

Toward a urine test for detecting colon cancer

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Cancer of the colon, the orange structure highlighted in this computerized image, may be detected by doctors in the future using a simple urine test. Credit: iStock

Scientists are reporting an advance toward development of a urine test for detecting colon cancer, the third most common cancer in the United States. Such a test could eventually compliment or even reduce the need for colonoscopy, the mainstay screening test used today. The study, which analyzes chemical differences in the urine of humans with and without colon cancer, is in ACS' *Journal of Proteome Research*, a monthly publication.

Wei Jia and colleagues point out that colonoscopy, which involves using a flexible, lighted tube to see inside the colon, is the most effective tool for the early screening of colon cancer. However, the procedure is unpleasant, costly, and time-consuming. A urine test could provide an alternative method, the scientists say.

The scientists analyzed urine samples from 123 people — 60 with colon cancer and 63 without — for differences in its composition. They identified 16 substances that appear in unusual amounts in

colon cancer. The changes include increased levels of tryptophan, one of the 22 [amino acids](#) that are found in proteins. The results demonstrate the potential of using urine as a tool for diagnosing [colon cancer](#), the scientists say.

More information: "Urinary Metabonomic Study on Colorectal Cancer", *Journal of Proteome Research*.

Provided by American Chemical Society

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