

Jaiiv-Patrika

December 2017

BIOTECH NEWSLETTER

HIGHLIGHTS

The year 2017 has been a year filled with remarkable achievements and laurels for the department of biotechnology. The students and faculties have achieved giant leaps in their career making the department proud.

With the new year knocking at our doorsteps, the newsletter summarizes the highlights of 2017.

VISION

The vision of our department is to produce competent Biotechnologist's who can employ premium processes and applications which will profoundly influence existing paradigm of agriculture, industry, healthcare and restoration of environment providing sustainable competitive edge to present society.

MISSION

- To provide Biotechnology educational Program with impetus to generate quality workforce.
- To create awareness about potentials of Biotechnology with socio-ethical implications.
- To instill spirit of innovation and creativity in young minds with sound research aptitude.
- To nurture confident individuals who are effective contributors towards growth of the nation.



Student Editors: Garima Ahuja, Sakshi Taneja, Garima Sharma

Chief Editor: Dr. Abhilasha Shourie, HOD & Professor

Editor: Dr. Nidhi Didwania, Associate Professor

Dr. Soma Patnaik, Assistant Professor

“START-UP INDIA” INITIATIVE

M/S TRICHO AGRONICA PVT. LTD, A START-UP VENTURE UNDER INDIAN OIL STARTUP SCHEME (IOSUS), A “START-UP INDIA” INITIATIVE ANNOUNCED BY PRIME MINISTER SHRI NARENDRA MODI.

A Start-Up M/s Tricho Agronica Pvt. Ltd. (Team Members: Dr. Sarita Sachdeva, Dr. Nidhi Didwania, Dr. Abhilasha Shourie, Ms. Deepti Sadana) has received a grant of Rs. 172 lacs for the proposed project title: **BIOFORMULATION- A NOVEL ECOFRIENDLY SOLUTION AGAINST FUNGAL PATHOGENS IN TOMATO** till PoC Stage under Indian Oil Startup Scheme (IOSUS), a “Start-up India” initiative announced by Prime Minister Shri Narendra Modi. The scheme aims to support innovative ideas that have significant business potential, social relevance and/or are focused on environment-protection. Further, such validated PoCs may be supported for commercialization through equity participation.



M/s Tricho Agronica Pvt. Ltd. stands in spirit to this endeavor and is committed for consolidating efforts towards improving crop productivity leading to food security with enhanced organic footprints.

#fact-"The first gene-modified soybean was introduced in 1995, and now it accounts for half the U.S. crop. While some part of the soybean ends up in 60% of processed foods, these oils and proteins are indistinguishable from those in conventional beans."

15TH EDITION GREEN BUILDING CONGRESS 2017: INDIA'S FLAGSHIP EVENT ON GREEN BUILDINGS AND BUILT ENVIRONMENT

In the Indian Green Building Council (IGBC) Chapter, a faculty member, Dr. Nidhi Didwania, along with two students from Department of Biotechnology, MRIU (Ms. Shivani Khare, and Ms. Yashwani, B.Tech/3rdSem) and three students from CSE (Mr. Prabhu Goyal, Ms. Anmol Chopra, Mr. Shahrukh Kibriya, B.Tech/7th Sem) were invited to attend a four-day event on Green Buildings and Built Environment, organized by Indian Green Building Council (established by Confederation of Indian Industry (CII)) from 4th - 7th October, 2017 at Jaipur, Rajasthan. The students had personal interaction session with national and international experts and participated in the Selfie activity.



“You’re probably aware that while some germs can make you sick, others are important for keeping you healthy and fending off infections. Sometimes, the same bacteria can do both.”

ANVESHAN- 2017

In Anveshan 2017 held at Chitkara University, Punjab on 20th -21st January a, Mr. Amit

Kumar Singh, RA, MRIIC and Ms Prachie Sharma, R. S, Dept. of Biotech (under the guidance of Dr B S Gill, Executive Director, MRIIC as Mentor of the project) won the 2nd Prize for the project Smart Solution for Air Pollution Mitigation in the category of

Basic Science and in the sphere of Agriculture—Team from Biotech Ms. Deepti Sadana (under the guidance of Dr. Nidhi Didwania, Associate Professor, as Mentor of the project), FET won the 2nd Prize for their project Integrated Management of Alternaria Blight in Tomato. They were also shortlisted for the National Student Research Convention at Annamalai University, Tamil Nadu. The Finale was held at Annamalai University, Tamil Nadu wherein MRIU's Team participating in Category: Basic Science won the 1st Prize with the Project entitled 'Smart Solution for Air Pollution Mitigation'. The team comprising of students Amit Kumar Singh and Ms Prachie Sharma, have been awarded cash prize of Rs 75,000/- along with Trophy and certificates.

FACULTY DEVELOPMENT PROGRAMME (FDP)

A five-day Faculty Development Programme on Biostatistics & Bioinformatics Tools in Research was organized at MRIIRS, Faridabad, Haryana, under Department of Biotechnology, FET, from 25th to 29th July 2017. Key speakers and scientists of international repute from Indian Agricultural Statistical Research Institute, New Delhi and Bioinformatics Institute of India, Noida were invited for talk sessions and hands on Biostatistics tools for Five days. The participants included the faculty members and research scholars from MRIU and other institutes of Delhi- NCR. The main objective of the programme was to introduce with basic Biostatistics tools and methods to interdisciplinary scholars in their goals achieving scholarship and technical sessions participants with in about Bioinformatics to introduce with and Bioinformatics develop opportunities research to support successfully pursuing full potential in academic service. The provided the depth knowledge starting from the basic concepts to the complexities of various biological problems and the challenges for researcher in solving them. Dr. Nidhi Didwania, Dr. Soma Patnaik, Ms. Rashmi Rameshwari and Dr. Rajesh Ghangal were the coordinators of the Faculty Development Programme.



#fact- Human shares about 98% of the genes with chimpanzees, 92% with mice, 76% with zebra fish, 51% with fruit flies, 26% with thale cress (a type of weed), and 18% with E. Coli bacteria.

VOTER'S PLEDGE

On the occasion of National Voter's Day, i.e. 25th January, 2017, Department of Biotechnology, FET, MRIU felt pride in participating and encouraging the students and faculty members to take the Voter's Pledge. Each Program and every batch of students in the department participated enthusiastically in taking the Pledge. The Pledge imbued us with the feeling of patriotism with stronger faith in democracy. Following Photographs taken during the event are attached here.



STUDENT RECOGNITION

POSTER COMPETITION FOR COVER PAGE DESIGN OF MRIIC MAGAZINE

Meenal Saini, a student of second year B.Tech Biotech has been awarded a cash prize in the Design Magazine cover competition organized by Manav Rachna Innovation and Incubation Centre (MRIIC) on 7th September 2017. The competition was judged by MRIIC steering committee member and Dean Prof. B. M. Bahal, Eminent Architect Ar. Vasant Meher from Architecture Department and Ms. Richa Sharma from Media Department. The posters were judged on the basis of innovation, creativity and overall execution of idea.



B.TECH, SECOND YEAR STUDENT MEENAL SELECTED TO PERFORM IN DUBAI



On 13th November 2017 Radio Mirchi conducted talent hunt for Masterpiece 2017. Renowned Rannvijay Singh Singha and RJ Naved were the esteemed judges for this talent hunt. Meenal, a second year B.Tech Biotech student who is an active participant in fine arts competitions participated in the event. Her magical fingers from which she painted a beautiful masterpiece was adjudged best in its category and was selected to perform in Dubai.

#fact-"About 99.9% of your DNA is exactly the same as everyone else's. The other 0.1% codes for all of the differences that make us unique."

CLUB ACTIVITIES

WORLD FORESTRY

VOICE OF NATURE SKIT COMPETITION

The event held on 21th March, 2017 was celebrated on the



occasion of World Forestry Day. The purpose of the event was to bring together young minds to dramatize the possible reasons of environmental degradation and need of educating all to step forward for environment conservation. The winners were Mamta, Naman, Nisha, Debashish, Kajal Singla and Kajal Varshney from B.Tech Biotechnology, IV Semester and the runners up team comprised of M.sc. Biotechnology, II Semester students namely Sharda, Bhavna, Leena, pooja, Garg.

FUTURISTIC BIOTECH 2017

INTER-COLLEGE SLOGAN WRITING AND POSTER MAKING COMPETITION

It was celebrated on the occasion of National Science Day organized by Club Biotechnea on 28th February 2017. The winners for Poster Making competition were

Meenal, Kalpana and Yash who secured 1st, 2nd and 3rd position

respectively and for Slogan Writing competition were Simran, Kalpana and Shagun who secured 1st, 2nd and 3rd position respectively. The winners were awarded with trophies and certificate of achievement by the honorable judges.



BIOQUEST QUIZ

MRIIC organised a quiz competition "BIOQUEST, unlocking knowledge at the speed of thought" on 31st Jan 2017. Theme of the competition was Biosciences and questions were all related to general biosciences and biotechnology. The quiz had four rounds named, General Round (Round 1), Picto-word Round (2nd Round), Buzzer Round (3rd Round) and Rapid-fire Round (4th Round). On the basis of performance in all the four rounds, Team A (Shivani Khare and Dipansh Srivastava of B. Tech Biotech 2ndSem) stood first, Team B (Manovrit and Meenal Siani B. Tech Biotech 2ndSem) stood 2nd and Team E (Leena and Gargi of M. Sc. Biotech 2ndSem) stood 3rd in the competition



CONFERENCE ATTENDED

INTERNATIONAL CONFERENCE ON RECENT RESEARCH IN BIOMEDICAL ENGINEERING, CANCER BIOLOGY, STEM CELLS, BIOINFORMATICS AND APPLIED BIOTECHNOLOGY

Dr. Sabiha Imran presented a paper entitled "Vaccine Designing against Visceral Leishmaniasis: Challenges for developing Successful vaccine" in BECBAB-2017 held at Jawaharlal Nehru University, New Delhi,

on 16th September, 2017.



One Day National Symposium "Emerging Trends in Biotechnology & Drug Discovery" (ETBDD)

Ms Richa Yadav presented a poster in a one day national symposium on "Emerging Trends in Biotechnology and Drug Discovery (ETBDD)" organized by Institute of Genomics & Integrative Biology (IGIB), CSIR, INDIA on Feb 10, 2017.



INTERNATIONAL SCIENCE CONGRESS' AT BHUTAN

Dr. Pushpa C. Tomar, Faculty in the Department of Biotechnology attended the "7th International Science Congress (ISC-2017)



which was held from 8-9th

December 2017 at College of Science and Technology Rinchending, Phuentsholing, Chukkha, Bhutan. **Theme for the conference was-** Widespread Research: Strengthening Nations and Spreading.

International Conference on "Considerations in urban aesthetics Planning, Mobilities and Everyday life"

Dr. Nidhi Didwania attended an international Conference on "Considerations in urban aesthetics Planning, Mobilities and Everyday life" at Lahti University Campus, Aalt-auditorio and Metso meeting room, Niemenkatu 73, Lahti, Finland from 31st May to 2nd June 2017.



PARTICIPATION IN EXHIBITIONS

PARTICIPATION IN INDIAN INTERNATIONAL TRADE FAIR-2017, PRAGATI MAIDAN, NEW DELHI

The team members Dr. Nidhi Didwania (Managing Director), Dr. Abhilasha Shourie (Director), Ms. Deepti Sadana (Technical Director), Ms. Surbhi Gupta (Research Scholar) of M/s Tricho Agronica Pvt. Ltd., a startup company funded (172 lacs) by IOCL under Prime Minister's Start Up initiative displayed their organic products in India international trade fair-2017, Pragati maidan, New Delhi on 14 to 28 November 2017.

PARTICIPATION IN START-UP JALSA-2017, CHANDIGARH.

Dr. Nidhi Didwania (Managing Director) and Ms. Deepti Sadana (Technical Director), of M/s Tricho Agronica Pvt. Ltd participated in 'Start -Up Jalsa 2017' being organized at Chandigarh on December 16 & 17, 2017. It brings together successful entrepreneurs with aspiring entrepreneurs. Over the past two editions, Start-Up jalsa supported 1500+ Founders through 100+ investors and mentors. The Experts of industries viz. Rahul Narvekar, Founder and CEO, The India Network, Annu Grover Evangelist-MD, Nurturing Green, Anil Chhikara, Founder & CEO, Bolt Blue Accelerator shared their experiences.



PARTICIPATION IN NSIC EXHIBITION OF MEDICA PHARMA HEALTHCARE & MEDICAL TOURISM, ASSOCIATED CHAMBER OF COMMERCE & INDUSTRY OF INDIA, OKHLA INDUSTRIAL ESTATE, NEW DELHI.

The team members of M/s Tricho Agronica Pvt Ltd. Dr. Nidhi Didwania (Managing Director), Ms. Deepti Sadana (Technical Director), Ms. Surbhi Gupta (Research Scholar) of M/s Tricho Agronica Pvt. Ltd., a startup company displayed their organic products in the exhibition of Medica pharma health care & Medical tourism held in NSIC, Okhla Industrial estate on 22 to 24 September 2017. It was a joint initiative taken by ASSOCHAM & Department of Pharmaceuticals. Shri Ashwini Kumar Choubey Ji, Hon'ble Minister of State for Health & Family welfare was invited as the chief guest of the event.

VISITS

A VISIT TO WELLNESS INDIA 2017 EXPO BEING ORGANIZED AT PRAGATI MAIDAN, NEW DELHI.

The students of MSc (Biotechnology), Ist Semester and IIIrd semester (33 students) of Department of Biotechnology along with the Head Dr. Abhilasha Shourie and faculty members, Dr. Nidhi Didwana, Dr. Sabiha Imran and Ms. Arpita Ghosh visited Wellness India 2017 expo being organized at Pragati Maidan, New Delhi from 29-31 August, 2017. The expo and conference was co-organized by the India Trade Promotion Organisation (ITPO), and supported by the ministries of AYUSH, rural development and



tourism. It incorporated Health India Expo, Biotech India Expo and Organic India Expo. The eminent Speakers were Dr. Shivendra Bajaj, Executive Director, Association of the Biotech Led Enterprises, Dr. J.P. Mishra, Advisor (Agriculture), Niti Aayog, Dr. Gayatri V. Mohindroo, Director, National Accreditation Board for Hospitals, Sanjay Agarwal, CEO, Clover Organic Pvt. Ltd., Dr. M.K. Taneja, Secretary General, SAARC ENT Doctor's Association and many more. The visit to the **Wellness India 2017 Expo** was very helpful and informative

for the faculty members and students to opt a wonderful career in future. It has motivated them for research in Agricultural Biotechnology, Medical Biotechnology, organic farming etc.

B.TECH STUDENTS INDUSTRIAL VISIT TO VITA MILK PLANT, BALLABGARH

The students of B. Tech Vth Semester visited Vita Milk Plant, Ballabgarh on 7th October 2017. Upon reaching there, the

students were shown a short clip briefing the idea of setting up the milk plants in various districts of Haryana. The Haryana Dairy Development Cooperative Federation Ltd. (HDDCF) is engaged in procurement and

processing of milk and manufacturing of milk products under the famous market brand 'Vita'. The visit to Vita milk plant enlightened the students about the three tier system adopted by HDDCF to promote the socio-economic interests of milk producers of Haryana State particularly



economically weaker section thereof by purchase and processing milk into milk products and marketing through

affiliated milk unions. The students also gained knowledge about the processing of various milk products.

VISIT TO AYURVET RESEARCH FOUNDATION, R&D CENTRE, GOHANA (SONEPAT)

The post graduate students (M. Sc. and M. Tech) of Department of Biotechnology along with Prof. Joseph Davis, Dr. Shilpa Chapadgaonkar and Dr. Rajesh Ghangal visited Ayurved Research Foundation, R&D Centre at Gohana (Sonapat) on 3rd Nov 2017. Ayurved Research Foundation is a R & D Center where they basically put their emphasis on Animal health and nutrition, soil less agriculture, cultivation of medicinal and aromatic plants. During the lab tour, Mr. Sarvesh K Upadhyay told about the various research works being undertaken in the respective labs. Dr. Anil and his team member. Mr. Jainendra Gupta took to various spots in the Ayurved compound and briefed about the various work being done to improve

the income and self-sustainability of the farmers. Ayurved is working in Artificial insemination of the cattles to improve the breed of desi cow.. Work is also being done



towards soilless cultivation, i.e. hydroponics. Team of Ayurved was very receptive towards working in collaboration with Manav Rachna and will be formulating guidelines in near future for the same. Ayurved is also helping rural youth to be an entrepreneur as they firstly train the local young minds about animal health and nutrition. This programme is funded by NABARD. This brings these entrepreneurs the way of connecting their dairy farming with scientific aspects.



Dr. Nidhi Didwania delivered a Guest Lecture on **“Phytoremediation: The power of plants to clean up the environment”** in “Training and capacity building for tribal dominating areas, Mandla District, Madhya Pradesh” organized by Global Hydrogeological solutions, Central Ground Water Board, Govt. of India and Public Health Engineering Department, Govt. of M. P on 7th April, 2017 at Yojana Bhavan, Mandla, M.P. Project supported by DST, NCSTC Division.

INTERNATIONAL SUMMER SCHOOL 2017 - CO-DESIGNING BETTER URBAN LIVING AND WELLBEING, LAHTI UNIVERSITY OF APPLIED SCIENCES, FINLAND



A team comprising Dr. Nidhi Didwania (Associate Professor) and three students Garima Ahuja (B. Tech. Biotechnology), Sakshi Taneja (B.Tech. Biotechnology), Pooja Yadav (M.Sc. Energy and Environment) attended the International Summer School Co-designing Better Urban living and Wellbeing (29th May - 9th June 2017), Lahti University of Applied Sciences, Finland. Dr. Nidhi Didwania was invited as visiting lecturer to supervise the student teams in the development projects from local work partners as a part of the International Summer School. The 2-week study programme consist of lectures,

presentations,

workshops, team work, excursion and writing an article in the summer school publication. Most of the academic programme took place at Fellmanni Campus, Lahti, Finland. The participant



students from different countries like England, Belgium, Russia, Mexico, USA, Finland and India (MRIU) and disciplines were divided into groups and have allotted development projects (based on environmental and urban issues)

under the following themes - Lets Go to the Forest - Lapakisto forest, Lahti (Teacher guides - Annamaija Id-Korhonen & Nidhi Didwania Enonsaari /Food Garden - Lahti UAS campus M19 (Teacher guides - Minna Ulmala & Meena Kapahi) Experience Travel - Heinola (Teacher guides - Noora Nylander & Markus Kretschmer) Small Business in World Wide Web -Puhepuu (Teacher guide- Tarja Keski-Mattinen



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