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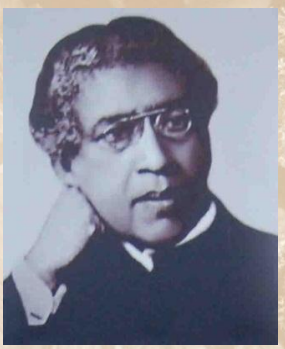

J C BOSE SCIENCE HERITAGE MUSEUM

Organizes
a
Lecture
On

"Mass Spectrometric Studies of small Molecule Drugs and Therapeutic Proteins Including Monclonal Antibodies, IgG4"

by
Dr. Birendra N. Pramanik, USA

Wednesday, February 20, 2019, 2:30 pm – 4:30 pm

at

Acharya Bhaban

Sir J C Bose Trust
93 APC Road, Kolkata 700009
sirjcbose@gmail.com

Program Coordinator
Prof. Parul Chakrabarti
JCBSHM & Sir J C Bose Trust

Advisory Committee
Prof Indrani Bose, Prof. Bikas K Chakrabarti &
Prof. Partha Pratim Majumder

P R O G R A M M E

2:30 PM : Welcome Address by Prof. Parul Chakrabarti, Coordinator, JCBSHM & Trustee, Sir J C Bose Trust

Academic Session

Chairperson: Prof. Sunil Kumar Talapatra, Former Professor and Head of Chemistry Department , University of Calcutta, Former President of Indian Chemical Society

2:40 PM : Introduction and felicitation of the speaker

2:50 PM : Dr. Birendra N. Pramanik, Ph.D.
Formerly Distinguished Fellow, Merck Research Laboratories, Kenilworth, New Jersey, U.S.A.

"Mass Spectrometric Studies of small Molecule Drugs and Therapeutic Proteins Including Monclonal Antibodies, IgG4"

3:30 PM : Discussions and Concluding Remarks

3:45PM : Vote of thanks
Mrs. Nabaneeta Law, Advisor, Sir J C Bose Trust

3:50 PM : Tea

Abstract

"Mass Spectrometric Studies of small Molecule Drugs and Therapeutic Proteins Including Monclonal Antibodies, IgG4"

Birendra Nath Pramanik, Ph.D.
Formerly Distinguished Fellow
Merck Research Laboratories
Kenilworth, New Jersey, U.S.A

Mass Spectrometry (MS) is an analytical technique that is used extensively for characterization of organic molecules. It is now possible to analyse molecules of molecular weights of few hundred daltons to over 500KDa. A major advantage of the MS Method is that the analysis can be performed using picogram level of materials.

In my presentation, I will briefly review MS technologies, and their applications to various drugs such as steroids, antifungal drug Noxafil and oligosaccharide antibiotics, Everninomicins.

The last part of my talk will focus on therapeutic proteins (Interferon α-2b) including Monocloned Antibodies, MAbs (IgG4).

The pharmacentical companies are investing heavily in MS technologies that allow them to better understand MAbs during the development phases. The US Food and Drug Administration (FDA) has approved over 60 MAbs for the treatment of cancers.These MAbs drugs include Herceptin (Breast Cancer, IgG1), Rituxan (Non-Hodgkin lymphoma), Opdivo (Melanoma, Non-Small-Cell Lung Cancer, BMY), Keytruda (Melanoma, Non-Small-Cell lung cancer, Merck). The development of these products costs billions of dollars and these drugs are saving millions of lives throughout the world.