



# ***KSRCT IEEE-EMBS Student Chapter Newsletter***

*(K.S.Rangasamy College of Technology  
Institute of Electrical & Electronics Engineers  
Engineering in Medicine and Biology Society)*



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## Editors Desk

It gives us immense pleasure to present the first issue of KSRCT IEEE-EMBS Newsletter, the measure of progress.



We, the editorial board members of the KSRCT IEEE- EMBS Student Chapter are rejoiced to present the Newsletter published by the Department of Biotechnology, KSRCT.

We owe our special thanks to our Chairman Lion Dr.K.S. Rangasamy MJF, Principal Dr.K.Thyagarajah and the members of the various committees for their whole-hearted support .We also thank Shri.R.Srinivashaan, Secretary and Smt.Kavitha Srinivashaan, Assistant Secretary, K.S.R. Educational and Charitable Trust, Tiruchengode for their excellent support and constant encouragement in brining out this magazine successfully every semester.

### *Honors / Awards / Fellowships*

i) Dr.J.Philip Robinson, Asst. Professor of Biotechnology Department has received ‘**Young Scientist Award**’ from Tamil Nadu State Council for Science and Technology (TNSCST), Chennai during the academic year 2007-2008.

ii) Ms.S.R.Saranya, Lecturer of Biotechnology Department has received her ‘**Staff - Indian Academy Summer Fellowship**’ for young teachers below 35 years old from Indian Academy of Sciences (IASc), Bangalore during the academic year 2007-2008 for which she has taken up a project at IASc, Bangalore.

iii) Mrs.D.Mageswari, Full-time Ph.D., Scholar has received ‘**Senior Research Fellowship**’ from Indian Council for Medical Research (ICMR), New Delhi during the year 2008-2009. The stipend amount @ Rs.14,000/- per month is sanctioned for a period of three years to carry out a project entitled “Studies on antimicrobial and anticancerous activities of lichens for biomedical applications”.

iv) Ms.P.Ardr and Mr.Jiby James, III Year B.Tech., Biotechnology students received their Student ‘**Student - Indian Academy Summer Fellowship**’ for from Indian Academy of Sciences (IASc), Bangalore during the academic year 2007-2008.

### *List of on-going Sponsored / Funded Projects by various funding agencies at the Department of Biotechnology*

Name of the coordinator(s)	Title of Project	Funding Agency	Total Amount Sanctioned (Rs)	Duration of Project
Dr.P.Ponmurugan	Effect of biotic and abiotic factors on the growth metabolism of <i>Cephaleuros parasiticus</i> Karst, the causal organism of red rust disease in tea	DST, New Delhi	8,76,000/-	3 years
Dr.N.Kannan Dr.V.Rajendren	Influence of Nano Nutrients on Nitrogen Fixation and yield Rice Crop	DRDO New Delhi	4,98,000/-	1 year

Mr.S.Jegan				
Dr.N.Kannan Dr.V.Rajendren Mr.S.Jegan	Studies on the Growth and yield of Maize Crop Applied with Different Combinations of Nano-Size Silica Particles	DRDO New Delhi	4,97,000/-	1 year
Dr.P.Ponmurugan	Studies on antimicrobial and anticancerous activities of lichens for biomedical applications	ICMR, New Delhi	5,54,000/-	3 years
Dr.P.Ponmurugan	Effect of various substrate for mushroom cultivation	Gandhigram Rural University, Dindigul	13,000/-	6 months
Dr.P.Ponmurugan	Analysis of pesticide residues in poultry feeds, chicken muscles and eggs using GC-MS method	TNSCST, Chennai	5,000/-	6 months

### *Memorandum of Understanding (MoU)*

**Name of the Industry :** UPASI Tea Research Institute, Valparai.

**Major Objectives :** 1. Collaborative field trails at tea plantations in Anamallais hills.  
2. Generations fund by applying major projects to DBT, New Delhi.

**Name of the Industry :** Salem Microbes Pvt. Ltd, Salem.

**Major Objectives :** Analysis of soil and water for their microbial load

**Name of the Industry :** Centre for Cellular and Molecular Biology, Hyderabad.

**Major Objectives :** 1. Four month project for our Biotech students.  
2. Data obtained from this study will be jointly published by CCMB.

### *Number of Seminar / Workshop / Guest Lecture programmes conducted*

Conducted the National Workshop on “Entrepreneurship Development Programme for Biotechnology Graduates” for the first time at southern India exclusively for Biotechnology graduates during 6-10<sup>th</sup> April 2009. More than 75 delegates from all over India participated in this workshop. It is sponsored by CSIR, DBT, ICMR, New Delhi and TNSCST, Chennai.

### *Number of books published*

1. Ponmurugan, P., Shanmugam, S., Sathish kumar, T. and Purushothaman, K. 2008. “Laboratory Manual on Biotechnology for Engineering and Life Sciences”, Intel Publishers, Coimbatore, Tamil Nadu.
2. Ponmurugan, P. and Nithya, B. 2009. “Guidelines for Entrepreneurship Development Programme for Biotechnology Graduates”, Excel India Publishers, New Delhi (ISBN 93-80043-18-X).
3. Ponmurugan, P. and Deepa, M.A. 2009. “Role of Biocontrol agents in disease management for sustainable agriculture”, Research India Publications, New Delhi (ISBN: 978-81-904362-7-4).

### *Number of papers published*

1. Ponmurugan, P. and Deepa, M.A. 2008. Biochemical constituents and antimicrobial activity of *Streptomyces* species. *The ICFAI University Journal of Biotechnology*, **II** (2): 17-22.
2. Maripandi, A., Gurusubramanian, G. and Ponmurugan, P. 2008. Pathological studies of *Salmonella enteritidis* on Vero, MDCK and BHK-21 cell lines with special reference to environmental contamination. *Advanced Biotech.* **6** (10): 14-17.
3. Rojarani, A., Venkateswarlu, P. and Ponmurugan, P. 2008. Induction of somatic embryogenesis from mature embryo explants of peanut (*Arachis hypogea* L.) *Advanced Biotech.* **VII** (2): 16-19.

4. Suresh kumar, K., Ponmurugan, P. and Muruges, S. 2009. Effect of Azoreductase on the degradation of carcinogenic azo dyes. *Advanced Biotech.* **VIII** (8): 25-28.
5. Ponmurugan, P., Saravanan, D., Ramya, M., Srinivasan, T.R., Baby, U.I. and Ajay, D. 2009. Studies on *Cephaleuros parasiticus* Karst, a pathogenic alga causing red rust disease in tea plantations. *J. Plantn. Crops.* **37** (1): 70-73.
6. Kumaravel, S., Lakshmikantha, C.B. and Ponmurugan, P. 2009. Mosquito repellent fabric – A comprehensive view. *Textile Review* **4** (5): 226-229.
7. Ponmurugan, P. and Nithya, B. 2008. Plasmid DNA of antibiotic producing strains of *Streptomyces sannanensis*. *Biotechnology* **7** (3): 487-492.
8. Ponmurugan, P. and Baby, U.I. 2008. Estimation of different cellular compounds from the mycelium of *Phomopsis theae*, causal agent of Phomopsis canker disease of tea. *J. Phytopathol.* **156**: 358-361.
9. Sanjay, R., Ponmurugan, P. and Baby, U.I., 2008. Evaluation of fungicides and biocontrol agents against grey blight disease of tea in the field. *Crop. Prot.* **27**: 689-694.
10. Premkumar, R., Ponmurugan, P. and Manian, S. 2008. Growth and photosynthetic and biochemical responses of tea cultivars to blister blight infection. *Photosynthetica* **46** (1): 135-138.

***Association activities for the Academic year 2008-09***

<b>S.No</b>	<b>Name of the Activity</b>	<b>Brief Details</b>	<b>Date/ Duration</b>
1.	Conference	National Conference on “Current Scenario in Microbial Biotechnology (CSMB-2008)”	27.02.2008 & 28.02.2008
2.	Workshop	Workshop on “Molecular Techniques”	18.09.2008 & 22.09-2008
		Workshop on “Techniques in Plant Tissue Culture & Histochemistry”	22.09.2008 & 23.09.2008
		Workshop cum seminar on “Advanced Bioinformatics	19.01.2009 to 23.01.2009

		tools for molecular research"	
3.	Invited Talk	"Molecular Epidemiology of Bacterial Diarrhoea" by Dr.Asit Ranjan Ghosh, VIT University, Vellore.	06.09.2008
		"Resent Developments in Analytical Techniques and its Application in the Research Institutes and Industries" by Dr.Karutha Pandian, Alagappa University, Karaikudi.	24.07.2008
		"Essentiality of a perfectly established QMS for a Biotech production centre aspiring to be global by Dr.K.K.Bhattacharya, Senthil Papaya Research Institute, Coimbatore.	14.11.2008
		"Recent Trends in Dental Science" by Dr.A.Stalin by K.S.R. Dental Science & Research, Tiruchengode.	30.01.2008
		"Role of Bioinformatics in Biotechnology" by Mr.Sathish kumar, Sai Biosciences, Bangalore.	02.03.2008
		"Gas Chromatography-applications" by Dr.S.J.Balasubramanian, SKM Egg Products India Ltd, Erode.	12.07.2008
4.	Inter Department al Cultural competition	F <sup>3</sup> - Fun Fashion Fight (Neomutants)	20.09.08 - 22.09.08

### *Health Tips*

- \* Do not drink coffee TWICE a day.
- \* Do not take pills with COOL water.
- \* Do not have HUGE meals after 5.00 pm.
- \* Reduce the amount of OILY food you consume.
- \* Drink more WATER in the morning, less at night.
- \* Keep your distance from hand phone CHARGERS.
- \* Do not use headphones/earphone for LONG period of time.
- \* Best sleeping time is from 10.00pm at night to 6.00am in the morning.
- \* Do not lie down immediately after taking medicine before sleeping.
- \* When battery is down to the LAST grid/bar, do not answer the phone as the radiation is 1000 times.

*Here are some healthy tip for your smartness and physical fitness.*

1. Carrot + Ginger + Apple - Boost and cleanse our system.
2. Apple + Cucumber + Celery - Prevent cancer, reduce cholesterol, and eliminate stomach upset and headache.
3. Tomato + Carrot + Apple - Improve skin complexion and eliminate bad breath.
4. Bitter gour rd + Apple + Milk - Avoid bad breath and reduce internal body heat.
5. Orange + Ginger + Cucumber - Improve Skin texture and moisture and reduce body heat.
6. Pineapple + Apple + Watermelon - To dispel excess salts, nourishes the bladder and kidney.
7. Apple + Cucumber + Kiwi - To improve skin complexion.
8. Pear & Banana - regulates sugar content.
9. Carrot + Apple + Pear + Mango - Clear body heat, counteracts toxicity, decreased blood pressure and fight oxidization .
10. Honeydew + Grape + Watermelon + Milk - Rich in vitamin C + Vitamin B2 that increase cell activity and str engthen body immunity.
11. Papaya + Pineapple + Milk - Rich in vitamin C, E, Iron. Improve skin complexion and metabolism.
12. Banana + Pineapple + Milk - Rich in vitamin with nutritious and prevent constipation

*According to a Japanese institute that does research on blood types, there are certain personality traits that seem to match up with certain blood types. How do you rate?*

S.No.	Type of blood	Personality traits
1.	TYPE O	You want to be a leader, and when you see something you want, you keep striving until you achieve your goal. You are a trend-setter, loyal, passionate, and self-confident. Your weaknesses include vanity and jealousy and a tendency to be too competitive.
2.	TYPE A	You like harmony, peace and organization. You work well with others, and are sensitive, patient and affectionate.

		Among your weaknesses are stubbornness and an inability to relax.
3.	TYPE B	You're a rugged individualist, who's straightforward and likes to do things your own way. Creative and flexible, you adapt easily to any situation. But your insistence on being independent can sometimes go too far and become a weakness.
4.	TYPE AB	Cool and controlled, you're generally well liked and always put people at ease. You're a natural entertainer who's tactful and fair. But you're standoffish, blunt, and have difficulty making decisions.

### What can I do to protect myself from getting sick?

Cover your nose and mouth with a tissue when you cough or sneeze. Throw the tissue in the trash after you use it. Wash your hands often with soap and water, especially after you cough or sneeze. Alcohol-based hand cleaners are also effective. Avoid touching your eyes, nose or mouth. The virus can spread this way. Try to avoid close contact with sick people. If you get sick with influenza, stay home from work or school and limit contact with others to keep from infecting them.



A face mask may be needed if you are coughing.



### *What surfaces are most likely to be sources of contamination?*

The virus can be spread when a person touches something that is contaminated with the virus and then touches his or her eyes, nose, or mouth. Droplets from a cough or sneeze of an infected person move through the air. The virus can then be spread when a person touches respiratory droplets from another person on a surface like a desk, doorknob, child's toy or phone handset and then touches their own eyes, mouth or nose before washing their hands.