

## School of Biotechnology Madurai Kamaraj University

### 1. Empowering School and College Student Community

Students are future pillars for a successful nation. With this as notion, School of Biotechnology, Madurai Kamaraj University has made tremendous efforts in empowering the school and college student community, especially students from rural outskirts were given awareness on various aspects to become empowered as a holistic social being in the future! Under this motto, we organized various student meets with the following messages:

- Science @ University level
- The importance of cleanliness and proper sanitation
- Nurturing ecosystem by tree plantation
- Awareness on importance of healthy diet for teens
- Opportunities by Govt funding agencies for school children to pursue a science career

#### **“Swachhta Pakhwada” enforcing the importance of cleanliness and proper sanitation and Nurturing ecosystem by tree plantation**

Indian government has taken up several efforts in promoting “Swachh Bharat Mission”. Under this mission, School of Biotechnology, Madurai Kamaraj University has organized various lectures and student and staff participatory activities to directly involve the students and staffs of SBT to enforce and instill the message of cleanliness and proper sanitation in the young minds of school and college students of rural outskirts adopted by the university under village adoption programme.

**Dr.B.Ashokkumar** was invited as a Resource Person to deliver a lecture “**Biology in Human Life**” in the Social Awareness Program for School students sponsored by TANSCST at Ayyanadar Janakiammal College, Sivakasi (August 20, 2015).



Interaction of Dr.B.Ashokkumar to the School Children.

Swachhta Pakhwada – Care for surrounding programme was successfully organized in Panniyan Village, Madurai by the School of Biotechnology, Madurai Kamaraj University, Madurai on 13<sup>th</sup> of September, 2017. A total of 65 including teaching faculty, PG students and research scholars participated in the movement. Students and research scholars cleaned the Government Kallar Middle School campus and removed harmful plants like Parthenium and Datura. Tree plantation was also carried out surrounding the village area. Teaching faculty of SBT interacted with the students and teachers of the school and explained them about the need for cleanliness and education, especially the importance of toilet facility at each house. Students were motivated to pursue higher education and to keep their surroundings clean. A survey based on the prepared questionnaire was taken by the research scholar and students among the villagers. It was notified that the village suffers water scarcity, especially the potable water since the underground water becomes salty. People of Panniyan village mentioned their need for full time functioning primary health center, since epidemic dengue cases are prevalent in that area. Students and faculties also visited the Primary Health Center at Chellampatty, Madurai and cleaned the hospital campus. A total of 200 tree saplings were also planted and handed over to village Panchayat administration for further nurturing and care.



Swachhta Pakhwada – Care for surrounding in Panniyan Village, Madurai.





Swachhta Pakhwada – School of Biotechnology conducted a programme in Govt. Middle School, at Panniyan Village, Madurai.



We received enormous response from the students and people of the village, which proved the success of our efforts.

## 2. Visit of School Students to the Madurai Kamaraj University Research Laboratories

**Sarva Shiksha Abhiyan** (அனைவருக்கும் கல்வி இயக்கம்) is a flagship programme of Indian Government, which has aimed at the universalisation of elementary education "in a time bound manner", for free and compulsory education to children between the ages of 6 to 14. The Tamil Nadu Government prioritized the enriching of knowledge in Science to the school students by visiting nearby higher education institutes especially among children from disadvantaged groups and weaker sections. As part of this exercise, the school students from disadvantaged groups from eight Taluks of Theni district visited the research laboratories of School of Biotechnology, School of Biological Sciences and School of Chemistry in our University from 7<sup>th</sup> November 2017 to 17<sup>th</sup> November 2017. Dr. B. Ashokkumar, Assistant Professor of School of Biotechnology and Dr. S. Sivakumar, Assistant Professor of School of Chemistry were nominated to facilitate the visit by the school students. The students along with their teachers were taken to the respective research laboratories of each School and were explained about the current research going on in the University departments and also demonstrated the use of sophisticated instrument facilities in laboratories. A total of 2000 students and 200 teachers benefited from this visit.

### 3. Science @ University level

It is important to instigate the passion for science in young minds! With this as notion we invited students from many schools to visit our school of Biotechnology to expose them to the knowledge of science @ university level. With the awareness about fascinating world of biotechnology, many showed up interests in knowing further about pursuing a career in biotechnology!



An Orientation programme was organized by **Dr. B. Ashokkumar**, SBT to encourage the young minds of the XI-Std students from Adhyapana School, Madurai by delivering a Science awareness lecture on ‘Trends in Biotechnology’ at School of Biotechnology on August 10<sup>th</sup>, 2018.

We made an effort to organize open lab visits for school students escorted by lab scholars of School of Biotechnology, to get to know more about the true world of research platforms!



A student meet was organized to bring awareness on biofuel among student community (XI-Std students) from Adhyapana School, Madurai, where demonstration of Algal cultivation for hydrogen production was given by Dr. P. Varalashkmi at School of Biotechnology on August 10<sup>th</sup>, 2018.



Open Lab visit was organized to promote science career among student community (XI-Std students) from Adhyapana School, Madurai, where demonstration of Basic genetic engineering and molecular biology techniques was explained by Mr.Aravind, Research Scholar at Dr.B.Ashokkumar Lab, Department of Genetic Engineering, School of Biotechnology on August 10<sup>th</sup>, 2018.

#### 4. Awareness on importance of healthy diet for teens!

It is important to educate the college students, the so-called teenagers to know more about maintaining a sustained health along with education for the welfare of tomorrow's society!

We made an effort to spread awareness about “bringing down the incidence of genetic disorders by consuming healthy diet during teenage” among students of rural colleges.

Dr.B.Ashokkumar made an effort to explain about his research on Vitamins- the vital nutrients very much essential for teens who will be parents of tomorrow. The message on “the importance of consuming healthier diet for avoiding the incidence of congenital disorders in the upcoming generation” received an overwhelming response from the students! They received a take home message of essential vitamin intake for maintaining proper health for themselves as well as for their offsprings!



Dr.B.Ashokkumar served as a Resource Person to deliver a lecture on “Scope of Biotechnology” in the Young Students Scientist Programme (YSSP) sponsored by TANSCST at Saraswathi Narayanan College, Madurai (May 11, 2017).

## 5. To Inspire young minds with latest technological inventions

To instigate the at home science expedition among students of various colleges, we organized workshop on foldscope “paper microscope” the latest inexpensive technological invention by Manu Prakash is an Indian born scientist who is a Professor of Bioengineering at Stanford University.



Dr.H.Shakila & Dr.S.B.Anand has organized One Day program on DBT Foldscope workshop 2018 for college students on 03.12.2018

We also organized many lectures on special days of scientific importance to bring about scientific awareness among student community like the Immunology Day organized by Dr.H.Shakila of School of biotechnology, Madurai Kamaraj University to spread the message about importance of maintaining immune health to avert many infectious epidemic diseases!



World Immunology Day on 29<sup>th</sup> April Day 2018- A special lecture by Dr. Palkumaran, Scientist E, NIRT, Madurai to School students.



## 6. Opportunities by Govt funding agencies for school children to pursue a science career

We make continuous efforts to attract young minds to take up a career in science. We expose them to various funding opportunities available for them to pursue a successful career in science.



Served as a Resource Person in DST-sponsored “Science camp under Inspire Internship Programme” at Jayaram college of Engineering and technology (Sep 27, 2017).

## We join hands with Tamil Nadu Science Forum to organize various science education awareness programs among school children



Tamil Nadu Science Forum activity. Prof. H.Shakila, Head, Department of Molecular Microbiology, School of Biotechnology interacted to the School students.