Information for Institute Profile:

S. No.	Technology/PI	Remarks: Advantages and Applications and Contribution to Society
1.	Dr. Saikat Chakrabarti	We have recently developed an Alzheimer's Disease detection system using brain MRI processing and Deep Learning algorithms. This system is capable of detection of Alzheimer's Disease (AD) especially the milder and earlier forms of AD with very high accuracy. Similarly, we have developed a web based platform named CCADD using corpus callosum atrophy to differentiate and subsequent detection of AD using brain MRI data. We are also involved in automatic detection of brain haemorrhagic stroke from the brain CT images and further 3D reconstruction of the bleeding regions to connect the regional spread and volume of the bleeding to the disease outcome. **Ref: Slide no. 2 in attached PPT**
2.	Dr. Sujoy Das	Hemostat- A Lifesaving Bandage for Faster Blood Arrest We are working to develop a novel bandage with fast blood clotting properties for better healing. **Ref: Slide no. 3 in attached PPT**
3.	Dr. Arindam Talukdar	PROTACs: Targeted protein degradation (TPD) by PROteolysis Targeting Chimeras (PROTACs) has emerged as an ex-citing area in both basic biological discovery and in drug development. PROTACs are heterobifunctional mole-cules made up of a target protein-binding ligand and an E3 ligase recruiting ligand connected by a suitable inter-vening linker. PROTACs cause proximity-dependent ubiquitination followed by proteasomal degradation of the target protein, effectively eliminating the protein's functions. We put forth an alternative strategy by designing and synthesizing PROTAC molecules for the targeted proteasomal degradation of ASK1 by hijacking E3 ubiquitin ligase cereblon. Inhibition of ASK1 attenuates hepatocyte inflammation, fibrogenesis, cell death and improves NAFLD/NASH. Our PROTACs have higher degradation efficiency within 1-100 nM,

		leading to fast, efficient, and prolonged degradation of ASK1 in both HepG2 and HEK293 cell lines. In vivo studies are also encouraging. **Ref: Slide no. 4 in attached PPT**
4.	Dr. U. Mabalirajan	Development of novel CAR-T Therapies against Cancer We are working towards developing novel CAR-T therapies. **Ref: Slide no. 5 & 6 in attached PPT**
5.	Dr. P. Jaisankar	Plant based Therapy We are working to develop novel plant based therapy for managing Cancer. Fluorescent probes for imaging We have developed novel probes for applications in better imaging of specific cell organelles.
6.	Dr. Sucheta Tripathy	Novel Species, *Leptolyngbya iicbica* strain LK, discovered and profiled. Bioinformatics Tools and Resources developed **Ref: Slide no. 7 in attached PPT**
7.	Dr. Indu Bhusan Deb	Generic formulations and cost effective processes for synthesis of high value drugs, its intermediates and agro-chemicals: Tropisetron, Tilorone, Palbociclib, Mandipropamid, etc. **Ref: Slide no. 8 & 9 in attached PPT**

Reference Images:

Attached PPT.