



Department of Biotechnology
Ministry of Science and Technology
Government of India

DBT



National Institute of
Advanced Industrial Science
and Technology

AIST

DBT - AIST International Laboratory for Advanced Biomedicine



DAILAB

Classroom for Advanced & Frontier Education
CAFE

Series - 55

Date & Time: January 28 (3:30- 4:30 PM JST)
Speaker: D. Sakthi Kumar
Affiliation: Professor & Deputy Director, Bio Nano Electronics Res. Center,
Toyo University, Japan
E-mail: sakthi@toyo.jp
Home page: www.drsakthikumar.com



Title: Application of theranostic materials against cancer

After the onset of nanotechnology research field, it found many applications in various research areas. However, beyond any doubt we would be able to mention that bio field is the main benefactor of the application of nanotechnology. In bio field, nanodrug delivery against cancer found many good applications due to the possibilities of delivering drugs precisely to the cancer cells without any collateral damages to the healthy tissues, which was one of the main problems haunted and nullified the applications of many good drugs. By using nanotechnology, surface modification of drugs, packing the hydrophobic drugs inside biocompatible polymers etc. earned huge dividend. Along with the delivery of drugs, recently, imaging moieties also started incorporating in the same nano assembly, that provided diagnosing capability too. This technology found imprint in the research field as theranostics (theragnostics) (Therapy + Diagnosis), facilitated to conduct diagnosis as well as therapy simultaneously.

Talk will be based on the nanodrug delivery different materials and the development of theranostic materials.