

## Common House Dust Could Contain Cancer-Causing Molecules

### PRODUCTS OF INTEREST, CANADA, STUDIES

By LANA BECKETT, March 3, 2017

Reporter **Bennett McIntosh**<sup>1)</sup> reported in **Nova Next**<sup>2)</sup> about a **Canadian Study**<sup>3)</sup> on how common dust found in the homes contains potentially cancer-causing chemicals.

Unlike soil, water, or air, most of the chemicals in dust come directly from products people have in their homes. Hui Peng and the team scientists who worked on the study did not set out to find these chemicals. Rather, McIntosh pointed out, the chemist at the University of Saskatchewan was hoping to solve a puzzle. One of the more concerning chemicals in dust are flame retardants that contain the element bromine, some of which can disrupt hormone activity or impair fetal development. But there is far more bromine in house dust than the flame retardants can account for.

When the team looked for bromine-containing molecules in dust samples collected from seven homes in Saskatoon, Saskatchewan, about 17% of the molecules they identified were the expected flame retardants. But 56% of the bromine-containing molecules had chemical formulas that marked them as related to azo dyes, commonly used to color clothing and other textiles.

It was a startling discovery. "Most of these compounds have never been reported before," Peng said.

### Resources for this article

**1. Bennett McIntosh**

<http://www.pbs.org/wgbh/nova/next/author/bennett-mcintosh/>

**2. Nova Next**

<http://www.pbs.org/wgbh/nova/next/body/dust-cancer/>

**3. Canadian Study**

<http://pubs.acs.org/doi/abs/10.1021/acs.est.6b03954>