

SCHOOL OF LIFE SCIENCES

> DEPARTMENT OF BIOTECHNOLOGY

JUNE-NOVEMBER NEWSLETTER 2024



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ABOUT THE DEPARTMENT

The Department of Biotechnology, part of the School of Life Sciences at Swami Vivekananda University, is dedicated to supporting a group of ambitious individuals on their journey to excellence, providing them with an ideal platform for self-redefinition. The department accommodates a diverse range of students, including postgraduates, undergraduates, and PhD scholars, in addition to academic staff that includes emerging researchers.

With a focus on achieving great heights, the department offers a highly specialized laboratory infrastructure that encompasses four labs specializing in Biotechnology, Microbiology, Molecular Biology & Biochemistry, Plant Biotechnology, and Bioengineering. The library is stocked with a collection of well-informed books in relevant fields, creating a continuous space for students to explore the latest developments. The perfect blend of theoretical knowledge and practical application is facilitated through classes held in spacious classrooms and well-equipped labs. This setup provides students with an essential environment for experiential learning, personal development, and successful placement in reputable industries. The department places a strong emphasis on exposure through internships, hands-on training, and industry visits, ensuring a comprehensive educational experience for its students.



MISSION

Our mission lies in the translation of academic knowledge into practical application is a key focus, emphasizing outcome-based teaching approaches. Central to our educational philosophy is the establishment of a cooperative relationship between the industry and academia, fostering a dynamic exchange of ideas and experiences. Our commitment extends to conducting research that addresses local, national, and global challenges, ensuring that our academic endeavors have a meaningful impact on the broader community.

Furthermore, we are dedicated to developing graduate students who are not only well-versed in their academic disciplines but also equipped with robust analytical and leadership skills. Through this holistic approach, we aim to prepare our students to navigate and contribute effectively to the complex demands of their chosen fields, fostering a new generation of professionals capable of making significant and positive contributions to society.



VISION

In the Biotechnology department, our focus lies in seamlessly translating academic knowledge into practical applications. We employ outcome-based teaching methodologies to enhance the learning experience, ensuring that students acquire not only theoretical understanding but also practical skills. A key aspect of our approach involves establishing a cooperative relationship between the industry and academia, creating opportunities for students to engage with real-world challenges and industry practices. Our commitment extends to conducting impactful research that addresses issues at local, national, and global levels, contributing to the advancement of biotechnological knowledge. Moreover, we aim to develop graduate students who not only possess a strong academic foundation but are also equipped with analytical and leadership skills, empowering them to thrive in the dynamic field of biotechnology.



OBJECTIVE

- 1. **Academic Excellence:** Our commitment is to deliver high-quality education and training across diverse academic levels within the expansive field of biotechnology.
- 2. **Cutting-Edge Research:** We foster a culture that encourages innovative and impactful research, pushing the boundaries of biotechnological sciences.
- 3. **State-of-the-Art Facilities:** Our dedication extends to maintaining and upgrading specialized laboratories that provide students with practical learning experiences at the forefront of biotechnology.
- 4. **Interdisciplinary Collaboration:** We actively seek collaborations with other departments, research institutions, and industries, fostering interdisciplinary approaches to biotechnological research.
- 5. **Holistic Learning:** Through the integration of theoretical knowledge and hands-on practical experiences, we emphasize the diverse applications of biotechnology to provide a comprehensive educational experience.
- 6. **Library Resources:** Our comprehensive library boasts a rich collection of resources tailored to the field of biotechnology, supporting the academic endeavors of our students.
- 7. **Industry Exposure:** Students benefit from internships, hands-on training, and industry visits, gaining valuable insights into the real-world applications of biotechnological principles.
- 8. **Ethical Practices:** We instill a strong sense of ethical conduct and responsibility in both research and professional practices within the field of biotechnology.



OBJECTIVE

- 9. Global Perspective: Our programs are designed to prepare students for success in a diverse and interconnected professional landscape, providing a global perspective on biotechnological challenges and opportunities.
- 10. Community Engagement: We actively engage with the community through outreach programs and collaborative initiatives, emphasizing the application of biotechnological solutions for societal benefit.
- 11. Continuous Improvement: In response to evolving trends and challenges in biotechnology, we maintain a dynamic curriculum, ensuring the highest standards of education and research.



JUNE-2024

Student Skill Development Workshop - Molecular Ecology and Molecular Farming - 6th June

On June 6th, the Departments of Microbiology and Biotechnology at Swami Vivekananda University, School of Life Sciences, organized a series of Student Skill Development Workshops under the guidance of Shri Saurabh Adhikari, Chief Operating Officer. These workshops aimed to enhance technical expertise and expand the university's reach to external students.







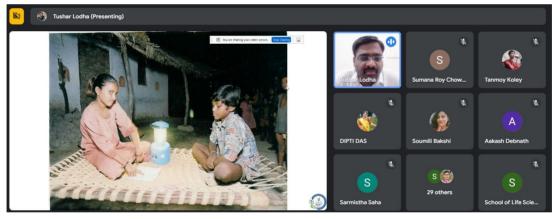




JUNE-2024

World Environment Day Celebration





The collaboration between the departments of Biotechnology and Microbiology culminated in an impactful online celebration of World Earth Day. At the heart of the event was Dr. Tushar Lodha, Scientist B from Agharkar Research Institute, who served as the distinguished guest speaker. Dr. Lodha enthralled the audience with his profound expertise, delving into his pioneering research in environmental sustainability. His presentation not only illuminated current environmental challenges but also sparked inspiration among students and scholars, emphasizing the critical role of innovative solutions in addressing global issues. The interactive nature of the online platform fostered engaging discussions, enabling participants to delve deeply into Dr. Lodha's insights and chart future paths for research and advocacy in advancing environmental stewardship efforts.



JUNE-2024

School of Life Sciences at Education Excellence 2024

Members of the School of Life Sciences actively participated in Education Interface 2024, commencing from June 15th at Netaji Indoor Stadium, under the esteem leadership of the honorable Chief Operating Officer of Swami Vivekananda University, Hon'ble Shri Saurabh Adhikari sir. The event was graced by distinguished figures including Hon'ble Shri Bratyabrata Basu, the Education Minister of West Bengal; Hon'ble Shri Shovondeb Chattopadhayay, the Minister of Agriculture; Hon'ble Smt. Mala Roy, honorable Member of Lok Sabha, Hon'ble Dr. Suranjana Das, Former Vice Chancellor of University of Calcutta, Hon'ble Mayor and Minister for Urban Development and Municipal Affairs, Shri. Firhad Hakim, Hon'ble Minister of Parliamentary Affairs and Minister of Agriculture, Shri. Sovondeb Chattopadhyay, Minister of Agriculture, West Bengal and Hon'ble Chairperson of Kolkata Municipal Corporation (KMC) and Member of Parliament for Kolkata (South) were among the distinguished dignitaries who graced the Additional figures included Manashi occasion. notable Roychowdhury, Co-Chairman of Techno India Group, and Sardar Taranjit Singh, Managing Director of JIS Group, Dipak Sinha Roy, Founder of Career Planner Edu Fair, Prof. Subrata Kumar Dey, honorable Vice Chancellor of Swami Vivekananda University and Prof. Deb Narayan Bandyopadhyay, Chief Executive Director (Academics), Swami Vivekananda University.







JUNE-2024

School of Life Sciences at Education Excellence 2024



This initiative sought to democratize access to educational opportunities and information, empowering aspiring learners and their families to navigate the diverse educational landscape seamlessly. Education Interface 2024, orchestrated under the leadership of Shri. Saurabh Adhikari, the esteemed Chief Operating Officer of Swami Vivekananda University, convened students, graduates, and industry leaders in a cohesive platform. The event facilitated meaningful exchanges with business leaders and academic experts, offering crucial insights for participants in their professional journeys. With support from government officials and educational stakeholders, this inaugural event represented a significant stride in India's career education sector, poised to shape nationwide career development trajectories.



JUNE-2024

2nd International Conference on Scientific Advances in Life Sciences, Agriculture and Food & Nutrition ICSA 2024





ICSA-2024, WAS held on June 20-21, 2024, at the university campus, featured an inspiring opening by Prof. Sankar Kumar Ghosh, Former Vice Chancellor of Kalyani University. Expert lectures by Dr. Souvik Sengupta, Dr. Koushik Mukherjee, Dr. Joydeep Paul, and Dr. Ishita Rehman enriched the sessions. Students also presented research papers during technical sessions, making the event a valuable experience for all participants. The ICSA-2024 was a resounding success, featuring approximately 15 paper submissions from students. The event also included engaging student presentations, along with insightful online and offline talks delivered by expert guest speakers.



JUNE-2024

Industrial Visit to Symbiogenesis





Postgraduate students of Biotechnology and Microbiology recently participated in an industrial on-site visit to Synbiogenesis, a multidimensional Biotech Skill Development and R&D hub. The visit aimed to promote high-level basic research among life science students, foster industry-oriented and applied research in biotechnology, facilitate knowledge exchange across scientific disciplines, and ensure the availability of skilled human resources for the Indian biotech industry. Accompanied by Dr. Bidisha Ghosh and Dr. Priyankar Pal, Assistant Professors in the Department of Biotechnology, this initiative provided students with practical insights into cutting-edge biotechnological practices and strengthened their understanding of industry applications in a real-world setting.



JUNE- 2024

Celebration of World Microbiome Day





The Departments of Microbiology and Biotechnology, School of Life Sciences, Swami Vivekananda University, Barrackpore, proudly organized the World Microbiome Day 2024 celebration.

The event featured a captivating session led by Dr. Piya Ghosh, Lecturer at Lady Brabourne College, Kolkata, who shared her profound insights into microbiome research. Her thought-provoking lecture deeply engaged the audience, sparking interest and discussion.

Following the session, students showcased their expertise and creativity through a series of remarkable presentations on microbiome-related topics. The celebration underscored the critical role of microbiomes in various ecosystems and highlighted the contributions of young researchers in driving advancements in this crucial scientific field.



JUNE-2024

One Day seminar on Plasmodium falciparum





The Departments of Microbiology and Biotechnology, School of Life Sciences, Swami Vivekananda University, Barrackpore, successfully hosted a One-Day Seminar on 28th June 2024 at the university campus.

The event was honored by the presence of Prof. Suman Kumar Dhar, Vice Chancellor of TERI School of Advanced Studies, as the Chief Guest. Prof. Dhar delivered a highly informative lecture titled "The Human Malarial Parasite Plasmodium falciparum: Unique Biology and Possible Interventions." His talk illuminated the unique biological characteristics of *Plasmodium falciparum* and highlighted cutting-edge approaches for malaria intervention. This seminar served as an excellent platform for knowledge-sharing, inspiring both students and faculty to explore new horizons in the fields of microbiology and biotechnology.



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JULY-2024

Industrial Visit to Parle

The final-year postgraduate students from the Departments of Microbiology and Biotechnology, School of Life Sciences, Swami Vivekananda University, participated in a one-day industrial visit to Bhagwati Food Park, Parle Food Bhagwati Foods Pvt. Ltd. - Parle.

The visit was organized to provide students with firsthand exposure to industry practices and real-world applications of the concepts they have studied. This initiative aimed to enhance their practical understanding and prepare them effectively for future placements.











JULY-2024

Undergraduate Induction Programme -2024

The induction program for the newly admitted undergraduate batch in Microbiology and Biotechnology at the School of Life Sciences, Swami Vivekananda University, commenced on 15th July 2024 with a series of impactful sessions designed to set the stage for academic and professional success.

A key highlight of the program was an insightful lecture by Mr. Debroop Das, Branch Manager at Genetix Biotech Asia Pvt. Ltd. His session focused on bridging the gap between industry and academia, offering students a deeper understanding of how their academic knowledge translates into real-world applications. He shared valuable insights into industry practices, emerging technologies, and career opportunities, inspiring students to align their learning with industry expectations.

The induction program also introduced students to the foundational and applied aspects of microbiology and biotechnology, emphasizing their significance in addressing contemporary global challenges. It included interactive discussions on emerging trends, advancements, and job market dynamics.

This comprehensive initiative not only motivated students but also provided them with a strong academic and professional foundation, ensuring they are well-prepared to navigate their undergraduate journey and beyond.



JULY-2024

Undergraduate Induction Programme -2024











AUGUST - 2024

MoU Between Swami Vivekananda University and Dinabandhu Andrews College

Swami Vivekananda University, School of Life Sciences, Departments of Microbiology & Biotechnology and Dinabandhu Andrews College have signed an MoU to promote academic excellence through knowledge and student exchange. This partnership aims to enhance learning experiences, foster collaborative research, and offer students broader academic exposure, preparing them for global opportunities.







AUGUST - 2024

Project Grant Received & Collaboration





The Department of Biotechnology at SVU has secured significant grants and collaborations. Dr. Srijan Haldar is leading a project on detecting invasive species in West Bengal's water bodies using eDNA analysis. Funded by the Centre for Applied Research and People's Engagement, this one-year project, with a grant of 1 Lakh INR, aims to identify invasive species early and support conservation efforts.

Dr. Debjit De is involved in two collaborations. One is an international project with Dr. Ayan Roy from the Asian University for Women, Bangladesh, focusing on the gut microbiome's role in multiple sclerosis (MS) and long COVID-19. The project aims to identify microbiome biomarkers for improved MS diagnosis.

Additionally, Dr. De is collaborating nationally with Dr. Chittabrata Mal and Dr. Subhankar Choudhury on a project investigating the gut microbiome's role in Gestational Diabetes Mellitus (GDM). The research aims to understand microbial diversity in GDM and develop microbiome-targeted therapies for better disease management in pregnant women. These efforts highlight the department's commitment to impactful research.



SEPTEMBER-2024

Technovation 2024

Technovation 2024, held on September 5, 2024, was a remarkable event that united over 530 participants from across the university in a vibrant hackathon atmosphere. The event served as a platform for fostering innovation, collaboration, and competition among brilliant minds. The School of Life Sciences was well-represented, with more than 10 enthusiastic participants guided by dedicated departmental faculty. A standout moment was Team Greenery's exceptional performance, led by Dr. Priyankar Pal, which earned them the 1st rank in the university innovation contest. This achievement highlights the School of Life Sciences' commitment to excellence and its ability to contribute meaningfully to interdisciplinary innovation.









SEPTEMBER-2024

World Microorganisms Day

Celebration of International Microorganism Day 2024, organized by School of Life Sciences, Swami Vivekananda University, Barrackpore. The School of Life Sciences celebrated International Microorganism Day 2024 with an engaging program featuring Dr. Koushik Mukherjee, Assistant Professor and In-Charge, Department of Microbiology, Kalyani Mahavidyalaya, as the Guest Speaker. Dr. Mukherjee delivered an insightful lecture on the significance of microorganisms, followed by a lively quiz competition in the second session, fostering learning and enthusiasm among students.









SEPTEMBER-2024

International Conference on the Future of Sustainable Development - Challenges and Opportunities (ICFSDCO 2024)

Swami Vivekananda University's School of Life Sciences, School of Agriculture, and Department of Food & Nutrition successfully hosted the International Conference on the Future of Sustainable Development - Challenges and Opportunities (ICFSDCO 2024) on September 25th and 26th, 2024, at the university campus. This prestigious event was spearheaded by the Vice Chancellor, Prof. (Dr.) Subrata Kumar Dey, with significant contributions from Prof. (Dr.) Deb Narayan Bandyopadhyay, Chief Executive Director (Academics), and Dr. Ranjana Director of the Research & Academic Chakraborty. Department. Prof Bandyopadhyay inaugurated the conference, while the Chief Guest of Honour, Prof. (Dr.) Nimai Chandra Saha, Director of Public Instruction (DPI), Govt. of West Bengal delivered a captivating keynote address that left a lasting impression with his insightful and forward-looking perspectives. As the university's fifth international conference, it was a remarkable success, and we are excited to continue hosting such influential events in the future





OCTOBER-2024

One day Seminar on Industry-Academia

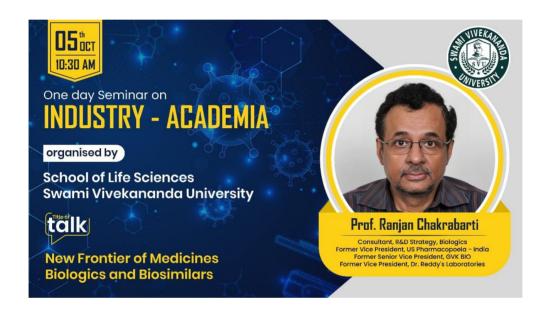
On October 5, 2024, the Department of Microbiology and Biotechnology at the School of Life Sciences, Swami Vivekananda University, had the honor of hosting a distinguished guest lecture by Prof. Ranjan Chakrabarti, a renowned expert in biologics and pharmaceuticals. Prof. Chakrabarti's impressive career includes key positions such as Consultant in R&D Strategy for Biologics, Vice President of US Pharmacopoeia - India, Senior Vice President at GVK BIO, and Vice President at Dr. Reddy's Laboratories. His lecture offered valuable insights into the field.

The event was designed to provide students with meaningful exposure to industry practices and the latest trends in the rapidly evolving biologics sector. Prof. Chakrabarti's in-depth exploration of the field helped students gain a deeper understanding of the strategic, scientific, and regulatory aspects that drive progress in biologics, equipping them with a well-rounded view of the intersection between academic research and industrial application. Students had the chance to engage directly with Prof. Chakrabarti, posing questions about the industry's future, its challenges, and the skills needed to succeed in this competitive domain. This interaction served to bridge the gap between theoretical knowledge and real-world application, offering attendees a clearer understanding of how biologics innovations are transforming global healthcare.



OCTOBER-2024

One day Seminar on Industry-Academia











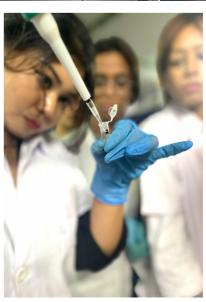
OCTOBER-2024

Student's Internship

As part of the NEP curriculum requirements for Semester III, the undergraduate students of the Departments of Microbiology and Biotechnology were sent for internships essential for their semester completion. The students gained hands-on experience interning at Inbol, Bose Informatics, and PDxRL, enhancing their practical knowledge and skills in real-world environments.









NOVEMBER-2024

National Cancer Awareness Day

The Departments of Microbiology and Biotechnology at the School of Life Sciences observed National Cancer Awareness Day with an inspiring program featuring Dr. Sutapa Saha, Assistant Professor of Molecular Biology from the Department of Life Sciences, Presidency University, Kolkata, as the Chief Guest. Dr. Saha delivered an insightful lecture on cancer biology, emphasizing recent advancements in research and treatment. The event concluded with a lively e-poster presentation by students, showcasing their creative and innovative perspectives on various cancer-related topics.







NOVEMBER-2024

Industrial HPLC Training

The School of Life Sciences organized a 2-day Industrial Training on HPLC, led by Dr. Upadhyayula Satyanarayana, former Principal Development Manager at Waters India Pvt. Ltd. The training aimed to equip students with specialized skills in High-Performance Liquid Chromatography (HPLC), essential for careers in the pharmaceutical industry. Dr. Satyanarayana provided comprehensive guidance, combining hands-on training in HPLC techniques with an in-depth understanding of the theoretical principles. The program was tailored to prepare students for roles in the core pharmaceutical ecosystem, bridging the gap between academic learning and industry expectations.







NOVEMBER-2024

One-Day Hands-On Training Workshop on "Forensic Analysis of Body Fluids

A One-Day Hands-On Training Workshop on "Forensic Analysis of Body Fluids," organized by the School of Life Sciences at Swami Vivekananda University, Barrackpore, in collaboration with SHRM Biotechnologies Pvt. Ltd., aimed to inspire students by demonstrating real-life applications of theoretical concepts. During the event, a Memorandum of Understanding (MoU) was also signed between Swami Vivekananda University and SHRM Biotechnologies to foster future collaborations.











NOVEMBER-2024

Student Placement

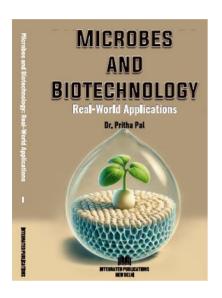
The placement drive was highly successful, with Mecleods Pharma hiring 9 candidates (2 undergraduates and 7 postgraduates), OG Health Care 3 postgraduates, and AVON Foods 2 postgraduates. GRG Health and Martlenz Knowledge Services recruited 3 postgraduates, IDS Infotech Ltd. 4 postgraduates, and Chimera Gentech 3 postgraduates. Episource and Diatek Healthcare each selected 4 postgraduates, while LifeCell International Pvt. Ltd. also hired 4 postgraduates. Capline Service, Indoriv Clinical Pvt. Ltd., Meditab Software, SHRM Biotechnologies, and RK Life Care hired 1, 1, 4, 2, and 1 postgraduate candidates, respectively.

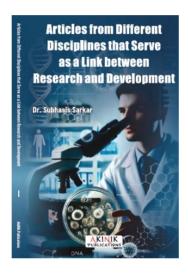
The recent placement and internship drive yielded promising results. Fitelo selected one undergraduate candidate, and Sundarini Organic hired one postgraduate candidate. Internships with potential for permanent roles were secured by one postgraduate candidate each at SHRM and Haldiram, while three postgraduate students will start internships at Prayed in January 2025, with prospects for permanent positions. Recruitment efforts are ongoing at GRG Healthcare, Insights Opinion Pvt. Ltd., and Pharma Implex, offering additional opportunities for students.

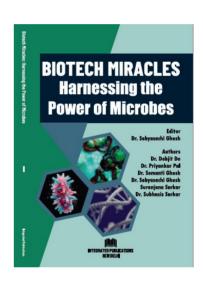


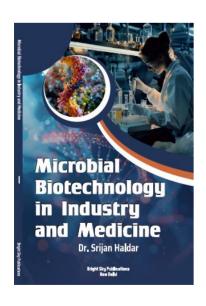
NOVEMBER-2024

Publication of Book















Planning (Dec, 2024-March, 2025)

Upcoming Events by School of Life Sciences, Swami Vivekananda University December 2024:

- One-Day Certified Workshops: In collaboration with Inbol Healthcare Educational Centre, focusing on *Know Your Genome*, organized by the School of Life Sciences, Departments of Microbiology and Biotechnology.
- o 60-Hour Certified Industrial Training: Designed for placement readiness, including an industrial visit to Bengal Beverages.

January 2025:

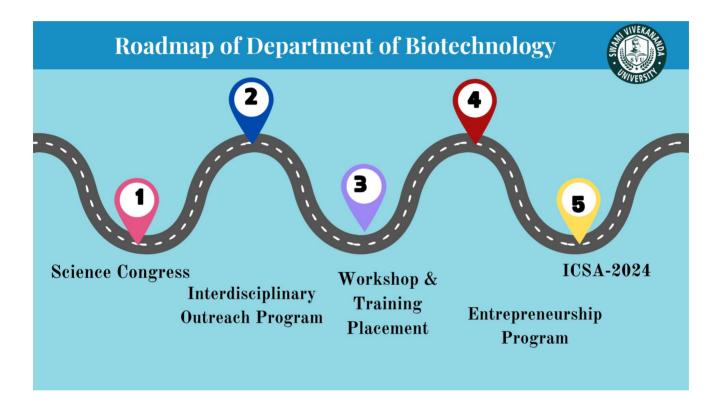
o Industry-Academia Conclave: Scheduled for 16th–17th January, fostering collaboration between academia and industry.

February 2025:

- World Cancer Day Observance: Event on 4th February to raise awareness and encourage action.
- International Conference: Organized from 4th–6th February, focusing on advancements in the life sciences.
- National Science Day Celebration: Scheduled for 28th February,,
 highlighting the importance of science and innovation.



Departmental Roadmap



The Biotechnology department's strategic plan places a premium on academic excellence through pivotal initiatives. Active participation in science congress events enhances the visibility of our research, and outreach programs with interdisciplinary approaches promote collaborative efforts. The forthcoming International Conference, ICSA-2024, serve as noteworthy global platforms for knowledge exchange. Furthermore, our integrated entrepreneurship program empowers students to practically apply microbiological innovations. This roadmap epitomizes our dedication to excellence, collaboration, global engagement, and the cultivation of an entrepreneurial mindset among our students.



Editorial - From HoD's Desk



Dr. Pritha PalHead, Department of Biotechnology
School of Life Sciences
Swami Vivekananda University

Throughout the year, the Department of Biotechnology has been actively organizing events designed to support student development. Workshops focused on continuous student skill enhancement were specifically tailored for external students from various colleges and universities, providing them with hands-on experience with scientific instruments and making a significant impact. The faculty members from the Biotechnology and Microbiology departments dedicated their efforts to organizing these sessions with great enthusiasm and commitment. The School of Life Sciences at Swami Vivekananda University has an exciting lineup of events in the coming months. In December 2024, the university will host a one-day certified workshop, "Know Your Genome," in collaboration with Inbol Healthcare Educational Centre, organized by the Departments of Microbiology and Biotechnology. Additionally, a 60-hour certified industrial training program will be offered to improve placement opportunities, which will include an industrial visit to Bengal Beverages. In January 2025, the university will hold an Industry-Academia Conclave on January 16th-17th to foster collaboration between academia and industry. February 2025 will see the observance of World Cancer Day on February 4th, to raise awareness and inspire action. From February 4th-6th, an International Conference on advancements in the life sciences will be hosted, followed by the celebration of National Science Day on February 28th, highlighting the importance of science and innovation.