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.