

Cancer cells' waste can turn healthy cells cancerous

When a cancer cell throws out its trash, it can turn healthy neighbours into fellow tumour cells, researchers have found.

Many cells, including cancerous ones, shed thousands of tiny membrane-bound vesicles called exosomes that contain proteins, DNA and RNA. The process is thought to be a waste-management system, but it may also facilitate cell-to-cell communication: some of these vesicles can then merge with other cells and dump their payload inside.

In a study published online in *Cancer Cell*, researchers show that when human breast-cancer exosomes can cause tumours when mixed with normal cells then injected into mice. The results could pave the way to finding markers to monitor the progression of cancer, and possibly even point to targets for therapies.

"It's amazing — these vesicles were considered garbage cans," says Khalid Al-Nedawi, a cancer researcher at McMaster University in Hamilton, Canada. "This paper really brings us closer to harnessing the potential of these tiny vesicles."

Read full original article: [Cancer cells can 'infect' normal neighbors](#)