

## Cracking cancer: Could treatment lie in harnessing immune system defense mechanism?

For the first time, MIT biologists have now identified a mechanism that the immune system uses to eliminate genetically imbalanced cells [that have too few or too many chromosomes] from the body. Almost immediately after gaining or losing [chromosomes](#), cells send out signals that recruit [immune cells](#) called natural killer cells, which destroy the [abnormal cells](#).

The findings raise the possibility of harnessing this system to kill [cancer cells](#), which nearly always have too many or too few chromosomes.

“If we can re-activate this immune recognition system, that would be a really good way of getting rid of [cancer](#) cells,” says Angelika Amon, the Kathleen and Curtis Marble Professor in Cancer Research in MIT’s Department of Biology....

...

Amon’s lab has been exploring an apparent paradox of aneuploidy: When normal adult cells become aneuploid, it impairs their ability to survive and proliferate; however, cancer cells, which are nearly all aneuploid, can grow uncontrollably.

...

“At some point, cancer [cells](#), which are highly aneuploid, are able to evade this immune surveillance,” Amon says. “We have really no understanding of how that works. If we can figure this out, that probably has tremendous therapeutic implications, given the fact that virtually all cancers are aneuploid.”

*[Read the full study [here](#)]*

**The GLP aggregated and excerpted this blog/article to reflect the diversity of news, opinion, and analysis. Read full, original post: [Biologists discover the immune system can eliminate cells with too many or too few chromosomes](#)**