



Welcome to β - Herald

We are very excited to embark on a journey of sharing our endeavours and dreams through β - Herald, the Newsletter of our Department. This is a small but significant undertaking to have you as part of our growing family. These glimpses are incomplete without your inputs and it will be our happiness to share with all through this newsletter your thoughts, contributions and achievements. We wish to bring out three issues (Jan to Apr, May to Aug, and Sep to Dec) every year.

The contribution of Alumni has been immense in the growth of all premier institutions. As mentioned above, we wish that the Newsletter has a page titled "Alumni speaks", and your story or achievements when highlighted can inspire our current batch of students. We request that each of you help us in getting touch with your batchmates, enabling us to grow into a BIG family. In the information era, we hope that our Alumni database, which currently has about 100 members, grows to more than 1000 in no time. We will send you a link where you can fill in your data, and that will register you as Alumni of the department. We wish you happiness and good health.

Mail us at : biochemistry@sxca.edu.in

The department organized an International Conference on 'Present Day Biology: A Bastion for Social and Sustainable Development' on January 04 – 05, 2019



The two days conference was an eclectic composition of Invited Talks, Oral and Poster Presentations covering the relevance of Present Day Biology in various sectors of the society ranging from education to health to environment to industry.

The programme was inaugurated by respected and dear Chief Guest, Dr. Shailesh Shah, the former Head of the Department of Biochemistry, St. Xavier's College. He voiced his thoughts on Biotechnological Parks, Fundamentals of Biological System, Biochemistry stands at the top in the pyramid of biology, Interventions of nutrition and agriculture, Application of science for remedy of present and future issues, Efforts to tackle malnutrition problem by government, NGOs and different firms and to this biochemistry plays an important role, Mid-day meal programme by government to improve health, Trienzyme technology to detect diabetes, and Bioengineering at molecular level to study various pathways to eradicate diseases. He encouraged staff and students of the department of Biochemistry-Biotechnology to organise many more seminars dealing with the current trends and advances in the field in the coming days.

The Key Note address was given by Dr Taslim Arif Saiyed, CEO and Director of C-CAMP, NCBS, Bangalore. Dr Taslim Arif Saiyed spoke elaborately on the Ecosystem for fostering cutting-edge lifescience/healthcare innovation, Bio Innovation Accelerator, Biotech Ignition grant partnership, Validation of HIV-NET and CD80/86 based HIV therapeutic intervention, Mechanism of action: NET CD80/86 interaction based HIV immune evasion, Liver biopsy device, Non fucosylated therapeutic Antibodies for better efficiency of antibody dependent cell cytotoxicity.

The brightest spots of this conference was when several of our alumni, who we called as invited speakers delivered talks.

Alumni Meet (β -lumini)

The first β -lumini Meet was held on the evening of 05 January 2019, a beginning to a lovely association. The numbers were few but the belonging was strong.

At the meet, the β -lumini Association was officiated and as a consensus, Anupam Joshi was nominated the President and Kinjal Shah was nominated the Secretary. Kinjal Shah was instrumental in making the evening happen. He coordinated with the students of the department to recreate a lot of memories through memes and slogans. He reached out to many of our past students to invite them to the gathering. Words are not enough to thank him.

We wish that more of you join us every year during the first week of January in the β -lumini meet. To have you come back to the college is a happiness that we cannot define, but we envisage to see generations mingling together as a family.



Annual Science Fest β iocalyX



β iocalyX, initiated in 2016 by the department is a Biosciences fest organized by our students for UG and PG students across the state to nurture the spirit of science and healthy competition. Every year the fest has a theme. This year the theme was on Neurosciences and was conducted on July 06 2019 with participants coming from as far as Surat and Rajkot too.

The events comprised Poster Presentation, Bioquiz, Crossword (Decoding the Conundrum), and On the Spot Painting (Sciencescape) on the theme. Every year, a new event has been included, with Sciencescape being a new entry this year. This event is a platform not only for knowledge sharing and enthusing the brains to think, but also to inculcate the spirit of volunteerism in the students. Thus, amalgamating academics with management.



The event began with a talk by Dr. Amee Nair from Nirma University who shared her experiences on the nuances of neurobiology and associated research. Her talk pitched the importance of understanding how neural networks coordinate with other systems of the body to make a perfect balance.



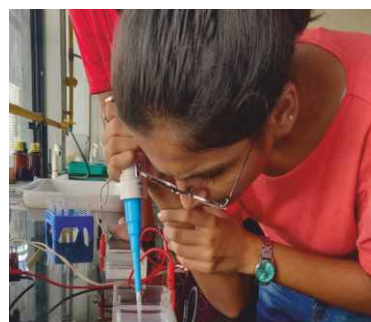
Dr Hyacinth Highland and Dr Linz Buoy George, Department of Zoology, Gujarat University have been our support system, and we cannot thank them enough for being part of each of our β iocalyX event, encouraging the students to think out of the box and original. β iocalyX, thus has reserved a permanent place in the academic calendar of the department.

In-XITU
A Student Entrepreneurial Venture

The student owned simulated entrepreneurship unit continues to be a feather in the cap of the department as an example of experiential learning.

The vocational biotechnology students now function from a lab of the department rechristened as In-Xitu. They continue to offer workshops to school and college students.

Student Entrepreneurship Training



On 20 July 2019, they conducted a workshop on Plant Tissue Culture and another one on Molecular Biology on 31 August 2019. It is heartening to see them conduct these workshops with conviction and spirit of sharing scientific knowledge.

β-HeliX Colloquium Talks



Several talks by experts from different institutions and industries are organized during an academic session. So far in this semester, two talks have been arranged.

On 13 July 2019, Mr. Vishal Unadkat of Kashiv Biosciences Ltd enlightened all our students with a detailed account of Drug Discovery. He dealt on the nuances of developing a drug from formulation to trials, production, safety analysis and marketing.

The second colloquium was on July 16 2019. Ms. Radhi Shah, a patent agent and consultant, simplified legal literature on patents through her articulation on cases that she has handled. She quenched the curiosity in the students, especially regarding what can be patented. The patent rights and procedures being different for different countries defined limits and permissiveness of the process. The talk definitely opened up an area of interest for students and also gave a subtle message..... "Ideas in one's mind have no patent value. Rather they must be expressed or put to practice."



Student Research



One of the best practices ingrained in our system from 1987 is the research culture. Every year 5-10 students are selected for the undergraduate research programme. This experiential learning has not only strengthened the student – teacher bonding, but has also been a learning module wherein students inculcate a skill set that helps them to gain self confidence and an understanding of ones own strengths. This year on July 21 2019, ten of our students received prizes, medals and certificates on successful competition of their research projects. Abstracts of all research projects were compiled and published this year, recognizing their efforts and zeal.

Departmental Extension Endeavours



The department over the years has been involved in several social extension projects, which include projects on nutrition in slums, sanitation etc. This academic session too, the department has explored several possibilities of social extension work. On June 30, we visited an educational set up in Dharampur, which has

taken strides to educate the first generation of the villages surrounding the institution. Research collaborations and student internships/ exchange programmes are possible outcomes of this visit.

On July 13 2019, faculty and students visited a school in Bavla to explore possibilities of experiential learning. The school kids showcased their talents and they were happy to interact with our students. The teachers there appealed that just visiting them once in a while will give their students opportunity to communicate and converse.

Experiential Learning



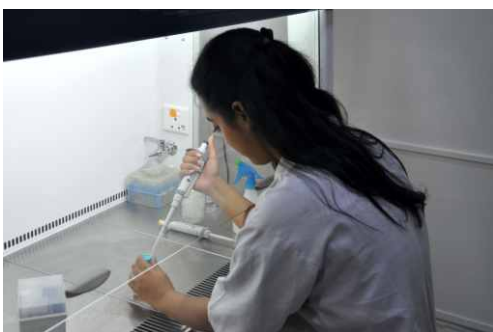
The MSc Semester III Biochemistry and Biotechnology students accompanied by our faculty members, Nandini Ghosh and Yogesh Baravalia visited a nutraceutical manufacturing unit. The visit was a great learning as every phase of manufacturing was shown. The essence of GLP was highlighted in the manufacturing sector. One of the students after the visit reflected that he could now envisage having a unit of his. *That indeed says a lot!*

Parent - Teachers Interaction

In a first of its kind, the department held an interactive session on June 23 2019 with parents of the newly inducted students in the department. This initiative was taken to address the apprehensions in the stake holders of the policies and systems in the institution and the department. Parents were highly appreciative of this session and felt more responsible and comfortable with their kid's choice of subject.



Infrastructure Development



Animal Cell Culture Facility has now been established in the college with partial funding from CPE grant. A long cherished dream of the department, the setting up of this laboratory will enable research based on cell culture, and *C.elegans*. The department is in the process of signing an MoU with other institutions and initiating contract research. Shital Doshi who is in charge of this laboratory is very enthusiastic and has encouraged several MSc students to undertake dissertation projects based on cell culture and *C.elegans*. The lab is equipped with a biosafety cabinet, inverted microscope, laminar flow chamber and CO₂ incubator, besides other regular equipments.



The department hopes to build an endowment fund to enable good research and investment in equipments to make it a centre of excellence for quality education. To fulfill this vision, the department will have to sketch out a road map.

The saying goes... "Well begun is half done". Let us hope to begin well!

ICT in Teaching Learning



Continuous assessment as a mode of evaluation has become an integral examination system of the college. ICT enabled learning and evaluation is being promoted all across the country. Online courses, such as in Swayam portal, is also being encouraged with the vision that a student could take a course offered by IIT or IIM faculties.

The department has adopted several new methods of evaluation including MOODLE based evaluation. MOODLE has features enabling

interactive discussion, quizzes, uploading study materials etc. The faculty and students are gradually beginning to get familiar with the system despite all the teething problems. Several training sessions have been conducted for the faculty to enable them to use MOODLE.

Faculty Corner



Sebastian delivered a talk in a NAAC sponsored National seminar on 'Pursuit of Excellence: The NAAC view' where he spoke on 'A paradigmatic shift in the process of learning, teaching and evaluation'. Sebastian was invited to be in the peer team appointed by Xavier Board to evaluate colleges in the country.



Fr Suresh Antony obtained his PhD from MS University Baroda in Biochemistry. He worked on Biochemical changes in *Jatropha curcas* L seeds on storage under the able guidance of Dr Puspa Robin. Fr Suresh has joined the department as a full time faculty from this semester.

As part of skill development and equipping oneself with the upto date technical skill in molecular biology, Priya Vijayan participated in a 5 day workshop on Advanced Molecular Biology Techniques and Bioinformatics' organised at ACTREC, Mumbai. The workshop focused on cloning, PCR, Bioinformatics analysis apart from cancer genomics. We are hopeful that more of us will benefit from such workshops.



Dhaval Patel (Junior Research Fellow, GSBTM funded project in the department), along with three MSc students, Jignesh Prajapati, Rajvi Panchal and Arwa Gheewala gave oral presentations at Biospectrum 2019 held at University of Engineering and Management, Kolkata on 13 - 14 August 2019. Their respective papers have been considered for publication (Taylor and Francis) in the Proceedings of the Conference.



Sonal Thakur, is to register under Dr. Shivangi Mathur for her PhD. Her research will comprise establishing a bacterial consortia to degrade polyethylene and polystyrene and a plausible means of cloning alk B gene into *E.coli* and assess its potential of degrading plastic.



Young at the age of 60, Bipin Bhai retired from College on June 15 2019. His contribution to the department in his 35 years of service, is an inspiration to youngsters. His discipline, commitment and his untiring spirit of ensuring that the department functions at its best is something that we all are very inspired by. We wish him the best in his sojourn hereafter. We miss his hospitality and involvement in the department.

Nandini Ghosh and Sreejith Nair attended the Biotechnology Ignition Grant (BIG) Awareness Programme held at PERD on 10.07.2019. The Biotechnology Ignition Grant (BIG) scheme of the Biotechnology Industry Research Assistance Council (BIRAC), Government of India is a scheme that enables technology innovators and entrepreneurs to pursue, establish and validate proof of concept (POC) a technology idea by providing funding for establishment and validation of POC, with the purpose of advancing a technological innovation, including support for

high-risk technology with promise of marketable potential for eventual commercialization / implementation, licensing, setting up start-up companies or assisting the company to raise investments.

Newly Inducted Faculty

The New Members of our Biochemistry-Biotechnology Family.

Top Row

(From Left to Right):
Fr Suresh Antony,
Yogesh Baravalia,
Sreejith Nair and
Kairavi Bhatt

Middle Row

(From Left to Right):
Avni Divatia,
Priyashi Rao and
Kinjal Bhatt

Bottom Row

Srishti Chhabaria,
Priya Vijayan, Jalpa
Patel and Nilam
Vaghasiya



Congratulatory Note



Harsh Oza ranked at the 2nd position in the All India Joint Entrance Test for Biotechnology conducted by JNU, Delhi. This remarkable feat is a reflection of his constant pursuit of knowledge and academic excellence.

We are happy that he has now begun his post graduate studies at DBT instituted Regional Centre for Biotechnology, Gurgaon.

His success story encourages the department to continue organizing the GSBTM facilitated capacity building programme for preparing students to give competitive exams like JNU-CET, NCBS-TIFR, JAM etc. His success has allowed students to dream big.


Announcing

National Seminar
**Present Day Biology:
Impact of Research at
Molecular and
Cellular Level**
03 - 04 January, 2020

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245
180
135
100
75
63
25

Std

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Upcoming Events (Tentative Dates 2019-20)

- 04-05 November : Hands on ATC Workshop
- 15-16 November : Hands on Workshop on *C.elegans*
- 07 December : β -HeliX
- 04 January : Alumni meet
- 11 January : β -HeliX
- 15 February : β iocalyX
- 29 February : Career meet

***“Individually,
we are
one drop.
Together,
we are
an ocean”***

- Ryunosuke Satoro

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You can reach us at: biochemistry@sxca.edu.in