### **CURRICULUM VITAE**



Name: Dr. N. S. DEVAKI Address: Associate Professor

Course Co-ordinator

5-Year Integrated M.Sc. Molecular Biology Course

Department of Molecular Biology

Yuvaraja's College (Autonomous), University of Mysore

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Academic

**Qualifications:** Ph.D. in Botany from University of Mysore (UOM): 1992

M.Sc. in Botany with I class and V Rank from UOM: 1985

B.Sc. (Chemistry, Botany and Home Science) with I class from Mangalore University:1983, College Studied: Sri Dharmasthala Manjunatheshwara

College, Ujire, D.K.

Teaching Experience: Eighteen years as permanent faculty member in the Department of

Botany and/ Microbiology/ Molecular Biology Yuvaraja's College, Mysore

since Nov. 1996.

Research Experience: Sixteen years.

Worked on Pythium and Phytophthora diseases of tobacco

from November 1986 to March 1991 for Ph.D degree and on Biological control of quick wilt of black pepper (*Piper nigrum* L.) from April 1992 to Nov 1996

as CSIR Research Associate.

Guided two M Phil students (Botany) and two Ph.D students (Microbiology).

# Awards/Fellowships:

CSIR-Research Associateship –1993

UGC-Senior Research Fellowship -1988

UGC (NET)-Junior Research Fellowship -1986

## **Research Projects Completed/Ongoing:**

Major/Minor	Order No Date of	Duration	Title	Funding	Amount	Status
	Sanction			Agency		
Minor	MRP(S)-2962005(x	2years	*	UGC,	Rs. 58,000/-	Completed
	Plan)/KAMY002/UGC-			Bangalore		
	SWRO dated 9 <sup>th</sup> March					
	2005					
Major	F. No. 41-408/2012	3 years	**	UGC,	10,35,600/-	Ongoing
Projects	dated 16 <sup>th</sup> July 2012	July		New		
		2012 to		Delhi		
		June				
		2015				

<sup>\*</sup>Isolation and preservation of Fungal and Bacterial Cultures as Teaching tool for UG Studies

<sup>\*\*</sup>Studies on the Morphological and Molecular variability of Rice Blast Pathogen in Four Main Rice Growing Districts of Southern Karnataka

#### Research Scholars Working for Ph.D. /Completed:

Sl. No.	Name of the Research Scholar and the funding	Registration No.	Title	Status
1.	Mrs. K. Sumana Without fellowship registration	EX. 9.2/Ph.D/KS/376/ 05- 06 dated 15-11-2006	Studies on Fusarium wilt of Tobacco in Karnataka	Awarded on 30.10. 2012
2.	Mrs. M.Seema Without fellowship registration	EX. 9.2/Ph.D/MS/463/05- 06 dated 14-03-2007	Biology and Management of Rhizoctonia solani Kuhn on Tobacco in Karnataka	Awarded on 18.07.2012
3.	Mr. R. Chandrakanth Without fellowship registration	Ex.9.6/ Ph.D/PR290/2011- 12 dated 14-02-2012	"Characterization and DNA Methylation Analysis of Rice Blast Resistance Genes"	On going
4.	Mrs. K. Sharvani Under UGC- Faculty Development Programme	Ex.9.2/ Ph.D/KAS/2766/ 2011-12 dated 08-05- 2012	"Revision and Conservation of Endemic species of Elaeocarpaceae of Karnataka State, India".	On going
5.	Mr. D. Jagdeesh UGC MRP Project fellowship	Ex.9.6/ Ph.D/PR291/2011- 12 dated 14-02-2012	"Morphological and Molecular Characterisation of <i>Magnaporthe grisea</i> (Hebert) Barr, the Blast pathogen of rice in south Karnataka"	On going
6.	Mr. Ragi Jadi Murthy UGC-NET: JRF fellowship	Enrollment No:EX9.6- Ph.D/PR1244/2012 – 13 dated: 02.03.2013	Elucidation of Fungistatic Actions of Phosphonates against Phytophthora arecae – The Causal Agent of Koleroga Disease of Arecanut	On going

#### **Publications:**

- 1. Sharvani, K.A. and Devaki, N.S. 2015. Distinct characters of *Elaeocarpus*, a conservation dependent endemic genus of Western Ghats. Acta Biologica Indica (accepted for Publication).
- 2. Seema, M., Sreenivas, S.S. and Devaki, N.S. 2015. Identification of anastomosis group of *Rhizoctonia solani* associated with tobacco in Karnataka. Acta Biologica Indica (accepted for Publication).
- 3. Jadimurthy, R. Marathe, G. K. and Devaki, N.S. 2014. Effect of ergosterol and arecanut husk extracts on *Phytophthora arecae*, the causal organism of Koleroga of Arecanut. Acta Biologica Indica 3(1):617-619.
- 4. Chandrakanth, R., Jagadeesh, D. and Devaki N.S. 2014. Black light mediated growth and sporulation of *Magnaporthe oryzae*. International Journal of Agricultural Science and Research 4 (4): 25-30.
- 5. Sumana, K. Devaki, N.S. 2014. Morphological and Biochemical variations among the populations of *Fusarium oxysporum* infecting FCV Tobacco in Karnataka. International Journal of Agricultural Sciences and Research 4(1):51-58.
- 6.Sumana, K., Punith, B.D.and Devaki N.S. 2014. First report on Molecular and Biochemical variations among the populations of *Fusarium oxysporum* infecting tobacco in Karnataka, India. International Journal of Agricultural Technology (Accepted for publication) 10(4): 931-950.

- 7.. Sharvani, K.A., Sadananda, K.B. Sampath Kumara, K.K. and Devaki N.S. 2013. Floristic study of Kikkarahally, a village located in the western ghats, a biodiversity hot spot. Indian Journal of Tropical Biodiversity 21 (1 &2): 1-14.
- 8. Sumana, K., Kini, K. R., & Devaki, N. S. 2013. Genetic diversity of *Fusarium* wilt pathogen of tobacco from Karnataka, India. International Journal of Agricultural Technology, 9(2), 357-370.
- 9.. Seema, M., Punith, B.D. and Devaki, N.S. 2013. First report on isozyme analysis of *Rhizoctonia solani* infecting tobacco in Karnataka, India. JSSCM Journal. Vol.2:44-49
- 10. Seema M, Sreenivas SS and Devaki NS. 2012. RAPD analysis of *Rhizoctonia solani* infecting FCV tobacco of Karnataka. JSSCM Journal 1(1):49-52.
- 11. Seema M, Punith BD and Devaki NS. 2012. A simple and rapid nuclear staining method for *Rhizoctonia solani* Kuhn. Biotechnic & Histochemistry 87:169-171.
- 12. Seema M. and Devaki NS. 2012. In vitro evaluation of Biological control agents against *Rhizoctonia solani*. Journal of Agricultural technology 8:233-240.
- 13. Sumana K, Ramakrishnan S, Sreenivas SS and Devaki NS. 2012. Field evaluation of promising fungicides and bioagents against Fusarium wilt and root knot complex disease in FCV tobacco crop. Journal of Agricultural Technology 8:983-991.
- 14. Sumana K and Devaki NS. 2012. In vitro evaluation of some bioagents against tobacco wilt pathogen. Journal of Biopesticides 5:18-22.
- 15. Sumana K, Sreenivas SS and Devaki NS. 2012. First report on the cultural and pathogenicity variations of wilt pathogen infecting tobacco in Karnataka. Journal Mycopathological Research,50(1):27-33.
- 16. Seema M, Ramakrishnan S, Sreenivas SS and Devaki NS. 2011. Evaluation of *Trichoderma viride* formulations against sore shin disease in Flue-Cured Virginia (FCV) tobacco nurseries. Journal of Biological Control 25; 333-336.
- 17. Sumana K and Devaki NS. 2011. Use of plant extracts for the control of *Fusarium oxysporum* a wilt pathogen. Shodha 1:95-101.
- 18. Seema M, Sreenivas SS, Rekha and Devaki NS. 2011. *In vitro* studies of some plant extracts against *Rhizoctonia solani* Kuhn infecting FCV tobacco in Karnataka Light Soil, Karnataka, India. Journal of Agricultural Technology 75:1321-1329.
- 19. Sumana K, Devaki NS, Shenoi MM and Ramakrishna S. 2011. Nematicidal effect of culture filtrates of wilt fungus *Fusarium oxysporum* on *Meloidogyne incognita*. Tobacco Research 36:81-84.
- 20. Sumana K, Srinivas SS and Devaki NS. 2011. Chemical control of wilt of tobacco caused by *Fusarium oxysporum* Schlecht. Pestology 35:31-33.
- 21. Seema M. and Devaki NS. 2010. Effect of some essential oils on *Rhizoctonia solani* Kuhn infecting flue-cured virginia tobacco. Journal of Biopesticides 3:563-565.
- 22. Seema M, Devaki NS and Sreenivas SS. 2010. In vitro evaluation of fungicides against *Rhizoctonia solani* infecting FCV tobacco in Karnataka soils. Pestology 34: 36-38.

#### **Workshop Organised:**

**Organizing secretary** for the five days **National Workshop on Bioinformatics** from January 20<sup>th</sup> to 24<sup>th</sup> 2005 organized by Yuvaraja's College and Centre for Information Science and Technology, University of Mysore, Mysore. This was sponsored by University of Mysore and Department of Biotechnology, New Delhi.

#### List of Research Papers Presented in Seminars/ Conferences:

- 1. **Devaki, N.S.**, and Bhat, S.S., 2003. Chlamydospore and oospore production in *Phytophthora nicotianae* var. *nicotianae* Presented in the 90th session of the Indian Science Congress, Bangalore held during January, 3-7, 2003.
- 2. Sumana, K., **Devaki, N. S.**, and Sreenivas, S.S., 2006. Preliminary investigations on *Fusarium* wilt of tobacco in Hunsur tract of Karnataka. Souvenir and abstracts, National Seminar on Fungal Biodiversity, Biotechnology and Bioinformatics and 32<sup>nd</sup> annual meeting of the Mycological Society of India held at Centre for post graduate studies, Sri Bhagawan Mahaveer Jain College, Bangalore, during February, 2 & 3, 2006.
- **3.** Sumana, K., **Devaki, N. S.**, and Ramakrishnan, S. 2006. Nimaticidal effect of culture filtrates of Fusarium wilt pathogen on *Meloidogyne incognita* Souvenir and abstracts, National Conference on Recent trends in Mycological Research and 33<sup>nd</sup> annual meeting of the Mycological Society of India held at JJ College of Arts and Science, Pudukottai, during December 28<sup>th</sup> and 29<sup>th</sup>, 2006.
- 4. Sumana, K. and **Devaki, N. S.**, 2008 .Cultural and Pathogenicity on *Fusarium* wilt of Tobacco In: Souvenir: 30<sup>th</sup> Annual Conference & Symposium on Advances in Biotechnology for Plant Protection organized by Department of Studies in Applied Botany and Biotechnology, University of Mysore and Indian Society of Mycology and Plant Pathology during 2008 p.no.58. Nov. 17-19, 2008, p.no. 57.
- 5. Seema, M. and **Devaki, N. S.**, 2008. Preliminary investigations on *Rhizoctonia solani* infecting FCV tobacco seedlings. In: Souvenir: 30<sup>th</sup> Annual Conference & Symposium on Advances in Biotechnology for Plant Protection organized by Department of Studies in Applied Botany and Biotechnology , University of Mysore and Indian Society of Mycology and Plant Pathology during 2008 p.no.58. Nov. 17-19, 2008, p.no. 58.
- 6. **Devaki, N.S.**, Sumana, K., Seema, M. and Kini, K.R. 2009. Comparison of RAPD profiles of *Fusarium oxysporum* and *Rhizoctonia solani* with their cultural and pathogenicity characteristics. In: Proceedings of National conference on Information Technology and its applications held at Centre for Information Science and Technology (CIST), University of Mysore during 21<sup>st</sup> and 22<sup>nd</sup> November 2009, p. no. 127-134.
- 7. Sharvani, K.A. and **Devaki, N.S.** 2010. Floristic study of Kikkarally village of Kodagu District. Paper presented during Dr. Norman E. Borlaug Commemoration National Conference on Plant Diversity and Plant Health, held at Department of Studies in Botany, University of Mysore, Mysore on 11<sup>th</sup> and 12<sup>th</sup> March 2010, 115 p.
- 8. Seema, M. and **Devaki, N.S**. 2010. Cultural, Morphological and Molecular Studies in *Rhizoctomia solani*. Paper presented during Dr. Norman E. Borlaug Commemoration National Conference on Plant Diversity and Plant Health, held at Department of Studies in Botany, University of Mysore, Mysore on 11<sup>th</sup> and 12<sup>th</sup> March 2010, 88 p.
- 9. Sumana, K. and **Devaki, N.S**. 2010. RAPD Studies on Tobacco Wilt Pathogen. Paper presented during Dr. Norman E. Borlaug Commemoration National Conference on Plant Diversity and Plant Health, held at Department of Studies in Botany, University of Mysore, Mysore on 11<sup>th</sup> and 12<sup>th</sup> March 2010, 86 p.
- 10.Sharvani K.A. Sadananda K.B., Sampath Kumara K.K. and Devaki, N.S. 2012. Plants used in traditional medicine from Kikkarahally village of Kodagu District. Abstract of the paper presented in: National Conference Emerging trends in Ayurveda and Herbal drugs. Held at Teresian College, Mysore 22nd and 23rd November 2012.
- 11. Chandrakanth, R. and **Devaki, N.S.** 2012. In-silico promoter analysis of rice blast resistance genes. Abstract of the paper presented during National conference on Recent trends in information technology and animation visual effects and gaming held at by Department of CIST, University of Mysore on 9th and 10th 2012, p.no. 13.

- 12. Jagadeesha, D. and **Devaki, N.S.** 2012. Comparison of sequences of Calmodulin gene responsible for appressorium formation and attachement over the host. Abstract of the paper presented during national conference on recent trends in information technology and animation visual effects and gaming held at by Department of CIST, University of Mysore on 9th and 10th 2012, p.no. 26.
- 13. Sharvani K.A and **Devaki N.S.** 2014. Distinct characters of *Elaeocarpus* a conservation dependent endemic genus of Western Ghats . In the Proceedings of International conference on Biochemistry, Bioresources and Biotechnology (ICBBB) organized by Association for the advancement of Biodiversity science, and (ABS) society for applied Biotechnology held on 30-31st January 2014, at Quorum Hotel, Mysore, p.no. 18.
- 14. Seema M. Sreenivas S.S and **Devaki N.S.** 2014. Identification of *Rhizoctonia solani* anastomosis and compatibility group associated with tobacco crop in Karnataka, India. In the Proceedings of International conference on Biochemistry, Bioresources and Biotechnology (ICBBB) organized by Association for the advancement of Biodiversity science, and (ABS) society for applied Biotechnology held on 30-31st January 2014, at Quorum Hotel, Mysore, p.no. 18.
- 15. Chandrakanth R., Jagadeesh D., and **Devaki N.S.** 2014. A novel method of in vitro sporulation of rice blast fungus-*Magnaporthe grisea*, Proceedings of ICBBB held on 30 31 Jan 2014 at Quorum Hotel, Mysore organized by ABS and SAB. P.no.117. **Got Best Poster award for this research paper.**
- 16. Jadimurthy R., Gopal Marathe K. and **Devaki N.S.** 2014. Effect of ergosterol and arecanut exhact on *Phytophthora arecae*, the causal organism of koleroga of arecanut. Proceedings of ICBBB held on 30 31 Jan 2014 at Quorum Hotel, Mysore organized by ABS and SAB. P.no.117.
- 17. Sharvani K.A. Jagadeesh D., Chandrakanth R., Sumana K., Seema M and **Devaki N.S.** 2014. Phytochemical screening and antimicrobial assay of *Eleaocarpus* species of Western Ghats of Karnataka. . In: The Proceedings of International symposium on chemical Biology, Drug discovery Programme held on 9 10 Jan 2014 at Manasagangotri Mysore organized by Institution of Excellence (IOE), University of Mysore, Mysore, p.no. 66.
- 18. Seema M., Sreenivas S. and **Devaki N.S.** 2014. Morphological diversity in *Rhizoctonia solani* isolates. Abstract of the poster. In: The Proceeding of National symposium on Innovations in Science and Technology for Inclusive Development held on 3-4 Jan 2014 at Manasagangotri, Mysore organized by DOS in zoology university of Mysore, Mysore, p.no. 107.
- 19. Sumana K. and **Devaki N.S.** 2014. Morphological and biochemical variations of *Fusarium oxysporum* infecting FCV tobacco in Karnataka. In: The Proceeding of National symposium on Innovations in Science and Technology for Inclusive Development held on 3-4 Jan 2014 at Manasagangotri, Mysore organized by DOS in zoology university of Mysore, Mysore, p.no. 123.

### List of Conference/Seminar/Workshop Attended:

Sl No.	Conference/Seminar/ workshop	Sponsored and organized by	Date
1	State level seminar on frontiers of Science and technology	Yuvaraja's College, University of Mysore (UOM)	5th January 2004
2	Regional level seminar on biodiversity for food security	Yuvaraja's College, University of Mysore. Sponsored by UGC Bangalore	24 to 25 June 2005
3	State level seminar on Biotechnology: Emerging Trends	Sharda Vilas College, Mysore. Sponsored by UGC, Bangalore.	12 <sup>th</sup> and 13 <sup>th</sup> august 2005
4	State level seminar on medicinal plants and semester syllabus, examination pattern in Botany	SAFG College Chennarayapatna and Mysore University Botany Teacher's Forum	6 <sup>th</sup> February 2006

	City level seminar on Future	Amrita Mahavidyalaya,		
5	perspective in Microbiology	Mysore.	18 <sup>th</sup> March 2006	
	and Biotechnology.			
	National seminar on Molecular	DOS in Applied Botany	aoth a goth a z	
6	Plant Pathology and	and Biotechnology	28 <sup>th</sup> to 29 <sup>th</sup> November	
	Biotechnology for sustainable	UOM, Mysore	2007	
	crop production State level seminar on – Recent	ICC college for woman		
7	developments in Microbial	JSS college, for women Sarswathipuram Mysore,	5 <sup>th</sup> & 6 <sup>th</sup> March 2007	
/	technology	UGC - Sponsored	3 & 0 Watch 2007	
	State level seminar on Recent	Department of Botany		
_	trends in plant sciences:	Maharani's Science	29 <sup>th</sup> and 30 <sup>th</sup> August	
8	MYMA PLANSCI - 2008	College for women,	2008	
		Mysore.		
	State level seminar on Genetic	Faculty of life sciences		
9	Engineering and its impact	Bharthi college, Mandya,	24 <sup>th</sup> January 2000	
9		Sponsored by UGC,	24 <sup>th</sup> January 2009	
		Bangalore.		
	International symposium on	Karnataka state open	. th th	
10	Challenges in drug discovery	university, Mysore.	16 <sup>th</sup> – 17 <sup>th</sup> February	
10	programme 2011 (ISCDDP –		2011	
	2011)	WOODE D. 1. 1		
11	Workshop on Intellectual	KSCST, Bangalore and	25 <sup>th</sup> March 2011	
	property rights National level workshop on	CIST, UOM, Mysore. Research Cell of SBRR		
12	'Modern Trends in Research	Mahajana First Grade	20 <sup>th</sup> Dec 2011	
12	Methodology'	College, Mysore	20 Dec 2011	
	National conference on cancer	DOS in Biochemistry,		
13	biology	Manasa gangothri	29th to 30th	
		,Mysore.	November 2013	
	Workshop on curriculum	JSS College, of arts,		
14	development in science subjects	commerce and Science,	31 <sup>st</sup> December 2013	
		Mysore		
15	One day symposium on Self	DOS in Biochemistry	28 <sup>th</sup> March 2013	
13	Structure and Function	MGM, Mysore.	20 Water 2013	
	Technical workshop on	Mysore university library		
16	exploring SciFinder (Chemical	at DOS in chemistry,	4 <sup>th</sup> January 2014	
	abstracts) for scientific	UOM, Mysore		
	research in academia Technical seminar on Radiation	Indian nuclear assists		
	technologies for food	Indian nuclear society Mysore, BRNS Mumbai,		
17	processing, Agriculture and	AFST, Mysore.	30 <sup>th</sup> March 2013	
	water resources management	111 01, 141y 5010.		
	Molecular Biology Lecture	Dept of Molecular		
18	Series	Biology, Yvaraja's	5 <sup>th</sup> Sept 2014	
		College, Mysore		
19	National Seminar on Statistical	UGC, Dept of Statistics,	26th and 27th Sant	
	methods and data analysis	Yuvaraja's College,	26th and 27th Sept 2014	
		University of Mysore.	2014	
	State level seminar on Recent	Department on Botany		
20	trends in plant taxonomy	Govt College for women,	29 <sup>th</sup> September 2014	
		Mandya	1 oth	
21	National symposium on Lipids	DOS in Biochemistry,	13 <sup>th</sup> and 14 <sup>th</sup> April	
i	and cardio vascillar diseases	UOM, Mysore.	2014	

### **Hands on Training Obtained:**

1	Hands on training course in Advanced cell	Department of applied	1 <sup>st</sup> to 21 <sup>st</sup> December
	and Molecular Biological techniques.	Botany and	2006. (21 days)
		Biotechnology UOM,	-
		Mysore. Sponsored by	
		DBT, New Delhi	
2	National workshop on techniques in	Department of	14 <sup>th</sup> to 17 <sup>th</sup> October
	Molecular Biology in Bioinformatics – 2008.	Microbiology	2008. (4 days)
		Maharani's Science	
		college for women,	
		Bangalore.	
		Sponsored by DBT	
		GOI, and UGC New	
		Delhi	
3	Training on "Molecular Biology Techniques	CFTRI, Mysore.	4 <sup>th</sup> to 19 <sup>th</sup> March 2010
	in Microbiology"	Sponsored by DBT,	(16 days)
		GOI, New Delhi	

#### Other Achievements/Information:

- Invited as a subject expert member for selection of JRF position of projects, promotion of JRF to SRF position (St. Philomena's College, Maharani's Science college for women, Mysore. for UGC-MRP project fellows, CSR&TI, Mysore for JRF to SRF promotion interview).
- Currently a member of the team selected by the University of Mysore to prepare subject Encyclopedia of Botany in Kannada language: 2014
- Gave radio talk in Kannada on "Lasikegalu" on 4.5.2012: invitation by Akashavani, All India Radio, Mysore. This was aired on 1\(^3.05.2012\) at 8 PM in Vijnana Bharathi Programme.
- Selected as the DST mentor for INSPIRE program during 2011. Since then, as a Mentor, I am being invited to judge the District level science exhibition competition being held annually or high school students of Hassan, Mysore, Kodagu districts of Karnataka.
- Invited to give lectures for M.Sc. Microbiology students of KSOU, during 2008, 2009, 2010.
- Served as a resource person for teaching Microbial genetics for M.Sc. Genetics, at DOS in Zoology, Manasagangotri, Mysore during 2006-2008.
- Served as a resource person for teaching M. Sc. Microbiology at Department of Studies in Microbiology, Manasagangothri, Mysore for the academic year 1999-2000.
- Did Kannada translation work of four blocks of course material for degree course conducted by KSOU under Fundamental Education in Science and Technology scheme in the year 2000-01.
- Wrote three blocks of self-instruction material for M. Sc. in Microbiology for KSOU in the year 2004.
- Wrote one block of self-instruction material for M. Sc. in Microbiology for KSOU in the year 2008.
- Invited to give special lectures in other colleges.
- Invited as judge for academic competitions in high schools and colleges.

• A new species of a fungus infecting neem tree (die-back disease) was discovered and named as *Phomopsis azadirachtae* Sateesh, Shank. Bhat & Devaki 1997 (Legitimate; MB442543).

[Dr. N.S. DEVAKI]