

IIT-I develops new tech for early diagnosis of tumours

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Indore: A team of researchers in IIT, Indore has developed a light scattering based technique that will aid in early and cost-effective diagnosis of tumours.

Dr Sharad Gupta, associate professor, discipline of Biosciences and Biomedical Engineering, IIT Indore said, "Our group has developed a light scattering based technique for quantitative estimation of analytes in biofluids. This will be cost effective, easily portable and more sensitive towards diagnosis of tumours."

A team of the institute is also working on developing more effective and economical cure for acute lymphatic leukemia in children.

Professor Avinash Sonawane, discipline of Biosciences and Biomedical Engineering, IIT Indore said, "The cost of treatment involved in childhood leukemia is very high and unaffordable for many sections of society. We are working on reducing cost of treatment and side effects of the drug. Currently, drugs used for childhood leukemia causes many side effects such as rashes, liver toxicity and others."

Researchers under supervision of Sonawane have genetically engineered a new enzyme derived from bacteria that is expected to reduce side effects of the drug and lower cost of treatment.

Sonawane said, "The

GAME-CHANGING RESEARCH

Studies under progress in IIT to develop diagnostics and bring down cost of treatment:

- ▶ Detection kit for gastric carcinoma also known as stomach cancer
- ▶ Developing a cost-effective technique for tumour diagnosis
- ▶ Genetically engineered new enzyme to ease treatment of childhood leukaemia
- ▶ Studying progression of TB in bone marrow
- ▶ Developing diagnostics for bovine ephemeral fever disease in cattle and water buffaloes



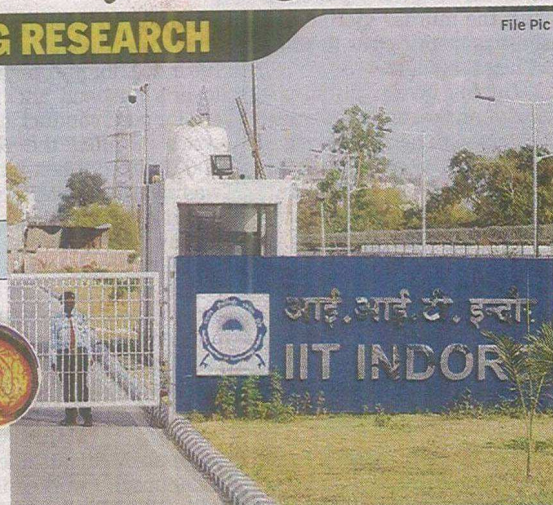
work for this started 10 years ago and pre-clinical studies have already been done. We are now doing clinical studies on this."

A team of researchers at the institute is also working on understanding the cause of progression of TB in bone marrow for a longer pe-

riod and why drugs fail to kill the pathogen in bone marrow.

A fast and portable kit is also being worked upon for

File Pic



gastric carcinoma or stomach cancer to facilitate treatment in rural areas.

Professor Hem Chandra Jha, HOD, Biosciences and Biomedical Engineering, IIT, Indore said, "Our group is developing specific, fast, portable and reliable helicobacter pylori specific detection kit for gastric carcinoma."

The institute is also working on development of diagnostics for Bovine Ephemeral Fever disease that occurs in cattle and water buffaloes.

Dr Debasis Nayak, associate professor, "Our group is working on development of point-of-care diagnostics for Bovine Ephemeral Fever disease since no diagnostics are available in India for its detection."