PROJECTS OF 2004-06 BATCH of M.Sc (BIOTECHNOLOGY)

Sl. No.	Name	Title of Project	Name of Institutions
1	Anupama Mahato	**Title :** Studies on micropropagation of Nyctanthes arbortristis : Effect of Nutritional factor and plant Hormone Regime	RPRC Bhubaneswar
2	Arjun Ghosh	**Title :** Cloning of small Nuclear RNAs found in Giardia lamblia **Brief :** Giardia lambia is an unicellular eukaryotic microorganism that commonly cause diarrhea disease. In this present study, two different rRNA strains of Giardia lambia has been cloned to study on the factors involved in the biogenesis of rRNA and to identify some novel pathway for future development of chemotherapeutic interventions and rational drug designing.	National Institute of Cholera and Enteric Diseases, Kolkata
3	Arpita Sarkar	**Title :** Analysis of Genetic variation in Vinca sp by RAPD Technique	Sangene Biotech, Bangalore
4	Bandita Swain	**Title :** Antimicrobial activity of Bacteria **Brief :** The present work has been carried out to find out suitable bacteria having antimicrobial activity against many microbes, exploiting the antagonistic behaviour of micro-organisms and was screened out some of the bacterial isolates having antimicrobial properties in wide spectrum, from a total of60 bacteria tested against Fusarium sp.	RPRC Nayapalli, Bhubaneswar
5	Barnalika Ojha	**Title :** In vitro rapid multiplication of Banana (Musa paradisiaca) through corm and cormlets)	KPRC, Bhubaneswar
6	Chanchal Roy	**Title :** Enhancement of lipid peroxidation and depletion of superoxide dismutase and catalase level in wiss Albino mice by Lead Acetate **Brief :** The presnt study is a clinical data review type. In this study animals subjected to lead acetate exposure to observe its effect on the behaviour of antioxidative enzyme and the lipid peroxidation level in the liver as liver is the site of drug metabolism and detoxification of the body. And observed that lipid peroxidation in case of lead treated was increased more than 2 fold in the liver tissue in comparision to normal control.	Chittaranjan National Cancer Institute, Kolkata
7	Chandna Dixit	**Title :** Irt 1 over expression in Brassica juncea Lcv varuna **Brief :** Iron trafficking in the whole plant is necessary for essential physiological processes to work properly. To present investigation is to raise transgenic plant of Brassica overexpressing the iron transporter gene irtl. These transgenic plant should be able to transfer iron efficiently while growing in iron deficient soil.	JNU, ILS, New Delhi
8	Debikalyani Mohanty	**Title :** Evaluation of serum MDA and magnesium level in cerebrovascular Accident **Brief :** The study was carried out with an objective to assess the role of lipid peroxidation and magnesium status in cerebrovascular stroke and was concluded that increase in oxidative stress and hypomagnesemia are a potential risk factor for development of cerebrovascular artherosclerosis leading to stroke. It is possible that therapeutic substitution of magnesium and anti oxidant micronutrient may be beneficial for stroke treatment.	SCB Medical College, Cuttack

9	Devisha Sinha	**Title :** Analyzing the expression of a recombinant protein in cho cells at different temperature and also in different media **Brief :** CHO cell line is the first complete mammalian cell culture able to provide the cell need to produce recombinant protein under strictly defined serum and protein free culture condition. From the present study it is concluded that viable cellcount is more in PF ? CHO medium than SFM- CHO. The protein expression of CHO cellline is more in PF- CHO media and its expression in SFM is more precise. In this study CHO cell line are cultured using PF & SF media and the viability of cells are observed.	Dr. Reddy's laboratory, Hyderabad
10	Dipica Kerketta	**Title :** Effect of cultural condition on phosphate solubilization capacity of fungi **Brief :** The importance of this study was to find out phosphate solubiliting fi=ungus. Phosphorus is the major nutritional requirements of crops but its supply is from nonrenewable energy source. In the present study, some fungi were tested to solubilize phosphorous from RP & TCP.	Regional Plant Research Centre, Bhubaneswar
11	Doyeli Chakraborty	**Title :** In plant training on quality control of milk in dairy industry. **Brief :** The study reveals about the various industrial sterilization used for the quality control of dairy product	Mother Dairy Institute, Kolkata
12	Hemanta Kumar Sahoo	**Title :** Germplasm conservation of some potential medicinal plants of Satkosia wild life sanctuary through seed Gene Bank **Brief :** The medicinal plants of forest region are presently facing constant threat of extinction owing to habital degradation, forest five and over exploitation of drug plants. Most of the plants are habitat specific and scientifically little understood. The present study was carried out with an aim to document and to develop strategy and seed technology of endangered medicinal plant seeds for exsites conservation by choosing satkoria wildlife sanctuary in Orissa as a special habitat.	RPRC Bhubaneswar
13	Ipsita Mohanty	**Title :** Microcosm study of V. cholerae 01/0139 and conversion of viable but non culturable (VBNC) to rough strain a new insight **Brief :** The present study was undertaken with the aim to disclose the survival longevity of V.Cholerae in endemic area of cholera in Orissa by taking microcosm study to understand the conversion of VBNC to smooth stream taking Balb/c mouse as a model and to exhibit the status of virulent genes.	RMRC, Bhubaneswar
14	Jatin ku Meher	**Title :** Analysis of Genetic variations in Ocimum Spp by RAPD Technique **Brief :** Standardization of protocols for isolation at genomic DNA from plant source was done and both quantitative estimation at DNA and to determine the natural distribution of genetic variation in the ocimum species by using RAAPD technique.	Sangene Biotech, Bangalore
15	Jeevan Dash	**Title :** Study of Genetic variation in philodendron of the family Araceae through chromosome and RAPD analysis	RPRC Bhubaneswar
16	Jyoti Kullu	**Title :** Studies on genetic relationship among the varieties / species of the genes polyscias, schefflera and calathea using RAPD markers **Brief :** The present investigation offers a optimization at primer screening for evaluation at genetic relationship at the varities/ species of the genus polyscias and calathea through RAPD analysis.	RPRC Bhubaneswar

17	Kanchan Mala Bihari	**Title :** Isolation and identification of Aeromonas species from different Hospitalised diarrhoea patients and water samples	SCB Medical College, Cuttack
18	Kumkum Das	**Title :** PCR based marker assisted selection for Bacterial Blight resistance genes in rice **Brief :** To study the polymorphism among the parents used in the breeding program to improve resistance to blast disease and to screen the selectual gene pyramided lines.	CRRI, Cuttack
19	Lipsa Rani Samal	**Title :** Isolation of Staphylococcus from the Hospital personnel environment and their Antibiogram with special Emphasis on Methicillin Resistance	SCB Medical College, Cuttack
20	Mahamaya Patra	**Title :** Screening techniques for Industrial Microbes **Brief :** In order to observe the enzymatic activity of industrially important microbes, a wide range of micro ? organisms esp fungi are screened in different media under asceptic conditions.	RPRC, Bhubaneswar
21	Manasee Tripathy	**Title :** Biochemical Speciation of Microbacterium Isolates	AIIMS, New Delhi
22	Milirani Sahoo	**Title :** Serum calcium and magnesium levels in patients with essential Hypertension **Brief :** The study revealed that low serum ca2+ levels in hypertensive patients in comparision to the healthy indivisual and low serum mg2+ in hypertensive patients in comparision to healthy controls. High serum sodium in hypertensive patients in comparision to healthy controls and high serum potassium in hypertensive patients in comparison to healthy controls.	SCB Medical College, Cuttack
23	Monalisa Priyadarsini	**Title :** Immune Response to Surface Lipids in Human Filarial Infection **Brief :** The three groups of individuals endemic normal asymptomatic microfilariane carriers and chronic filariasis patients have generated a specific IgG and IgM response against the adult surfacelipid antigens. Immunolongitudinally using surface lipid antigens will be useful to assess the role of antibodies in controlling microfilamania in people living in the endemic regions.	RMRC, Bhubaneswar
24	Mridusmita Bora	**Title :** Two Medical Plant Species Gomphostemma (A Medicinal Plant) **Brief :** Gomphostemma species was selected which is a medicinal herb and was propagated through tissue culture using different hormonal concentrations and combinations with MS media. This was used for the mass propagation of Gomphostemma.	Deffence Research Development Organisation Tezpur, Assam
25	Paramita Das	**Title :** Effect of immunosuppressive agent on polymorpho Nuclear Neutrophil **Brief :** To evaluate the role at chemotherapeutic agents in turns of Immunosuppression with special reference to polymorphonuclear neutrophil function.	Calcutta School of Tropical Medicine
26	Parna Bhattacharya	**Title :** Anti Leishmanial Activity of Arabinosylated Lipoarabinomannan an Alternative Therapeutic approach to Leishmaniasis **Brief :** An unusual rate of glycolipid on the leishmaniasis & the role of Ara ? LAM in the regulation of impaired free radical generation during leishmaniasis & upregulation at TH1 cytokine and down regulation of TH2cytokine by Ara ? LAM during infection.	BOSE Institute, Kolkata
27	Pramod Kumar Ranjit	**Title :** Study of Lipid profiles in Type-II Diabetes Mellitus **Brief :** To evaluate the lipid profiles in type II diabetes mellitus, which is an indivisual risk factor for coronary heart disease.	SCB Medical College, Cuttack
28	Pramod Kumar Sahoo	**Title :** Effects of different Hormones on in Vitro propagation of Musa Clone AAA cv. Robusta	RPRC, Nayapalli, Bhubaneswar

29	Pratima Basak	**Title :** Prolonged effect of immunosuppressive agents on Macrophage mediated phagocytosis **Brief :** The aim of the present work is to evaluate the role of chemotherapeutic agents in terms of immunosuppression with special reference to macrophage agents an animal system, to delineate the CMI status in the subject concerned , to characterize the role of specific immuno cell under the event.	School of Tropical Medicine Kolkata
30	Purbaja Bhattacharyya	**Title:** Effects of Growth Hormones on in vitro micropropagation of musa clone ABB CV Banta	RPRC Nayapalli, Bhubaneswar
31	Rajib Lochan Satpathy	**Title :** Analysis of Genetic diversity of the Genes crotalaria linn (Leguminosae : papilionoideae) through molecular markers **Brief :** The present study involves 8 species of crotalaria was taken up and the genetic diversity of the species were analysed through molecular markers like RAPD & ISSR which can be achieved by isolation & purification of genomic DNA, studying genetic variation in crotalaria, evaluation of genetic relationship among different species of crotalaria to find out the degree of correlation among different species taken for present investigation & to construct a phenomenon gram from RAPD and ISSR data.	RPRC, Bhubaneswar
32	Rashmi Karan	**Title :** Microbiological & chemical estimation of milk & milk products **Brief :** The present study deals with the microbiological and chemical analysis of water, milk and milk product in industry.	Vaishal, Patliputra, Dugdh, Uppadak Sahkari Sangh, Patna
33	Reena Parida	**Title :** Characterization of Bacteria with Reference to morphophysiological and phosphate solubilisation properties **Brief :** Phosphate solubilizing bacteria are efficiently used to solubilize phosphate which is present in insoluble form in soil. So PSB are used in the present study tosolubilize phosphate present in TCP and RP.	RPRC, Bhubaneswar
34	Rosen Khan	**Title :** Physiological Basis of rooting ability in Hunteria zeylanica and Gerbera manghas two rare and endangered tree species **Brief :** The study deals with the estimation of photosynthetic pigment, carbohydrate, protein, polyphenols & analysis of rooting induced enzymes viz ? polyphenoloxidase & peroxidase with special reference to the stock plants of Hunteria Zeylanica & Cerbera manghas of family Apocyanaceae as a part of forest biotechnology pertaining to evaluation of rooting ability of priority/selected reforestation sps.macropropagation.	RPRC, Bhubaneswar
35	Sabyasachi Prusty	**Title :** The phenotypical and Biochemical effects of growth regulators on in vitro propagation of musa clone AAA Cv. Grand Naine **Brief :** An attempt was made to develop an clonal propagation system in Musa accuminata CV. Grand Naine by manipulating the growth regulators. In this investigation it is detected that the intensity of morphogenesis is dependent on growth regulatrs. Though BAP alone can help shoot regeneration & growth. The presence of adenine and JAA promoted high frequency shoot regeneration & growth. Similarly, for root generation Auxin is supplied along with cytokinin & adenine for better rooting of plantlets. Rapid clonal propagation system helps for field plantation specially for commercial purposes.	RPRC, Bhubaneswar
36	Sachin Gupta	**Title :** Quality control and analysis of Milk and Milk products Himalayan Milk products union limited Siliguri, West Bengal	Himalayan Milk Product Union Limited (HIMUL), Matigara, Darjeeling

37	Sameer Kumar Barik	**Title :** Cloning and molecular characterisation of GFP Gene and its products **Brief :** The main objective of this study is to carry out cloing and molecular characterization of GFP gene and the purification of the recombinant proteins by the process of affinity chromatography.	RPRC Bhubaneswar
38	Sandip Das	**Title :** Survey and isolation of Bioctive compounds from flora of West Bengal and observation of their Antibacterial spectrum	CICFRI, Kolkata
39	Sarmila Sahoo	**Title :** Biochemical and molecular characterization of enteropathogenic Escherichia coli? isolated from Diarrhoea patients Hospital based study **Brief :** The main objective of this study are ? isolation of E ? coli from diarrhea patients following standard bacteriologic technique, identification by biochemical tests, molecular characterization by PCR study, confirmation by the above isolates of E.Coli by specific antisera to test antibiotic sensitivity of the organism against some selected antibiotics.	RMRC Bhubaneswar
40	Sasmita Pradhan	**Title :** Over expression of por C in Brassica juncea L CV varuna **Brief :** The porc gene was transformed to Brassica funcea cul varuna through plant tissue culture method to develop porc overexpression transgenic Brassica plants. Here 643 explants were infected with agrobacterium containing porc(s) in their T-DNA. Out of 643 explants, 8 transgenic plants were confirmed by PCR amplification by taking G ? DNA as template & 35s forward & porc reverse as primers. Inthis experiment, 92 explants were infected with only PCAMBIA vector as control which gives no regeneration in shoot induction medium. These 8 porc over expression transgenic Brassica plants may be easily withstand oxidation stress induced by high light.	JNU, Institute of Life Sc, New Delhi
41	Satyadev Bose	**Title :** Analysis of Genetic variations of two piper SP?s by RAPD technique **Brief :** The study attempts to understand the level of variations in two species of the piper belonging to the family piperaceae, using RAPD markers. In RAPD analysis, the amplification product having the banding pattern more than 7 in the studied species of piper, where the marker ranges from 1131 to 450 bp.	Sangene, Bangalore
42	Saurav mishra	**Title :** Isolation purification, extraction and metabolic profiling of Batalain pigments from Amaranthus tricolor **Brief :** Anthocyanins represent a class of important antioxidants. The present study deals with the correlation between antioxidant capacity of anthocyanins and their chemical structure.	IIT Kharagpur
43	Siva Narayan Nayak	**Title :** Serum Malondialdehyde, Zinc and Magnesium levels in Brochial Asthma **Brief :** The study was taken to estimate serum malonylaldehyde,zinc and magnesium level in bronchial asthma cases and to correlate them with disease process.	SCB Medical College, Cuttack
44	Smruti Ranjan Dash	**Title :** Effect of Antitubercular therapy on liver function status in patients of pulmonary tuberculosis **Brief :** The study is aimed to evaluate the liver function status in patients with active pulmonary tuberculosis receiving antituberculosis treatment and to assess the role different risk factors in anti TB drugs ? induced hepatitis that is to elucidate the relationship between age, sex, alcohol intake, nutritional status and disease extent with Drug induced hepatotoxicity.	SCB Medical College, Cuttack.

45	Soujatya Dhar	**Title :** Study of Human leucocytes in vitro and mouse Bone marrow in Vivo for Assaying Genotoxicity **Brief :** The objective of the study is to study the human leukocyte in vitro and study of mouse bone marrow chromosomes in vivo. The present study deals with the effects of inorganic lead nitrate administered orally in mics, to study the mitotic index in bone marrow chromosomes preparations in vivo.	Vivekananda Institute of Medical Science, Kolkata
46	Subhashish Jena	**Title :** A dissertation of micro propagation of Vanilla planifolia **Brief :** Invanilla the regeneration potency is high in stipulated period and the chances of failure is reported which ultimately results in yield ofbetter plantlets. The mortality is feeble in primary & secondary hardening which infers the plantlet as much beneficial in tissue culture.	Sarat Biotech, Bhubaneswar
47	Subhashree Suchismita Nayak	**Title :** Assessment of lipid profile and lipid peroxidation in patients of rheumatoid Arthritis **Brief :** The study was performed on 20 diagonised cases of rheumatoid arthritis and comprised of estimation of serum MDA and lipid profile in the above groups with an objective to evaluate the lipid peraxidation status and dyslipidemia associated rheumatoid arthritis patients.	SCB Medical College, Cuttack
48	Sukanta Palui	**Title :** Effects of Immunosupressive agents on cytotoxic T-cells functions **Brief :** Cytotoxic T-lymphocytes(CTL) have the capacity to kill the target cell by cytolytic function. Different immunosuppressive agents have immunosuppressive effects on immunocytes including T- Lymphocytes. The present study was carried out by using two chemotherapeutic drugs such as bleamycin & cyclophosphamide & their effect on cytotoxic T ? lymphocytes, was studied.	School of Tropical Medicine Kolkata
49	Sumana Chatterjee	**Title :** Biotechnological methods in the study of Anaemia **Brief :** The research project was carried out to diagnose the haemoglobinopathies, detection of their mutations and the carrier status in the population of varying degree of age, sex etc. Both phenotypic & genotypic interactions were studied.	Vivekananda Institute of Medical Science, Kolkata
50	Sumanta chatterjee	**Title :** Prolonged effect of Immunosuppressive agents on CD4 T-cell as mediated through S-RBC Rosetting **Brief :** The aim of the present work is to evaluate the role of chemotherapeutic agents in terms of immunosuppression with special reference to CD ? 4 T-cell function carrying objectives like to observe generalized effects of chemotherapeutic agents on animal system, to delineate the CMI status in the subject concerned to characterize the role of specific Immune cell(CD ? 4 T Cell)under the event.	School of Tropical Medicines Kolkata
51	Suvakshan Dutta	**Title :** Study of expression and purification of an entamoeba protein in bacterial expression system **Brief :** The present study was carried out by purifying the entamoeba protein with an aim to gather knowledge about the structural and functional aspects of this bacterial protein that will act as a model for probable drug target or vaccine candidate.	IIT, Kharagpur
52	Swarna Prava Samal	**Title :** Standardization of protocol for in vitro propagation of Bamboo (Bambusa Nutans)	KPRC(Kalinga Plant Research Centre)

53	Sweta Das	**Title :** Sequence of deletion clones of fibroin Gene of Antheraea mylitta **Brief :** Sequentially deleted and circularized Antheraea mylitta fibroin CDNA(~7.5kb) cloned in pBluescript vector using Exonuclease III/mung beer nuclease, containing varying length of insert CDNA was transformed into XL Blue E.coli cell. The recombinant clones were selected on LB ? plates. After cloning different length of the deleted clones of the A.mylitta fibroin CDNA was determined by digesting the clones with ECORI and analysed on agarose gel. The deleted clones having various lengths of CDNA inserts were grouped & selected according to their size & sequence.	Indian Institute of Technology, Kharagpur
54	Truptimayee Behera	**Title :** PCR based marker assisted selection for Bacterial Blight resistance gene in rice **Brief :** Parental analysis of swarna, IR 64 and resistance gene pyramid line IRBB 60 (carrying Xa-4,Xa-5,Xa-13 & Xa-21) was performed. Sequence tagged site (STS) markers RG 556,RG136 and Xa21 for Xa-5.Xa-13 & Xa ? 21 respectively were used for PCR analysis. PCR amplified products showed distinct polymorphism between both bacterial blight resistance gene pyramid line, IRBB 60 & susceptible swarna and IR ? 64.	CRRI, Cuttack
55	Uma Kundu	**Title :** Evaluation of Serum IgE, T3, T4 and Tsh with the help of ELISA **Brief :** The use of ELISA technique in estimation of total IgE levels and T3, T4 and TSH levels of different patients, sothat this can be utilized regularly in laboratories.	Immunomedicare and Research Institute, Kolkata