



# National Academy of Biological Sciences

## Summary Proceedings & Recommendations of NABS- 4<sup>th</sup> Interactive Workshop and the 5<sup>th</sup> Annual Meeting

### Interactive Workshop

NABS-Fourth Interactive Workshop on "Biotechnological Applications for Sustainable Development" was organized at the East Campus of PRIST University, Thanjavur in collaboration with PRIST University on 12-13 March, 2011.



Prof. Dr. S. Kannaiyan, President of NABS with the Chief Guest, Editor- NABS and the Vice-Chancellor, PRIST University, Thanjavur at the Inaugural function of NABS-4<sup>th</sup> Interactive Workshop

The Chief Guest- Prof. P. Murugesan, Hon'ble Chancellor of PRIST University, Thanjavur inaugurates the NABS- Fourth Interactive Workshop on "Biotechnological Applications for Sustainable Development" by lighting the Kuthuvilakku.





Prof. Dr. T. Marimuthu, Secretary, National Academy of Biological Sciences, Chennai welcomes the delegates, gives an over view of NABS Interactive Workshop.

Dr. N. Ethirajulu, Vice-Chancellor, PRIST University gave an overview of the University and emphasized the importance of education, especially the skill oriented training and education and the role of PRIST University in the development of the region and Tamil Nadu at large.



Dr. V. A. Parthasarathy, Editor, NABS Newsletter briefed about the Interactive Workshop and narrated the developments happening in the Academy.

Prof. Dr. S. Kannaiyan, President of NABS in his presidential address pointed out that biotechnology is the emerging and the most innovative achievements in life sciences and is influencing almost every aspect of human life. He further said that the achievements are the results of scientific discoveries made in genetics, biochemistry, molecular biology and cell biology. Biotechnology has brought out changes in the outlook of biological sciences.





During the Inaugural Session, books authored by NABS Fellows were released by Prof. P. Murugesan, Hon'ble Chancellor of PRIST University, Thanjavur.

The 'Abstract' book of NABS 4<sup>th</sup> Interactive Workshop was released by the President, National Academy of Biological Sciences, Chennai.



List of Publications released during Inaugural function of 4<sup>th</sup> Interactive Workshop.

**Prof. P. Murugesan, Hon'ble Chancellor of PRIST University, Thanjavur released the following publications:**

- i. Kannaiyan, S. (Ed.). 2009. Access and Benefit Sharing. Narasa Publishing House, New Delhi.
- ii. Kannaiyan, S. (Ed.). 2010. Soil Biotechnology, Vol-1, Associated Publishing Company, New Delhi.
- iii. Kannaiyan, S. (Ed.). 2010. Soil Biotechnology, Vol-2, Associated Publishing Company, New Delhi.
- iv. Kannaiyan, S., V. A. Parthasarathy and D. Prasath. 2009. Intellectual Property Rights, Associated Publishing Company, New Delhi.
- v. Muthuchelian, K. and S. Kannaiyan. 2010. Biotechnology and Biosafety. Associated Publishing Company, New Delhi.

**Prof. Dr. S. Kannaiyan, President, NABS released the following publications:**

- i. Marimuthu, T. and T. L. Baskaran. 2011. NABS-Year book-2010, National Academy of Biological Sciences, Chennai, India. p.218.
- ii. Marimuthu, T., T.L. Baskaran and S. Kannaiyan. 2011. Abstract of NABS-4<sup>th</sup> Interactive Workshop on "Biotechnological Applications for Sustainable Development", National Academy of Biological Sciences, Chennai, India. p.63.

## A view of the participants of NABS- 4<sup>th</sup> Interactive Workshop



The Scientists and PG students of PRIST University, Thanjavur, Bharathidasan University, Tiruchirappalli, Sri Pushpam College, Poondi, Thanjavur, MK University, Madurai, Tamil Nadu Agricultural University, Coimbatore, Elected Fellows, Associate Fellows, EC members and Best Woman Scientist Awardees participated in the Workshop and interacted with the speakers.

**The Technical Session- I** was chaired by Prof. Dr. S. Kannaiyan, President of NABS and Co-chaired by Dr. M. M. Mustafa, Director, National Research Centre for Banana, Triuchirappalli, Tamil Nadu and Dr. V. A. Parthasarathy, Editor of NABS Newsletter and the Director, Indian Institute of Spices Research, Calicut, Kerala. The following papers were presented and discussed.

## Technical Sessions: Speakers deliver lectures / receives mementos



Chairman, Co-Chairmen at  
Technical Session



Dr. Renu Agrawal speaks



Dr. R. Selvarajan- one of the  
speakers felicitated



Dr. A. S. Krishnamoorthy- one of  
the speakers felicitated





Dr. S. Nakkeeran- one of the speakers felicitated



Dr. D. Prasath- one of the speakers felicitated



**Dr. M. Anandaraj** of *Indian Institute of Spices Research, Calicut, Kerala*

speaks on

**"Understanding host-pathogen interactions in the genomic era"**



**Dr. B. Senthamizh Selvi** of *Horticulture Research Station, Kodaikanal, Tamil Nadu*

speaks on

**"Assessment of DNA polymorphism induced by gamma radiation in aonla using RAPD method"**

Prof. Dr. S. Kannaiyan in his concluding remarks on the Interactive Workshop appreciated the interest evinced active participation by Post Graduate Scholars from various Institutions. He outlined the importance of such Workshop which will kindle the minds of young scholars and motive them to take research projects which will help the society at large. He also assured that such Interactive workshops on identified themes will be conducted at various place in collaboration with educational and research institutions.



Wrap up by President, NABS

**Special Lectures delivered during  
NABS- 3<sup>rd</sup> Interactive Workshop  
[12, 13 March, 2011]**

1. **RNA interference in the management of plant viral diseases with special reference to banana viruses**  
*R.Selvarajan, National Research Centre for Banana, Tiruchirappalli, Tamil Nadu.*
2. **Biological control of Plant Diseases**  
*S. Nakkeeran and P. Renukadevi, Tamil Nadu Agricultural University, Coimbatore, Tamil Nadu*
3. **Advances in biotechnology of Spices**  
*D. Prasath, Indian Institute of Spices Research, Calicut, Kerala*
4. **Recent trends in food biotechnology for value addition and beneficial properties**  
*Renu Agrawal, Central Food Technological Research Institute, Mysore, Karnataka*
5. **Tissue Culture and its role in Food Security**  
*J. Subramani, World Noni Research Foundation, Chennai, Tamil Nadu*
6. **Fascinating fungal biomolecules for human and plant health- Current Vistas in Mushroom Biotechnology**  
*A. S. Krishnamoorthy, Tamil Nadu Agricultural University, Coimbatore, Tamil Nadu*
7. **Bioactive potential of *Morinda citrifolia* L. and *Morinda pubescens* J.E. Smith**  
*N. Mathivanan, Centre for Advanced Studies in Botany, University of Madras, Chennai, Tamil Nadu*

**The Technical Session- II** was conducted on 13 March, 2011 and it was chaired by Prof. Dr. S. Kannaiyan and Co-chaired by Dr. V. A. Parthasarathy and Dr. M. Anandaraj, EC member of NABS and Project Coordinator, All India Spices Improvement Programme. The following papers were presented and discussed.

8. **Assessment of DNA polymorphism induced by gamma radiation in aonla using RAPD method**  
*B. Senthamizh Selvi, V.Ponnuswami and Dr. J.Suresh, HRS, Kodaikanal, Tamil Nadu*
9. **Understanding host-pathogen interactions in the genomic era**  
*M. Anandaraj, Indian Institute of Spices Research, Calicut, Kerala*

**The Annual Meeting and Award Ceremony**

The award ceremony was organized on 13<sup>th</sup> March, 2011 by 11.30 am at PRIST University. The function was chaired by Prof. Dr. S. Kannaiyan. Dr. V.A. Parthasarathy, Editor of NABS Newsletter, Prof. Dr. T. Marimuthu, Secretary, NABS and Dr. T. L. Baskaran, Treasurer were present.

Prof. Dr. T. Marimuthu welcomed the Fellows, Associate Fellows, Best Woman Scientist Awardees and other members of NABS and faculties of PRIST University. Prof. Dr. T. Marimuthu read out the citations and Prof. Dr. S. Kannaiyan conferred the awards.

**Some snaps of NABS members receiving Fellowship / Associate Fellowship Certificates & Citations from Prof. Dr. S. Kannaiyan, President of NABS**



Woman Scientists were awarded with "NABS- Best Woman Scientist" Award for the year 2010 for the first time



Dr. P. Usha Rani  
Indian Institute of Chemical  
Technology, Hyderabad



Dr. Renu Agrawal  
Central Food Technological Research  
Institute, Mysore, Karnataka







<b>I. NABS Fellowship Awards</b>			
<b>For Election Year 2009</b>		<b>For Election Year 2010</b>	
<i>Fellows- in person</i>		<i>Fellows- in person</i>	
1.	Dr. S. Nakkeeran	1.	Dr. O. P. Aishwath
2.	Dr. Philomena George	2.	Dr. V. Chellamuthu
3.	Dr. N. Raaman	3.	Dr. Latha Rangan
<i>Fellows- in absentia</i>		4.	Dr. M. Pandiyan
1.	Dr. Brahma Singh	5.	Dr. E.V.D. Sastry
2.	Dr. B. M. Khadi	6.	<i>Dr. U.S. Murty</i>
3.	Dr. A. S. Krishnamoorthy	<i>Fellows- in absentia</i>	
4.	Dr. P. Manivel	1.	Dr. Arun Goyal
5.	Dr. K. Thangaraj		
<i>Associate Fellow- in absentia</i>		<i>Associate Fellows- in person</i>	
1.	Dr. K. A. Geetha	1.	Dr. Lenin Kannaiyan
		2.	Dr. D. Thangadurai
<b>Honorary Fellows- 2010</b> <i>in absentia</i>			
1.	Dr. R. S. Paroda	2.	Dr. P.L. Gautam
<b>II. NABS-Best Woman Scientist Award</b>			
1.	Dr. P. Usha Rani Indian Institute of Chemical Technology, Hyderabad	2.	Dr. Renu Agrawal Central Food Technological Research Institute, Mysore, Karnataka
<b>III. Best Scientific Publisher Award</b>			
1.	Shri S. K. Dutta Associated Publishing Company, New Delhi		

#### IV. Presentation of Corporate Life Membership Certificates- 2011

1.	PRIST University Thanjavur, Tamil Nadu	2.	SKYWIN BIOTECH Kumbakonam, Tamil Nadu
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#### V. Best Poster Presentation Awards

No.	Author(s)	Title of the paper presented
<b>General</b>		
1.	<u>G. Sathish</u> , V. Ponnuswami, N. Kumar and J. Suresh <i>Horticultural Research Station, (Tamil Nadu Agricultural University) Kodaikanal, Tamil Nadu.</i>	Effect of different sources and levels of Potassium on HPLC separation of capsanthin content of paprika ( <i>Capsicum annuum</i> var. L.) cv.KtPI-19 under fertigation system
2.	<u>K.N. Shiva</u> , M. Mayil Vaganan and M.M. Mustaffa <i>National Research Centre for Banana, Tiruchirappalli, Tamil Nadu</i>	Quality evaluation of banana varieties for specific target groups
<b>Medicinal Plants</b>		
3.	<u>R. Elango Mathavan</u> , S. Patharajan and S. Ramesh, <i>PRIST University, Thanjavur</i>	<i>In vitro</i> multiplication and <i>ex situ</i> conservation of threatened medicinal plant <i>Baliospermum montanum</i>
4.	<u>S. Ilavenil</u> , B. Kaleeswaran and S. Ravikumar <i>PRIST University, Thanjavur, Tamil Nadu</i>	Hepatoprotective and proteomic mechanism of <i>Crinum asiaticum</i> (L.) against carbon tetrachloride induced oxidative stress in Swiss albino mice
<b>Pests and Diseases</b>		
5.	P. Renukadevi, S. K. Manoranjidham and <u>S. Nakkeeran</u> <i>Tamil Nadu Agricultural University, Coimbatore, Tamil Nadu.</i>	Effect of antiviral phyto proteins for the management of TOSPO virus infection in Tomato
<b>Biodiversity</b>		
6.	<u>V. Sudha</u> and K. Samiayyan <i>Tamil Nadu Agricultural University, Coimbatore, Tamil Nadu</i>	Biodiversity of spiders in three food legume crops of Tamil Nadu
<b>Microbiology</b>		
7.	<u>S. Latha</u> and D. Dhanasekaran <i>Bharathidasan University, Tiruchirappalli, Tamil Nadu</i>	Biosynthesis of silver nanoparticles using <i>Agaricus bisporus</i> as a myconanofactory

- Best Poster Awards were presented to seven Students / Scientists who made poster presentations in the NABS-4<sup>th</sup> Interactive Workshop on 12-13 March, 2011.
- The Best Poster Awards were presented in the form of 'Certificates' by Prof. Dr. S. Kannaiyan, President, NABS.

### Scientists / Students receiving "Best Poster Presentation Awards"



### Recommendations

- ✚ Awarding NABS-Woman Scientists every year with "NABS-Best Woman Scientists Award"
- ✚ Awarding young Scientists with "NABS-Young Scientists Award"
- ✚ Supporting Post Graduate and Ph.D students with partial financial support.
- ✚ Creating Regional Network of Biotechnology Group to create a common platform to share the knowledge and skills in Biotechnology. To start with, A Net Work Project on Plant Biotechnology and Microbial Biotechnology will be developed and submitted to the Department of Biotechnology for financial support.
- ✚ Environmental education and Biodiversity Awareness may be created among school children.
- ✚ A seminar on degradation and conservation of Biodiversity in India will be organized for M.Sc. & Ph.D scholars at Chennai for 3 days duration by organizing oral presentation, Poster presentation and a rally in Marina Beach so as to prepare them to meet the challenges and motivate them. Department of Biotechnology, New Delhi will be approached for financial support.





President, EC Members, Fellows & Best Woman Scientists