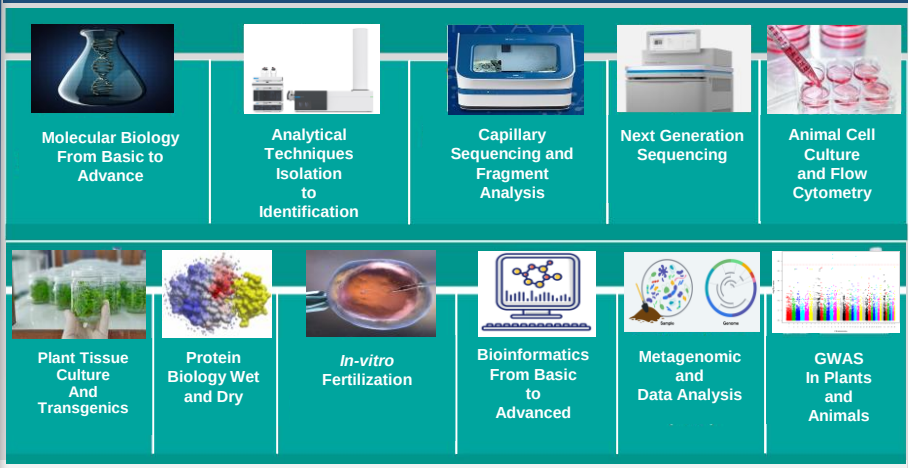
Department of Science & Technology (Government of Gujarat)

GBRC NEWS

Volume IV, Issue III
September 2024

CONTENTS

KAUSHALYA TRAINING PROGRAM FOR SKILL DEVELOPMENT IN BIOTECHNOLOGY 2024-25



***KAUSHALYA (K**nowledge **A**dvancement **U**shering **S**kills **on H**igh-end **A**pplied **L**ifetechnolog**Y** For **A**spirants)* is an innovative initiative by GBRC, aims to bridge the gap between theoretical learning and practical application by providing aspiring individuals with hands-on training and expertise in cutting-edge biotechnology fields. Through KAUSHALYA, participants gain the necessary skills and knowledge to excel in their chosen fields, unlocking new opportunities for personal and professional growth. In this regard, GBRC has developed 12 training modules for the year, with a training session held monthly in collaboration with several partner institutes.

TRAININGS COMPLETED

SPECIALISED WORKSHOPS

Molecular Techniques to Monitor and Investigate Antimicrobial Resistance

Hands-on Training Program on "Molecular Techniques to Monitor and Investigate Antimicrobial Resistance" jointly organized by GBRC and Veterinary College, Kamdhenu University, Anand from August 28th – 30th, 2024.

Biologics and Biosimilar Development

A one-day training program on "Biologics and Biosimilar Development" was organized at GRBC. The training was Jointly organized by GBRC & LM College of Pharmacy (LMCP), Ahmedabad on September 25th, 2024.

GBRC IN MEDIA

'28 children died of Chandipura virus in Guj since July'

TIMES NEWS NETWORK

areas. "So far, 101 children under the age of 14 years have died due to acute encepha-

GBRC maps CHPV DNA, finds 24 samples with mutation

Parth.Shastri
@timesofindia.com

Ahmedabad: The Gujarat Biotechnology Research Centre (GBRC) has successfully conducted whole genome sequencing for the Chandipura virus (CHPV), becoming only the second institution in India to do so after the National Institute of Virology (NIV), Pune, and the first in the current wave of the disease.

So far, only six such sequencings have been performed in India, say researchers. This sequencing allowed researchers to compare the virus's genetic makeup with previous strains and identify mutations.

Experts involved in the project reported that out of 293 samples analyzed, 24 missense variants were identified, where a single nucleotide change leads to a different amino acid in the protein, potentially altering its function. Of these samples, 256 (87%) matched the earlier genetic makeup of the virus.

"There is no direct treatment for CHPV infection, so patients are treated for acute encephalitis syndrome (AES). As a result, there are no major mutations due to medication use. However, the current samples are more like the 2012 outbreak than the 2003 outbreak in India," said a senior official associated with the project.

"It is yet to be determined if these changes affect the virus's epidemiology."

Data from the state health department shows a significant decrease in overall cases and case positivity since early Aug, following a spike in July.

As of Aug 25, Gujarat recorded 164 AES cases, of which 61 were confirmed as CHPV. The mortality rate for CHPV in the state is 46%, lower than the 56%-75% mortality rate seen in the 2003 Andhra Pradesh outbreak.

Senior health department officials noted that while the mortality rate was initially higher, early.

'WORST OUTBREAK IN INDIA IN 20 YRS'

- WHO reported 245 cases of AES in India, including 82 deaths, with a case fatality rate (CFR) of 33%. Of these, 64 were confirmed CHPV cases
- Of the 64 CHPV cases, 61 (95%) were from Gujarat, while the remaining three were from Rajasthan
- While authorities are working to control CHPV transmission, WHO warned that further spread is possible in the coming weeks due to favourable conditions for the vector (sandfly) during the monsoon in affected areas

- Experts have identified and mapped three clades (biological groups) of CHPV, including samples from Gujarat, Andhra Pradesh and Maharashtra in India. They also mapped samples from Kenya, Senegal and Nigeria in Africa and four samples from the UK

MORTALITY RATE IN STATE IS 46%

Ahmedabad Cover Story

After Chandipura, Enter Enterovirus

2 Children Diagnosed With Enterovirus Infection In Sabarkantha; Total 22 Children Confirmed Infected With CHPV Across State

While the death toll of children from the Acute Viral Encephalitis Syndrome (AVES) outbreak in Gujarat has reached 36 in just 25 days, two patients have now been confirmed to have Enterovirus infection.

This comes alongside the 22 children already diagnosed with the Chandipura Vesiculovirus (CHPV). The first patient was admitted to GMERS Himmatnagar MCH in Sabarkantha on June 27, with recorded cases having reached 93.

The Gujarat government over the weekend mandated all hospitals in the state to send samples of patients with AVES-like symptoms to the state-run Gujarat Biotechnology Research Centre (GBRC) instead of the National Institute of Virology (NIV) in Pune.

Interestingly, some of the final results from samples previously sent to NIV revealed that two children admitted to GMERS Himmatnagar MCH had Enterovirus infections.

The Polymerase Chain Reaction (PCR) test of one child came positive for only Enterovirus, while the other tested positive for both CHPV and Enterovirus.

કાર્યક્રમમાં ઈન્સ્ટિટ્યૂટના ડાયરેક્ટર્સ, ચાન્સેલર્સ પણ હાજરી આપી

સાયન્સ-ટેક્નોલોજી ડેવલપમેન્ટના હેતુ સાથે 'સાયન્સ ડિસ્કશન' યોજાયું

GBRC maps CHPV DNA, finds 24 samples with mutation

Parth.Shastri
@timesofindia.com

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MORTALITY RATE IN STATE IS 46%

RECENT PUBLICATIONS

POSTBIOTIC EMISSARIES: A COMPREHENSIVE REVIEW ON THE BIOPROSPECTING AND PRODUCTION OF BIOACTIVE COMPOUNDS BY *ENTEROCOCCUS* SPECIES

Authors: Arati Chaudhary, Nidhi Prajapati, Ansh Prajapati, Sachidanand Singh, Madhvi Joshi, Dharmendra Prajapati, Anil Patani, Dipak Kumar Sahoo, Ashish Patel

Journal: International Journal of Food Science and Technology (July, 2024; DOI:10.1111/ijfs.17431)

Impact factor: 2.6

Enterococcus species have been acknowledged for their diverse metabolic capabilities, resulting in a wide array of bioactive compounds that show promise for therapeutic use. This article presents a thorough examination of the exploration and synthesis of bioactive compounds by *Enterococcus* species. It encompasses the taxonomy, natural habitat, and significance in the biotechnology of *Enterococcus*, emphasizing the various bioactive compounds it produces, including antibacterial, immunomodulatory, and antioxidant agents. Strategies for exploring potential bioactivities, encompassing isolation methodologies and screening techniques, are discussed. The biotechnological synthesis of bioactive compounds derived from Enterococcus via fermentation processes, optimization approaches, and scaling methodologies is expounded. Moreover, the utilization of these bioactive compounds in functional foods, pharmaceuticals, and agriculture, alongside considerations of safety and regulatory aspects, is examined. The review concludes with future perspectives and challenges in the field of *Enterococcus*-derived bioactive compounds.

BACTERIALLY EXPRESSED FULL LENGTH HEMAGGLUTININ OF AVIAN INFLUENZA VIRUS H5N1 FORMS OLIGOMERS AND EXHIBITS HEMAGGLUTINATION

Authors: Priyanka Panwar, Dhwani Jhala, Anubhav Tamrakar, Chaitanya Joshi, Amrutlal Patel

Journal: Protein Expression and Purification (July, 2024; Vol: 223, Page: 106541)

Impact factor: 1.4

Avian influenza poses a significant global health threat, with the potential for widespread pandemics and devastating consequences. Hemagglutinin (HA), a critical surface glycoprotein of influenza viruses, plays a pivotal role in viral entry and serves as a primary target for subunit vaccine development. In this study, we successfully cloned, expressed, and purified hemagglutinin from the circulating strain of H5N1 Influenza A virus using a robust molecular biology approach. The cloning process involved insertion of the synthetic HA gene into the pET21b vector, confirmed through double digestion and sequencing. SDS-PAGE analysis confirmed the presence of the expected 60 kDa protein band post-induction. Following expression, the protein was subjected to purification via Ni-NTA affinity chromatography, yielding pure protein fractions. Native PAGE analysis confirmed the protein's oligomeric forms, essential for optimal antigenicity. Western blot analysis further validated protein identity using anti-His and anti-HA antibodies. MALDI-TOF analysis confirmed the protein's sequence integrity, while hemagglutination assay demonstrated its biological activity in binding to N-acetylneuraminic acid. These findings underscore the potential of recombinant hemagglutinin as a valuable antigen for diagnosis and biochemical assays, as well as for vaccine development against avian influenza. In conclusion, this study represents a critical guide for bacterial production of H5N1 HA, which can be a cost-effective and simpler strategy compared to mammalian protein expression. Further research into optimizing vaccine candidates and production methods will be essential in combating the ongoing threat of avian influenza pandemics.

RECENT PUBLICATIONS

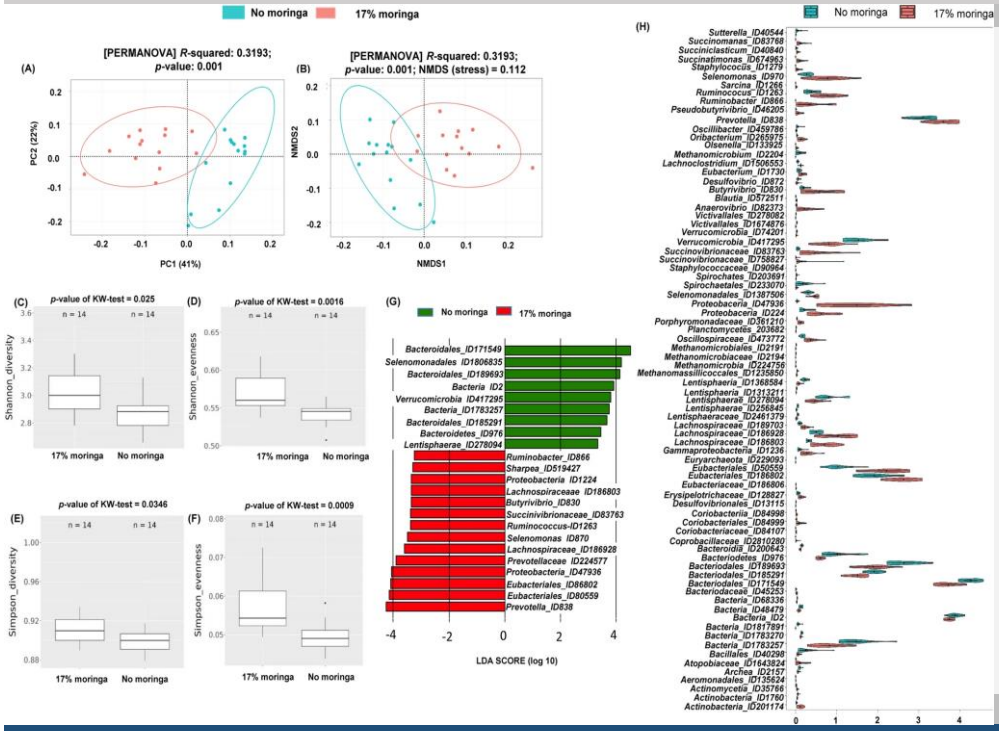
MORINGA LEAF MEAL EXERTS GROWTH BENEFITS IN SMALL RUMINANTS THROUGH MODULATING THE GASTROINTESTINAL MICROBIOME

Authors: Chitra Nehra, Vemula Harshini, Nitin Shukla, Priyank Chavda, Kaksha Savaliya, Sonal Patil, Tejas Shah , Ramesh Pandit, Niteen V Patil, Ashutosh K Patel, Subhash Kachhawa, Ram N Kumawat, Madhvi Joshi, Chaitanya Joshi

Journal: Applied Microbiology and Biotechnology (August, 2024; Vol: 108, Page: 438)

Impact factor: 3.9

This study examined the effects of feeding lambs and kids a diet with 17% moringa leaf meal (MLM) on their microbial composition and body weight gain (BWG). The experiment involved 28 lambs and 24 kids, with body weight recorded biweekly. Moringa supplementation significantly increased BWG in both lambs and kids. Microbiome analysis showed a higher Firmicutes: Bacteroidetes ratio and an increase in beneficial microbes associated with volatile fatty acid production and digestion, along with a potential reduction in methane emissions and pathogenic bacteria. The study highlights that moringa supplementation can enhance growth, energy recovery, and animal health.



Analysis of taxonomic metagenomic data of solid fraction of lambs' rumen liquor between no-moringa and 17% moringa feed groups. (A) PCoA plot of bacterial community. (B) NMDS of bacterial community. (C-F) Alpha diversity: based on Simpson and Shannon diversity and Simpson and Shannon evenness. (G) Linear discrimination analysis (LDA) effect size (LEfSe). (H) Box + violin plot of significantly differentiated abundance profiles of bacterial genera

SPATIAL DISTRIBUTION OF POULTRY FARMS USING POINT PATTERN MODELLING: A METHOD TO ADDRESS LIVESTOCK ENVIRONMENTAL IMPACTS AND DISEASE TRANSMISSION RISKS

Authors: Marie-Cécile Dupas, Francesco Pinotti, Chaitanya Joshi, Madhvi Joshi, Damer Blake, Fiona Tomley, Marius Gilbert, Guillaume Fournié

Journal: PLOS Computational Biology (August, 2024; Vol: 20, Page: e1011980)

Impact factor: 3.8

The study introduces a Farm Distribution Model (FDM) designed to predict the locations and sizes of poultry farms in regions with limited data, crucial for understanding disease spread patterns. The model integrates a Log-Gaussian Cox process to simulate farm distribution and a random forest model to estimate farm sizes. Calibrated with data from Bangladesh, Gujarat, and Thailand, the FDM accurately reflects spatial clustering and farm characteristics. The model's relevance is demonstrated by simulating pathogen transmission, showing that realistic farm distributions increase vulnerability to epidemics, underlining the importance of spatial data in epidemiological modeling.

OUTREACH, COLLABORATION, AND KNOWLEDGE DISSEMINATION

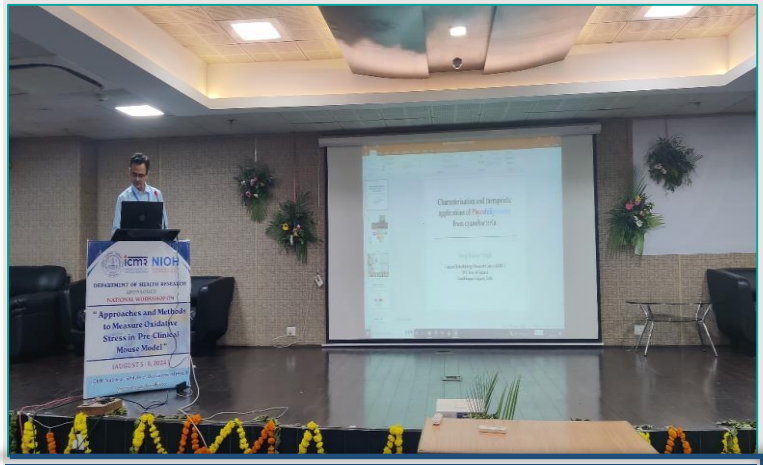
INVITED TALKS DELIVERED BY GBRC TEAM

Dr. Ishan Raval, Scientist-B delivered a lecture on "Molecular Docking" during the two-day workshop "Hands-on Training Program on Recent and Future Trends in Bioinformatics in Biomedical Research" held at the National Institute of Pharmaceutical Education and Research (NIPER), Ahmedabad on July 16th , 2024.

Dr. Niraj Kumar Singh delivered a talk in the National workshop on "Approaches and Methods to Measure Oxidative Stress in Pre-Clinical Mouse Model" on August 7th, 2024, at ICMR, NIOH.

Dr. Niraj Kumar Singh delivered a talk on "Indian Scientist – Aacharya Jagdish Chandra Bose" in Student Innovation Fest (SIF) – 2024 organized by Vigyan Gurjari on August 9th, 2024, at Hill Woods International School, Gandhinagar, Gujarat and on August 12th, 2024, at Shree Somnath Sanskrit University, Veraval, Gujarat.

Dr. Amrutlal Patel delivered a talk on "AMR: Genomics Intervention to Understand Silent Pandemic" on August 12th, 2024 at Swaminarayan University, Kalol.



VIGYAN VIMARSH

The first Convergence Conclave For Development of Knowledge Cluster titled "Vigyan Vimarsh", a discussion forum initiated by Vigyan Bharati and Vigyan Gurjari was organized on August 20th, 2024 at NIPER-Ahmedabad. This is the discussion forum attended by directors and Vice-Chancellors aiming to foster a research-oriented approach among students. The event was presided by Gujarat State Education Minister Shri Praful C. Pansheriya. The discussion was focused on how Gujarat can advance in science and technology and transform Ahmedabad-Gandhinagar and GIFT City into a knowledge hub as well as on strengthening institutional collaborations, additionally emphasized self-reliance in science.

VISIT to IAR- GANDHINAGAR

Director, GBRC Prof. Chaitanya Joshi and Joint Directors Dr. Madhvi Joshi, Dr. Niraj Kumar Singh, along with Dr. Snehal Bagatharia, Joint Director, GSBTM, took a visit to The Institute of Advanced Research (IAR), The University of Innovation, Gandhinagar on September 25th, 2024. The visit aimed to foster dialogue on future collaborative research initiatives between the institutes. Key areas of discussion included strengthening the capacity of researchers through joint projects, sharing expertise, and leveraging resources to enhance scientific innovation. This initiative is in line with both institutions' missions to promote high-quality research in the biosciences.

PAPER PRESENTED

ILLUMINA GENOMICS SUMMIT

Dr. Madhvi Joshi was invited to deliver a talk on role of NGS in AMR surveillance and prevention in the Illumina Genomics summit on August 30th, 2024 at Bengaluru. During the summit more than 200 of India's preeminent genomics experts, clinicians, pathologists, translational researchers, and scientists convened at Bengaluru. The aim was to expand access to genomics in India which will further help in developing opportunities for advancing health care.

Dr. Madhvi Joshi delivering the lecture in the summit

UKRI-GCRF ONE HEALTH POULTRY HUB FINAL PROGRAMME MEETING

Dr. Madhvi Joshi and Dr. Rameshchandra Pandit attended UKRI-GCRF "One Health Poultry Hub" Final Programme Meeting, at The Royal Veterinary College, London, UK during September 9th -13th, 2024. As one of the stakeholder of the hub, they presented work conducted at GBRC. This global event marked the end of five and a half years of interdisciplinary research and impact-related activities in which a One Health approach was being taken to address the challenge of how to meet Asia's rising demand for poultry meat and eggs while minimizing risks to local, regional and international public health. In the event key findings and future directive policies for safer, more sustainable poultry production have also been shared at the global level.

Dr. Madhvi Joshi and Dr. Rameshchandra Pandit with other hub members at the event

PRABODH

GBRC is conducting "PRABODH" (Promoting Research Awareness in Biotechnology for Development of Human Resource) to accelerate the research work and to develop research-oriented thought processes in staff.

JULY-2024

INVITED GUEST

Dr. Manoj Kumar Dhar, Director,

Academy of Scientific and Innovative

Research (AcSIR), Chennai

Topic: Harnessing the potential of Biotechnological approaches in demystifying saffron and its genetic improvement

PRESENTATION FROM GBRC MEMBER

Mr. B. Vigneswaran
JRF

Article: Deconvoluting multi-person biological mixtures and accurate characterization and identification of separated contributors using non-targeted single-cell DNA sequencing

Journal Name: Forensic Science International: Genetics

Impact Factor: 3.2

Ms. Priyanka Nagal
JRF

Article: Stigma receptivity is controlled by functionally redundant MAPK pathway components in Arabidopsis

Journal Name: Molecular Plant

Impact Factor: 12

AUGUST-2024

INVITED GUEST

Prof. (Dr) Niranjan P. Patel

Vice-Chancellor, Sardar Patel University,

Vallabh Vidyanagar, Anand

Topic: Traditional Indian Knowledge and integration of National Education Policy

PRABODH

PRESENTATION FROM GBRC MEMBER

Dr. Anupam Kumari
RA

Article: MaHsf24, a novel negative modulator, regulates cold tolerance in banana fruits by repressing the expression of HSPs and antioxidant enzyme gene

Journal Name: Plant Biotechnology Journal

Impact Factor: 13.2

Dr. Debashrita Mittra
SRF

Article: Obesity -Related microenvironment promotes emergence of virulent influenza virus strains

Journal Name: Infection and Immunity

Impact Factor: 3.2

SEPTEMBER-2024

INVITED GUEST

Shri Pulak Trivedi

Ex. Addl Director of Information, GoG and Vice President of Growth & Strategy, JP Group,

Gandhinagar, Gujarat

Topic: Happiness and pleasure of Life

PRESENTATION FROM GBRC MEMBER

Mr. Ritik Thummar

JRF

Article: Monkeypox virus quadrivalent mRNA vaccine induces immune response and protects against vaccinia virus

Journal Name: Signal Transduction and Targeted Therapy

Impact Factor: 40.8

STAFF WELFARE CLUB ACTIVITIES

The main objective of the Staff Welfare Club is to establish, promote, subsidize, encourage, provide, maintain, organize, undertake, manage, equip, develop, recondition, operate, conduct and run activities such as music, dance, sports, social welfare, carry out scientific and technical, other than political activities.

JULY-2024

BEST MONTHLY PRESENTATION AWARD

Ms. Priyanka Nagal
JRF

AWARD FOR BEST QUESTION IN PRABODH

Ms. Urvi Budhbhatti
SRF

EMPLOYEE OF THE MONTH AWARD

Dr. Vamsi Satyavolu
TA

BEST CUBICLE AWARD

Plant Tissue Culture Laboratory
In charges
Dr. Fenil Patel, Scientist
Dr. Poonam Patel, RA
Dr. Vartika Jha, RA

AUGUST-2024

BEST MONTHLY PRESENTATION AWARD

Dr. Suhas Karle
RA

AWARD FOR BEST QUESTION IN PRABODH

Ms. Nandini Vasa
JRF

EMPLOYEE OF THE MONTH AWARD

Ms. Urvi Budhbhatti
SRF

BEST CUBICLE AWARD

Fume Hood Laboratory
In charges
Dr. Pritesh Sabara, Scientist
Mr. Harshal Purohit, JRF
Mr. Aman Tripathi, FA

STAFF WELFARE CLUB ACTIVITIES

SEPTEMBER-2024

BEST MONTHLY PRESENTATION AWARD

Ms. Roshni Bhatt
JRF

AWARD FOR BEST QUESTION IN PRABODH

Ms. Meha Bhatt
RA

EMPLOYEE OF THE MONTH AWARD

Mr. Krutarth Raval
JRF

BEST CUBICLE AWARD

Hot Area for Autoclaving
In charges
Dr. Pritesh Sabara, Scientist
Dr. Kinjal Patel, TA
Mr. Gaurav Rana, RA

MONTHLY EVALUATION ACTIVITY

GBRC has internal evaluation system of the project progress where all the fellows present their work for the month and their performances are also evaluated in front of external expert.

JULY-2024

Dr. Sudhir Pratap Singh
Professor & Head,
Industrial Biotechnology,
Gujarat Biotechnology University,
Gandhinagar

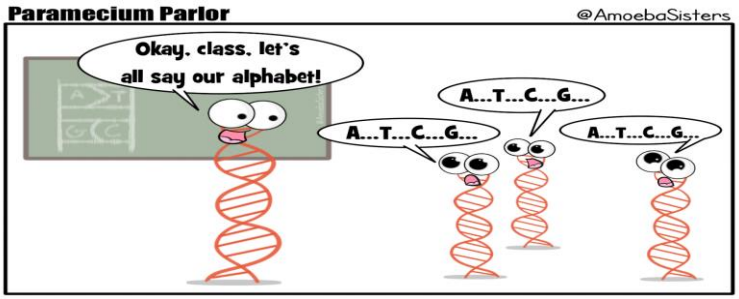
AUGUST-2024

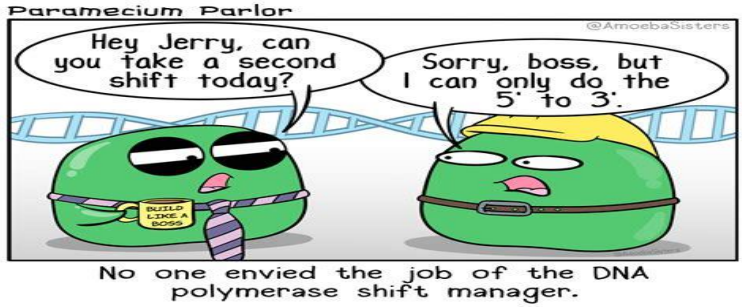
Dr. Sivaraman Dhanasekaran
Assistant Professor,
Petroleum Engineering,
Pandit Deendayal Energy University
(PDEU), Gandhinagar

SEPTEMBER-2024

Dr. Bhuvan Pathak,
Assistant Professor,
Ahmedabad University,
Ahmedabad

LIGHTER NOTE





Source: https://www.amoebasisters.com/parameciumparlorcomics/dna-alphabet

VISIT BY DIGNITARIES AND TESTIMONIALS

I had the pleasant privilege of visiting GBRC. It was a also a pleasant surprise to know about state of art facilities. I also got to know that the facilities are also available to any student or faculty to carry out the work here at very affordable cost. That the facilities are put to the best use to create indigenous knowledge in the field was a matter of immense satisfaction. My best wishes to Dr Joshi and team for future endeavours

Dr. Himanshu Pandya, Dean of Pramukhswami Medical College, Karamsad

This is my 1st visit to GBRC and I find the facilities quite self sufficient. This place has all the essential and advanced facilities under one-roof. The best part is that most of the advanced facilities are under shared category, making it easily available at a nominal cost to all users. The scientists and PI's are extremely congenial, making it a great place to come and work.

Krishna Swamy KS

Dr. Krishna Swamy, Associate Professor, Ahmedabad University, Ahmedabad

Needless to say that under the able leadership of Dr. Joshi, this is a unique facility which has tremendous potential for hands on training in advanced biotechnologies for young students. The facility also is a harbinger of finding answers to complex questions and leading to development of technologies for practical utility. I congratulate the team of persevering scientists in the noble venture.

Best wishes.

Dr. B. S. Prakash, Former Assistant Director General, Indian Council of Agricultural Research, New Delhi

Went around the facilities and labs. I was extremely fascinated by the outstanding facility for research in cutting edge biotechnology areas. The focus on HRD development along with joint projects gives the uniqueness to the institute. All workers are highly passionate. The kind of high end work although deserves great appreciation, there is scope for international collaboration in translational research including bioinformatics. I appreciate the leadership acumen of Dr. Joshi

19/07/24

Dr. Ashok Kumar Mohanty, Director, ICAR Central Institute For Research On Cattle (CIRC), Uttar Pradesh

VISIT BY DIGNITARIES AND TESTIMONIALS

Very happy to see an excellent State of the art facilities created at this Centre. The Centre is doing multi-dimensional activities in research development, human resource development, and solving the basic problems of medical in the field of agriculture, animal sciences, human health. The facilities need to be explored further with various agencies working in national institutions and State universities & other allied agencies. Good luck to Director Dr Joshi & his dedicated team.

Dr. B. K. Joshi, Former Director, ICAR-National Bureau of Animal Genetic Resources, Karnal, Haryana

It was a great experience to deliver a talk before the GBRC Scientists and Research Scholars. I was also highly impressed by the facilities and the other infrastructure in the Centre. The discussion with the Scientists and Students was highly productive. The quality of research and the services being provided for external users are remarkable. I am sure the Centre shall progress in all spheres of the activity. I wish all the best to the entire GBRC family.

A Sudarshan Product

Prof. Manoj K Dhar, Director, Academy of Scientific and Innovative Research (AcSIR), Uttar Pradesh

Thank you to Dr Joshi & her team for introducing me to GBRC. It was a great experience. The Center is doing commendable research. It surely will be one of the finest research institutes. I would be happy to carry forward collaboration with GBRC in my next posting. Thank you.

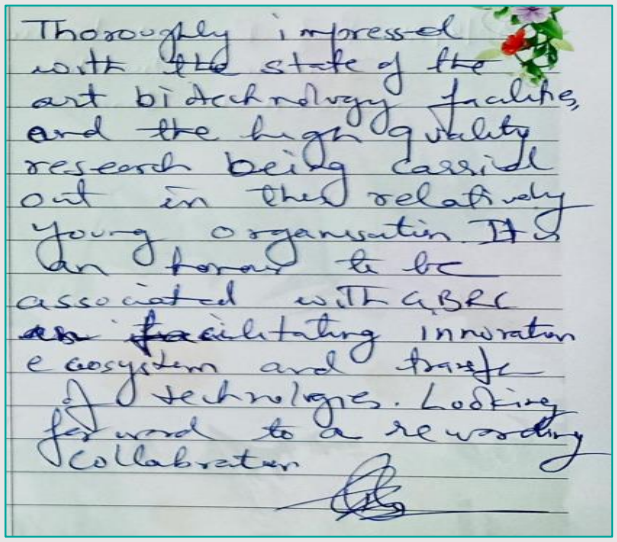
Shri Siddharth Malik, Director (Economic Diplomacy) Ministry of External Affairs, Govt. of India and Consul General of India designated in Edinburgh, Scotland (UK)

Dr. Aakanchha Jain, Assistant Professor, National Institute of Pharmaceutical Education and Research (NIPER), Ahmedabad

Thank you Director Sir and the entire team for the wonderful opportunity to visit the GBRC. It was a wonderful experience

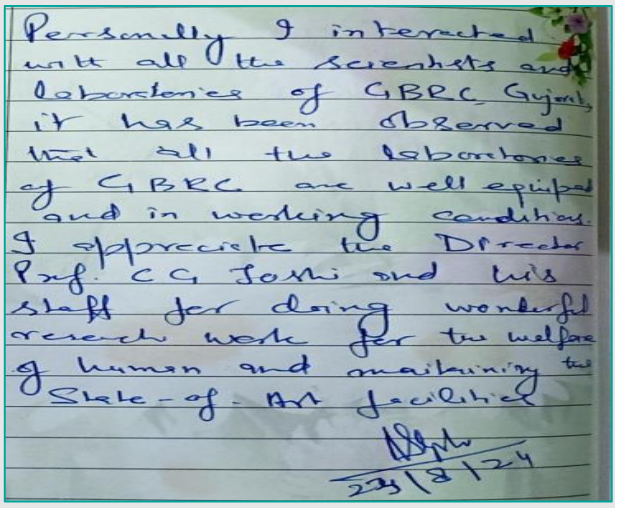
I congratulate the entire team for doing such wonderful research here. Best Wishes.

VISIT BY DIGNITARIES AND TESTIMONIALS

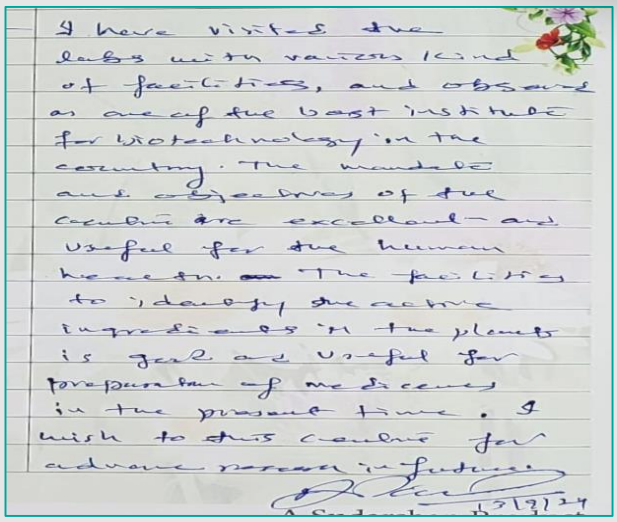

Thoroughly impressed with the state of the art biotechnology facilities, and the high quality research being carried out in this relatively young organisation. It is an honour to be associated with GBRC as facilitating innovation ecosystem and transfer of technologies. Looking forward to a rewarding collaboration

Dr. B. K. Joshi, Former Director, ICAR-National Bureau of Animal Genetic Resources, Karnal, Haryana

Prof. Romesh Kumar Salgotra, Director, Institute of Biotechnology, Sher-e-Kashmir University of Agricultural University of Jammu (SKUAST-J)

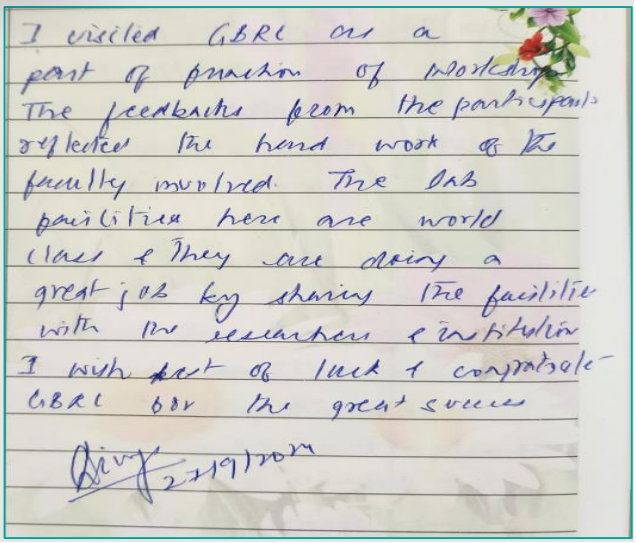

Personally I interacted with all the scientists and laboratories of GBRC, Gujarat, it has been observed that all the laboratories of GBRC are well equipped and in working conditions. I appreciate the Director Prof. C G Joshi and his staff for doing wonderful research work for the welfare of human and maintaining the State-of-Art facilities

23/8/24


I have visited the labs with various kind of facilities, and observed as one of the best institute for biotechnology in the country. The mandate and objectives of the centre are excellent and useful for the human here on the facility to study the active ingredients in the plants is good and useful for formulation of medicines in the present time. I wish to this centre for advance research in future

Dr. A. K. Patel, Associate Professor, Ahmedabad University, Ahmedabad

Prof. Divya Sharma, Director, Center of Education, Indian Institute of Teacher Education (IITE), Gandhinagar


I visited GBRC as a part of practical of Workshop. The feedbacks from the participants reflected the hard work of the faculty involved. The lab facilities here are world class & they are doing a great job by sharing the facilities with the researchers & institutions. I wish best of luck & congratulate GBRC for the great success

21/9/2024

VISIT BY COLLEGES/ ACADEMIC INSTITUTES

Students and faculty as a part of the program SHODH Darshan by Vigyan Gurjari

Students and faculty members from Parul Institute of Science, Parul University, Ahmedabad Campus, Ahemdabad

Students and faculty members from Faculty of Homoeopathy, Swaminarayan University, Ahmedabad

VISIT BY COLLEGES/ ACADEMIC INSTITUTES

Students and faculty members from J & J College of Science, Nadiad

Students and faculty members from Department of Biotechnology, VVP Engineering College, Rajkot

ARRIVAL & DEPARTURE

GBRC welcome to the new members

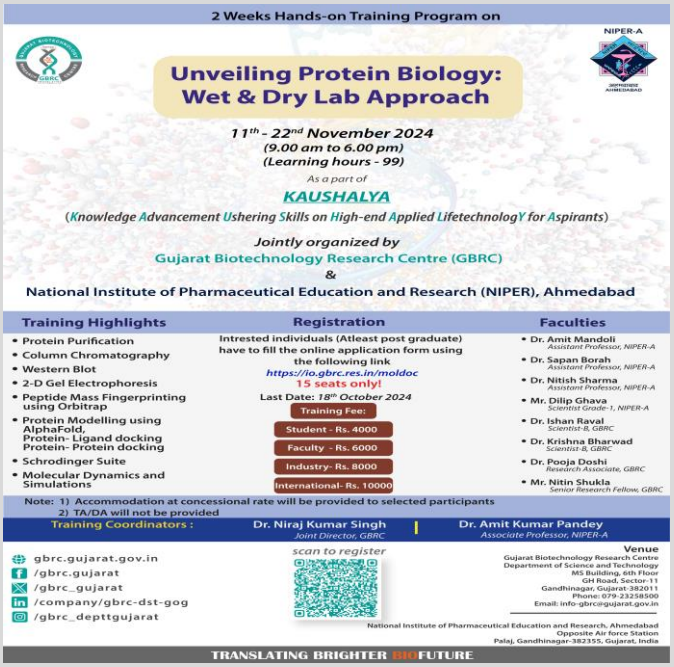
Dr. Shreelekha Dutta
Dr. Bablu Prasad
Dr. Surabhi Rode
Dr. Dhara Patel
Dr. Ruchi Jha
Dr. Shewane Bishnoi
Dr. Chhavi Bramhe
Dr. Sanjana
Dr. Parikshana Mathur
Dr. Shayma Shaikh
Dr. Mayank Darji
Ms. Rajvi Der
Mrs. Laliteshwari Bhardwaj
Ms. Prakruti Vara
Mr. Rakesh Tiwari
Ms. Krina Patel
Ms. Darshana Musini
Ms. Saloni Malik
Ms. Mansi Patel
Ms. Bhavika Sisodia
Mr. Ashutosh Kumar
Ms. Sakshi Raval
Ms. Roshni Bhatt
Ms. Divya Vaishnav
Dr. Shradha Jamval
Dr. Roselin Neihsial
Mr. Gauravkumar Rana
Ms. Siddhi Kumari
Mr. Kunj Bhatt

GBRC wishes best for the future of the bright minds who had left GBRC

Dr. Vijay Nimkande
Mr. Raviraj Barot
Dr. Ruchi Jha
Dr. Anubhav Tamrakar
Dr. Akshay Dangri
Ms. Priyanka Nagal
Mr. Dhruv Patel
Mr. Ashutosh Kumar
Dr. Parikshana Mathur

UPCOMING TRAININGS

REGISTRATIONS OPEN

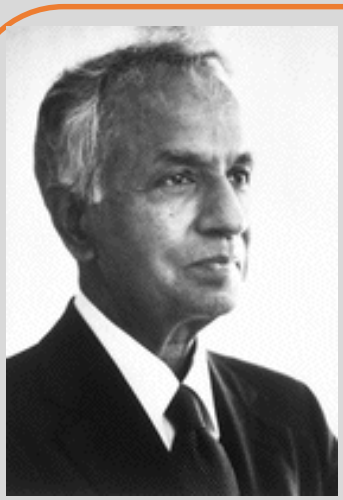


Unveiling Protein Biology: Wet and Dry Lab Approach

TRAINING AHEAD

***In-vitro* Fertilization**

December 16th-27th, 2024



Know Your Scientist

Subrahmanyan Chandrasekhar

19 October 1910 – 21 August 1995

An Indian-American theoretical physicist who made significant contributions to the scientific knowledge about the structure of stars, stellar evolution and black holes. He was awarded the 1983 Nobel Prize in physics along with William A. Fowler for "...theoretical studies of the physical processes of importance to the structure and evolution of the stars".

Source: https://en.wikipedia.org/wiki/Subrahmanyan_Chandrasekhar

Contact Information

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Website: https://gbrc.gujarat.gov.in; http://gbrc.res.in
For Shared Lab Facility : https://gbrc.org.in/

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Editorial Team:

Dr. Sonal Sharma (Scientist B- GBRC)

GUJARAT BIOTECHNOLOGY RESEARCH CENTRE

DEPARTMENT OF SCIENCE & TECHNOLOGY

GOVERNMENT OF GUJARAT

ANNOUNCES

Shared LAB

Online System

- NGS Illumina NovaSeq 6000
- NGS Illumina MiSeq
- NGS Ion S5 & S5 Plus
- NGS IonChef
- BD Flow Cytometer & Cell sorter
- Capillary ABI 3500 Sequencer
- PCR + Gel Doc
- Nanodrop, Qubit
- Lyophilizer
- HPLC
- GC-MS (Clarus 680/Clarus SQ8C)
- LC-MS
- Digital PCR
- Real time PCR machine
- HPC Server & Param Shavak Server for Bioinformatics (with CLC Genomics)

GBRC shared lab online booking system:

https://gbrc.org.in


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GANDHINAGAR, GUJARAT
THE MAHARAJA SAYAJIRAO UNIVERSITY OF BARODA
सत्यं शिवं सुन्दरम्
ADGE INDUSTRIES
AMITY UNIVERSITY MUMBAI
ADVAIT THERAGNOSTICS
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विद्याधनं सर्वधनप्रधानम्
VNSGU
VEER NARMAD SOUTH GUJARAT UNIVERSITY
SDAU
BIRLA INSTITUTE OF TECHNOLOGY & SCIENCE, PILANI
ज्ञानं परमं बलम्
गुजरात केन्द्रीय विश्वविद्यालय
CENTRAL UNIVERSITY OF GUJARAT
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GANPAT UNIVERSITY
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