Curriculum Vitae

Dr. Y. Amaravathi
F.no.8-37, Gautham Nagar
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Education:

- **Ph.D., Molecular Biology and Biotechnology**. National Research Center on Plant Biotechnology. Indian Agricultural Research Institute (IARI). New Delhi. India. October 2005. **OGPA. 8.34/10.00**
  Thesis title: Molecular mapping of genes for 'Basmati' grain quality traits in rice (*Oryza sativa* L.)

- **M.Sc., (Agriculture)** Plant Genetic Resources. National Bureau of Plant Genetic Resources. Indian Agricultural Research Institute (IARI). New Delhi. India. July 2001. **OGPA. 3.92/4.00**
  Thesis title: DNA profiling and analysis of genetic diversity in Indian *Musa* cultivars using AFLP technique

- **B.Sc., (Agriculture).** Acharya N.G. Ranga Agricultural University, Hyderabad. India. July 1999. **OGPA. 8.51/10.00**

Research skills:

DNA Fingerprinting : RFLP, RAPD, AFLP, SSRs, locus specific PCR, multiplex PCR using Microsatellites, real time PCR, DNA sequencing etc.
Gene isolation : Genomic & cDNA library construction and screening, RT-PCR
Genetic Engineering : Construction and screening of genomic and cDNA libraries, Standardization of regeneration protocols, *Agrobacterium* mediated genetic transformation of rice, cotton, cucumber and radish.
Softwares : NTSYS-pc, MAPMAKER, QTL Cartographer, MultiQTL, Primer3, Genemark

Professional Experience:

- **Assistant Professor, ANGRAU, Guntur** **May 2013-till date**
  DNA finger printing of crop varieties released form ANGRAU
  Mapping stem rot resistance genes in groundnut (*Arachis hypogaea* L.) with SSR markers

Identification of SSR markers linked to drought related traits in advanced breeding lines of groundnut
Identification of Zn and Fe efficient groundnut genotypes through molecular markers
Development of gene based markers for MAS of drought tolerance in groundnut

- **Assistant Professor, SGR Institutes,** Bangalore, India Jun 2006 - May 2008

  Handled theory and practical classes of **Prokaryotic and Eukaryotic Molecular genetics; Plant tissue culture; Techniques in Biotechnology**

- **Scientist 'B', DARL** (Defense Agricultural Research Laboratory), **DRDO**, Ministry of Defense, New Delhi. India Mar 2005 - Jun 2006

  Finger printing of *Stevea rebaudiana*
  Identification of potential genes/QTLs for cold tolerance
  Standardization of regeneration protocol for Radish.
  Genetic transformation of Radish with cold tolerance genes

- **Doctor of Philosophy,** NRCPB, IARI, New Delhi Aug 2001- Mar2005

  Molecular genetic linkage map of 12 rice chromosomes of rice (Pusa1121 x Pusa1342) was developed with 111 STMS markers
  Major QTLs for grain length, grain breadth, amylose content, alkali spreading value and grain aroma were identified.
  QTL for grain aroma is validated

- **Master of Science,** NBPGR, IARI, New Delhi Sep 1999- Aug 2001

  Fingerprinting of 126 accession of banana with AFLP
  Thirty two duplicate accessions of banana were identified and eliminated
  Thirty four banana cultivars of unknown genomic constitution were grouped into distinct clusters with unambiguously identified cultivars
  This study proved India as the secondary center of diversity for cultivated bananas and plantains as high genetic diversity displayed among AAB and ABB genome Musa cultivars

Awards and Honors:

- Recipient of **Gold Medal**, for the outstanding academic performance and research achievements in **Doctoratal program**, **awarded by IARI** (Indian Agricultural Research Institute), New Delhi in the year 2006.

- Recipient of **Gold Medal**, for the outstanding academic performance and research achievements in **Masters Degree program**, **awarded by IARI** (Indian Agricultural Research Institute), New Delhi in the year 2002.
- Secured **1st rank at National level for pursuing doctoral program in Molecular biology and Biotechnology in IARI** (Indian Agricultural Research Institute) and recipient of Senior Research Fellowship, awarded by Indian Council of Agricultural Research (ICAR), New Delhi for pursuing doctoral program in the year 2001.
- Recipient of **Junior Research Fellowship**, awarded by Indian Council of Agricultural Research (ICAR), New Delhi for pursuing postgraduate studies in Plant Genetic Resources.
- Qualified for Council of Scientific and Industrial Research (CSIR) **JRF, Lectureship and NET** combined examination in **Life Sciences** and recipient of **Senior Research Fellowship.**
- Qualified in **National Eligibility Test (NET) in Bio-Technology** conducted by Agricultural Scientists Recruitment Board (ASRB).

Publications

- **Y. Amaravathi***, R.P. Vasanthi, N.K. Poojitha B. A. Sankar, N.P. Eswar Reddy and T.C.M. Naidu (2016) **Biotic stress resistance/tolerance genes identification and their validation by e-PCR in groundnut: an Insilico Approach: National Seminar 2016** Plant Genomics and Biotechnology: Challenges and Opportunities in 21st Century: pp: 53-60
- **Y. Amaravathi** (2016). **Novel approaches to increase polymorphism in differentially expressed genes in response to biotic and abiotic stress tolerance breeding in groundnut (*Arachis hypogaea* L.)** Conference on National Priorities in Plant Health Management
- N.K. Poojitha, **Y. Amaravathi***, R.P. Vasanthi, B. Arpitha, N.P. Eswar Reddy and T. Giridhara Krishna (2016).**Biotic stress resistance/tolerance genes identification and their validation by e-PCR in groundnut: an Insilico Approach** at NATIONAL SEMINAR On Plant Genomics and Biotechnology: Challenges and Opportunities in 21st Century
- E. Aparna, **Y. Amaravathi***, R. P. Vasanthi, N.K. Poojitha and N.P. Eswar Reddy **(**2016). **Comparative analysis and insilico validation of differentially expressed genes in response to mid season drought in Groundnut (*Arachis hypogeae* L.)** at NATIONAL SEMINAR On Plant Genomics and Biotechnology: Challenges and Opportunities in 21st Century
- **Y. Amaravathi***, R.P. Vasanthi, T. Giridhara Krishna and K. Raja Reddy(2015). **Development of novel SSR makers within resistance gene analogues for groundnut (*Arachis hypogeae* L.)** 8th International Conference on Advances in Arachis through Genomics & Biotechnology
- **Y. Amaravathi***, Jhansi Rani, E. Siva kumar R.P. Vasanthi and T. Giridhara Krishna (2015). **Parental lines screening for identification of stem rot resistance genes in groundnut (*Arachis hypogea L.*) using SSR marker.** 1st National Conference on EMERGING TRENDS IN AGRINANOTECHNOLOGY (AgriNano-2015)
- **Y. Amaravathi***, Poojitha, Jhansi Rani, R.P. Vasanthi, B.V. Bhaskar Reddy, Reddi Kumar and T. Giridhara Krishna (2015) **Mass multiplication of Sclerotium rolfsii for**

development sick plots to screen groundnut germplasm. 1st National Conference on EMERGING TRENDS IN AGRINANOTECHNOLOGY (AgriNano-2015).

- R.P. Vasanthi*, **Y. Amaravathi**, P. Sudhakar, P. Latha , E. Siva kumar, P. Jhansi Rani, M. Purushotham , G. Kiran Jyothi and T. Giridhara Krishna (2015). **Identification and pyramiding of genes for drought resistance , yield and yield attributes in advanced breeding lines of groundnut** 1st National Conference on EMERGING TRENDS IN AGRINANOTECHNOLOGY (AgriNano-2015).
- **Y. Amaravathi***, R.P. Vasanthi, E. Siva Kumar, M. Purushotham and T. Giridhara Krishna (2014). DNA fingerprinting of groundnut (*Arachis hypogaea* L.) varieties of Tirupati using SSR markers. Electronic Journal of Plant Breeding, 5(4): 677- 687 (Sep 2014) ISSN 0975-928X
- **Y. Amaravathi**, V. Sai Sruthi and R.P. Vasanthi (2014) "**Application of Bioinformatics in peanut genomics"** in 5th National Seminar on Bioinformatics.
- **Y. Amaravathi**, Rakesh Singh, A.K. Singh, V.P. Singh, T. Mohapatra, T.R. Sharma and N.K. Singh (2008). "Mapping of quantitative trait loci for basmati quality traits in rice (*Oryza sativa* L.)" **Molecular Breeding,** 21(1): 49-65.
- K.V. Bhat, **Y. Amaravathi**, P.L. Gautam, and K.C. Velayudan (2004). "AFLP characterization and genetic diversity analysis of Indian banana and plantain cultivars (Musa spp.)"**Plant Genetic Resources,** 2: 121-130.
- **Y. Amaravathi**, V.P. Singh, A.K. Singh and N.K. Singh. (2004). Attended **9th national rice biotechnology network meeting** and presented a paper titled "Development of a recombinant inbred line (RIL) population for mapping quality traits in rice" from April 15th to 17th, New Delhi, India. Pp: 33
- S. Anand, **Y. Amaravathi**, A.K. Singh, K. Gaikwad, T.R. Sharma, T. Mohapatra and N.K. Singh. (2004). "Segregation for yield component traits in recombinant inbred line population of rice" **9th national rice biotechnology network meeting**, India. Pp35.
- N.K. Singh, M.H.M. Ammar, **Y. Amaravathi**, S. Anand, S.K. Srivastava, A.Bhargav, A.K. Pal, V. Dalal, A. Singh, M. Yadav, A. Dixit, K. Batra, K. Gaikwad, T.R. Sharma, T. Mohapatra, A.K. Singh, V.P. Singh and R.K. Singh. (2003). "Functional genomics for complex genetic traits in rice using immortal segregating populations" **International Rice Functional Genomics Symposium**. pp:92
- N.K. Singh, T. Mohapatra, T.R. Sharma, K. Gaikwad, K. Batra, A. Singh, Ragiba, S. Pal, S. Swain, M. Yadav, S. Srivastav, K.S. Babu, A. Bhargav, H.M.M. Ammar, **Y. Amaravathi**, R.K. Singh, V.P. Singh, and A.K. Singh. (2002) "Functional genomics of naturally occurring alleles of agronomic important traits" **Rice functional genomics workshop.** pp: 33.