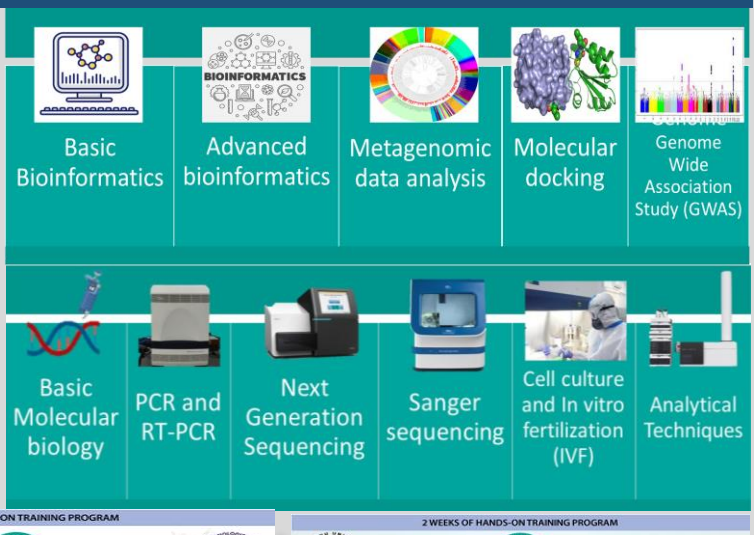
Department of Science & Technology
(Government of Gujarat)

GBRC NEWS

Volume III, Issue IV
December 2023

KAUSHALYA TRAINING PROGRAM FOR SKILL DEVELOPMENT IN BIOTECHNOLOGY 2023-24

***KAUSHALYA (K**nowledge **A**dvancement **U**sing **S**kills **on H**igh-end **A**pplied **L**ifetechnolog**Y for A**spirants)* is an initiative by GBRC to help in developing biotechnological skills of the researchers, academicians and other stakeholders. The program's aim is to provide learners extensive and specialized practical knowledge for the development of their functional skill set in biotechnology and related fields. Total 12 trainings has been planned under the program on the different advance tools and technologies in the subject area of biotechnology.



UPCOMING TRAININGS

CONTENTS

GBRC IN NEWS

अर्थात ARTHAARTHAA NEWS

EDITOR :- JAGAT RAVAL

Date 01 01/2024

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ITRA અને GBRC વચ્ચે થયા એમ.ઓ.યુ.

અમદાવાદમાં યોજાયેલા ભારતીય વિજ્ઞાન સંમેલનમાં આઇ.ટી.આર.એ.ના નિયામક પ્રો. વૈદ્ય અનૂપ ઠાકર અને જી.બી.આર.સી.ના નિયામક ડો. ચૈતન્ય જોષિ દ્વારા એમ.ઓ.યુ. કરવામાં આવ્યાં,પ્રાચિન અને આધુનિક ચિકિત્સા વિજ્ઞાનની દિશામાં સંશોધનો થકી નવા સિમાચિન્હ રૂપ સાબિત થશે.

‘Plastic-hungry bacteria need no heat energy, produces biomass’

Pirana’s plastic-eating bacteria devours polythene

Scientists Unravel Genes That Make B. Cereus Process, Break Down Polymers

In a year, threefold rise in superbugs in Gujarat

Antibiotic resistance levels high in E coli, Klebsiella

કરાર | આયુર્વેદ ઔષધીઓનું આધુનિક વૈજ્ઞાનિક પદ્ધતિ અને પરીક્ષણ દ્વારા સંશોધન થઈ શકશે

જામનગર | આયુર્વેદ ચિકિત્સા પદ્ધતિઓને વૈજ્ઞાનિક રીતે સ્થાપિત કરવા એમઓયુ કરવામાં આવ્યા

જામનગરની આયુર્વેદ શિક્ષણ અને સંશોધન સંસ્થા અને ગુજરાત બાયો ટેકનોલોજી રીસર્ચ સેન્ટર વચ્ચે આયુર્વેદની વૈદિક ચિકિત્સા પદ્ધતિઓને વૈજ્ઞાનિક રીતે સ્થાપિત કરવા માટે એમઓયુ થયા છે.

અમદાવાદ સાયન્સ સીટીમાં યોજાયેલા ભારતીય વિજ્ઞાન સંમેલનમાં જામનગરની આઈટીઆરએ સંસ્થાના નિયામક પ્રો. વૈદ્ય અનુપ ઠાકર અને ગાંધીનગરની ગુજરાત બાયો ટેકનોલોજી રિસર્ચ સેન્ટર ના નિયામક ડોક્ટર ચૈતન્ય જોશી દ્વારા એમઓયુ કરાયા હતાં. જામનગરની સંસ્થામાં આયુર્વેદ, ફાર્મસીના સ્નાતક, અનુસ્નાતક અને ડોક્ટર કક્ષાના ઉપરાંત ઔષધીય વનસ્પતિ સંબંધિત અનુસ્નાતક કક્ષાનો અભ્યાસક્રમ ચાલે છે. જ્યારે રાજય સરકારના ગુજરાત બાયોટેકનોલોજી રીઝર્સ્ટ સેન્ટર અત્યંત આધુનિક અને સુસજ્જ લેબોરેટરી ધરાવે છે. આ સંસ્થા દ્વારા વૈજ્ઞાનિક સંશોધનો માટે મૂળભૂત કાર્ય પ્રણાલીઓ વિકસિત કરવામાં આવી છે. જેનો ઉપયોગ સ્વાસ્થ્ય, કૃષિ, પર્યાવરણ અને સમુદ્ર ક્ષેત્રના સંશોધનોમાં થઈ શકે છે. ત્યારે બંને સંસ્થા વચ્ચે થયેલા કરારથી આયુર્વેદ ઔષધિઓનું વૈજ્ઞાનિક પદ્ધતિઓ અને પરીક્ષણ દ્વારા સંશોધન થઈ શકશે. જેના દ્વારા આયુર્વેદિક ઔષધીઓ અને ચિકિત્સા પ્રક્રિયાઓ શરીરમાં કઈ રીતે સૂક્ષ્મ કાર્ય અને શું અસર કરે છે તે પણ જાણી શકાશે.

5 વર્ષ માટે MOU કરાયા છે

આ કરાર પ્રાચીન અને આધુનિક વૈજ્ઞાનિક પદ્ધતિઓનો સમન્વય છે. હાલ બંને સંસ્થા વચ્ચે પાંચ વર્ષના એમઓયુ કરવામાં આવ્યા છે. ■ પ્રો. વૈદ્ય અનુપ ઠાકર, નિયામક ઇટ્રા, જામનગર.

છાત્રોને પ્રયોગશાળા, સંશોધન સહિતની સુવિધા મળશે

ગુજરાત બાયો ટેકનોલોજી રીઝર્સ્ટ સેન્ટર પાસે મલીક્યુલર બાયોલોજી માઈક્રોબાયોલોજી અને પ્રોટીન મિક્સ ક્ષેત્રમાં સંશોધન માટેની અદ્યતન પ્રયોગશાળાઓ છે.જ્યારે આઈટીઆર પાસે ચિકિત્સક અને સત્ય સંશોધન માટેની હોસ્પિટલ અને અન્ય સુવિધા છે. આ કરારના કારણે વિદ્યાર્થીઓને પ્રયોગશાળા, ચિકિત્સાલય અન્ય સંશોધનોની સહિતની સુવિધાનો લાભ મળશે.

RECENT PUBLICATIONS

Neutralizing Antibody Responses to SARS-CoV-2 Omicron Variants: Post Six Months Following Two Dose and Three Dose Vaccination of ChAdOx1 nCoV- 19 or BBV152

Authors: Pragya D Yadav, Viren Sardana, Gururaj Rao Deshpande, Pradnya V Shinde, Jeromie Wesley Vivian Thangaraj, Leyanna S George, Gajanan N Sapkal, Deepak Y Patil, Rima R Sahay, Anita M Shete, Madhavi Joshi, Manoj Murhekar, Sheela Godbole, Nivedita Gupta, Satyartha Prakash, Mamta Rathore, Rajat Ujjainiya, Ajay Pratap Singh, Aastha Mishra, Debasis Dash, Kumardeep Chaudhary, Shantanu Sengupta & ICMR Booster dose study group

Journal: Indian Journal of Medical Research (Accepted)

Impact factor: 4.2

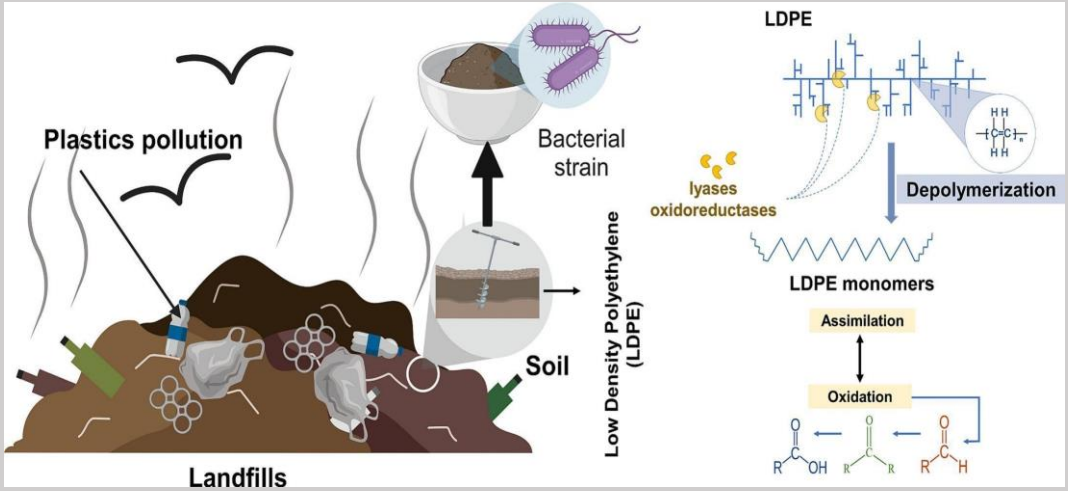
Authors assessed the effect of ChAdOx1 nCoV (Covishield) and 8BBV152 (Covaxin) against Omicron sub-lineages of SARS-CoV2. It was found that all the doses group demonstrated neutralizing activity against all variants and the highest activity was against the prototype B.1 strain. The persistence of NAb responses were found comparable in individuals with two and three dose group post 6 months of vaccination.

Exploring Genetic Landscape of LDPE Degradation Through RNA-Seq Analysis

Authors: Roshani Mishra, Priyank Chavda, Ramesh Pandit, Madhvi Joshi and Chaitanya Joshi

Journal: Science of the Total Environment

Impact factor: 9.8



Healthy biomass are disappearing because of the ever-increasing pollution brought on by the accumulation of plastic trash, which impacts both terrestrial and aquatic ecosystems. The ability of fungi, bacteria, and algae to degrade polymers in their natural environments is being explored by understanding the genetic and enzymatic expression, connecting their role in the process to the likely metabolic pathways involved, and thereby increasing the rate of their biodegradation. Here, in this work, soil samples were collected from one of the largest and oldest MSW dump sites of Gujarat i.e., Pirana waste landfill at Ahmedabad city. Microorganisms were enriched in Low-density polyethylene (LDPE), isolated, screened and fully characterized for their ability to biodegrade LDPE which was further confirmed by Scanning Electron Microscopy (SEM) and Fourier-transform infrared spectroscopy (FTIR). Then, we studied the transcriptome up to 7 days for understanding key genes and pathways involved in the initial process of LDPE degradation. Significantly upregulated genes were found to be involved in translation, membrane transport, lipid metabolism, and carbon metabolism. The interlinking between these pathways point to a biodegradation process that mineralizes LDPE during subsequent incubation days. These pathways can be targeted for increasing the efficiency of LDPE degradation by the microbes in future studies.

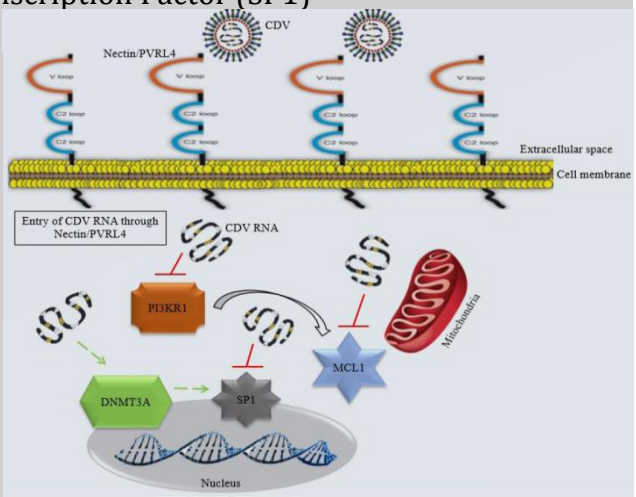
RECENT PUBLICATIONS

Oncolytic Activity of Canine Distemper Virus in Human Ductal Breast Carcinoma Cells

Authors: Dhwani Jhala, Neelam Nathani, Madhvi Joshi, Amrutlal Patel, Chaitanya Joshi
Journal: Oncology Research and Treatment
Impact factor: 2.4

Oncolytic virotherapy is a novel strategy for cancer treatment in humans and companion animals. Canine distemper virus (CDV) is known to induce apoptosis in tumor cells, thus serving as a potential candidate for oncolytic therapy. However, the mechanism of viral oncolytic activity is less studied and varies depending on the type of cancer and cell lines. In the present study, the susceptibility of the MCF-7 cell line to CDV infection was assessed. The impact of CDV infection on cell proliferation and apoptosis was studied by evaluating the expression of four target genes including the myeloid cell leukemia 1 (MCL-1), phosphoinositide-3-kinase regulatory subunit 1 (PIK3R1), Transcription Factor (SP1) and DNA (cytosine-5)-methyltransferase 3A (DNMT3A).

CDV replication in the cells induced cytopathic effect and decreased in the cell proliferation rates compared to the uninfected control. MCL-1, SP1 and PIK3R1 gene expression was down-regulated, while the expression of DNMT3A was upregulated 3-days post infection. The expression levels of the target genes suggest that CDV may be inducing the intrinsic apoptotic pathway in the cancer cell-line. Overall, the results strongly propose Canine distemper virus (CDV) strain as a potential candidate for cancer therapy after detailed studies.



Chicken Caecal Enterotypes in Indigenous Kadaknath and Commercial Cobb Chicken Lines are Associated with Campylobacter Abundance and Influenced by Farming Practices

Authors: Melanie Claire Hay, Ankit T Hinsu, Ramesh Pandit, Prakash Koringa, Po-Yu Liu, Mithil Parekh, Subhash Jakhesara, Xiaoxai Dai, Matteo Crotta, Bruno Fosso, Georgina Limon, Javier Guitian, Dong Xia, Fiona Tomley, Chaitanya G Joshi, Androniki Psifidi, Damer Blake

Journal: Frontiers in Microbiomes

Poultry-farming is predicted to increase to meet the protein nutritional needs of growing human populations in South/Southeast Asia. Identifying farming practices that decrease susceptibility to infection and optimise food conversion efficiency is valuable for chicken welfare and productivity, the environment, and public health. Enterotypes are microbial community phenotypes that may have significant effects on health. In this study, we attempted to identify enterotypes from the microbiomes of 300 indigenous Kadaknath or 300 commercial Cobb400 chickens from 60 farms in western India. Using a compositional data approach, we identified three enterotypes (PA1 (n=290), PA2 (n=142) and PA3 (n=67). PA1 and PA2 clustered more closely together than PA3, however PA2 had significantly lower alpha diversity than PA1. Tests of differential abundance were used to identify significantly discriminant genera between enterotypes. PA1 was dominated by *Faecalibacterium* and had a higher abundance of *Prevotellamassilia* than other groups. PA2 was characterised by a high abundance of the common taxa *Phascolarctobacterium* A and *Phocaeicola dorei* and had a statistically higher *Campylobacter* abundance than PA1. PA3 was defined by lower abundance of taxa such as CAG 831 and *Mucispirillum schaedleri*. Network analysis showed that all three enterotypes consist of different proportions of competing Firmicutes-dominant and Bacteroides-dominant guilds. Random Forest Modelling using farm characteristics was able to predict enterotype, suggesting that enterotypes are influenced by farming practices and that modification of farming practices could be used to reduce *Campylobacter* burden.

RECENT PUBLICATIONS

Chronic Industrial Perturbation and Seasonal Change Induces Shift in the Bacterial Community from Gmmaproteobacteria to Betaproteobacteria having Catabolic Potential for Aromatic Compounds at Amlakhadi Canal

Authors: Jenny Johnson, Kunal R Jain, Anand Patel, Nidhi Parmar, Chaitanya Joshi, Datta Madamwar
Journal: World Journal of Microbiology and Biotechnology
Impact factor: 4.2

Escalating proportions of industrially contaminated sites are one of the major catastrophes faced at the present time due to the industrial revolution. The difficulties associated with culturing the microbes, has been circumvent by the direct use of metagenomic analysis of various complex niches. In this study, a metagenomic approach using next generation sequencing technologies was applied to exemplify the taxonomic abundance and metabolic potential of the microbial community residing in Amlakhadi canal, Ankleshwar at two different seasons. All the metagenomes revealed a predominance of Proteobacteria phylum. However, difference was observed within class level where Gammaproteobacteria was relatively high in polluted metagenome in summer while in Monsoon the abundance shifted to Betaproteobacteria. Similarly, significant statistical differences were obtained while comparing the genera amongst contaminated sites where *Serratia*, *Achromobacter*, *Stenotrophomonas* and *Pseudomonas* were abundant in summer season and the dominance changed to *Thiobacillus*, *Thauera*, *Acidovorax*, *Nitrosomonas*, *Sulfuricurvum*, *Novosphingobium*, *Hyphomonas* and *Geobacter* in monsoon. Further upon functional characterization, the microbiomes revealed the diverse survival mechanisms, in response to the prevailing ecological conditions (such as degradation of aromatic compounds, heavy metal resistance, oxidative stress responses and multidrug resistance efflux pumps, etc.). The results have important implications in understanding and predicting the impacts of human-induced activities on microbial communities inhabiting natural niche and their responses in coping with the fluctuating pollution load.

Genomic Profiling and Characteristics of a C1 Degrading Heterotrophic Fresh-water Bacterium *Paracoccus* sp. strain DMF

Authors: Shiwangi Maurya, Chetan Kumar Arya, Nidhi Parmar, Nitish Sathyanarayanan, Chaitanya Joshi, Gurunath Ramanathan

Journal: Archives of Microbiology

Impact factor: 2.667

Paracoccus species are metabolically versatile gram-negative, aerobic facultative methylotrophic bacteria showing enormous promise for environmental and bioremediation studies. Here we report, the complete genome analysis of *Paracoccus* sp. strain DMF (P. DMF) that was isolated from a domestic wastewater treatment plant in Kanpur, India (26.4287 °N, 80.3891 °E) based on its ability to degrade a recalcitrant organic solvent N, N-dimethylformamide (DMF). The results reveal a genome size of 4,202,269 base pairs (bp) with a G + C content of 67.9%. The assembled genome comprises 4141 coding sequences (CDS), 46 RNA sequences, and 2 CRISPRs. Interestingly, catabolic operons related to the conventional marine-based methylated amines (MAs) degradation pathway were functionally annotated within the genome of an obligated aerobic heterotroph that is P. DMF. The genomic data-based characterization presented here for the novel heterotroph P. DMF aims to improve the understanding of the phenotypic gene products, enzymes, and pathways involved with greater emphasis on facultative methylotrophic motility-based latent pathogenicity.

INVITED TALKS DELIVERED BY GBRC TEAM

Dr. Amrutlal K. Patel, Scientist D & Joint Director delivered lecture on "Innovative approaches in vaccines and therapeutics to combat infectious disease" at Council of Scientific & Industrial (CSIR) & Student Startup and Innovation Policy sponsored National conference on Innovation in Infectious Disease Therapeutics, Drug delivery and Regulation: Unleashing Future potential organized by Anand Pharmacy College in association with Indian Drug Manufacturers' Association – Gujarat State Board (IDMA-GSB) on 22nd December, 2023.

MOU's

GBRC assigned MoU with Shri Alpesh N Patel Postgraduate Institute of Science and Research, Anand on 6th November, 2023. MoU is intended for various collaborative research opportunities and knowledge sharing in Biotechnology.

GBRC assigned MoU with Institute of Teaching & Research in Ayurveda (ITRA), Jamnagar on 22nd December, 2023. This MoU is intended to promote research activities in Ayurveda, Biotechnology and Bioinformatics.

CONFERENCES

BIOSCIENCES FOR SUSTAINABLE DEVELOPMENT

Dr. Haidarabbas Masi, Scientist B invited as judge in the Oral Presentations Competition at One-day Conference titled "Biosciences for Sustainable Development" sponsored by GUJCOST, KSV and SVKM in The Department of Biotechnology & Microbiology, Shri Maneklal M Patel Institute of Sciences & Research, Gandhinagar on 4th October, 2023.

BHARTIYA VIGYAN SAMMELAN

The 6th Bharatiya Vigyan Sammelan and Expo was jointly organized by Vijnana Bharati and Government of Gujarat at Science City, Ahmedabad from 21st to 24th December, 2023 Inauguration presided over by the Honorable Chief Minister of Gujarat, Shri Bhupendrabhai Patel and Shri Balvant Singh Rajput, Honorable Minister of Industry, Gujarat. The event was organized by the Vijnana Bharati in collaboration with Government of Gujarat, National Innovation Foundation, CSIR-NIScPR and Vigyan Gurjari, featuring a range of programs aimed at students and the public. Life Science theme event, hosted at SAL Education Campus, Ahmedabad on 23rd December, 2023, saw active participation from over 600 delegates, 5 keynote lectures by eminent scientists, 15 oral presentations and over 150 poster presentations. Fellows from GBRC also presented the scientific research as posters and oral presentations.

Prof. Chaitanya Joshi, Director, GBRC and President, Vigyan Gurjari gave introductory note in Bharatiya Vigyan Sammelan

HONOURS AND AWARDS

GBRC fellow, Ms. Kashish Gupta awarded 1st prize in Poster presentation in Bharatiya Vigyan Sammelan under the theme Life Science.

GBRC fellow, Ms. Urvi Budhbhatti awarded 1st prize in Oral presentation in Bharatiya Vigyan Sammelan under the theme Life Science.

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.

OCTOBER-2023

INVITED GUESTS

Dr. Varun Aggarwala,

Principal Investigator, Microbiome

Therapeutics laboratory

Jio Institute, Navi Mumbai

Topic: Microbiome engineering in health and disease: from crude fecal transplants to rational synbiotic interventions.

PRESENTATIONS FROM GBRC MEMBERS

Dr. Chitra Nehra
Research Associate

Article: Metabolic influence of core ciliates within the rumen microbiome.

Journal Name: The ISME Journal

Impact Factor: 11

NOVEMBER-2023

PRESENTATIONS FROM GBRC MEMBERS

Dr. Hemang Brahmbhatt
Scientist-B

Article: *Pseudomonas aeruginosa* aggregates in cystic fibrosis sputum produce exopolysaccharides that likely impede current therapies.

Journal: Cell Reports

Impact factor: 8.8

Dr. Anitaba Chauhan
JRF

Article: MPL36, a major plasminogen (PLG) receptor in pathogenic Leptospira, has an essential role during infection.

Journal: Plos Pathogens

Impact factor: 7.4

DECEMBER-2023

INVITED GUESTS

Dr. Apurva Sarin,

CEO, DBT Wellcome Trust India Alliance

Topic: It takes two to tango: Intrinsic and extrinsic cues shaping adaptive T-cell function.

PRESENTATIONS FROM GBRC MEMBERS

Mr. Tejas Shah
Principal Project Associate

Article: Probiotic-guided CAR-T cells for solid tumor targeting.

Journal: Science

Impact factor: 56.9

ARRIVAL & DEPARTURE

GBRC would like to extend a hearty Welcome of the new members to family

Dr. Jyoti Pathak
Dr. Khyati Bhardwaj
Mr. Pankaj Parab
Ms. Rukhsar Bamji
Ms. Dhruvi Shah
Ms. Debashrita Mittra
Mr. Vigneshwaran Balachandran
Ms. Dhruvi Bhatt
Ms. Ishita Joshi
Ms. Sudipta Mahapatra
Mrs. Diksha Borde

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

Mr. Raj Gajjar
Mr. Aveeral Chaudhary
Dr. Krunal Patel
Mr. Jignesh Mochi
Mr. Rahul Yadav
Ms. Harshita Sharma
Ms. Bhavika Parekh
Ms. Krisha Thakkar
Mr. Gufran M. Yunus Siddiqui
Ms. Aditi Dubey
Dr.Jaina Patel
Dr. Sahil Kapoor

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 to run for in the music, dance, sports, social welfare, carry out scientific and technical, other than political activities.

OCTOBER-2023

BEST MONTHLY PRESENTATION AWARD

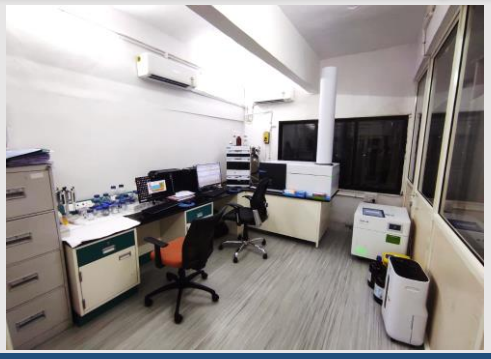
Mr. Anubhav Tamrakar
(RA)

AWARD FOR BEST QUESTION IN PRABODH

Ms. Bhavika Parekh
(JRF)

EMPLOYEE OF THE MONTH AWARD

Mr. Nitin Shukla
(JRF)



BEST CUBICLE AWARD

LC-MS Laboratory

NOVEMBER-2023

BEST MONTHLY PRESENTATION AWARD

Dr. Anupam Kumari
(RA)

AWARD FOR BEST QUESTION IN PRABODH

Ms. Kashish Gupta
(JRF)

EMPLOYEE OF THE MONTH AWARD

Ms. Urvi Budhbhatti
(JRF)

BEST CUBICLE AWARD

Next-Generation Sequencing Laboratory

STAFF WELFARE CLUB ACTIVITIES

DECEMBER-2023

BEST MONTHLY PRESENTATION AWARD

Mr. Anubhav Tamrakar (RA)

BEST MONTHLY PRESENTATION AWARD

Ms. Urvi Budhbhatti (JRF)

EMPLOYEE OF THE MONTH AWARD

Mr. Vikas Patidar (TA)

BEST CUBICLE AWARD

Plant Tissue Culture Laboratory

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.

October-2023

Dr. Alka Shankar,
Assistant professor, School of Sciences, Indrashil University, Ahmedabad

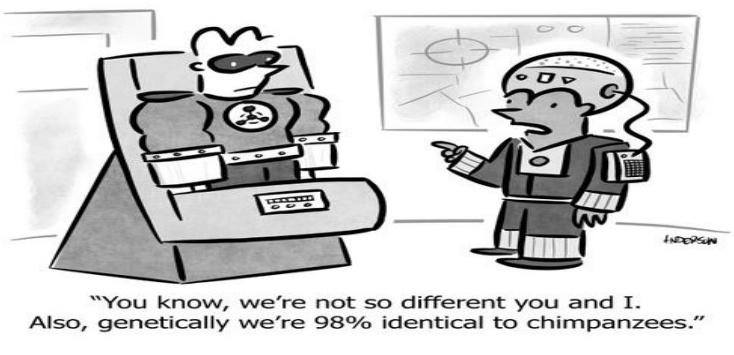
November-2023

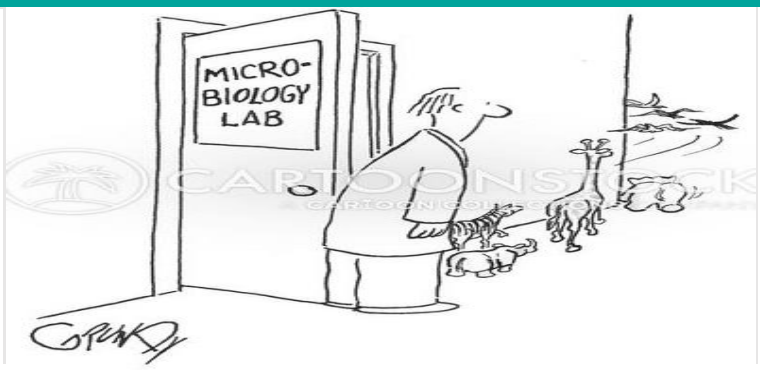
Dr. Ambuj Bhushan Jha,
Assistant Professor, School of Life Sciences, Central University of Gujarat, Gandhinagar

December-2023

Dr. Yachna Jha,
Assistant Professor, N. V. Patel college of Pure and Applied sciences (NVPAS), CVM University, Vallabh Vidhyanagar

LIGHTER NOTES





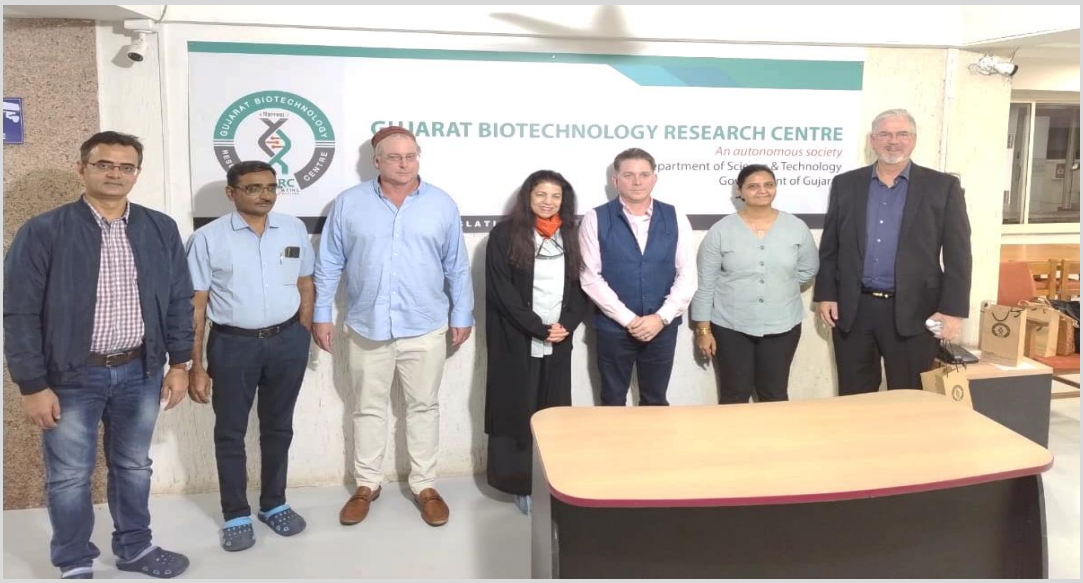
VISIT BY DIGNITARIES

Shri Mulubhai Bera, Hon. Minister of Gujarat Tourism, Government of Gujarat, Forest Environment and Climate Change Department, Government of Gujarat and Dr. J. A. Patel, Director (R & D), Western Agri Seed Ltd., Gandhinagar

Ms. Mona Khandhar, IAS, Principal Secretary of Department of Science & Technology, Government of Gujarat

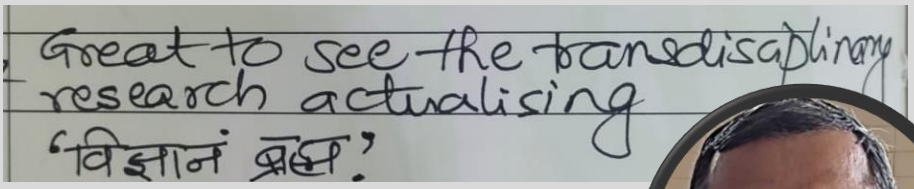
Rajiv Lall, CEO and Rakesh Sinha, CEO of R & D LifeSciences Pvt. Ltd.

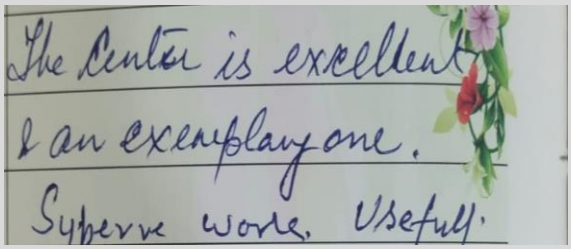
VISIT BY DIGNITARIES



Dr. Priya Tandon, Advisor to Stanford University and Founder & Chair of IndUS Setu Global Foundation India, Mumbai / San Francisco, Mr. Jeffrey Peterson, Chairman & CEO, Target Discovery Inc., California, Professor Robert Lund, Professor and Department Chair, Statistics, University of California, Santa Cruz, Professor Michael Alvarez, Program Director, University of California, Santa Cruz

Dr. Huma Mustafa,
Joint Director, Council of Science & Technology, Uttar Pradesh

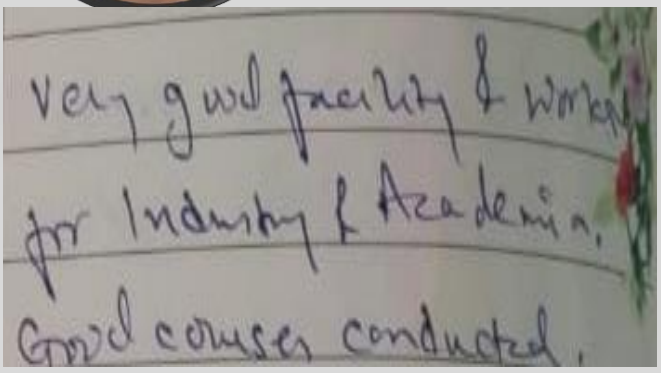


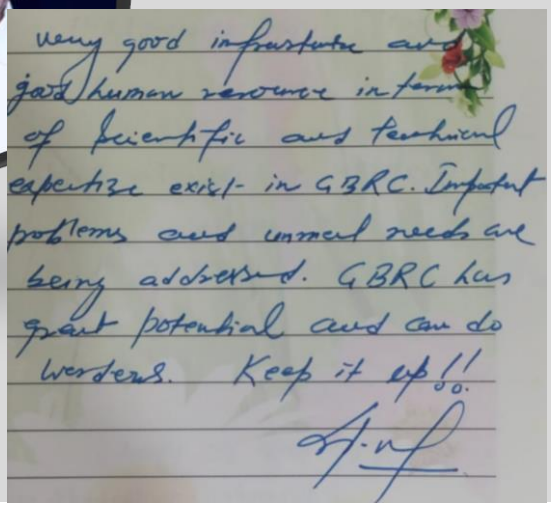


Dr. Girish Tillu ,
Scientist,
AYUSH Center of Excellence, Pune

Dr. Lal Hingorani,
CMD, Pharmanza Herbal Pvt. Ltd., Anand

Dr. Omkar Nath Tiwari ,
Scientist-F, DBT, New Delhi





VISIT BY COLLEGE/ ACADEMIC INSTITUTES

Students and faculty members from Parul Institute of Paramedical and Health Sciences, Faculty of Medicine, Parul University

Students and faculty members from Shri A N Patel Postgraduate Institute of Science and Research, Anand

Students and faculty members from School of Science, RK University, Rajkot

VISIT BY COLLEGE/ ACADEMIC INSTITUTES

Students and faculty members from B N Patel Institute of Paramedical and Science, Anand

Students and faculty members from School of Science, Indrashil University , Ahmedabad

Students and faculty members from School of Medico-Legal Studies, National Forensic Sciences University, Gandhinagar

VISIT BY COLLEGE/ ACADEMIC INSTITUTES

Students and faculty members from Department of Microbiology, Faculty of Science, Atmiya University, Rajkot

Students and faculty members from Swaminarayan University, Kalol

Students and faculty members from GEER Foundation, Gandhinagar

KAUSHALYA TRAINING PROGRAMS

COMPLETED TRAININGS

No	Training	Date
1	Plant Tissue Culture and Transgenics	9th – 21st October 2023
2	Analytical Techniques: Isolation to Identification	20th – 1st November 2023
3	*In vitro* Fertilization	11th – 22nd December 2023

UPCOMING TRAININGS

No	Training	Date
1	Genome-Wide Association Studies	12th - 23rd February 2024
2	Docking and Simulation	18th - 29th March 2024
3	Marker Assisted Plant Breeding	15th -26th April 2024

Contact Information

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For Shared Lab Facility : https://gbrc.org.in/

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Joint-Director – GBRC

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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