

BIOCHEMISTRY DEPARTMENT

MAJOR EVENTS 2015-16

YUVA MASTERMIND PROGRAMME 2016

Department of Biochemistry initiated students to participate in **Yuva mastermind programme** conducted by 'Malayala Manorama' daily and secured second prize in the contest including Rs. 60,000, Award and Prasthipathram and the project was selected for MG University Student Startup incubator.

The programme was intended to enhance the research aptitude in students by doing a short project in an applied field.

Project title: **Synthesis of Herbal mosquito repellent**

We developed a very simple method for the synthesis of an herbal mosquito repellent using Herbal extracts. The repellent was very effective and safe in repelling mosquitoes.

The team included: **Dr. Deepa G Muricken (Mentor)**

Ms. Nimmy Vincent (MSc Biotechnology)

Ms. Sringa A V (MSc Biotechnology)

Ms. Jeena George (MSc Biotechnology)

Ms. Ancy Antony K (MSc Biotechnology)

Ms. Sruthi V K (MSc Biotechnology)

Ms. Nima Lawrence (MSc Microbiology)

Ms. Anjaly A V (MSc Microbiology)



Ongoing UGC Minor project

Dr. Deepa G Muricken has UGC ongoing project: Purification of putative lipase from *Eupatorium odoratum*.

Other projects

1. **Synthesis of herbal mosquito repellent sheets**
2. **Development of Milk and fermented Milk- *Aloe vera* as functional food and its pharmacognestic properties**
3. **Conversion of *Aloe vera* as a functional food and its digestive properties**
4. **Studies on alkaloids from tamarind seed.**
5. **Developing herbal formulations having mosquito repellent and biopesticidal properties.**
6. **Analysis of phytochemicals and antimicrobial properties of *Colocasia esculenta*.**

Publications:

1. Deepa G Muricken, Jofeena Joy, Analysis of phytochemicals from *Eupatorium odoratum* flower; International Journal of Ayurveda and Pharma Research Vol 3, Issue 201547-51
2. **Paper presentation**
 - Dr. Deepa G Muricken, presented a paper on Phytochemical analysis and purification of alkaloids from coconut leaf tomentum during the National seminar 'Emerging Trends in Herbal Technology' conducted by Department of Botany, St. Thomas College Thrissur, 7 to 9 October 2015.
 - **Synthesis Of Herbal Mosquito Repellent And A Super Absorbing Material Utilizing Biological Solid Waste Materials** by Nimmy Vincent and Dr. Deepa G Muricken for the Sr. Rani George endowment lecture series held at St. Mary's College Thrissur

Project presentation

Herbal mosquito repellent on YUVA mastermind programme conducted by 'Malayala Manorama' daily

Resource person

Dr. Deepa G Muricken served as resource person at Alphonsa College Palai, during one day seminar on Phytochemicals, at 4th September 2015.

Dr. Deepa G Muricken is selected in the editorial board for the journal ‘**Journal of Advance Research in Biochemistry and Pharmacology**’

Seminars attended

1. Dr. Deepa G Muricken attended National seminar on Emerging trends in Herbal Technology, organized by St. Thomas College Thrissur, 7 to 9 October 2015.
2. Ms. Reshma Chandran attended National seminar on Recent Advances in Chemistry organized by St. Mary’s College Thrissur, 19th August 2015.

- **ASK THE DOCTOR**

NUTRITION DAY CELEBRATION 2015

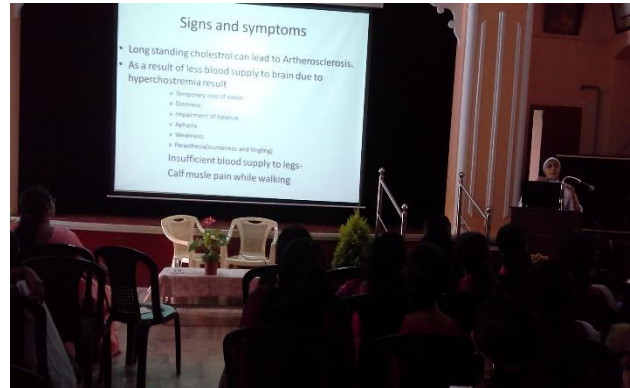
In connection with Nutrition day (19th November 2015), the department of Biochemistry conducted an invited lecture by Ms. Cindin John Alappat, Senior consultant dietician, Elite Mission Hospital, Koorkanchery, Thrissur. The session enlightened students with the approach towards nutritional habits that has to be followed. Students also interacted very well in the session. The session was opened to first and Second BSc students.

Department also conducted a survey in the mode of questionnaire from 200 students who participated in the programme regarding their food and nutritional practices.



WORLD HEART DAY CELEBRATION 2015

In connection with World Heart day (29th September, 2015), department of Biochemistry organized an invited lecture on 1st October 2015 and the topic was “Hypercholesterolemia and its management in Ayurvedic perspective” by Dr. Sr. Austin, Consultant physician, Amala Ayurvedic Hospital and Research Centre, Thrissur. It was an open and interactive session with students. The session was very informative and students got some home remedies to limit blood cholesterol level to a certain extent.



Department of Biochemistry also conducted a **poster making competition** on the topic “Healthy Heart” and the students of our college actively participated in the competition. Poster was informative in providing various practices that can make our heart healthy.

WORLD DIABETES DAY (14th November 2015)

Department of Biochemistry in association with Ashraya Charitable Society, Jubilee Mission Medical College Thrissur conducted an awareness talk on diabetes on 2nd December 2015. The MBBS students from Jubilee Mission Medical College led the session. The prevalence, different types of diabetes, methods of treatment and how to administer the treatment procedures were discussed. The session was concluded by informing the students regarding the preventive measures usually followed. The session was inspiring and informative.



- **ENVIRONMENT RELATED PROGRAMS**

AWARENESS TALK

Towards the social responsibility of keeping the nation clean ‘SWACHH BHARATH’ mission, we, the Department of Biochemistry organized an awareness talk against the usage of plastic products on 15/07/2015. It was an open and interactive session with students and helped us to convey the adverse effects of plastic in daily life.



ORGANIC ROOF TOP GARDEN

Organic roof top garden was cultivated by the department in order to provide a pesticide free environment. Popular vegetables of seasonal importance have been cultivated.



Utilization of waste paper

With the initiative of Biochemistry department, the students of MSc biotechnology synthesized biomaterial using banana leaf and paper waste. We can use this biomaterial instead of plastic carry bags, bathroom mats, grow bags etc. This material provides more stability and strength than paper bags. This method utilizes waste material from the surrounding into beneficiary products.



Herbal mosquito repellent production and sales

Due to the accumulation of waste from our surrounding we are getting many diseases like Dengue, Chikungunya, Black fever etc. mainly carried by mosquitoes and flies. We developed a biomaterial which has repellent property against mosquitoes. The fumig property of paper waste has been utilized in synthesizing plant based mosquito/fly repellent. Several plants having medical values has been used in the preparation.

Inspection of product

The team members were from Amal Jyothi Engineering College Kanjirapilly. The team mentored by Dr. Deepa G Muricken, Department of Biochemistry presented their project regarding the various types of Herbal mosquito repellent. The experts appreciated the work and pointed out the relevance of the topic for the common man.



2015-16 Academic year

4th June 2015

Renewated roof top vegetable garden with seasonal vegetables in connection with world environment day. This also help as to practise organic farming.

7th July 2015

Awareness campaign was given to the students on the usage of plastic bags and minimalise the usage of plastic products.

9th July 2015

Department encouraged MSc Students (Biotechnology) to synthesis substitute for plastics **using paper and banana leaf.**

30th July 2015

We mentored students to synthesize Herbal mosquito repellent using a new and simple technology.

8th September 2015

Department conducted MSc project presentation for the students who completed their projects in the department.

1st October 2015

Department celebrated the world Heart day by conducting a poster competition and invited talk by an external expert.

Invited talk

Hypercholesteremia and its Management in Ayurvedic Perspective by Dr. Sr.Austine, Consultant Physician Amala Ayurvedic Hospital and Research Centre, Thrissur.

Poster Competition

We conducted a poster competition on Healthy Heart on 6th October 2015. The winners of competition were from Department of Biotechnology and Department of English