Russian scientists develop method to boost effectiveness of Anti-Cancer medicines

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Moscow: Researchers in Russia have devised a novel chemical technique that could markedly enhance the potency of anti-cancer drugs by reinforcing their active ingredients, offering fresh momentum to oncology research, as reported by TV BRICS.

The development has been made by scientists at Lobachevsky State University of Nizhny Novgorod, who are working on methods to improve biologically active compounds known for inhibiting tumour cell growth.

According to the researchers, the newly developed approach allows for the incorporation of multiple aminomethyl groups into biologically active molecules. These groups function as pharmacophore elements, which play a critical role in determining how effectively a drug interacts with cancer cells. By strengthening these key fragments, the therapeutic impact of anti-tumour medicines can be significantly amplified.

According to TV BRICS, the research team highlighted that one of the most important features of the method is its versatility. The reinforcing chemical groups can be added directly to existing pharmaceutical substances, which means that well-known and already approved drugs could potentially be upgraded without the need to develop entirely new compounds from scratch. This opens up wide-ranging opportunities for improving established cancer treatments and accelerating innovation in drug design. The findings have been reported on the official website of Lobachevsky State University.

Efficiency is another major advantage of the technique. The synthesis process achieves a product yield of nearly 90 per cent, while the purity of the final compound exceeds 95 per cent. Such high performance indicators are considered highly favourable for further research, as well as for possible use in large-scale pharmaceutical development and industrial production.

Beyond enhancing known anti-cancer medicines, the method is also being applied to create entirely new biologically active substances. This includes the synthesis of complex nitrogen-containing heterocycles, compounds that are widely regarded as having strong therapeutic potential.

The researchers believe that the approach could contribute to the development of more effective and targeted anti-cancer treatments in the coming years. (ANI)

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