

Abstract of Presentation

Note: This paper should be typed in “Times New Roman” of 12pt.

Presentation Title(Should be no more than 20 words):

Toxic metals - Microbial Diversity – Bioremediation

Abstract :

The common purpose of the topics we will address in this presentation is the use of the enormous unknown microbial biodiversity for biotech purposes.

Areas of study of the microbial diversity chosen here refer to the high plateau of the North West of Argentina (PUNA), the coastal areas of Patagonia and Beagle Channel, thermal wells in the Andean region.

1.-Arsenate reduction. Arsenic is present in superficial and underground waters in North West of Argentina. This compound is of natural origin and the geographical distribution and ways of reducing the impact on human health are being studied.

Contact Ms. Marcela Ferrero –Tucuman University mferrero@proimi.org.ar.

2.- Heavy metal bioremediation: Bioprecipitation, Microbial diversity of Sulfate-Reducing Bacteria, Remediation of Contaminated Effluents, Control of Biocorrosion, biosorption and biorecovery. Molecular characterization of extremophiles in hot springs, volcanoes, contaminated sites, acid mine drainages, metalliferous mines. Isolation of thermophilic and acidiphilic microorganisms, Screening of different enzymes with different industrial applications.

Contact name: Edgardo Donati – donati@quimica.unlp.edu.ar – CINDEFI-CONICET-La Plata University)

3. Heavy metal bioremediation, Actinomyces, biosorption. This group is active in the biosorption of heavy metals as Cd and Cu, accumulated in soils due to phosphate fertilization. Dr. Carlos Abate cabate@proimi.org.ar – PROIMI-CONICET-Tucuman University.

4.- Bioremediation of oil spills, Bioremediation of polyaromatic hydrocarbons, metagenomic studies. Bioremediation of aromatic compounds. This group are currently working on the presence and characterization of polyaromatic hydrocarbon degraders in sea and coastal waters. Marcela Ferrero and others. (PROIMI-Tucuman University) – mferrero@proimi.org.ar, Hebe Dionisi and others: CENPAT-CONICET. (hdionisi@cenpat.edu.ar)

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