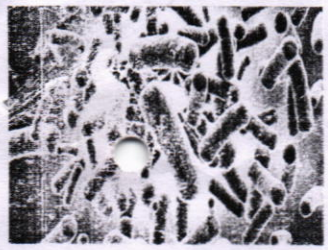

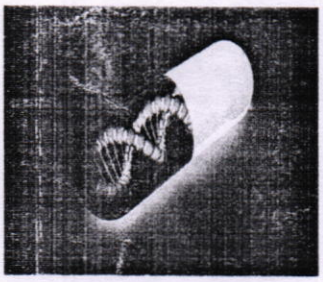

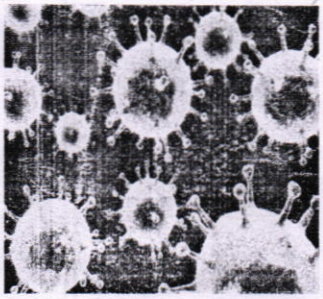

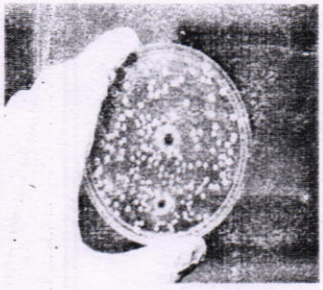

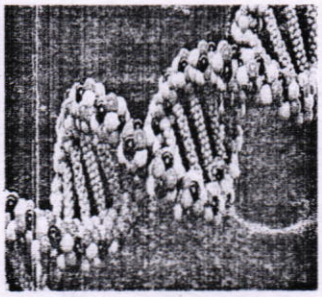

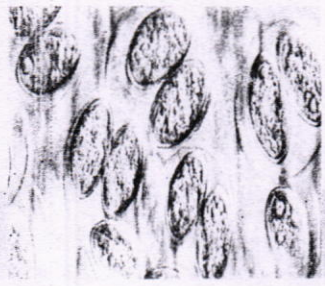

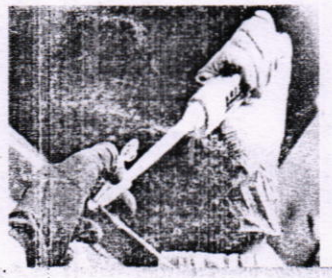

BANGLADESH SOCIETY OF MICROBIOLOGISTS (BSM)

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PROGRAM & ABSTRACTS

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type strain *Klebsiella pneumoniae* strain sctcc295; was 29.63+0.3 nmolC_2H_4/h/mg protein. Diazotrophic strains were assessed for plant-growth-promoting trait such as indole acetic acid production. The highest indole acetic acid production was found in Gp10, the type strain *Klebsiella sp.* strain zmmo which was 99.0+7 µg/ml.

Abstract 100

Bioelectricity generation through decoulorization of textile dye by chromium resistant bacteria in a mediator less Microbial fuel cell (MFC)

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Target of Microbial Fuel Cell (MFC) technology is to generate electricity from industrial effluent and waste water. Dye in textile effluent is a major concern for the environment. Degradation of the dyes in effluent MFC can generate electricity as well as improve the scenario. A two chambered Microbial fuel Cell (MFC), 200ml each, was constructed to produce electricity by degrading textile dye using a chromium resistant bacterium. Chromium (VI) resistant (1000 ppm) Isolates from tannery was studied for dye decoulorization activity. Among them a *Pseudomonas* spp. denoted as CrSp-11 was selected for the purpose. Fucozol Red UCX (Reactive Red 195) dye (100 ppm) containing basal medium was used as anolyte and phosphate buffer (PH-7) was as catholyte. Carbon plate was used as electrode. 3% KCL agar salt bridge was used to connect the chambers. 24 h enriched inoculum as 1ml/100ml added in the cathode. Performance of MFC was studied by determining the voltage. 170mV of electricity generated continuously for 120hr with 100% decolorization of the dye. Result showed that chromium resistant *Pseudomonas* spp. can be used to generate electricity along with degradation of textile dye.

Abstract 101

A comprehensive study of FMDV genotypes using FMDV genotyping tool

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FMD virus causes Foot and Mouth disease in bovids, ovids, suids and other cloven hoofed animals. It is one of the most devastating diseases of cattle's and causes great economic losses every year. FMDV is a positive-sense RNA virus and has seven immunologically distinct serotype: O, A, C, Asia-1, SAT-1, SAT-2, SAT-3. Conventionally, FMDV genotyping was performed by phylogenetic analysis of VP1 sequences. This is a time consuming, error prone and non-universal process. With a view to solve this problem, FMDV genotyping tool, a viro-informatics program is being developed. After cluster exploration in each serotype based on sequence variability and mutational pattern analysis, different genotypes have been ascribed that can be used as a basis of common genotyping framework. Phylogenetic analysis has been carried out to confirm these genotype-specific grouping. This framework has been employed in the development of Python based FMDV genotyping tool which uses a sliding window method and blast2 program to find similarity with reference sequences of different serotype. Also a pattern matching algorithm has been employed to predict query sequence's genotype based on the framework. This viro-informatics program enables computational detection of FMDV serotype, recombination analysis as well as genotype prediction. This study provides a comprehensive description of FMDV genotypes along with a GUI-based cross-platform program to do rapid genotype analysis, which may have implications in FMDV surveillance of detection of emerging new genotypes and switching of occurring genotypes.

Abstract 102

Efficacy of sanitizing agents on *Pseudomonas fluorescence* Migula 1895 biofilm on food processing surfaces

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Bacteria can produce persistent biofilms on wide range of surfaces that can be a source of contamination and food spoilage. *Pseudomonas fluorescence* Migula 1895 was investigated for its biofilm forming ability on food processing surfaces like plastic, glass and polypropylene. Overnight culture of *P. fluorescence* was applied on each surface and was washed with sterile water thrice to remove the loosely attached cells. Cells were stained with live and dead stain to observe biofilm concentration and viability under epifluorescent microscope. Diluted tryptic soya broth (TSB)was used for the growth of the organism. The surface chips containing biofilms were observed under epifluorescent microscope at variable time intervals. Experiments showed that lower (5%) TSB concentration facilitated well attachment of cells and biofilm formation. Initial cell concentration of ca. 10^6 cfu/ml showed better biofilm formation ability. Robust biofilms were observed on plastic surface after 24 hours of