

- ❖ Name & Designation : Ms. Hiral R. Shukla, SRF (DBT-ICT)
- ❖ Address : Centre for Energy Biosciences, Institute of Chemical Technology, N.P. Marg, Matunga, Mumbai.
- ❖ Name of the International Conference/ Seminar/Symposium/ Workshop : 13th International Conference on the Genetics, Physiology, and synthetic Biology of Solvent and acid forming Clostridia 2014.
- ❖ Title of the abstract accepted : Study of lactic acid production and reutilization for maximum butyric acid production by degenerated strain of Clostridium acetobutylicum ATCC 4259.
- ❖ Date & Venue : 19-21st September 2014. Shanghai, China.
- ❖ Money sanctioned : Rs 82,436/-
- ❖ Money reimbursed : Rs 64,897/-

Participation Report

Clostridium XIII, the 13th International conference on genetics, physiology and synthetic biology of solvent and acid forming clostridia was held at Shanghai Hope Hotel, Shanghai, China from 19th September, 2014 to 21st September, 2014. It was hosted by Institute of Plant and Ecology, SIBS, CAS and Co- hosted by Shanghai Research and development Center of Industrial Biotechnology. 150 participants, 36 speakers, and 7 invited speakers from 14 countries attended this conference. There were 5 sessions.

Academic highlights of the Conference

The “Clostridium” conferences have been held every 2 years since their inception in 1990 and focus on those clostridial species that are benefit to mankind.

New developments presented at the “Clostridium XIII” mainly include the strategies of forward and reverse genetics in the genus *Clostridium* by Prof. Nigel Minton, University of Nottingham, UK, fermentation of butanol from side products of wheat flour production by Prof. Wolfgang H Schwarz, Technical University Muenchen, Germany and Gas fermentation for fuel and Chemical production at large scale by Prof. Sean Simpson, Lanza Tech, New Zealand.

New Development resulting from the “Clostridium XIII” mainly includes promotion of an ever expanding range of gene tools and methodologies with which forward and reverse genetic strategies may be pursued. It paved the path towards improvement in the economic situation of mills with increased production of alternative fuels and chemicals without affecting the food market. Also, the conference may boost increase in research for continuous production of a sustainable fuel at large scale using industrial off gases as a feedstock.

Participant's contribution to the conference

I, **Hiral R. Shukla**, Ph. D student at DBT ICT Center for Energy Biosciences, Institute of Chemical Technology, participated in "Clostridium XIII" and **presented the poster** on 'the study of Lactic acid production and reutilization for butyric acid production by degenerated strain of *Clostridium acetobutylicum* ATCC 4259'. Results of 30% increase in the total product yield were presented by me. Discussion regarding how my findings are helpful in optimizing bioprocess for maximum butyric acid production on continuous scale was done by me. My work was an imperative milestone for butyric acid production using clostridia.