

Skill Development Training Imparted

Sl. No	Title of training	No of beneficiaries/ participants	Salient features	Organized by and date	Funding agency
1	5 day training program on novel products based on ethnic designs and fabrics of NE India and banana fiber extraction	57 Nos. Artesian	Demonstration and hands-on training on cultivation practice	Organised by CSIR-NEIST Branch Imphal during 22-26 May 2017	-
2	Basic Bioinformatics Tools	29 Nos. of M.Sc. student, Ph. D. scholars & faculty members	The participants had undergone training in biological networking, structural bioinformatics, drug design, MD simulation and other related work.	CSIR-NEIST, Jorhat during 11- 12 July, 2017	DBT, Govt of India
3	Training program on "Mushroom Cultivation" under the CSIR-800 programme	17 Nos. school dropout students of the Institute of Cultural and Rural Development (I-CARD), Baghchung, Jorhat	Demonstration and hands-on training on cultivation practice	CSIR-NEIST, Jorhat on 2 August, 2017	CSIR, New Delhi
4	Training program on "Cultivation and oil distillation techniques of Aromatic Plants"	17 Nos. school dropout students of the Institute of Cultural and Rural Development (I-CARD), Baghchung, Jorhat	Demonstration and hands-on training on cultivation practice	CSIR-NEIST, Jorhat on 3 August, 2017	CSIR, New Delhi
5	Training program on Entrepreneurship & skill development on market driven production and processing of high value crops of NE India	-	Demonstration and hands-on training on cultivation practice	organized by ICAR, Imphal during 13-20 November, 2017	ICAR, Imphal

6	Training programme on "Cultivation and Processing of Aromatic Plants" under the CSIR AROMA MISSION	79 Nos, Farmers/Artesians	Demonstration and hands-on training on cultivation practice	CSIR-NEIST, Jorhat in association with "Juriya Aromatic Small Farmers Unit", Goalpara at Goalpara, Assam on 19 January, 2018	CSIR, New Delhi
7	Training and awareness programme on "Cultivation of Aromatic Plant" " under the CSIR-AROMA MISSION programme	-	Demonstration and hands-on training on cultivation practice	Organised by CSIR-NEIST Branch Itanagar on 19 February, 2018.	CSIR, New Delhi
8	Training programme Mushroom Cultivation by Brach Lab Itanagar	25 Nos	Demonstration and hands-on training on cultivation practice	Organised by CSIR-NEIST Branch Itanagar on 24 February, 2018.	-
9	MSME scale technologies training	25 Nos	Training on MSME scale technologies	Organised by CSIR-NEIST, 8 March 2018	CSIR, New Delhi
10	Training programme Mushroom Cultivation by Brach Lab Itanagar	14 Nos. (Student from Alpine institute of Management Biotechnology, Uttrakhand) 25 Nos. (Men & Women from Arunachal Pradesh)	Demonstration and hands-on training on cultivation practice	Organised by CSIR-NEIST Branch Itanagar on 14 and 29 March, 2018.	-
11	Handmade Paper Making training organized jointly by CSIR-NEIST and Grameen Sahara, Guwahati	10 Nos. Artesian	Training on handmade paper making	Organised by CSIR-NEIST on 20-24 March 2018	NRDC, New Delhi

12	“Faculty Training and Motivation and Adoption of Schools and Colleges by CSIR-Labs”	10 Nos. of Assistant Professors, Higher Secondary Teachers of Schools and Colleges of Jorhat, Assam	Imparted practical training on the NMR spectroscopy	Organised by CSIR-NEIST, Jorhat during 27-28 March, 2018	CSIR, New Delhi
13	Summer Training	121 Nos. of students from various Govt/Pvt Institutions.	Hands-on training on R&D activities	Organised by CSIR-NEIST	-
14	Winter Training	80 Nos. of students from various Govt/Pvt Institutions.	Hands-on training on R&D activities	Organised by CSIR-NEIST	-
15	Apprenticeship Training	25 Nos of Students of ITI, Govt. Of Assam	One Year Practical Training on Different Trades	Organised by CSIR-NEIST	-

Projects Undertaken (Externally Funded)

Sl No.	PI & Title	Project code with Funding Agency	Contract Value(Rs in Lakhs)
1	Dr Dipul Kalita Development of flexible composite material using coconut husk and leather Waste for industrial application.	CLP0288 Min of Micro, Small & Medium Enterprises	40.028
2	Dr H P Dekaboruah Preliminary Assessment Study on Eco-Restoration in Coal Mines Overburden and Integrated farming in abandoned colliery	CNP0471 Coal India Ltd., (North Eastern Coalfields), Margherita.	4.508
3	Mr J Leon Raj Design work for secant piling works at KSEBL, Munnar	CNP0472 Bumi-Zillion JV, 101 Sagar Tower, District Centre, Janakpuri, New Delhi	3.658
4	Dr Binoy Kumar Saikia National Carbonaceous Aerosols Programme (NCAP) Working Group-III project	GPP0325 Min of Environment, Forest & Climate Change	106.077
5	Dr Manoj Kumar Phukan Seismic Microzonation of Greater Dimapur	GPP0326 Directorate of Geology & Mining, Govt. of Nagaland, Dimapur	19.500
6	Dr H B Singh Anthropogenic impacts and their management options in different ecosystems of the Indian Himalayan Region.	No. GPP0327 G B Pant Institute of Himalayan Environment and Sustainable Development	32.901
7	Dr Ashutosh Namdeo Catalytic and reaction engineering studies on bio-oil upgradation	GPP0328 SERB(DST), Min of Science & Technology	40.348
8	Dr Anil Kumar Singh Delineating the regulation of multi drug resistant efflux pumps over expressed in clinical mycobacteria.	GPP0329 SERB(DST), Min of Science & Technology	44.596

9	Dr Ajit Singh Approach towards tailoring the interfacial structure and property of lignin for flexible bio-polymer film application	GPP0330 SERB(DST), Min of Science & Technology	28.080
10	Dr Prasenjit Manna A novel therapeutic to syndrome via activation of coagulation unrelated Vitamin K dependent proteins.	GPP0331 SERB(DST), Min of Science & Technology	31.639
11	Dr Archanamoni Das Herbal drug development to for antimicrobial/anticancer from North East based selected plants.	GPP0332 North East Council	57.000
12	Dr Biswajit Saha Red-Ox active Ferrocene Functionalized N-Heterocyclic Carbene-Molybdenum Complex for Catalytic Nitrogen Triple Bond Reduction	GPP0333 SERB(DST), Min of Science & Technology	35.550
13	Dr P Yuvraj Diastereoselective synthesis of Lamellarin alkaloid natural product fused spirooxindoles and its analogues. A series of evaluation of its biological activities against Mycobacterium tuberculosis.	GPP0334 SERB(DST), Min of Science & Technology	32.760
14	Dr Mantu Bhuyan STINER- Technology Facility Centre (STINER-TFC) at SASRD Nagaland University, Medziphema Campus, Medziphema, Nagaland	GPP0335 Min of Development of NE Region (MDoNER)	1000.000

Projects Completed (Externally Funded)

Sl No.	Project code with Funding Agency	P.I Name & Project Title	Project Cost (in lakhs)
1	CLP0287 Tata Steel Ltd, Jamshedpur, Jharkhand	Dr U N Gupta Pressure Catalytic Conversion of Non-Coking Coals to produce Synthetic Coking Coal.	19.420
2	GAP0719 Min of Science & Technology	Ms Reshita Baruah, JRF Inspire Fellowship under 'Assured to Opportunity for Research carrer (AORC)'	2.504
3	GAP0757 CSIR-NISTADS, New Delhi	Mr Partha Paul Project Development workshop on Technology Enablement of North East: Water Energy and Communication (TENE-WECS 2017)	7.000
4	GPP0290 Min. of Science & Technology	Dr Jatin Kalita Isolation and characterization of antifungal peptides from Muga Silkworm Antherae assamensis Helper.	10.800
5	GPP0293 Min of Science & Technology	Dr Pranjal Gogoi Tandem Suzuki cross-coupling reactions: Synthesis of fused heterocycles and carbocycles	24.320
6	GPP0297 Min of Science & Technology	Mrs A Sengupta An investigation into intellectual property management practices at research institutes and universities of NE India and preparation of a wish-list of technologies required for North East	10.500
7	GPP0313 SERB(DST), Min of Science & Technology	Dr Ram Awatar Maurya Green, sustainable and flash chemistry using flow microreactors	6.235

Projects Ongoing (Externally Funded)

Sl No.	Project code with Funding Agency	P.I Name & Project Title	Project Cost (in lakhs)
1	CLP0285 Min of Micro, Small & Medium Enterprises.	Mr Jayanta Jyoti Bora Development of appropriate product by studying the possible use of coir dust in oil industry with reference to North East India for absorption of oil spill.	53.130
2	CLP0286 Min of Micro, Small & Medium Enterprises.	Dr Jatin Kalita Development of commercial bioformulation of Plant Growth Promote Rhizobacteria (PGPR) using coir pith as carrier.	22.149
3	CLP0287 Tata Steel Ltd Jamshedpur, Jharkhand	Dr U N Gupta Feasibility study on High Pressure Catalytic Conversion of Non-Coking Coals to produce Synthetic Coking Coal.	19.420
4	CLP0288 Min of Micro, Small & Medium Enterprises.	Dr Dipul Kalita Development of flexible composite material using coconut husk and leather waste for industrial application.	40.028
5	CNP0471 Coal India Ltd., (North Eastern Coalfields), Margherita.	Dr H P Dekaboruah Preliminary Assessment Study on Eco-Restoration in Coal Mines Overburden and Integrated farming in abandoned colliery	4.508
6	CNP0472 Bumi-Zillion JV, 101 Sagar Tower, District Centre, Janakpuri, New Delhi	Mr J Leon Raj Design work for secant piling works at KSEBL, Munnar	3.658
7	No. GAP0200 DBT, Bioinformatics Division, New Delhi.	Dr Ratul Saikia, Creation of Bioinformatics infrastructure facility (BIF) for the promotion of biology teaching through bioinformatics (BTBI) a scheme of BTISnet.	35.890

8	No. GAP0214 Min. of Science & Technology, DSIR, New Delhi.	Mr Dipankar Neog, Technopreneur Promotion Programme (TePP) Outreach Centre (TUC)-(11 FYP). Promoting innovations in individuals, startups and MSMES (PRISM)-(12-FYP).	26.240
9	GAP0232 Min. of Science & Technology	Mr Dipankar Neog, Council of Science and Technology for Rural India Centre at NEIST, Jorhat (CSTRI Centre-NEIST).	40.020
10	GPP0275 North East Council	Dr Saurabh Baruah, Seismic Vulnerability Assessment of Major Cities in North-Eastern India	184.250
11	GPP0277 Min. of Science & Technology	Dr SB Wann, Comparative antimicrobial activity and molecular characterization of Clerodendrum species of Thailand & India.	8.850
12	GPP0283 Min. of Science & Technology	Mr Dipankar Neog, Setting up of A Common Facility Centre (CFC) on Weaving and Textile Product manufacturing.	127.692
13	GPP0286 Min. of Science & Technology	Dr(Mrs) Archana Moni Das Sustainable and biodegradable hybrid nanocomposites as bio-integrated materials for advanced functional applications.	27.500
14	GPP0290 Min. of Science & Technology	Dr Jatin Kalita, Isolation and characterization of antifungal peptides from Muga Silkworm <i>Antheraea assamensis</i> Helfer.	10.800
15	GPP0293 Min. of Science & Technology	Dr Pranjal Gogoi, Tandem Suzuki cross-coupling reactions: Synthesis of fused heterocycles and carbocycles.	14.000
16	GPP0294 Min. of Science & Technology	Dr Saurabh Baruah, Setting up of the Multiparametric Geophysical Observatory for monitoring of Earthquake precursor in Mikir Hills Plateau, Assam.	405.243

17	GPP0296 Min. of Science & Technology	Dr R L Goswamee Small Community Level Low Cost Process from Local Biomass for Iron and Flouride Removal from Bore Well Water of Assam (LOCAL-Mass).	30.332
18	GPP0297 Min. of Science & Technology	Mrs A Sengupta An investigation into intellectual property management practices at research institutes and universities of NE India and preparation of a wish-list of technologies required for North East	5.000
19	GPP0298 Min. of Science & Technology	Dr Kalpataru Dutta Mudoi Raising of clonal microgarden and validation of microclones of Assam Teak (<i>Phoebe goalparensis</i> Hutchinson) through multilocal trials in selected areas of NE Region.	9.730
20	GPP0299 Min. of Science & Technology	Dr Pallab Pahari Studies towards the synthesis of spirocyclic natural products.	27.860
21	GPP0300 Min. of Earth Sciences	Ms Sangeeta Sharma Estimation of ground motion parameters in Shillong Mikir Hills Plateau from acceleration time history of earthquake events originated in NE India.	8.900
22	GPP0301 Min. of Science & Technology	Dr Manash Ranjan Das Metal nanoparticles on graphene, h-BN and low dimensional (2D) transition metal chalcogenides.	16.868
23	GPP0302 Min. of Science & Technology	Dr Santanu Baruah Crustal Anisotropy studies for Shillong-Mikir Plateau with subsequent determination of velocity structure of NE India.	8.640
24	GPP0303 Min. of Science & Technology	Dr Sanjib Gogoi Transition metal catalyzed C-H bond activation and functionalization for the synthesis of N, O, P and S containing heterocycles.	23.280

25	GPP0304 Min. of Science & Technology	Dr Mohan Lal Genetic improvement in Java Citronella (<i>Cymbopogon winterianus</i> Jowitt.) A commercially prospective plant species for superior oil yield and quality.	23.040
26	GPP0306 Min. of Science & Technology	Dr Rupak Kumar Sarma Linking plant-microbe interactions to understand sediment denitrification function of eutrophic urban wetland ecosystem.	38.600
27	GPP0307 Min. of Science & Technology	Dr Krishnamoorthy Ganesan Design of a photoresponsive chitosan nanogel to regulate CXCR4 signalling through slow release of SDF-1 in the myocardium	36.700
28	GPP0308 State Disaster Management Authority, Shillong, Meghalaya	Dr Manoj Kumar Phukan Site Characterization and Seismic Vulnerability Studies of Greater Shillong.	19.800
29	GPP0310 G B Pant Institute of Himalayan Environment and Sustainable Development	Dr H B Singh Development of green campus in schools of Manipur, Northeast India	9.845
30	GPP0311 Min. of Science & Technology	Dr R M Devi(WOS-A) Tectonic evolution of mishmi thrust in mishmi metamorphic complex in the eastern syntaxial bend with reference to with reference to morphotectonic and neotectonic implications in Arunachal Himalaya	26.850
31	GPP0312 National Medicinal Plants Board (hereinafter referred to as NMPB), Ministry of AYUSH, Government of India	Dr Mohan Lal Characterization and Chemical Composition of High Yielding Varieties of Amada Haldi (<i>Curcuma zedoaria</i> Rose) and Kali Haldi (<i>Curcuma caesia</i> Roxb): Endangered High Value Medicinal Plants'	29.766
32	GPP0313 SERB(DST), Min of Science & Technology	Dr Ram Awatar Maurya Green, sustainable and flash chemistry using flow Microreactors	6.235

33	GPP0314 BCIL(DBT), Min. of Science & Technology	Dr S P Saikia Process development and optimization for production of in-situ generated Vitamin-D fortified mushrooms	38.290
34	GPP0315 SERB(DST), Min of Science & Technology	Dr Biswajit Saha Catalytic Evaluation of Cooperative and Red-Ox Non-Innocent Metal-Complexes in Organic Transformations	29.370
35	GPP0316 Biotech Consortium India Limited,	Dr Manash Ranjan Das Reduced Graphene Oxide Nanosheets Decorated with Metallic/Bimetallic Nanoparticles: A Multifunctional Materials for Photothermal Therapy of Cancer Cells.	50.270
36	GPP0317 Food Safety & Standards Authority of India(FSSAI), Ministry of Health and Family Welfare, Govt Of India.	Dr B S Bhau Application of DNA barcoding to detect contamination and substitution from different herbal products available in the market	50.000
37	GPP0318 Biotech Consortium India Limited,	Dr Raju Khan Nanoparticles Supported Self Assembled Conducting Polymer Monolayer based Platform for Rapid Detection of Monosodium Glutamate in Food Products.	54.400
38	GPP0319 Biotech Consortium India Limited,	Dr D Ramaiah Development of novel NIR absorbing sensitizer and their Nanoconjugates for multimodal cancer imaging and therapy	61.080
39	GPP0320 SERB(DST), Min of Science & Technology	Dr Subrata Ghosh Nanobot: A mechanical -drug Technology based dendritic drug for cancer treatment	35.260

40	GPP0321 SERB(DST), Min of Science & Technology	Dr Lakshi Saikia Novel magnetically separable 2D graphitic carbon nitride nano composite for photocatalytic degradation of dyes for environmental remediation of textile industry effluent	23.069
41	GPP0322 Biotech Consortium India Limited	Dr H P Dekaboruah Potentially novel carbohydrases (Cellulose and related enzymes) for waste management from functional metagenome library of North East biodiversity hotspot.	33.360
42	GPP0323 SERB(DST), Min of Science & Technology	Dr N Velmurugan Expanding endophytes of paris polyphylla as a model to study co-evolution relationships with emphasis on functional metabolites production.	43.790
43	GPP0324 SERB(DST), Min of Science & Technology	Dr C Chikkaputtaiah Development of multiple abiotic and biotic stress resistance in Tomato (<i>Solanum lycopersicum</i> L.) crop model through dual-gene multiplex CRISPR/ Cas9 Genome Editing System.	36.500
44	GPP0325 Min of Environment, Forest & Climate Change	Dr Binoy Kumar Saikia National Carbonaceous Aerosols Programme (NCAP) Working Group-III project	106.077
45	GPP0326 Directorate of Geology & Mining, Govt. of Nagaland, Dimapur	Dr Manoj Kumar Phukan Seismic Microzonation of Greater Dimapur	19.500
46	GPP0327 G B Pant Institute of Himalayan Environment and Sustainable Development	Dr H B Singh Anthropogenic impacts and their management options in different ecosystems of the Indian Himalayan Region.	33.770

47	GPP0328 SERB(DST), Min of Science & Technology	Dr Ashutosh Namdeo Catalytic and reaction engineering studies on bio-oil upgradation	40.349
48	GPP0329 SERB(DST), Min of Science & Technology	Dr Anil Kumar Singh Delineating the regulation of multi drug resistant efflux pumps over expressed in clinical mycobacteria.	40.596
49	GPP0330 SERB(DST), Min of Science & Technology	Dr Ajit Singh Approach towards tailoring the interfacial structure and property of lignin for flexible bio-polymer film application	28.080
50	GPP0331 SERB(DST), Min of Science & Technology	Dr Prasenjit Manna A novel therapeutic to syndrome via activation of coagulation unrelated Vitamin K dependent proteins.	31.640
51	GPP0332 North East Council	Dr Archanamoni Das Herbal drug development to for antimicrobial/anticancer from North East based selected plants.	57.000
52	GPP0333 SERB(DST), Min of Science & Technology	Dr Biswajit Saha Red-Ox active Ferrocene Functionalized N - Heterocyclic Carbene-Molybdenum Complex for Catalytic Nitrogen Triple Bond Reduction	35.550
53	GPP0334 SERB(DST), Min of Science & Technology	Dr P Yuvraj Diastereoselective synthesis of Lamellarin alkaloid natural product fused spirooxindoles and its analogues. A series of evaluation of its biological activities against Mycobacterium tuberculosis.	32.760
54	GPP0335 Min of Development of NE Region (MDoNER)	Dr Mantu Bhuyan STINER- Technology Facility Centre (STINER-TFC) at SASRD Nagaland University, Medziphema Campus, Medziphema, Nagaland	1000.000

Technologies Developed

OP – 12 Biofertilizer

OP-12 Bio-fertilizer contains rhizobacteria which increase nitrogen and phosphorus in normal and water deficit condition thus helping farmers to increase their income by increasing productivity. It is suitable for application in crops, viz, rice, potato, black gram, green gram, green pea, vegetable, tea, and maize.

Herbal Mosquito Repellent Spray



The Herbal Mosquito Repellent Spray is convenient to use inside the room as well as outside environment for repelling mosquitoes. Along with mosquito repellent properties, the spray also gives a subtle fragrance.

Herbal Mosquito Repellent Liquid Vaporizer



Herbal mosquito repellent liquid vaporizer is effective to ward off mosquitoes and has knock down activity. It is completely safe for human and also gives pleasant fragrance inside the room.

Herbal Mosquito Repellent Ointment



Herbal Mosquito Repellent ointment is effective to keep away mosquitoes from exposed body areas. This herbal formulation is very safe to use.

Organic Fertilizer - SUFAL

SUFAL is **organic fertilizer** based on a mixer of biomaterials which is enriched in essential and micronutrients and helps in rapid growth and higher productivity of agricultural crops. It protects the seed/seedlings from insect/termite attack during germination of seeds and also prevents the plant at its tender age.



SUFAL- ORGANIC FERTILIZER

Process for Production of Natural Vanillin



The process of extraction of natural Vanillin with purity~ 99% and yield 3.0-3.3% has been developed from a new plant source. The process does not involve any costly or hazardous chemicals and the raw material of the product is widely available in all over India as well as some parts of the world.

High Yielding Varieties of *Kaempferia Galanga* (Brahmaputra -1)

High rhizome yielding variety of *Kaempferia galanga* (Brahmaputra -1) has been developed and registered at ICAR-NBPGR, New Delhi (Registration No. 17081). This unique variety has rhizome yield more than 30% from the check variety. The fresh rhizome yield is more than 7.5 tonnes/ ha.



Design Know-How on Essential Oil Distillation Unit

The Improved designed developed by CSIR-NEIST reduces the operation time and this in turns increases per day plant capacity, the design package contains drawing and design of distillation plant , i.e processing unit so that any fabricator could fabricate the distillation plant and could sell to the cultivators or any entrepreneurs interested in setting up aromatic plant processing unit.

Technologies Licensed to Industries

S.No	Know How	Party
1	Improved variety of Citronella (Jor Lab C-5)	<ul style="list-style-type: none"> M/s Lukwah Tea Estate, Sivsagar, Assam M/s Nahorjan Tea Company (P) Ltd., Golaghat, Assam M/s S S enterprise Bokajan Assam
2	Bacterial Formulation for crop enhancement & yield improvement	<ul style="list-style-type: none"> M/s Lukwah Tea Estate, Sivsagar, Assam
3	Herbal Anti-Arthritis Formulation	<ul style="list-style-type: none"> M/s Ayur Force Organics Pvt.Ltd., New Delhi M/s Naturoveda Organics Pvt. Ltd, Kolkata M/s Ridhi Sidhi Medicare, Noida, New Delhi, India
4	Improved variety of Lemongrass (Jor Lab L-8)	<ul style="list-style-type: none"> M/s Radhabari Tea Company Private Limited, Golaghat, Assam
5	Liquid Deodorant Cleaner	<ul style="list-style-type: none"> M/s JPL Industries, Tinsukia, Assam
6	Herbal Mosquito Repellent Candle technology	<ul style="list-style-type: none"> M/s Medtronic Biolead Systems, Hyderabad, Telangana, India
7	Herbal Mosquito Repellent Vaporizer	<ul style="list-style-type: none"> M/s Medtronic Biolead Systems, Hyderabad, Telangana, India
8	OP-12 Biofertilizer	<ul style="list-style-type: none"> M/s Amrit Organic, Dibrugarh, Assam
9	Design Know-how on Essential Oil Distillation Unit	<ul style="list-style-type: none"> M/s Nagi Trade and Industries, Tinsukia, Assam
10	Bio-Organic Fertilizer "SUFAL"	<ul style="list-style-type: none"> M/s Rishika Interior and Developer Pvt. Ltd, Guwahati

Technology Transfer Agreements Signed

CSIR-NEIST Transferred technologies on 'Bacterial Formulation for crop enhancement & yield improvement' and 'Improved variety of Citronella' for commercialization



Dr D Ramaiah, Director, CSIR-NEIST handing over the signed Technology Transfer Agreements to Mr Ajay Parikh, General Manager, M/s Lukwah Tea Estate, Sivasagar, Assam, for the technologies transferred on 'Bacterial Formulation for crop enhancement & yield improvement' and 'Improved variety of Citronella (Jor Lab C-5)' on 11 May, 2017.

CSIR-NEIST Transferred 'Improved variety of Citronella' for commercialization



Dr D Ramaiah, Director, CSIR-NEIST handing over the signed Technology Transfer Agreement to Mr Rajesh Singhania, Director, Nahorjan Tea Company (P) Ltd., Bokakhat (Golaghat), Assam for the technology transferred on 'Improved variety of Citronella (Jor Lab C-5)' on 11 May, 2017.

CSIR-NEIST transferred 'Herbal Anti-Arthritis technology' for commercialization



Dr D Ramaiah, Director, CSIR-NEIST handing over the Herbal Anti-Arthritis technology package to Mr Devender Khatreja, Production Head (Technical), M/s Ayur Force Organics Pvt. Ltd., New Delhi on 12 June, 2017 in presence of the technology team and staff member.

CSIR-NEIST transferred 'Improved variety of Lemongrass' for commercialization



CSIR-NEIST transferred the newly developed improved variety of Lemongrass, 'Jor Lab L-8', to M/s Radhabari Tea Company Private Limited, Golaghat (Assam) on 2 August, 2017 for commercial cultivation and processing.

CSIR-NEIST transferred 'Liquid Deodorant Cleaner technology' for commercialization



Dr D Ramaiah, Director, CSIR-NEIST handing over the technology package of Liquid Deodorant Cleaner to Mr Parsha P Bordoloi from M/s JPL Industries on 29 August, 2017 in presence of the technology team and other staff members.

CSIR-NEIST Transferred technology package on 'OP-12 Biofertilizer' for commercialization



Dr D Ramaiah, Director, CSIR-NEIST handing over the technology package 'OP-12 Biofertilizer' to Mr Dilip Ch. Talukdar, Proprietor, M/s Amrit Organic Pvt Ltd, Dibrugarh, Assam on 10 January, 2018 in presence of the technology team and staff member.

CSIR-NEIST transferred 'Improved variety of Citronella' for commercialization



CSIR-NEIST transferred the newly developed improved variety of Citronella, 'Jor Lab C-5', to M/s S S Entrepriise, Bokajan, Assam on 28 February, 2018 during National Science Day Celebration.

CSIR-NEIST transferred Design Know-How for Fabrication of Essential Oil Distillation Unit



CSIR-NEIST transferred the 'Design Know-How for Fabrication of Essential Oil Distillation Unit' to M/s Nagi Trade and Industries, Digboi, Tinsukia on 28 February, 2018 during National Science Day Celebration.

CSIR-NEIST transferred Bio-Organic Fertilizer-SUFAL technology for commercialization



Dr D Ramaiah, Director, CSIR-NEIST along with Mr Naveen Verma, Secretary, MDoNER handing over the technology package of Bio-Organic Fertilizer to Mr Dibyajit Barooah, Managing Director, M/s Rishika Interior and Developer Pvt. Ltd, Guwahati on 18 March, 2018 during 57th NEIST Foundation Day celebration.

MoUs / Agreements Signed

Sl.No	MoU/MoA/ Agreement	Party	Purpose/Technology	Date of signing
1	Material Transfer Agreement	DAK Americas LLC, Suite 500, Charlotte NC, USA	For supply of Flat Sheet Membrane for research purpose	12.04.2017
2	MoU	Coir Board, Kochi	For collaborative research work on development of flexible composite material using Coconut husk and Leather waste for industrial application	28.04.2017
3	Technology Transfer Agreement	M/s Lukwah Tea Estate, Sivasagar	For transfer of technology on, 'Bacterial Formulation for Crop Enhancement & Yield Improvement'	11.05.2017
4	Technology Transfer Agreement	M/s Lukwah Tea Estate, Sivasagar	For transfer of technology on, 'Improved variety of Citronella (Jor Lab C-5)'	11.05.2017

5	Technology Transfer Agreement	M/s Nahorjan Tea Company Pvt.Ltd., Golaghat	For transfer of technology on, 'Improved variety of Citronella (Jor Lab C-5)'	11.05.2017
6	Tri-partite MoU	Between CSIR-NEIST, NRDC and M/s Ayur Force Organics Pvt.Ltd., New Delhi	For transfer of Technology package on 'Herbal Anti-Arthritis formulation' to Ayur Force subsequent to License Agreement signed between NRDC and Ayur Force	12.06.2017
7	Technology Transfer Agreement	M/s Medtronic Biolead Systems, 1-5-B/73, AFOCHS, 6 th Cross, Sainikpuri, Hyderabad, Telangana -500094	For transfer of Herbal Mosquito Repellent Candle technology	07.07.2017
8	Technology Transfer Agreement	M/s Medtronic Biolead Systems, 1-5-B/73, AFOCHS, 6 th Cross, Sainikpuri, Hyderabad, Telangana -500094	For transfer of Herbal Mosquito Repellent Liquid Vaporizer technology	26.07.2017
9	Technology Transfer Agreement	M/s Radhabari Tea Company Pvt.Ltd., Golaghat, Assam	For transfer of improved variety of Lemongrass, Jor Lab L-8	02.08.2017
10	Technology Transfer Agreement	M/s JPL Industries, Kachujan Path, Gellapukhuri Road, Tinsukia	For transfer of Liquid Deodorant & Cleaner technology	29.08.2017
11	Agreement	All Manipur Trained Medicinal & Aromatic Plants Promoters Consortium, Potshangbam Leirak, Imphal- 795001	For implementation of CSIR-Aroma Mission	19.09.2017
12	Agreement	Juriya Aromatic Small Farmers Unit, Goalpara, Assam	For implementation of CSIR-Aroma Mission (Total area for cultivation: 30 ha)	24.10.2017
13	Agreement	Subansiri Research & Social Welfare Society, Itanagar	For implementation of CSIR Aroma Mission (Total area for cultivation: 70 ha)	17.11.2017

14	Agreement	Social Action for People, Odisha	For implementation of CSIR Aroma Mission (Total area for cultivation: 450 ha)	17.11.2017
15	Agreement	Bath Multipurposes Co-operative Society, Itanagar	For implementation of CSIR Aroma Mission (Total area for cultivation: 70 ha)	08.12.2017
16	Agreement	Rural Herbal Development and Literary Society, Itanagar	For implementation of CSIR Aroma Mission (Total area for cultivation: 70 ha)	08.12.2017
17	Memorandum of Agreement	National Institute of Pharmaceutical Education & Research (NIPER), Guwahati	For research collaboration, student and faculty exchange	20.12.2017
18	Technology Transfer Agreement	M/s Amrit Organic Fertilizer Plant, Duliajan, Dist: Dibrugarh, Assam.	For transfer of OP -12 Biofertilizer for sustainable crop yield	10.01.2018
19	MoU	APT Testing & Research Pvt Ltd., Pune	For carrying out toxicology studies on Organic Fertilizer	02/02/2018
20	Agreement	Hills Integrated Society, Diphu, Karbi Anglong	For implementation of CSIR Aroma Mission (Total area for cultivation: 180 ha)	13/02/2018
21	Technology Transfer Agreement	M/s S S Enterprise, Bokajan, Assam	For transfer of Improved variety of Citronella (Jor Lab C-5)	28.02.2018
22	Technology Transfer Agreement	M/s Nagi Trade & Industries, Tinsukia, Assam	For transfer of Design package on Essential Oil Distillation Unit	28.02.2018
23	Tri-partite MoU	Between CSIR-NEIST, NRDC and M/s Naturoveda Organics Pvt.Ltd., Kolkata	For transfer of Technology package on 'Herbal Anti-Arthritis formulation' to M/s Naturoveda Organics Pvt.Ltd., Kolkata subsequent to License Agreement signed between NRDC and M/s Naturoveda Organics Pvt.Ltd., Kolkata	07.03.2018

24	Technology Transfer Agreement	M/s Rishika Interior & Developer Pvt.Ltd., Guwahati	For technology transfer of Bio-organo fertilizer - SUFAL	18.03.2018
25	Tri-partite MoA	Between CSIR-NEIST, SASRD-NU and Dept. of Agriculture, Govt. of Nagaland	For implementing STINER-CFC at SASRD-NU campus and for extending training to the farmers/cluster of farmers etc.	22.03.2018

Patents

Granted In Foreign Countries

1. **Title** A Synergistic Pharmaceutical Composition Useful for the Treatment of Lung Cancer
Patent No ZI 201280074294.1
Inventors Mantu Bhuyan, Pranab Ram Bhattacharyya, Pranab Kumar Baruah, Nabin Chandra Barua, Paruchuri Gangadhar Rao, Sushmita Bhattacharya, Rakesh Kundu, Priyajit Chatterjee, Soma Seal, Sandeep Mukherjee, Suman Dasgupta, Sudipta Moitra, Shelley Bhattacharya, Samir Bhattacharya
Date Of Grant 05/Apr/2017

2. **Title** A Process for the Preparation of Oxidic Nano Sheets Coated Monolithic Catalysts Useful for the Treatment Of Toxic N₂O Gas
Patent No 9616412
Inventors Rajib Lochan Goswamee, Mridusmita Mishra, Anil Kumar Sarma Baruah
Date Of Grant 05/Apr/2017

3. **Title** A Synergistic Pharmaceutical Composition Useful for the Treatment of Lung Cancer
Patent No 9622987
Inventors Mantu Bhuyan, Pranab Ram Bhattacharyya, Pranab Kumar Baruah, Nabin Chandra Barua, Paruchuri Gangadhar Rao, Sushmita Bhattacharya, Rakesh Kundu, Priyajit Chatterjee, Soma Seal, Sandeep Mukherjee, Suman Dasgupta, Sudipta Moitra, Shelley Bhattacharya, Samir Bhattacharya
Date Of Grant 18/Apr/2017

4. **Title** A New Series of Artemisinin Derivatives with Potent Anticancer Activities
Patent No 2489641B
Inventors Gakul Baishya, Nabin Chandra Barua, Abhishek Goswami, Partha Pratim Saikia, Paruchuri Gangadhar Rao, Ajit Kumar Saxena, Nitasha Suri, Madhunika Sharma
Date Of Grant 21/Feb/2018

Granted India

1. Title A New Process for Removal of Boron Compounds from Alcohol
 Patent No 284888
 Inventors Lakhimi Borah, Nibaran Chandra Dey
 Date of Grant 03/Jul/2017
2. Title Method for the Preparation of 17 -Acetamido-3-Acetoxy-16-Formyl-Androst-5,17-Diene and 3-Acetoxy-2'-Chloro-5-Androsteno[17,16-B]Pyridine
 Patent No 285044
 Inventors Romesh Chandra Boruah
 Date Of Grant 11/Jul/2017
3. Title A New Process for the Synthesis of Ultra High Molecular Weight Styrene Maleic Anhydride Copolymer by U V Irradiation
 Patent No 285180
 Inventors Venkateswara Rao Kosuru, Narayan Chandra Laskar, Shashi Dhar Baruah
 Date Of Grant 14/Jul/2017
4. Title Novel Pyrrolo, Piperidino and Morpholino Substituted [1',2':1,6] Tetrahydropyrido (2,3 -B)-Quinoline and A Process for the Preparation thereof
 Patent No 285645
 Inventors Pulak Jyoti Bhuyan, Ipsita Devi, Pabitra Kumar Kalita
 Date Of Grant 26/Jul/2017
5. Title Process for the Preparation of Shikimic Acid Useful for Production of Avian Flu Drug Tamiflu (Oseltamivir)
 Patent No 286011
 Inventors Manobjyoti Bordoloi, Jayanta Borah, Dipak Kumar Roy, Subhash Chandra Dutta, Nabin Chandra Baruah, Paruchuri Gangadhar Rao
 Date Of Grant 02/Aug/2017

6.	Title	An Improved Process for the Carbonylation of Methanol by Rhodium Carbonyl Complexes
	Patent No	288679
	Inventors	Dipak Kumar Dutta, Bibek Jyoti Borah, Biswajit Deb
	Date Of Grant	25/Oct/2017
7.	Title	A New Series of Artemisinin Derivatives with Potent Anticancer Activities
	Patent No	290351
	Inventors	Gakul Baishya, Nabin Chandra Barua, Abhishek Goswami, Partha Pratim Saikia, Paruchuri Gangadhar Rao, Ajit Kumar Saxena, Nitasha Suri, Madhunika Sharma
	Date Of Grant	06/Dec/2017
8.	Title	Fractionation of Crude Oil Tank Bottom Sludge and Pipeline Scrapping Using Short Path Distillation and Recovery of Microcrystalline Wax thereof
	Patent No	292034
	Inventors	Narayan Chandra Laskar, Swasti Munshi, Shashi Dhar Baruah, Paruchuri Gangadhar Rao
	Date Of Grant	23/Jan/2018

Filed In India

1.	Title	A Process for the Synthesis of Membrane Useful for Carbon Dioxide Separation
	Application No	201611023590
	Inventors	Swapnali Hazarika, Panchali Bharali, Hirok Jyoti Borah, Indumoni Das, Somiron Borthakur, Modon Mohan Bora, Dilip Konwar
	Filling Date	10/Jul/2017
2.	Title	A Synergistic Herbal Mosquito Repellent and Knockdown Vaporizer
	Application No	201711025754
	Inventors	Chanda Sanjoy Kumar, Bhattacharyya Pranab Ram, Bhuyan Mantu
	Filling Date (Provisional)	20/Jul/2017

3.	Title	Nano Alumina Coated Bio -Graphite and its Preparation thereof
	Application No	201711025941
	Inventors	Saikia Jitu, Sarmah Susmita, Bordoloi Palakshi, Ahmed Hussain Tobiul, Bora Jayanta Jyoti, Goswami Aradhana, Goswamee Rajib Lochan
	Filling Date	21/Jul/2017

Filed In Foreign Countries

1.	Title	A Novel Process for Extraction and Separation of Oxyresveratrol from Artocarpus Lakoocha Roxb
	Application No	15/517439
	Inventors	Swapnali Hazarika, Dilip Konwar, Hirokijyoti Borah, Somiron Borthakur, Pranab Barkakati, Modon Mohan Bora, Ram Nath Das
	Filling Date	06/Apr/2017
2.	Title	A Novel Process for Extraction and Separation Of Oxyresveratrol from Artocarpus Lakoocha Roxb
	Application No	15801283.1
	Inventors	Swapnali Hazarika, Dilip Konwar, Hirokijyoti Borah, Somiron Borthakur, Pranab Barkakati, Modon Mohan Bora, Ram Nath Das
	Filling Date	13/Apr/2017
3.	Title	A Process for the Preparation of Blue -Fluorescence Emitting Carbon Dots (Cdts) from Sub-Bituminous Tertiary High Sulfur Indian Coals
	Application No	15/704364
	Inventors	Binoy Kumar Saikia, Tonkeswar Das, Sonali Roy, Bardwi Narzary, Hari Prasanna Deka Boruah, Manobjyoti Bordoloi, Jiumoni Lahkar, Dipankar Neog, Danaboyina Ramaiah
	Filling Date	14/Sep/2017