SCIENTIST PROFILE

1. Name & Designation : Dr. Meera Kumari Kar
   Principal Scientist
2. Date of Birth : 26th August, 1965
3. Date of joining ICAR : 25th July, 1994
4. Date of joining the present post : 2nd July, 2011
5. Qualification (highest degree) : Ph. D (Plant Breeding & Genetics)
6. Post Doctoral Research Experience/Training:
7. Area of Specialization/research interest: Plant Breeding
8. Significant Contribution including products and patents (Five bullets):
   - Three cultures CR Dhan 303 (CR 2649-7) and CR Dhan 304 (CR 2644-2-6-4-3-2) and CR Dhan 305 (CR 2706) were identified for CVRC release.

     CR Dhan 303 [CR 2649-7 IET 21589 (IC 593938)] was identified for irrigated areas of Madhya Pradesh, Uttar Pradesh and Odisha under mid-early duration by Variety Identification Committee during 47th Annual Rice Research Group Meeting, 2012 at Hyderabad.

     CR Dhan 304 [CR 2644-2-6-4-3-2 (IET 22117)] was identified for irrigated areas of Odisha and West Bengal under mid-early duration by Variety Identification Committee during 48th Annual Rice Research Group Meeting, 2013 at Srinagar. This line is moderately resistant to sheath blight, sheath rot, brown spot, Rice tungro disease and gall midge biotype1.

     CR Dhan 305 (CR 2706) (IET 21287) was identified for irrigated areas of Jharkhand, Maharashtra and Andhra Pradesh under mid-early duration by Variety Identification Committee during 48th Annual Rice Research Group Meeting, 2013 at Srinagar. It has moderate resistance to leaf blast, BPH and WBPH. It has long slender grains with 65% head rice recovery and combines other good quality characters.
   - CR Dhan 301 (IET 19351) was released for irrigated ecosystem of Odisha in 2012.
   - Developed several breeding lines which were found to be resistant to Rice tungro disease. Three cultures CR 2652-14 (IET 21346), CR 2656-11-3-4-2 (IET 21713) and CR 2644-2-6-4-3-2 (IET 22117) were found to be resistant to Rice tungro disease with low susceptibility index less than 4.0 in NSN 1 and NSN 2 trial of AICRIP, 2011.
   - Developed the foundation population of the crosses involving Genetic male sterile line and 13 sheath blight resistant donors IET 17885, IET 17886, IET 19346, Manasarovar, Manoharsali, Jogen, ASD 18, IET 20755, IET 20737, IET 20443, IET 20553, IET 19140 and IET 20230 for male sterility facilitated recurrent selection approach. 146 lines showing high degree of tolerance to sheath blight were identified.
   - Molecular mapping of rice tungro resistance gene was done. The marker RM297 and RM 6569 located at 132.0cM on chromosome 1 co-segregated with RTD resistance in the mapping population of Tapaswini / IET16952.
9. Awards/Honours:
   - Recipient of eight gold medals as topper of the batch in B. Sc (Ag) and M.Sc (Ag) from OUAT.
   - Received gold medal for outstanding group performance in “Field Experience Training” awarded by National Academy of Agricultural Research Management, Hyderabad in 1995.

10. Publications (10 best):

i. Bose LK, **Kar MK**, Singh ON and Pande K (2012). Genetic divergence studies in puddle wetland *Boro* rice. **Indian Journal of Plant Genetic Resources** 25(2): 183-185.

ii. Dikshit N, Das AB, Sivaraj N and **Kar MK (**2012). Phenotypic Diversity for Agro-Morphological Traits in 105 Landraces of Rice (*Oryza sativa* L.) from Santhal Parganas, Jharkhand, India. **Proc. Natl. Acad. Sci., India, Sect. B: Biol. Sci.** (DOI 10.1007/s40011-012-0139-5).

iii. Das L, Sadangi BN, Mishra SK, **Kar MK** (2011). Extent of adoption of CRRI rice varieties for lowland and their appropriateness as perceived by growers. **Oryza** 48(4): 370-374.

iv. Behura N, Sen P and **Kar MK** (2011). Introgression of yellow stem borer (Scirpophaga incertulas) resistance genes into cultivated rice from wild species. **Indian Journal of Agricultural Sciences** 81(4): 359-362.

v. Panda B, **Kar MK**, Padhi G and Sen P (2011). Development of F_1 and BC_1F_1 interspecific hybrids of *O.sativa* cv Savitri/*O. brachyantha* to introgress Yellow Stem Borer resistance genes into cultivated rice. **Oryza** 48(3):195-199.

vi. **Kar MK**, Rao MVR, Sahoo TN, Rao GJN and Roy AT (2010). Assessment of genetic diversity in short grained aromatic rice using conventional and molecular approaches. **Bulletin of Pure and Applied Sciences** 29B(1): 1-18.

vii. Sen P, **Kar MK**, Panda B, Behura N, Bose LK and Mishra RN (2010). Exploitation of secondary and tertiary gene pool in genus *Oryza*. **Oryza** 47(1): 1-12.

viii. Das BP, **Kar MK,** Dash P and Roy AT (2010). Physiological, genetic and molecular basis of submergence tolerance in rice: A review. **Plant Science Research** 32: 1-9.

ix. Bose L K, Mohanty A, **Kar MK** and Nagaraju M (2004). Stability Analysis for Grain Yield of rice under fragile ecosystem of Eastern India. **Plant Archives** 4(1): 33-38.

x. Sen P, **Kar MK,** Mahata KR and Singh BN (2001). Evaluation of rice genotypes for salinity tolerance to develop varieties suitable for coastal saline areas of Orissa. **J. Indian Soc. Coastal Agric. Res**. 19(1&2): 167-172.