Second Generation Farnesyltransferase Inhibitors

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- Biotechnology

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- Biotechnology
- Cancer
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A type of mutated constitutively active protein, Ras, is seen in a significant number of cancers. There is a great deal of interest in preventing the Ras protein from localizing on cell membranes as an anticancer treatment. One way to prevent localization is to inhibit farnesyltransferase (FTase), the enzyme responsible for facilitating Ras attachment to the cell membrane. Traditional FTase inhibitors are highly charged and incapable of traversing the cell membrane to enter the cell.

Purdue University researchers have developed a strategy for intracellular delivery of the monophosphates of such FT inhibitors, which could provide an effective therapeutic approach.

Advantages:
-Intracellular delivery of inhibitors
-Enables absolute quantification of known compounds and relative quantification of unknown compounds in most cases using a single liquid chromatography-mass spectrometry (LC-MS) run

Potential Applications:
-Medical/Healthcare
-Cancer Treatment
-Biotechnology

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