IIT-M team conducts research on cancer-curing properties of turmeric

- Researchers from the Indian Institute of Technology-Madras have shown that the active compound from the common household spice turmeric — curcumin — can enhance cancer cell death.

What is TRAIL

- TNF-related apoptosis-inducing ligand (TRAIL) is an agent with the ability to programme cell death (apoptosis) and has triggered many preclinical studies the world over.
- While the anti-tumour activity of TRAIL in preclinical studies had been strong, in clinical trials, the results were so far unsatisfactory as cancer cells, when exposed long-term, seem to acquire resistance against TRAIL.
- The IIT-M research team chose curcumin as it is known to inhibit carcinogenesis and induce apoptosis in various cancer cells.
- The researchers isolated leukaemia cells from cancer patients and found that non-toxic concentrations of curcumin can significantly increase the efficiency of TRAIL-induced cell death.
- The findings showed clearly that even a small concentration of curcumin could potentially enhance the sensitiveness of leukaemic cells to TRAIL, the researchers said.
- “A few researchers have shown that compounds such as quercetin found in onions and green tea and piperazine, found in black and green pepper, enhance absorption of curcumin by the body,” added Mr. Verma.