

डॉ. सी. आनंदरामकृष्णन

FNASc, FNAAS, FRSC, FRSB, FAFST(I)

निदेशक

Dr. C. Anandharamakrishnan

FNASc, FNAAS, FRSC, FRSB, FAFST(I)

Director

Citation (summary) on the outstanding research work

In the area of cancer diagnostics, Dr. Kaustabh Kumar Maiti developed functionalized nano-particle probes for ultrasensitive detection of various human cancer biomarkers viz., cervical, breast, lung, melanoma, and prostate using advanced Raman spectroscopy (surface-enhanced Raman spectroscopy: SERS) and Imaging as a diagnostic modality. His pioneering work on an established diagnostic antibody conjugated SERS-kit for simultaneous detection of multiple breast cancer biomarkers in breast tissue samples. This kit has immense potential to evaluate immediate treatment strategies in heterogeneous breast cancer cases. He also developed a label-free ultrasensitive SERS technique which enabled the prediction of three major grades of cervical cancer from clinically relevant exfoliated cells of the cervix. Moreover, in the area of nanomedicine, Dr. Maiti developed several nano-carrier drug-delivery systems (DDS) for the targeted delivery of various combination therapy. In cancer nanomedicine, he has established multimodal theranostic nano-probes with photodynamic therapy (PDT), photothermal therapy (PTT), chemotherapy as well as immunotherapy.

Dr. Maiti has established two patented SERS-based diagnostic technologies for breast and cervical cancer which have evolved in CSIR Mission Mode projects in healthcare theme. He has acquired several outstanding contributions in high-impact publications in international journals and he is well-reputed in the area of cancer diagnostics, nationally and internationally.



Dr.C.Anandharamakrishnan

Director, CSIR-NIIST

डॉ. सी. आनंदरामकृष्णन

Dr. C. Anandharamakrishnan

निदेशक / Director

सी एस आई आर - राष्ट्रीय अंतर्विषयी विज्ञान तथा प्रौद्योगिकी संस्थान

CSIR-National Institute for Interdisciplinary
Science and Technology (NIIST)

तिरुवनन्तपुरम / Thiruvananthapuram - 695 019

