Study questions existence of housekeeping genes

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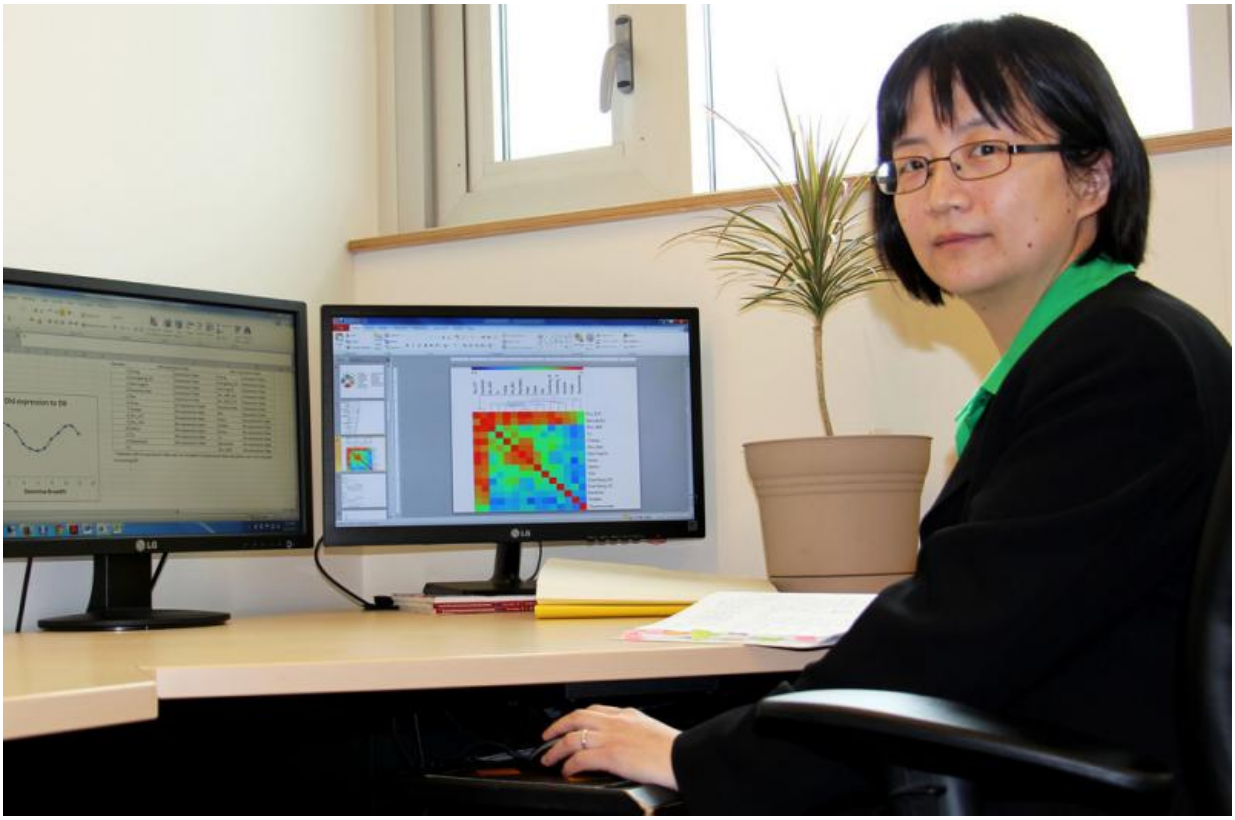

Bingyun Sun of the Department of Chemistry, SFU

In a study to better understand the role of the body's "housekeeping" genes, scientists in the Departments of Chemistry and Molecular Biology and Biochemistry at Simon Fraser University scoured every existing

database of these genes, to isolate the bona fide genes responsible for basal and essential cellular functions.

To the surprise of the team, led by Dr. Bingyun Sun, only one common gene across 15 datasets examined was found. The results profoundly shift our current—and long-held—view of housekeeping genes, says Sun.

"If what we hypothesize is true, it could have profound implications for the way we think of cellular functions and biodiversity," says Sun. "This study has important implications in the pharmaceutical industry, as housekeeping genes now have the potential to be druggable targets, due to their potential tissue and developmental specificity."

The team's findings were published this week in the scientific journal *PLOS ONE.*

More information: "Do Housekeeping Genes Exist?" *PLoS ONE* 10(5): e0123691. DOI: 10.1371/journal.pone.0123691

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