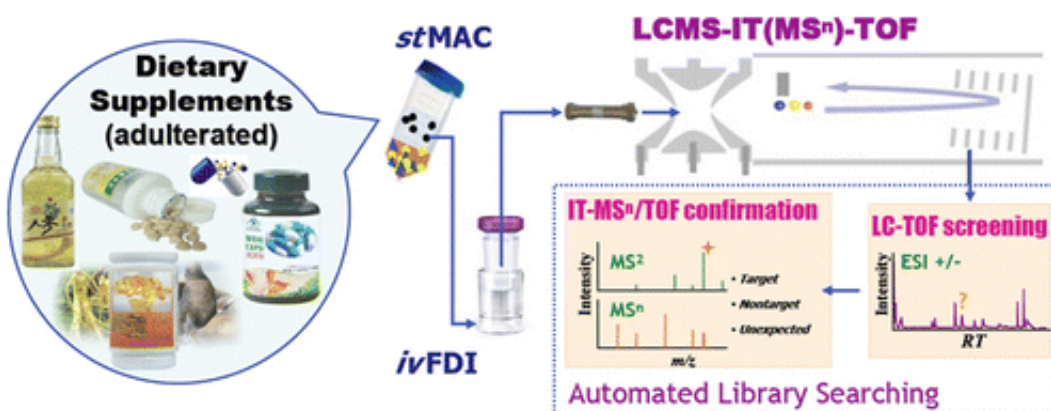


Detecting Viagra's active ingredient, other dietary supplements' hidden ingredients

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To lose weight, boost energy or soothe nerves, many consumers turn to dietary supplements. But some of these products contain undeclared substances. To protect consumers from taking something without their knowledge, scientists have developed a technique to determine what secret ingredients could be lurking in these supplements. They report their approach, which helped them find the active Viagra ingredient and other synthetic designer compounds in various products, in *ACS' Journal of Agricultural & Food Chemistry*.

Dietary [supplements](#) can appear to be a healthful option for treating certain health conditions. Their labels list herbs or other natural ingredients that [consumers](#) assume are safe to take. But over the past

several years, regulators have detected prohibited substances in some of these products that aren't included on the labels. The drug sibutramine is one of these substances. It was once approved for weight loss but was withdrawn after concerns arose that the medication could increase the risk of heart attacks. To catch supplements spiked with sibutramine and other undeclared substances, Zhiqiang Huang, Bin Guo and colleagues came up with a strategy.

Using an advanced liquid chromatography-mass spectrometry screening procedure, the researchers tested more than 100 syrups, capsules and other types of supplements purchased in markets in China and online. The products' labels claimed benefits from blood pressure reduction to enhanced sexual performance. Their approach successfully detected a wide range of targeted adulterants—including sibutramine and sildenafil, the active ingredient in Viagra—and other unexpected drug compounds.

More information: Wide-Scope Screening of Illegal Adulterants in Dietary and Herbal Supplements via Rapid Polarity-Switching and Multistage Accurate Mass Confirmation Using an LC-IT/TOF Hybrid Instrument, *J. Agric. Food Chem.*, Article ASAP. [DOI: 10.1021/acs.jafc.5b02222](https://doi.org/10.1021/acs.jafc.5b02222)

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