



In this issue of *BitSoc News*;

- Academic Updates
- Bravo!!
- Certificate to Dr. K Vivehananthan
- Welcome to the Department
- Student's Publications
- *BitSoc Articles*  
*Quorum Sensing*  
*Nanotechnology is a Better Doctor*
- Future Activities

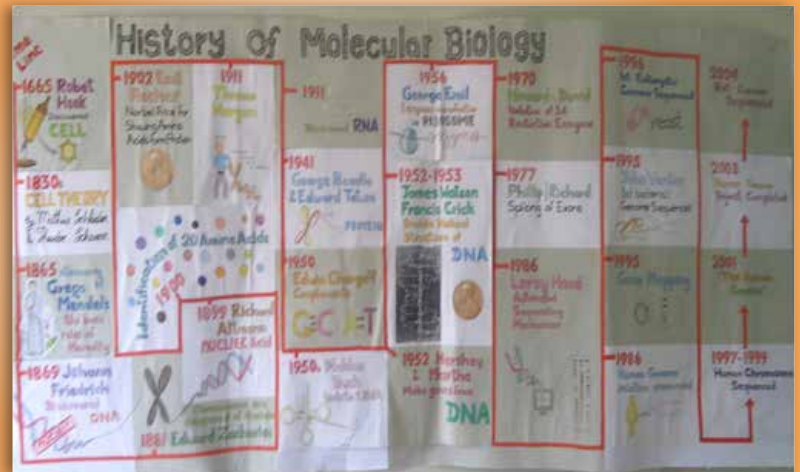
## Academic Updates

Second year students of FAPM enthusiastically presented informative and colourful posters under the topics related to Molecular Biology on 12<sup>th</sup> November 2012 at the faculty. This poster presentation helped the students to widen their knowledge on the areas related to Molecular Biology. Among many presenters, members of **Group A1** had done a good piece of work to be selected as the **Best Poster**.

Group A1 members – WN Subashini, TS Abeyrathna, DI Lakmali, CJ De Silva, YD Marasinghe, DS Perera, IA Kahangama, NC Peiris, CN Fernando, TA Ahamed, MN Ruwanthi



Students presenting their posters



Best Poster – History of Molecular Biology (Group A1)

## Bravo!!

- In – plant training presentation Forum 2012 was held successfully on 5<sup>th</sup> July, 2012. Another batch of Agriculture graduates was added to the work force of the country. BitSoc Congratulates them!!
- Mr. A Suganthan was awarded as the best presenter at the In-plant training presentation sessions of the Department of Biotechnology for his training experience at the Genetech Molecular Diagnostics and School of Gene Technology.

## Certificate to Dr. K Vivehananthan

Dr. K Vivehananthan was awarded a certificate by the Scientific & Academic Publishing, USA to be served as a reviewer in the international journal "Advances in Life Sciences".

## Welcome to the Department

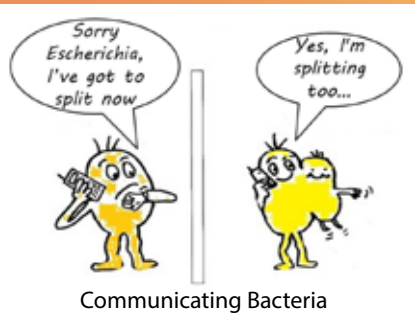
BitSoc warmly welcome newly appointed probationary lecturers Ms. MP Dassanayaka and Ms. ANK Perera to the Department of Biotechnology.



Mr. A Suganthan, receiving the certificate from Prof DPSTG Attanayaka, Dean/FAPM



Ms. S Baviththira and Ms. WIWHMEH Wettewa conveying their research findings to the audience



Communicating Bacteria

## Department of Biotechnology

### Future Activities....

- 4<sup>th</sup> Annual General Meeting of the BitSoc and appointing the new steering committee.
- A Paduru Party and Cultural Show.
- Friendly visit to the Sri Lanka Institute of Nano Technology (SLINTEC).

## Student's Publications – Way of Disseminating Knowledge

Two final year students of the Department of Biotechnology Ms. S Baviththira and Ms. WIWHMEH Wettewa presented their research findings in renowned forums. Ms. S Baviththira presented on "Biological Treatment Technique to Remove Contaminants from Wastewater" at 18<sup>th</sup> Annual Scientific Sessions of the Sri Lankan Association for Fisheries and Aquatic Resources – May 2012. The project was supervised by Dr. (Ms.) K Vivehananthan.

Ms. WIWHMEH Wettewa presented at India- Sri Lanka Conference on Agrobiotechnology for Sustainable Development March 2012 at BMICH. The research was titled "Assessment of Variations in the *badh2* Gene of Sri Lankan Aromatic Rice using Molecular Approaches" which was conducted under the supervision of Dr. (Ms.) NS Kottearachchi.

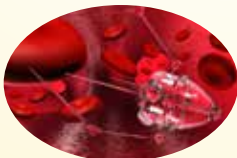
## Quorum Sensing – Talk like a Bacterium

Bacteria too communicate in their own language. Quorum sensing is the way of communicating among bacteria by using signalling molecules called autoinducer depending on the cell density in the surrounding. Again, it is a decision making process of bacteria that regulates the expression of specific genes through the transcription regulatory factors activated by the autoinducer. When bacterial concentration goes high in the medium, concentration of the autoinducer increases proportionately. Once it reaches upto the threshold level, response is stimulated. Autoinducers regulate the cell functions such as antibiotic production, fruiting body development, biofilm formation and production of virulence factors.

Ms. MP Dassanayaka (Lecturer (Prob.)/Department of Biotechnology)

## Nano Technology is a Better Doctor

Nature used the nano technology long before even we knew it. Nano scale hairs on the sole of a gecko's feet allowing it to stick to a wall and the nanostructure of a lotus leaf repelling water as self cleaning technology are only two in the list. Applying Nano technology in medicine has increased hope for longer life expectancy of the people. Use of nano coatings on joint replacements and implants give greater strength, durability and less rejection from the body. Cancer treating drugs carrying gold particles in nano level target the cancerous cells and kill them by activating the drug. Nano technology helps a lot by getting down to the size of the cells and finding ways of making things show up better in scans.



Platinum and Peroxide fueled "Nanorockets" for precise drug delivery  
Mr. RAR Mahendra (3<sup>rd</sup> Year/Department of Biotechnology)

**CONSTRUCTIVE CRITICISMS ARE WELCOME**  
Forward your comments to [dept.biotec@yahoo.com](mailto:dept.biotec@yahoo.com)



*"Sharing knowledge can seem like a burden to some but on the contrary, it is a reflection of teamwork and leadership"*

- Unknown -



### Our Crew:

Chief Editor: Dr. K. Vivehananthan (Head/Department of Biotechnology)  
Editorial Board: Ms. MP Dassanayaka, Prof. DPSTG Attanayaka, Mr. A Suganthan  
Computer Applications : Ms. BLDD Hemachandra