

Status of Extraction of Potential Drugs from the Ocean

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CSIR-Central Drug Research Institute was the nodal lab for MoES. A total of 2654 compounds were screened for different activities for Anti-Cancer, Anti-Angiogenic, Anti-inflammatory, Anti-Bacterial, and GPCR profiling. Specifically for Anticancer activity of compounds submitted through MoES program was evaluated on five different cancer-type cell lines (MDA-MB231, DLD-1, FaDu, HeLa, and A549) as per standard operating protocol (SOP).

1. With this endeavor a potent Anti-cancer molecule named **GS/IICT5/6** has been identified. The molecule has shown a better tumor inhibitory profile as compared to Sunitinib. Currently, the molecule has cleared the initial safety profile. The molecule will be evaluated further.
2. On similar lines Cancer patients suffer from neuropathic pain after chemotherapy. In this endeavors for relieving the patient suffering using the MoES programme, a novel compound **SB/CDRI4/105** that can alleviate chemotherapy-induced peripheral neuropathic pain has been discovered. Currently, the molecule is also in the advanced stages of lead optimization and IND-enabling studies will be enabled shortly.
3. A very potent molecule **SP/NISER29**, a new class drug having anti-cancer activity has been identified. The molecule has shown potent anti-tumor activity in the animal model better than taxol. The compound has very good stability and disrupts the cytoskeletal filaments. This does not meet the criteria for further development and the data has been published.

This information was given by the Minister for State (Independent Charge) for Ministry of Science and Technology and Earth Sciences, Dr. Jitendra Singh in a written reply in Rajya Sabha today.

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