

Memorandums of Understanding/Agreements 2014 - 15

The Corporation continued to lay emphasis on broadening and strengthening the technology resource base by nurturing long-term relationships with R&D institutions as well as universities, technical organizations, industries and also individual inventors. This endeavour is reflected in the Corporation's signing of MOUs/ MOAs/Agreements with 20 new organizations for assignment of technologies developed by them. These organizations are indicated below:

- Institute of Life Sciences, Bhubaneswar
- Punjab University, Chandigarh
- National Institute of Technology, Silchar
- National Institute of Technology, Rourkela
- Maharishi Markandeswar University, Ambala
- Primodia Chemicals, Hyderabad
- Indian Institute of Technology, Kharagpur
- Indian Institute of Engineering Science & Technology, Howrah
- M/s. AMI Life Sciences, Vadodara
- Head PACE, Department of Scientific and Industrial Research, New Delhi
- College of Technology, Udaipur (TePP outreach Centre)
- Rajalakshmi Engineering College, Chennai
- ATME College of Engineering, Mysore
- Jawaharlal Nehru Centre for Advanced Scientific Research, Bengaluru
- Dayananda Sagar Institutions, Bengaluru
- PSG College of Technology, Coimbatore
- KSR Group of Institutions, Namakkal
- Vellore Institute of Technology University, Vellore
- Central Council for Research in Ayurvedic Sciences, New Delhi
- Suresh Gyan Vihar University, Jaipur

PACE AGREEMENTS SIGNED DURING 2014-15

The following agreements were signed between DSIR, NRDC & Industry/ Public Funded Research Institute (PFRI) in the year 2014-15 under the PACE scheme of DSIR:

AquAgri Processing Pvt. Ltd., New Delhi

- MacroAlgal biorefinery for CO₂ sequestration and production of biofuel and value-added compounds

Natural Remedies Pvt. Ltd., Bengaluru

- Technology upgradation of pelletization facility for herbal veterinary feed supplements

Rudraksha Allied Chemical Pvt. Ltd., Nagpur

- Pilot plant to manufacture magnesium hydroxide from dolomite mineral, having specifications same as commercially available pharmaceutical grade from sea water source but with a lower cost and calcium nitrate as a byproduct

Kaypeeyes Biotech Pvt. Ltd., Mysore

- Development of genetically engineered cellulasefree alkaline xylanase through submerged fermentation process (SMF)

Paras Flowform Engineering Ltd., Thane

- Design manufacturing, proving supply of three roller flow forming machine

ICPA Health Products Ltd., Mumbai

- Chitosan based drug delivery system for dental and oral diseases

D-ESPAT Pvt. Ltd. , Chennai

- Light weight, high energy density desktop, model, portable power supply using fast charging capable lithium ion secondary battery, AC/DC charging including solar input

PROCESSES ASSIGNED 2014-15

During the year, 47 new processes/technologies were assigned to the Corporation as compared to 68 no. of processes/technologies in the previous year. The processes assigned to the Corporation from various research institutes, universities were:

All India Institute of Medical Sciences, New Delhi

- Indigenous gold standard kit for MDR and XDRTB

National Institute of Ocean Technology, Chennai

- Coastal drifter buoy

Central Tasar Research & Training Institute, Ranchi

- Jeevan Sudha—a process for the preparation of jeevan sudha for the control of virosis in tasar silkworm antherarea mylitta
- Depuratex—a product and process for cleaning and surface sterilization to tasar silkworm antherarea mylitta

Indian Plywood Industries & Training Institute, Bengaluru

- Improved rice husk particle board

University of Agricultural Sciences, Bengaluru

- Nata-de-coco production from microbial fermentation of coconut water through enrichment techniques
- Ready to eat honey pann beeda
- Process for the production of honey powder with natural profiles

Calcutta University, Kolkata

- An efficient and affordable epidemiological sensor for hemoglobin
- A smart micro particle production design
- Sensing mass at micro-scale—a novel approach to controlled delivery
- Platelet mediated cell seeding
- Systems and methods for drug delivery-smart and targeted release of drugs by platelets
- Stain free detection of thalassemia carrier
- M-nose (magnetic nose)

M/s. Primodia Chemicals & Pharmaceuticals Pvt. Ltd., Hyderabad

- Anti hepatitis-C drug
- Anti HIV drug

M/s. AMI Life Sciences Pvt. Ltd., Vadodara

- Amixaine
- Anti HIV drug
- Dopamine hydrochloride
- Fenofibrate
- Gliclazide
- Cacosamide
- Loxapine succinate
- Nitazoxanide
- Olopatadine hydrochloride
- Oxcarbazepine
- Pregablin
- Renolazine dihydrochloride
- Tauroursodeoxy cholic acid

Institute of Life Sciences, Bhubaneswar

- A process for preparing curcumin encapsulated chitosan alginate sponge useful for wound healing
- A method for preparing a water dispersible glyceryl monooleate magnetic nanoparticle formulation and use of the same
- Efficient sub-genomic transcript promoter DNA fragment from dahlia mosaic virus
- Efficient full-length transcript promoter DNA fragment from Dahlia mosaic virus
- A method for preparing encapsulated chitosan alginate sponge useful for wound healing

Maharshi Dayanand University, Rohtak

- Animal model for measurement of anxiety in mice
- Paradigm for assessment of anxiety in rats

Indian Institute of Technology, Kharagpur

- Lactic acid production from renewable sources and formation of PLA
- Enzymatic peeling of potato and value added product development

Punjab University, Chandigarh

- Solid lipid nanoparticles
- In situ forming lipid nanoparticles for macro biomolecular delivery
- Autoclavable nanovesicular composition
- Nano lipidic composition for amphotericin-B
- Easy toddler feeder
- Highly sensitive calorimetric detection of ethyl parathion using gold nanoprobe

Gurdas Singh Kaler, Patiala

- Air conditioned apiary migration unit for honey bees

S.S. Dutta, Siliguri, West Bengal

- LPG burner for commercial cooking

PROCESSES LICENSED DURING 2014-15

The Corporation managed to sign 40 licence agreements during the year compared to 19 license agreements signed in the previous year. The processes/technologies licensed by the Corporation in the financial year were:

Neyveli Lignite Corporation Limited, Neyveli

- Manufacture of potassium humate from lignite - 2

Defence Research and Development Establishment, Gwalior

- Test kit for microbiological auality of drinking water - 4

Central Tasar Research & Training Institute, Ranchi

- Jeevan Ssudha—a process for the preparation of jeevan sudha for the control of virosis in tasar silkworm antherarea mylitta - 1
- Depuratex—a product and process for cleaning and surface sterilization of tasar silkworm antherarea mylitta - 1

Vector Control Research Centre, Pudducherry

- Mosquito larvicidal formulation of Bacillus Thuringiensis Var. Israelensis - 1

Central Sericultural Research & Training Institute, Mysore

- Navinya—a plant based formulation for control of mulberry root rot disease 1
- Poshan—a multi-nutrient formulation for correcting the nutrient deficiencies in mulberry - 2
- Ankush (A New Silkworm Bed Disinfectant) - 1
- PVC stands for rearing young-age silkworm rearing (Chawki Rearing Stands) - 1
- Phyto ecdysone (Sampoorna) - 1
- A machine for silkworm for harvesting silk worm cocoon from plastic collapsible mountages - 1
- Chawki leaf chopper 1

Central Sericultural Research & Training Institute, Berhampore

- Sericillin-a synergistic composition for disinfecting silkworm body and silkworm bed - 1
- Hand operated silkworm separator 1

Indian Institute of Horticultural Research,Bengaluru

- A process for preparation of ARKA mango (Mangifera Indica L.) foliar spray formulation - 1
- A cost effective eco-friendly para-pheromone trap for effective monitoring of fruit flies - 1

Annamalai University, Annamalai Nagar

- Seaweeds extract fertilizer - 3
- Silkworm Seed Technology Laboratory,Bengaluru
- Resham Jyothi—a silkworm bed disinfectant - 1

Indian Agriculture Research Institute, New Delhi

- Extraction of azadirachtin from neem seed kernels - 2
- A novel superabsorbent hydrogel 2

National Institute of Communicable Diseases, Delhi

- Evaporative cooling apparatus resistant to vector breeding - 2

Indian Institute of Spices Research, Kozhikode

- A micronutrient composition for ginger and a process for its preparation (For soils with pH below seven) - 1
- A micronutrient composition for black pepper and a process for its preparation - 2
- A micronutrient composition for cardamom and a process for its preparation - 1
- A micronutrient composition for turmeric and a process for its preparation (For Soils with pH below seven) - 1

Central Silk Board, Bengaluru

- Labex—a silkworm bed disinfectant - 1

CSIR-National Physical Laboratory, New Delhi

- Indelible ink - 1

CSIR-Central Mechanical Engineering Research Institute, Durgapur

- 20 HP tractor - 1

Sugarcane Breeding Institute, Coimbatore

- Soil moisture meter 1

In the coming years, the Corporation expects substantial royalty from the commercialization of these processes. Your Corporation strives to keep its competitive advantage by enhancing its repository of new processes and technologies that are available to it for transfer and taking new initiatives to further its objectives in the future.