Lines of Rice (Oryza sativa L.). *Trends in Biosciences* 8(16): 4249-4251.

14. P.J. Harikrishnan, P.V. Satyanarayana, B.N.V.S.R. ravi kumar and P.J. Krishnapriya. 2016. Estimation of Genetic Diversity Among the Parental Lines in Rice (Oryza sativa L.) Using D2 Statistics. *Advances in Life Sciences* 5(5).

15. Krishnapriya, P. J., Geetha, D. and Priya, R. U. 2017. Morphological and Molecular Characterization of Oyster Mushrooms of Kerala. *Int. J. Pure App. Biosci*. 5 (6): 716-724.

16. Krishnapriya, P. J and Umamaheswaran, K. 2015. Antiviral Principles (AVP'S) For Virus Disease Management in Plants: A Review. *Journal of Agricultural Science and Research*. 2(2): 83-88.

17. P. J. Harikrishnan, Rajib Das, Jeena George and Krishnapriya P.J. 2016. Prospects of Next Generation Sequencing in Plant Breeding. *Advances in Life Sciences*. 5(5): 1618-1630.

Popular Articles

1. Krishnapriya. P.J and Sherin. A. Salam. 'Nellintte pradhana kathir rogangal'. Kalpadhenu. April-June 2023. Pages: 27-28.

2. Krishnapriya.P.J. 2023. 'Vazhaye veezhthum kumil rogangal'. Karshakasree. 44-45.

3. Ammu Asok, A and Krishnapriya P. J. 2023. Satellites as Biocontrol agents against plant viruses. Biotica Research Today. 5(9): 655-657.

4. Krishnapriya, P.J and Aisha, R. 2023. 'Nellile pradhana rogangalum niyanthrana marggangalum'. Karshakan. Pages: 59-62.

5. Krishnapriya, P.J and Harikrishnan, P.J. August. 2015. Papaya ring spot disease: A threat to papaya. 2015. Kerala Karshakan e-journal.46 p.

6. Krishnapriya, P.J. September 2015. Zero budget Natural Farming. Kerala Karshakan e-journal.40-41.

7. Krishnapriya, P.J. December 2015. Exploit the Untapped Potentials of Mushrooms. Kerala Karshakan e-journal.16p

8. Krishnapriya, P. J and Umamaheswaran, K. May2016. Antiviral principles from plants. Kerala Karshakan e-journal. 28p.

9. Pintu Roy Vattakunnel, Harikrishnan P. J, Soniya N.S, and Krishnapriya P.J. May 2016. Cultivating rice saving water. Kerala Karshakan e-journal. 39p.

10. Harikrishnan P.J, Soniya N.S, Sainathnagula, Pintu Roy Vattakunnel and Krishnapriya P.J. Rice murals. April 2016. Kerala Karshakan e-journal. 34p.

11. Krishnapriya. P.J and Geetha. D. February 2017. Snow white mushroom Pleurotus opuntiae. Kerala Karshakan e-journal. 46 p.

12. Krishnapriya. P.J and Geetha. D. July 2017. *Pleurotus cystidiosus*: The Giant oyster mushroom: The Revolutionary Saga from Idukki. Kerala Karshakan e-journal.

Books/Chapters in Books: Nil

Student Guidance (Major Advisor/ Advisory Committee member)

M. Sc.

Within KAU: Ongoing: 3

Other Institutional Responsibilities

1. Currently acting as student Advisor to 10 Undergraduate students.

Membership in Professional Associations

1. Life time membership in Asian PGPR Society of Sustainable Agriculture.