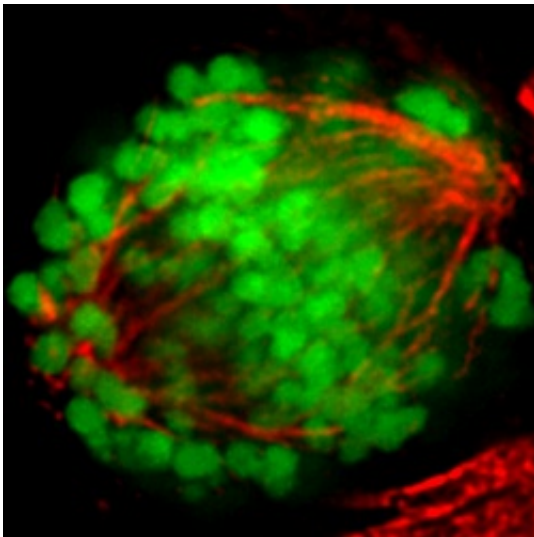


Newly identified protein could be a cancer key

November 1 2013



With Bod1 removed this cancer cell cannot move many of its chromosomes (shown in green) to the middle of the cell. As a result the cell cannot divide into two and will eventually kill itself.

Scientists at the University of Dundee have identified a protein that could be key in the fight against cancer.

Researchers in the College of Life Sciences at Dundee have demonstrated that [cancer cells](#) need a [protein](#) called Bod1 to grow and divide. When this protein is removed cancer cells lose control of cell division and die.

Furthermore, they have discovered that Bod1 works by controlling the activity of an important cellular regulator called PP2A. While it is well known that PP2A plays a crucial role in cell division, how its activity is controlled has been a mystery.

The new findings reveal how PP2A is regulated and suggest a new approach for killing cancer cells might involve interrupting the interaction between Bod1 and PP2A.

The research is published in the journal *Nature Communications*.

Professor Jason Swedlow, senior author on the study, said, 'This is an exciting discovery of a new mechanism for controlling how cells replicate and divide their genome. We know that Bod1 controls the activity of a critical regulator of [cell division](#). We will definitely have fun in our next projects defining its potential as a cancer therapeutic.'

Dr Iain Porter, who led the study, said, 'Bod1 is an incredible molecule that joins a growing family of proteins that regulate how PP2A works at specific points in the life cycle of a cell. Our future work will dissect the roles of these proteins and how they control fundamental processes of cell biology.'

Provided by University of Dundee

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