BHETAIC A Newsletter from the Department of Biochemistry and Biotechnology



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Greetings to all of you!

Connecting with you all after a long time! And it is always a pleasure to do so!

Uncertain times seem to clip wings.

Blurred vision needs to be cleared.

Paths have to be created through the dense fog.

Goals are to be set and reset if needed.

Sharing with you the strides that the biochemistry – biotechnology family has taken through this maze of uncertainty.

It was an immensely satisfying and gratifying experience for all in the department to have organized National Conference on December 10 – 11, 2021 in an online mode with the theme being "Present Day Biology – Recent Advancements in Biological Sciences".

The experience was satisfying as we were very skeptical of conducting the conference remotely, however, the talks by eminent scientists, the oral presentations by the budding researchers, the poster presentations by students and researchers were engrossing and the spirit of sharing and learning was upbeat through all the sessions. The sessions covered deliberations on studies related to plant sciences, animal sciences, agriculture, health and therapy, food sciences and nutrition, environment and conservation, Innovations and developments in techniques and products, and Omics. It was also heartening to see participation from across the country, with papers presented by delegates from Meghalaya, Orissa, Karnataka, Maharashtra, Rajasthan and of course, Gujarat.

It was an honour bestowed on us as Rev.Fr (Dr) Ignacimuthu S J, Director, Xavier Research Foundation, Palayamkottai agreed to be the Keynote Speaker. He has been recognized in the top 1 percent of biology scientists of india and his developing a herb based sanitizer has been a boon to the poor during the pandemic. He shared his research on Medicinal plants and its scientific validation. His eminence and experience in the field kept us engrossed as he discussed the scope of different phytochemicals and their efficacy in treatment of fatty liver, cardiovascular diseases, bacterial, fungal and viral diseases.



The plenary talks were very engrossing and we are ever grateful to them for having accepted our invitation.



Dr. Subrota Hati (Kamdhenu University, Anand) delivered his talk on "Production and characterization of novel biofunctional Peptides derived from fermented milks using potential lactic cultures (in silico & in vitro study)".



Dr. Sunita Varjani (Gujarat Pollution Control Board, Gandhinagar) delivered hertalk on "Environmental Conservation and Municipal Solid Waste Management: Constraints and Road ahead".



Dr. Siddharth Srivastava (IIT Jodhpur) enthralled all with his talk on "Precision Oncology – Targeted Therapy in Cancer.

Dr S.S. Shah Memorial Lecture



During this conference, as a token of our respect and love for **Shah Sir**, as a token of our gratitude for his magnanimous contribution to bringing Biochemistry to the fore as a degree subject in the state of Gujarat and his commitment to building up our department and leave it for us to build further as a legacy, the department launched the "**Dr. S. S. Shah Memorial Lecture**".



Ms. Namita Jivani, an alumnae (Third Batch of BSc Biochemistry in SXCA) was our Chief Guest at the Inaugural of the Conference and symbolically the flag bearer of this Memorial Lecture that is envisaged to be an annual event. Sharing her thoughts about Shah Sir rekindled all the wonderful experiences that we had with Shah Sir as our mentor. We cannot thank her enough for being there with us in this endeavour.



We would also like to extend our gratitude to **Dr. Nikhil Kulkarni**, an alumna and currently a scientist at the National Institute of Occupational Health, Ahmedabad. His words reflected Shah Sir's passion as a teacher and his simple and humane side that made him approachable and an amazing guide to all his students.

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Fr Vincent Braganza, former Principal of the College and Parimal Sir, Ex – faculty of the **department**, shared their experiences of working with Shah Sir, and we were introduced to more facets of Shah Sir as a leader and teacher.

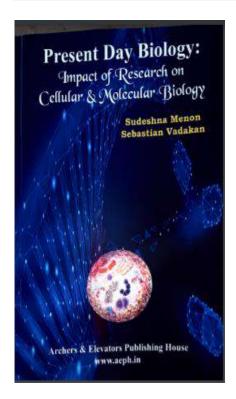


Having decided to initiate "Dr. S. S. Shah Memorial Lecture", we approached **Dr. Rekha Rao Manepalli**, In Vitro Pharmacologist at Leidos Biomedical Research, Inc. | Frederick National Laboratory for Cancer Research, USA. We thank her for accepting to deliver the Memorial Lecture.

"Advances in Cancer Therapy: Have we cured cancer yet?" was the title of her talk. From the word Go, she was instantly able to connect with the audience and like a quiet flowing river, sailed us all through the different concepts, techniques, developments in the diagnosis and therapy of cancer. She made the most difficult concepts simple to understand for the students, and we were glad that they had questions in their minds, which they asked and she answered all of them with passion. She brought into focus Car T cell therapy in Cancer.

Immensely engaging talk and what better way to begin the Memorial Talk.

We endeavour to take this a notch further and build a corpus fund to organize this event annually.



With every conference, the department has been able to bring out the Proceedings in the form of a book with an ISBN number. The Proceedings of the National Seminar conducted in January 2020,



was ready and released in August 2021. The process was delayed due to the pandemic as the Archers and Elevators Publishing House in Bangalore, had to remain closed due to the lockdowns. The Proceedings includes several chapters, with some being original research papers and some being review papers. This endeavour is a belief in the hard work and the commitment of those who walked the extra mile to make these chapters possible. The department thanks each contributor to enable giving a shape and body to the Proceedings.

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Faculty interaction with Fr (Dr) Ignacimuthu



A talk on Promotion of Research and Basics of Patenting was organised by the department of Biochemistry and Biotechnology under the banner of B-Helix on October 7, 2021 from 11 am to 12 noon. The talk was exclusively organised to inspire and enthuse staff members to actively engage in research. The talk was given by Fr (Dr) Ignacimuthu, eminent scientist and entomologist from St Xavier's College, Palayamkottai, Tamil Nadu. Fr (Dr) Ignacimuthu has been honoured to be among the top 1% of research scientists in Biology in India by ICMR.

The talk focused on how simple research problems can be taken forward with the assistance of students who are interested, if faculty are caught up in academic work. Fr Ignacimuthu highlighted to say that the identity of a faculty is his/her publications. Therefore, we all must focus on publishing papers in reviewed journals. He highlighted on the importance of value addition that can be done to simple work in order to get publication in a good journal.



Another alternative is to attempt for publishing review articles. Faculty can also write books based on what they have been teaching in several years.

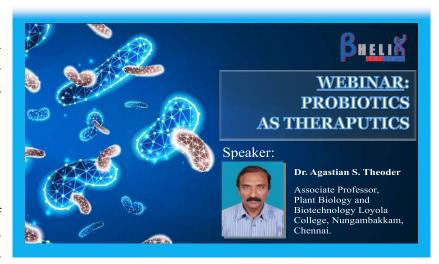
The speaker also emphasised on the need for filing patent which can be carried out by in house members.

The need for walking the extra mile, nurturing passion were highlighted in the talk.

β Helix Colloquia

The department of Biochemistry-Biotechnology organised a talk under β -Helix series of talks on Probiotics as Therapeutics. Dr Agastin Theodor S from Loyola College Chennai was the speaker. The event was held on October 7, 2021 from 2.30 to 4.00 pm using online mode.

Dr. Theodor elaborated on the concept of Probiotics, its availability, active components detected so far, anti-



cancerous and anti TB properties. Dr. Theodor also deliberated on the functions and future prospects giving suitable examples from the research that is being carried out at his laboratory. The talk also highlighted on the scope of taking simple problems, carrying out simple experiments and doing value addition to make it a research paper meritorious of publishing.

The talk was attended by 46 students and faculty.

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β-Club Activities

In 2020, post the Nobel Prizes were announced, the initiative to begin a students' club of the Biochemistry – Biotechnology Department was taken. The pandemic has delayed the process of officiating and appointing the Organizing student members of the club. However, one of the activity to be conducted annually by the B club is to organize talks on the Nobel Prize Winners in Medicine and Physiology and Chemistry. This year too β -club organised two talks on the 2021 medicine laureates. Ms. Jyoti Sadhwani and Ms. Hasnat Saiyad, two of our MSc students gave presentations highlighting the work for which the Nobel Laureates won the award. The talks were attended by 46 of our in house students.





Happy Happenings!

Student progression is vital to any institution, as it is a process that ensures all students pass through their course work and surge ahead to get placements in higher studies or jobs. One of the core objective of the department has been to develop a curriculum to ensure student progression and the icing on the cake is when the students find their own place under the Sun.

Ms. Angela R and Mr. Jim Christian, Two of our 2021 MSc graduates, got placement in O_2H , a Group that nurtures and invests in emerging life science and tech companies. Blessy Chacko, one of our MSc Biotechnology students who graduated in 2021, was selected as a Project Coordinator in the R and D centreos of SynZeal Research, Moraiya, Bavla. Mr. Aksh Shah, a 2021 MSc graduate got admission in University of Portsmouth for higher studies in Medical Biotechnology.

It is heartening for us to note that many of our students have got ranks or high bands in competitive exams like JAM, DBT – BET, IELTS, GRE etc. We wish them all the best for their journeys forward.

Faculty Corner

Several of our faculty have wafted through different programmes to keep updated in the field.

Dr. Shital Doshi has successfully completed several courses. She successfully completed the SWAYAM ARPIT online course on Pedagocal Innovations and Research methodology, and was awarded A grade

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in the proctored examination held on 21 August 2021. She and Dr. Sudeshna also successfully completed an Orientation Programme and Faculty Development Programmes.

Dr Sebastian was a resource person for Faculty development program on Documentation, assessment and accreditation For Affiliated colleges organized by St Joseph's College for Women, Alapuzha & Xavier board of higher education in India, Bangalore on 29 - 30 September 2021. Dr. Sebastian, Dr. Sudeshna Menon and Ms. Priya Vijayan also attended Faculty Development Programmes that were highly specialized biology topics as well as general ones with focus being on soft skill development.

Ms Sonal Thakur and Ms Srishti Chabaria successfully completed 10-day hands on training on advanced molecular docking from SAFI Institute of advanced study, Calicut, Kerala. Congratulations to each of them!

Ms Namita Jivani came to the department and we had a conversation that took us back in time



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