



NIPER GUWAHATI

NIPER Guwahati

NEWSLETTER

Vol. 1 Issue 2

July-Dec, 2022



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Director's Message



As a premier institution in the Northeast India imparting higher education in the field of pharmaceutical sciences, NIPER Guwahati has realised its responsibilities towards the student community. Despite various challenges it has been facing over the past decade, the institute has excelled in its mission. The recent NIRF ranking of 2022 by Ministry of Education, where NIPER Guwahati is ranked 13th under Pharmacy category, is a testament of these efforts.

As the construction of the permanent campus is nearing completion, NIPER Guwahati is eager to incorporate new facilities to ensure better campus life both for the inhouse residents as well as the students. As per recent confirmation received from the Kamrup district administration, we have been allotted new pieces of land adjacent to the current boundary which will enhance our campus area. Plans for judicious utilization of those pieces of lands are ongoing and I am sure we will be able to build a proper landscape of in and around the campus in the foreseeable future. The construction of the new animal house facility, new hostel and resident quarters are gaining pace and we expect the completion by the end of the next year. The newly-established GMP-accredited Pilot Scale Extraction Facility funded by Dept. of Biotechnology (Govt of India) and Quality Assessment & Value Addition Centre funded by Ministry of Commerce (Govt. of India), which are in the final phases of their construction, will certainly boost the research and entrepreneurial potential of the Northeast once the facilities are fully operational. We are delighted that the Atal Incubation Centre (AIC) funded by Atal Innovation Mission (AIM) of NITI Ayog will be operational shortly.

I am thrilled for the various achievements gained by our faculty and students in different sectors over the last six months. Special mention to the three faculty members who were listed in the world's top 2% scientists by the Stanford University for the year 2022. I appreciate the efforts of the faculty members who has received research grants from a number of Govt. of India-backed research agencies during this period. I am happy that our students who have confirmed their post-doctoral positions in world-renowned institutions such as Harvard Medical School, USA, University of California, USA among others have carried the NIPER's legacy beyond the national boundary. Hearty congratulations to all the achievers!

Recently we have renewed our association with USP India and Daicel Chiral Technologies, Hyderabad which will ensure that our faculty and students get the best industry experience. I aspire to lead NIPER Guwahati to its destined goals and believe we can together achieve many more with our united contributions in the days to come.

Best wishes!

Dr. USN Murty

Foreword



Is a Newsletter from NIPER Guwahati to showcase its progress necessary and justifiable? This was the first question we asked ourselves when the committee was formed by the Director of the institute. Publishing of Newsletter twice in a year would not be needed if it was just another collection of events or achievements from NIPER Guwahati; all these are surplusly covered in “Annual Report” already. However, the glut of varied activities conducted at eight different divisions of NIPER Guwahati have not been showcased in “Annual Report” by a similar effort aimed at understanding the nature of events or achievements, and how to describe and model those sensible ones. It was the need to fulfil this gap that lead us to compile this Newsletter issue covering all these activities happened from July 2022 to December 2022 at NIPER Guwahati.

This issue of Newsletter could only be significant if one of its main goals was to further deepen the research activity occurring in each division of institute hopefully to establish a correct meaning of what a Newsletter is. A Newsletter is not, and should not be treated as low profile mouthpiece of the institute and easy to prepare as it do not have the binding mechanism to Department of Pharmaceuticals (DOP) compared to the “Annual Report”. An understanding of what is the nature and contents of a Newsletter that makes it different from any traditional “Annual Report” is mandatory. It is in this issue of Newsletter intends to be. The faculty members of the institute, who are particularly well positioned to understand this problem, can and should come up with answers contributing to a better showcasing of their research strength.

We do not pretend to have reached any overclaim with this Newsletter issue, but only to help formulate some of the uncovered activities and stimulate healthy and fruitful discussion between stakeholders of institute. We must thank all of them who have participated in preparing the Newsletter by contributing with the knowledge, work and efforts for its success. The variety of approaches, from stakeholders to student community, will become, we hope, a sound steppingstone for further developments in the next issue of Newsletter.

Prof. (Dr.) Tamilvanan Sunmugaperumal
Chairman
Committee for Publication of Newsletter

Promising Non-invasive Markers for Hypertensive Disorders of Pregnancy

Hypertensive disorders during pregnancy have long been a significant cause of maternal-fetal morbidity and mortality worldwide, particularly in developing countries such as India. Recently a study has identified potential urine metabolites that can serve as non-invasive markers for hypertensive disorders of pregnancy. This new research from Dr. Adela's lab offers hope for early detection and improved management of this condition.



Dr. Ramu Adela
Assistant Professor
Dept. of Pharmacy Practice
NIPER Guwahati

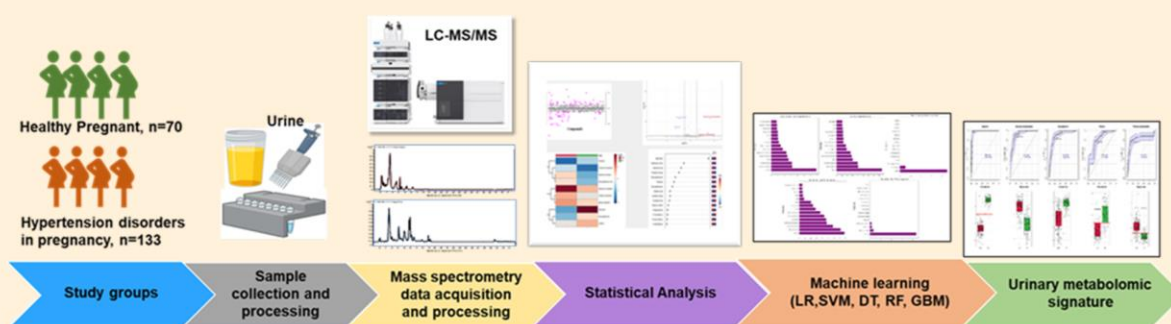


Figure 1: Study design and overview

The study employed integrated metabolomics and machine learning approaches, involved a comprehensive analysis of urine samples from 70 healthy pregnant women and 133 pregnant patients with hypertension. The graphical abstract is given in Figure 1. The findings published in a recent study, revealed 44 differential metabolites between the group with hypertensive disorders of pregnancy and the healthy pregnancy group. Notably, the analysis of metabolic pathways indicated alterations in purine and thiamine metabolism among those with hypertensive disorders of pregnancy. The researchers then evaluated the predictive performance of the identified metabolites. Five most predominant metabolites such as adenosine, adenosine monophosphate, deoxyadenosine, thiamine, and thiamine monophosphate, adenosine were found.

Thiamine monophosphate, adenosine monophosphate, and thiamine exhibited higher predictive performance among the five metabolites. These identified metabolites, particularly adenosine

and thiamine metabolites, hold immense promise as non-invasive markers for the detection of hypertensive disorders of pregnancy. Early detection of non-invasive markers for the detection of hypertensive disorders of pregnancy. Early detection of these conditions can significantly improve maternal and fetal outcomes.

The discovery of these non-invasive markers brings hope for the development of efficient screening tools and improved monitoring strategies for hypertensive disorders of pregnancy. With further research and validation, these markers could revolutionize prenatal care, enabling healthcare providers to identify high-risk pregnancies at an early stage and implement timely interventions. While more research is needed to validate and refine the findings, this study represents a significant leap forward in the field of maternal-fetal medicine. As we move closer to personalized healthcare, advancements like these provide optimism for the well-being of pregnant women and their unborn children.

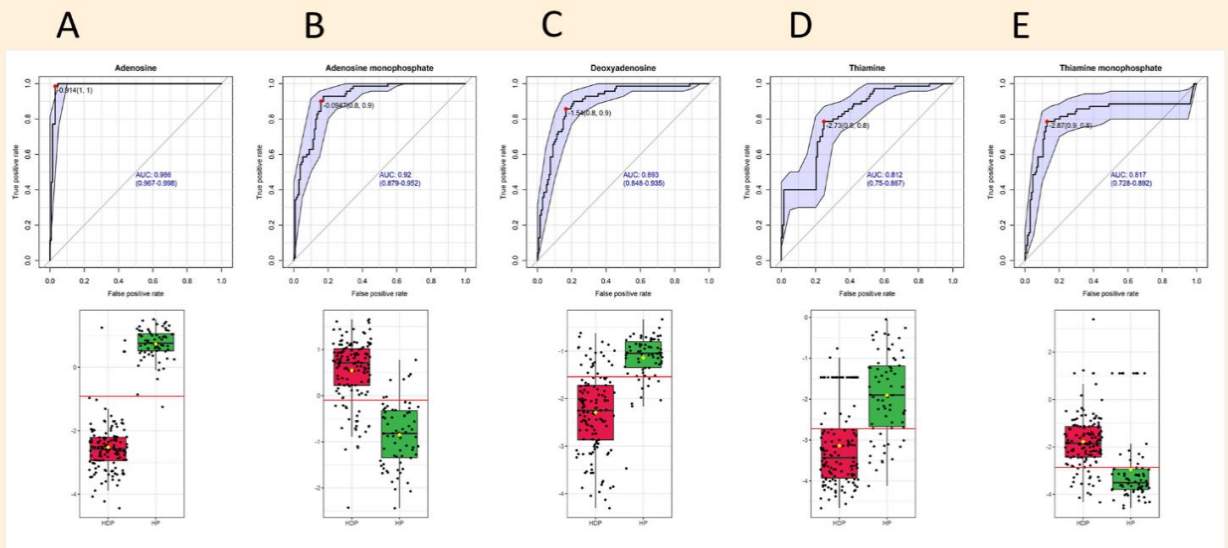
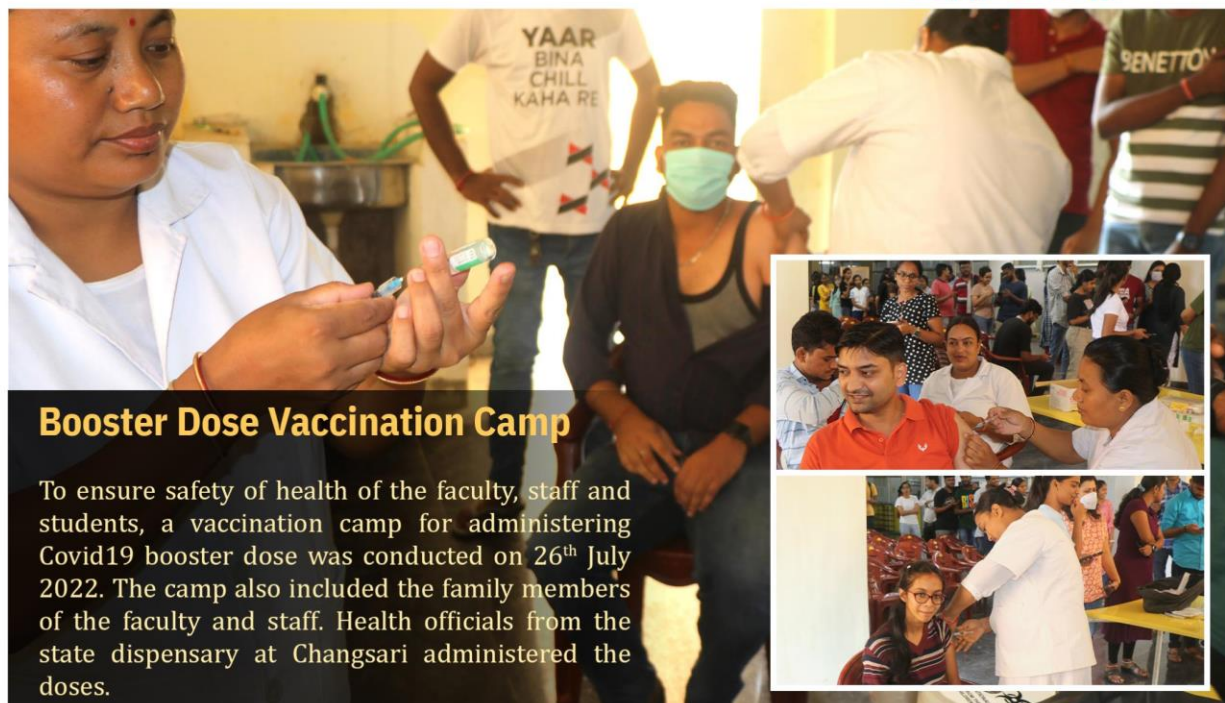


Figure 2: ROC curves of classical single-metabolite models and boxplots with peak intensities (Varghese et al, AJOG MFM; 2023)

Vendors' Meet on GeM held

A meeting with vendors on various aspects of Government e Marketplace (GeM) was conducted on 13th October 2022. The meet acted as the best platform to address the hiccups faced by the registered vendors towards proving procurement-related services to NIPER Guwahati through GeM. Mr. Badarinath C., OSD, Dr. Sanjay Banerjee, Chairman of the Purchase Committee, and Mr. Praveer Raaj, Stores & Purchase Officer, NIPER Guwahati, clarified the doubts of the vendors in order to smoothen the official procurement procedures. The meet was also attended by the faculty members, technical staff as well as staff from the purchase section.





Booster Dose Vaccination Camp

To ensure safety of health of the faculty, staff and students, a vaccination camp for administering Covid19 booster dose was conducted on 26th July 2022. The camp also included the family members of the faculty and staff. Health officials from the state dispensary at Changsari administered the doses.

76th Independence Day celebration under *Azadi Ka Amrit Mahotsav & Har Ghar Tiranga* campaigns

The 76th Independence Day was celebrated with due fervour and enthusiasm under *Azadi Ka Amrit Mahotsav* and *Har Ghar Tiranga* campaigns on 15th August 2022. Faculty and staff members hoisted tricolours at their respective quarters and residences with pride and clicked selfies. They later uploaded the selfies in 'harghartiranga.com' and became important part of the nation-wide campaign. Students also conducted patriotic performances to honour the occasion.



Orientation programme for new students held

An orientation programme for the fresh batch of MS and M.Tech students was conducted on 24th August 2022 at Seminar Hall. Dr. USN Murty, Director NIPER Guwahati, addressed the students and shared his aspirations from the newly joined students. He also interacted with the accompanying parents and gurdians of the students after the session.



Sahay reaches out to the needy at Mother Old Age Home & Snehalaya orphanage

Sahay, the non-profit student organization of NIPER Guwahati, reached out to the people in need at Guwahati-based Mother Old Age Home and Snehalaya orphanage. On 29th October 2022, the student members spent some quality time of fun and frolic with the residents of both the institutions. They also provided them with essential daily-use items and shared meals. The residents of Snehalaya orphanage also took part in a drawing competition and recieved accolades from the student members.

Sahay carries out such voluntary activities regularly to suport the people in need.



NIPERG's Initiatives on achieving **Swachhhta**



This year NIPER Guwahati's swachhta initiatives went outside its perimeter and involved the local populace and the places as well. The month-long Special Campaign 2.0 on Swachhta that kick-started with a plog run event conducted on the birth anniversary of Mahatma Gandhi witnessed faculty, staff and students participating in cleanliness drives in important locations in Changsari area such as Dhopatari Bazar area, local schools, community playground, state dispensary etc. The cleanliness drives generated mass awareness on Swachh Bharat Abhiyan and importance of swachhta among the local public.

Earlier, NIPER Guwahati observed Swachhta Pakhwada from 1st to 15th September 2022 where faculty, staff and students conducted cleanliness drives in their respective workplaces as well as laboratories.



World Pharmacists Day celebrated



In an attempt to acknowledge the pivotal role of pharmacists in providing essential healthcare services for everyone, both at community and hospital levels, NIPER Guwahati celebrated the World Pharmacists Day on 25th September 2022. To mark the occasion, a week-long programme was conducted which included quiz programme, elocution competition and essay writing competition among the students on the theme "Pharmacy united in action for a healthier world". On the day, a road-show was held where all the faculty and students marched on the road with slogans and messages generating awareness on the significance of pharmacists for better healthcare. Later the marching procession collectively took oath to provide selfless service to the society.



हिंदी पखवाड़ा का आयोजन



राष्ट्रीय औषधीय शिक्षा एवं अनुसंधान संस्थान (नाईपर) गुवाहाटी में आदरणीय निदेशक डॉ. यू.एस.एन. मूर्ति जी की अध्यक्षता में 19 सितंबर 2022 से 29 सितंबर 2022 तक हिंदी पखवाड़ा का सफल आयोजन किया गया। कार्यक्रम का शुभारंभ एवं उद्घाटन 19 सितंबर 2022 को हमारे संस्थान के माननीय निदेशक, डॉ. यू.एस.एन. मूर्ति, कुलसचिव, प्रो. पि राधाकृष्णानंद एवं मुख्य अतिथि श्री रविशंकर रवि सहित अन्य सदस्यों द्वारा सरस्वती वंदना एवं उनके समक्ष दीप प्रज्वलित कर किया गया। हिन्दी पखवाड़ा के पावन अवसर पर निदेशक, नाईपर गुवाहाटी ने कर्मचारियों एवं विद्यार्थियों को संबोधित करते हुए हिंदी दिवस की शुभकामनाएँ दी एवं सभी कर्मचारियों हिंदी पखवाड़ा के प्रतियोगिता में भाग लेने हेतु प्रोत्साहित किया। इसके पश्चात सहायक आचार्य, डॉ. स्वप्निल जयंत डेंगले जी ने सभा को संबोधित करते हुए गृह मंत्री जी का संदेश प्रस्तुत किया। माननीय कुलसचिव, प्रो. पि राधाकृष्णानंद जी द्वारा धन्यवाद ज्ञापन के साथ कार्यक्रम का समापन किया गया। 20 सितंबर 2022 से 28 सितंबर 2022 तक विभिन्न प्रतियोगिता, निबंध लेखन, पत्र लेखन, हिंदी कविता, सुंदर लेखन आदि प्रतियोगिताओं का आयोजन कर्मचारियों एवं विद्यार्थियों के लिए किया गया। हिंदी पखवाड़ा का समापन कार्यक्रम 29 सितंबर 2022 को संस्थान के परंपरा अनुसार किया गया जिसके मुख्य अतिथि निदेशक श्री संजय कुमार चौधरी एवं प्रधान निदेशक श्री श्रीकांत शिराली जी थे। हिंदी पखवाड़ा के उपलक्ष्य में आयोजित प्रतियोगिताओं हेतु विजेताओं को उपहार के तौर पर हिंदी पुस्तकें एवं प्रमाणपत्र दिये गए। इसके पश्चात कार्यक्रम का औपचारिक समापन किया गया।



14th Foundation Day celebrated



NIPER Guwahati celebrated its 14th Foundation Day on 16th September 2022. The ceremonial function organized for the occasion was attended by renowned cardiologist Dr. Bhabatosh Biswas, Director CTVS, Woodland Hospital, Kolkata, as the Chief Guest while Prof. SK Mishra, Dept. of Sanskrit, Banaras Hindu University, and Dr. Uday K. Dharmalingam, Asst. Professor, Dept. of Design, IIT Guwahati, both attended as Special Invitees.

In his welcome address, Dr. USN Murty, Director NIPER Guwahati, delivered a brief on the journey made by NIPER Guwahati. He also urged all the faculty, staff and students to participate whole-heartedly in building the institute as one of the best in the country. Dr. Biswas shared his views on how the institute has been taking strides in terms of research and teaching in the Pharmaceutical science sector. The special invitees Prof. Mishra and Dr. Uday too extended their congratulatory wishes to all the faculty, staff and students.

At the programme, performance awards were handed over to the faculty, staff and various academic departments. Prizes for various competitions organized among students were also distributed.



NIPER Guwahati receives monetary aid

NIPER Guwahati received a monetary aid of Rs. One lakh from renowned cardiologist Dr. Bhabatosh Biswas. A man known for his idealogy of 'giving back to the society' and his generosity, Dr. Biswas expressed his views on NIPER Guwahati as a growing institution that has the innate potential to create a pool of efficient workforce in the field of Pharmaceutical science. Dr. USN Murty, Director NIPER Guwahati, while accepting the cheque on NIPER's behalf, expressed gratitude to Dr. Biswas.



Meeting of Special Constructon Works Review Committee held

A meeting of the Special Construction Works Review Committee was held on 19th October 2022 at the Board Room of NIPER Guwahati. The committee, chaired by Dr. Sreedeeep Sekharan, Professor, IIT Guwahati, reviewed the ongoing construction works at NIPER Guwahati and submitted its comments. Dr. USN Murty, Director NIPER Guwahati, assured the committee that the suggestions made will be honoured to its full capacity.



Pledge-taking on Rashtriya Ekta Divas held

On the occasion of Rashtriya Ekta Divas, faculty and staff members of NIPER Guwahati gathered at the lobby area of Administrative Building o 31st October 2022 and took oath to strengthen national unity and integrity. The integrity pledge was taken both in Hindi and English languages.



Vigilance Awareness Week observed

Wigilance Awareness Week was observed at NIPER Guwahati through a series of programmes from 31st October to 6th November 2022 on the theme “Corruption free India for a Developed Nation”. As part of the programme, experts talk, drawing competition among school children and essay writing competition among staff and students were conducted.



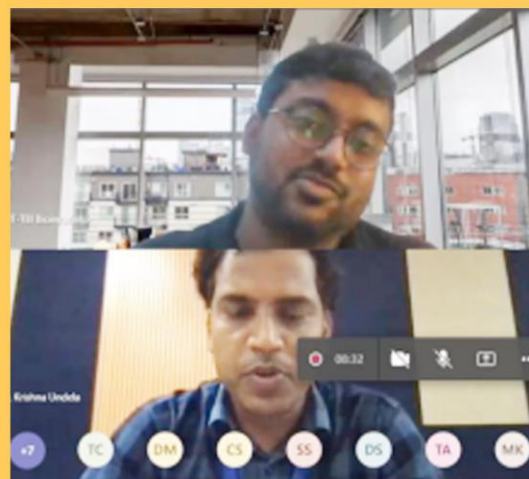
Constitution Day observed

Constitution Day was observed on 26th November 2022 at NIPER Guwahati where all the faculty, staff and students read the preamble of the Constitution of India.



BIG Grant Writing Session held

BioNEST Incubation Centre, NIPER Guwahati along with KIIT-TBI, Bhubaneswar, Odisha on 1st August, 2022 conducted an event on “BIG Grant Writing Session”. Dr Krishna Undela, Assistant Professor and Scientific Coordinator of BioNEST NIPER, Guwahati, Mr. Arpan Ghosh, Program Manager, KIIT-TBI, Bhubaneswar and Mr. Ray Saisoubhagya, Program Associate, KIIT-TBI, Bhubaneswar delivered lectures. Biotechnology Ignition Grant (BIG) Scheme is grant-in-aid funding to support individuals and startups in the field of Biotechnology. BIG scheme invests in ideas that have clear potential to translate into commercial products/technologies. KIIT-TBI is one of the leading business incubators in the country and the epicenter for technology start-ups and entrepreneurs in the east and northeast regions.



Webinar of the International Society of Pharmacovigilance (ISoP) held



The inaugural webinar of the International Society of Pharmacovigilance (ISoP) South Asian Chapter on “The Importance of Pharmacovigilance in South Asian Countries” was organized jointly by the NIPER Guwahati and PVCON Consulting Pvt. Ltd., Mumbai on 8th October 2022. The webinar was aimed at enlightening the healthcare professionals and student community in South Asian Countries on the importance of pharmacovigilance in drug safety monitoring. Dr. Krishna Undela, Assistant Professor at NIPER Guwahati and Leader of the ISoP South Asian Chapter, welcomed all the resource persons and participants from India and 31 other countries. Dr. USN Murty, Director, NIPER Guwahati delivered opening remarks and highlighted the importance of pharmacovigilance during the current scenario of fast-track approval of medications.



Moin Don, CEO & Founder, PVCON Consulting Pvt. Ltd., Mumbai and Leader of the ISoP South Asian Chapter briefed on his 40 years of industrial experience and detailed the process of pharmacovigilance activities in the industry and regulations related to these activities. In the next session, Dr. Undela oriented the participants about the activities related to pharmacovigilance in India and highlighted the importance given to pharmacovigilance in the curriculum of various healthcare courses. He also talked about various career opportunities for pharmacovigilance in govt. and private sectors.

Francesco Salvo, Full Professor of Pharmacology at Université de Bordeaux, France represented ISoP and explained in detail about the ISoP and its activities. Jan Petracek, Director of the Institute of Pharmacovigilance, Czech Republic gave details about global pharmacovigilance professional certification. He also mentioned the importance of certificate courses in the area of pharmacovigilance in upgrading knowledge and skills.

During the panel discussion, resource persons provided the answers to the queries raised by the participants on various aspects of pharmacovigilance. Overall, participants gave excellent feedback about their learning from this webinar.

Bio-innovation Challenge Ideathon #2 organized

BioNEST NIPER Guwahati Incubation Centre organized a Bio-Innovation Challenge through online mode on 15th November 2022 to support pre-incubation. The event was initiated by Dr. Amit Alexander, Associate Professor and Coordinator of BioNEST, NIPER-G. Dr. Pawan Sharma, Senior Consultant, Med. Biotechnology (R&D), as a Chairperson of external Jury members welcomed all the jury members which included Dr. Yogmaya Verma (Dy. Manager BCIL), Dr. Suryamani Tripathi (Legal Counsel, ICRISAT, Hyderabad), Dr. Prabodh Bora (Professor and head of Animal Biotechnology and Coordinator State Biotech Hub, Guwahati) and Dr. Ramjee Pallela (COO- AIC CCMB Hyderabad). A total of 14 participants participated and presented their ideas in front of the jury and five of them got selected for pre-incubation support from BioNEST NIPER-Guwahati Incubation Centre. Ideathon #2 was designed to offer recognition and financial support to technology innovators and entrepreneurs who have been working in the bio-business sector or facilitate a promising technology idea that can be converted into a handy technology in a defined time limit.



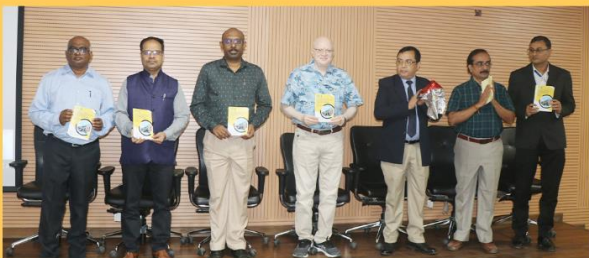
Workshop on Techno-commercial Assessment of TRL 6 & Above Technologies held

NIPER Guwahati, in association with TIFAC and DSIR, organized a workshop titled Techno-commercial Assessment of TRL 6 and above technologies in the domains of Chemicals, Pharmaceuticals, Medical Sciences and Healthcare on 4th November 2022 at NIPER Guwahati campus. The workshop was attended by Shri Pulak Ranjan Basak, Scientist-G, Head, TIFAC-SIDBI Technology Innovation Progra, TIFAC, New Delhi, and Dr. Sujata CHaklanobis, Scientist-G, DSIR, New Delhi as keynote speakers. Dr. USN Murty, Director, NIPER Guwahati, delivered the inaugural address to the attending sets of speakers and participants.



One-day National Symposium on Neurological Disorder held

NIPER Guwahati organized a one-day national symposium on challenges and opportunities in the management of neurological disorder on 7th December 2022. The symposium was supported by Ministry of Ayush, DST-SERB and Department of Biotechnology, Govt. of India.



BioNEST NIPER Guwahati INCUBATION CENTRE



It was during the mid-summer season of 2018 when a team of NIPER Guwahati happened to meet a few traditional healers from Assam. Out of sheer curiosity, the team interacted with them and gathered knowledge on how these men and women had been providing medical care to their fellow villagers with their traditional knowledge on herbs and folk medicines for decades. Delving deeper into the discussion, the team found out that this has been the case in most parts of Northeast India.

The idea of having an incubation centre first came into the mind during the Traditional Healers' Meet held on 26th August 2018 at NIPER Guwahati. During the meeting, several traditional healers, including women, came up with their thoughts and interest in getting scientific assistance from NIPER Guwahati for the validation of their product. This event acted as the trigger point to write the project for establishing an incubation centre. The initiative attracted attention from industry leaders like Sri Srinivas Lanka, the Advisor to Govt. of India on Jan Aushadhi Scheme and Executive Directors and Vice President of Sun Pharmaceuticals and Alkem, who immediately agreed to engage with the project.



The Centre

North-Eastern Societal aspect for the translational phytopharmaceutical/herbal research incubation centre is funded by the Department of Biotechnology, Govt of India under Bio-NEST (Bioincubator Nurturing Entrepreneurship for scaling technology) scheme. The Bio-NEST NIPER GUWAHATI incubation centre is operated and managed by NIPER Guwahati.

The 10,000 sq. Ft incubation Centre provides lab space, office space, conference room, common laboratories, cell culture room, microbial culture room and many more depending upon the requirements of the Incubatee and availability at that time. Central Instrumentation facility of NIPER-G is well equipped with several high-end equipment for experiments related to development of nutraceuticals, phytopharmaceuticals, validation of the herbal products and many more.

Any individuals, students or any start-ups can incubate their idea, PoC or products at the centre under the mentorship of different faculty, scientists for the advancements of TRLs.

Currently Bio-NEST NIPER Guwahati has six (BIG-Biotechnology Ignition Grant) seed funded incubatee, eight traditional healers, and eight pre-incubatee selected from Ideathon. The Bio-NEST NIPER Guwahati is supporting the eight traditional healers' product for the scientific validation so that they can go up to clinical trials. Recently in the BIG-NER call for September - October 2022, a total eight applicants submitted their proposals by keeping Bio-NEST NIPER-G as their Bio Incubator. Bio-NEST NIPER-G always takes extra care and provide support to budding entrepreneur to seek seed fund from different available government schemes.

Role of BIRAC

BIRAC is a not-for-profit section 8, Schedule B, public sector Enterprise, set up by the Department of Biotechnology, Govt. of India. Bio-NEST was launched by BIRAC with a vision that focused on fostering the biotech innovation ecosystem in the country. Unlike start-ups in the IT sector, enterprising ideas in the biotech sector need incubation support of a different kind where they need a landing space to test their ideas, run their operations, have access to high-end instrumentations and locate in a place where they connect with other start-ups and mentors. Bio-NEST program provides support to establish bio-incubators either as a standalone entity or as a part of the academia.



The write-up is compiled by

Dr. Biswadeep Das, Scientific Officer, Bio-NEST NIPER Guwahati



Awards & Achievements

- NIPER Guwahati is ranked 13th in the NIRF 2022 ranking under Pharmacy category. It was ranked 19th in the previous year.

- Three faculty members from NIPER Guwahati - **Dr. VGM Naidu, Associate Professor (Pharmacology & Toxicology), Dr. Amit Alexander, Associate Professor (Pharmaceutics), and Dr. Bidya Dhar Sahu, Assistant Professor (Pharmacology & Toxicology)** - were ranked amongst the World's Top 2% scientists in the study conducted by Elsevier for the year 2022.



Dr. VGM Naidu



Dr. Amit Alexander



Dr. Bidya Dhar Sahu

- **Dr. Subham Banerjee, Associate Professor (Pharmaceutics)**, is selected for **BRICS-YSF 2022 Young Innovator Prize** for his work in the field of **Biomedicines**. In a separate achievement, Dr. Banerjee was selected as a member of the **Editorial Board of Science Citation Indexed-Expanded (SCIE)** indexed journal **3D Printing in Medicine** published by BMC, Springer Nature.



- **Dr. S. Tamilvanan, Professor (Pharmaceutics)**, is awarded prestigious **BIRAC Technology Ignition Grant (BIG) Award** for his work titled 'Ready to use Janus Nanocapsules to manage dry eye syndrome'. The Grant-in-Aid amount is **Rs. 50 Lakh**.



- **Dr. Saurabh Kumar**, Assistant Professor (Medical Devices), has received Start-Up Grant (SRG) of Rs. 32.99 Lakh from SERB-DST on project entitled "Development of laser scribed graphene based biomedical device for multiplex detection of cancer biomarkers".



- **Dr. Deepak Bharadwaj PVP**, Scientist (Pharmacology & Toxicology), has been awarded DST-Scheme for **Young Scientists & Technologists (SYST) grant** of Rs. 40 Lakh for his project entitled "Bioengineered nano-gel mediated photo-sensitization and REDOX catalysis-based sustainable therapy for Oral Cancer and Microbial infections".



- **Dr. Awanish Mishra**, Assistant Professor(Pharmacology & Toxicology), has been awarded **Start-Up Grant (SRG)** of Rs. 32.98 Lakh from SERB-DST for his project entitled "Evaluating role of SERCA activation in febrile seizure and its relationship with proinflammatory cytokine release".



- **Dr. Kalyan Kumar Sethi**, Assistant Professor(Medicinal Chemistry), has been awarded **Start-Up Grant (SRG)** of Rs. 31.60 Lakh from SERB-DST for his project entitled "Synthesis and evaluation of the anti-metastatic properties of novel HuR (ELAVL1)-inhibitors against metastatic breast cancers".



- **Dr. Krishna Undela**, Assistant Professor(Pharmacy Practice), has participated as an **Education Session Instructor and Keynote Speaker** at ISPE's 14th Asian Conference on Pharmacoepidemiology held at Tainan, Taiwan from 21st to 23rd October 2022. In a separate achievement, Dr. Undela also presented his research work at **The Global Health Network Conference** held on 24th-25th Novemver 2022 at Capet Town, South Africa.



- **Dr. Subham Banerjee**, Associate Professor(Pharmaceutics), is selected as an Associate of the Indian Academy of Sciences (IAsc.), Bengaluru for the year 2022. He is the first faculty in the history of all NIPERs who received this prestigious recognition.



- **Dr. Ukti J Bhatt**, PhD scholar (Pharmaceutics), has received Post Doctoral Job Offer from **Harvard Medical School, Boston, USA**. Her application was among the 50 high-quality applications from candidates across the globe.



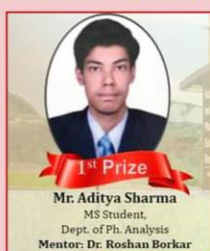
- **Dr. Poonam Kumari**, PhD scholar (Biotechnology), has received Post Doctoral Fellowship Offer from **University of California, Los Angeles, USA**.



- **Dr. Abu Mohamad Syed**, PhD scholar (Pharmacology & Toxicology), has received Post Doctoral Fellowship at **NIH, NHLBI in Laboratory of Cardiovascular and Cancer Genetics, Bethesda, MD USA**.



- Four students from NIPER Guwahati bagged prizes at the International Symposium on Recent Trends and Future Opportunities in Pharmaceuticals held during the NIPER Pharmacon 2022 at NIPER SAS Nagar on 10th-12th Novemebr 2022. The awardees are:



- **Ms. Thotapalli Lahari**, student of Pharmaceutics, is awarded “Student Science Project 2022-23” funded by Asam Science Technology & ENvironment Council (ASTECC), DST, Govt. of Assam to pursue her final year PG dissertation research under this competitive research scheme. She was awarded a certificate of merit and an amount of Rs. 10,000.



- **Ms. Srushti S Lekurwale**, a graduated MS Pharm in Pharmaceutics successfully completed her ASTEC-DST, Govt of Assam funded “Students Science Project 2020-21” under the guidance of Dr. Subham Banerjee, Assciaite Professor (Pharmaceutics).



- **Ms. Amol Hirke**, M.Pharm 2nd year student (Pharmacy Practice), has received travel grant of 48,500 Taiwanese Dollars for attending ISPE’s 14th Asian Conference on Pharmacoepidemiology held at Tainan, Taiwan on 21st-23rd October 2022.



PhDs Awarded

- **Dr. Abu M. Sayed**
 Guide: Dr. Bidya Dhar Sahu
Thesis Title: Studies on the modulatory role of phytochemicals against cardiac hypertrophy and myocardial fibrosis
- **Dr. Puppala Eswara**
 Guide: Dr. VGM Naidu
Thesis Title: Pharmacological interventions of natural products for the treatment and management of chronic inflammatory diseases
- **Dr. Poonam Kumari**
 Guide: Dr. Sanjay Banerjee
Thesis Title: Sortase A mediated biomolecular engineering studies: A potential strategy to tackle Gram-positive bacterial infections
- **Dr. Ukti J Bhatt**
 Guide: Dr. Subham Banerjee
Thesis Title: Extrusion mediated filaments procesing for pharmaceutical 3D printing applications to fight against neglected diseases
- **Dr. Thalla Maharshi**
 Guide: Dr. Subham Banerjee
Thesis Title: Pharmacoengineered lipid core-shell nanoarchitectonics to enhance macrophages uptake for potential translational therapeutic outcome
- **Dr. G Vijaykumar**
 Guide: Dr. Sudhagar S.
Thesis Title: Understanding the tamoxifen resistance during metabolic stress in breast cancer cells

Patents

Deepak PVP, Theranostic Nanoformulations and Methods of Preparation Thereof & Quot; Indian Patent Office On 26 July 2022. Application Number: 202231042832.

Naveen Chella, Co-Amorphous Niclosamide Compositions and Methods of Preparation Thereof. Application Number: 202231048451, On 25 Aug 2022.

Amit Alexander, SINAPIC ACID BASED INTRANASAL FORMULATIONS AND METHODS OF PREPARATION THEREOF. Application Number: 202231043748, On 30 July, 2022.

Dr. Pramod Kumar, Dr. USN Murty, Dr. P. Radhakrishnanand, Dr. Kalyan Sethi, Dr. Jyoti Punia, Nomula Mamatha vardhini, Sandeep Jat, Sachin D. Pawar, Anurag Saini, Nayanika Devi, Method for preparation of highly pure curcumin, desmethoxycurcumin and bisdemethoxycurcumin from lakadong turmeric. Application No.:202231066460 and filing date: November 18, 2022.

Dr. Kalyan Kumar Sethi, Mr. Mahesh Gopichand Kamble, Ms. KM Abha Mishra, Mr. Hrushikesh Chaudhary, Mr. Ashish Sunil Akkewar, Mr. Sanjay Chaudhary, Mr. Anurag Saini, Ms. Veena KS, Dr. Pramod Kumar, Mr. Sandeep Jatt, Dr. Pullapanthula Radhakrishnanand, Dr. Upadhyayula Suryanarayana Murty, Methods for preparation of lutein from marigold flowers, Application No.: 202231062144 and filing date: November 01, 2022

Dr. VGM Naidu: Pharmaceutical Compositions for Cancer Therapeutics. File No.: 202231071512

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MOUs Signed/Renewed

NIPER Guwahati signed or renewed Memorandum of Understanding (MoU) with following organizations from July 2022 to Decmeber 2022.



USP India

Renewed on: 9th August 2022
Validity: 2 years



Critical Care Hospital Guwahati

Signed on: 21st September 2022
Validity: 2 years



Daicel Chiral Technologies

Renewed on: 22nd October 2022
Validity till: 31st March 2023

Funded EMR Projects

(July'22 - December'22)

- Project Title**
Evaluating role of SERCA activation in febrile seizure and its relationship with proinflammatory cytokine release
PI: Dr. Awanish Mishra
Funding Agency: SERB
Amount: Rs. 31.95 Lakh
- Project Title**
Development of laser scribed graphene based biochemical device for multiplex detection of cancer biomarkers.
PI: Dr. Saurabh Kumar
Funding Agency: SERB
Amount: Rs. 31.87 Lakh
- Project Title**
Synthesis and Evaluation of the Anti-metastatic Properties of Novel HuR (ELAVL1)-inhibitors Against Metastatic Breast Cancers
PI: Dr. Kalyan Sethi
Funding Agency: SERB
Amount: Rs. 28.58 Lakh

Alumni Voices



I'm honored to be the first Ph.D. student who graduated from the Pharmaceutics department at NIPER Guwahati. It is the best and most encouraging place to achieve your goals in the beautiful nature of Northeastern India. I'm fortunate to complete my Ph.D. within three years at the institute with the best guidance, support, and learning opportunities I received.



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I feel privileged to be part of this institute who nurture students as parents and train the young minds for the competitive environment. Within the proximity of highly qualified scientists, it helps to understand the scientific challenges and to find novel solutions. With sky as a limit, NIPER Guwahati has not only focused in academics but also contributed to produce young entrepreneurs which will boost the pharmaceutical sector and contribute to nation development.



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