

**Dr. D. KRISHNAVENI**

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**1. Personal bio-data:**

- a) **Position/Designation** : **Principal Scientist**  
b) **Joining date in ICAR** : **July 21, 1993, (DOB: 15/12/1964)**  
c) **Discipline and Specialization** : **Plant Pathology, Specialization in Plant Virology**

**d) Training/advance exposure in the area of work:**

- Training Programme on “Application of Molecular tools to study rice viruses”, 9<sup>th</sup> November to 4<sup>th</sup> December 1998, (4 weeks), Held at International Rice Research Institute (IRRI), Manila, Philippines, 1998
- Refresher course on "Information Technology in Agriculture", 3.12.2001 to 23.12.2001, (21 days), NAARM.
- Refresher course in "Recent Advances in Agricultural Research Project Management), 18.9.2002 to 8.10.2002 (21 days), NAARM.
- ICAR sponsored short course on ‘Molecular markers and transgenics for precision in rice breeding’, March 20-29, 2006, (10 days), Directorate of Rice Research, Rajendranagar, Hyderabad.

**e) Contribution to the scientific advancement:**

- Identification and molecular mapping of resistance genes for rice tungro virus disease (The major QTL qRTV-7 from Utri Rajapan was fine mapped)
- Associated in development of PCR based dot -blot hybridization method for detection of RTBV and RTSV from infected plants and insects.
- Several donors have been identified for rice tungro virus disease resistance through national and international screenings.
- A knowledge based expert system for management of rice diseases and pests was developed keeping in view of extension workers and farmers
- Studied genetic diversity within the population of bacterial leaf blight in India

## **2. Future Planning of research:**

- Development of rapid diagnostic technique for early detection of rice tungro viruses
- High resolution mapping, identification and functional analysis of rice tungro virus resistance genes
- Assessment of host plant resistance for rice tungro disease
- Characterization of the variability of the virus particles and study of the identified gene expression on their infection and differentiation of the resistance to RTV and GLH
- Breeding elite rice lines with identified RTV resistance genes (simultaneous introgression will be made to the popular varieties with identified genes from Utri Rajapan using Marker Assisted Backcross).

## **3. Publications:**

- Krishnaveni D, Reddy CS, Laha GS, Neeraja CN, Prasad GSV, Srinivas Prasad M, Mangrauthia SK, Muralidharan K and Viraktamath. 2009. Rice Tungro Virus Disease in India. (Technical Bulletin No.43). Directorate of Rice Research (ICAR), Rajendranagar, Hyderabad. 26pp
- Reddy, C. S., Laha, G. S., Prasad, M. S., Krishnaveni, D., Castilla, N. P., Nelson, A. and Savary, A. S. (2011). Characterizing multiple linkages between individual diseases, crop health syndromes, germplasm deployment, and rice production situations in India. *Field Crops Research* 120 : 241–253
- Satendra K Mangrauthia, Malathi, P, Krishnaveni, D., Reddy, CS, Viraktamath, B.C., Balachandran, S.M. Neeraja, C.N. Biswal, AK. (2010). Rapid detection of Rice tungro virus by RT-PCR and Dot Blot Hybridization. *Journal of Mycology and Plant Pathology* 40:445-449
- Muralidharan, K., Krishnaveni, D. Rajarajeswari, NVL and Prasad .R. 2003. Tungro epidemics and yield losses in paddy fields in India. *Current Science*. 85 (8): 1143-1147.
- Yashitola J, Krishnaveni D, Reddy APK and Sonti RV. 1997. Genetic diversity within the population of *Xanthomonas oryzae* pv *oryzae* in India. *Phytopathology* 87 (7): 760-776

#### **4. Other relevant activities of Scientist:**

- Contributing actively as Principal Investigator, All India Coordinated Rice Pathology Programme.
- Member of various committees in the institute viz., Technical committee for Purchases (Equipments and other items) and Local purchase committee (Lab consumables); Women's welfare committee and member in DPC and others
- Organizing Secretary for the Cooperative & Mutually aided Thrift society at DRR
- Acting as Guide/Co-guide to Post-graduate students of Plant Pathology, ANGRAU.
- Active involvement as resource person in training and awareness programs of farmers about integrated disease management practices .