

Drug-smuggling nanoparticles target tumours

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Drug-smuggling nanoparticles could be the latest recruits in the fight against [cancer](#). The first results from early-stage trials show that cancer drugs couriered by nanoparticles may reduce the size of tumours in humans.

Researchers from [BIND Biosciences](#) in Boston filled nanoparticles with the cancer drug docetaxel and injected them into the blood of 17 people who had cancers that are normally resistant to the drug. Forty-two days later, two of the volunteers' tumours had shrunk in size significantly, and the rest of the volunteers' tumours had not grown.

When injected into the body, docetaxel doesn't discriminate between healthy and cancerous cells. However, the nanoparticles only released their payload when they reacted with molecules on the tumour's surface, so up to 80 per cent less of the drug needed to be injected to get the same amount into the tumour.

As a result, physicians should be able to up the concentration of the drug without worrying about toxic side effects, says Jeffrey Hrkach, senior vice-president at BIND. He says larger clinical trials are in the pipeline.

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