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A pathway to therapeutic destruction

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Pancreatic cancers contain defective apoptotic pathways, making the tumor cells resistant to current chemotherapy regimes. But, in the August issue of Gut, Detjen and colleagues from the Humboldt University, Berlin show that there is still an intact proapoptotic pathway in pancreatic cancer cells activated by interferon? (IFN-?) and/or procaspase-1 which may have therapeutic potential.

Detjen *et al.* found that treatment with IFN-? of four human pancreatic cancer cell lines profoundly inhibited growth of cancer cells. Cell cycle analyses revealed subdiploid cells suggesting apoptosis, which was confirmed by demonstration of DNA fragmentation. Apoptosis was preceded by upregulation of procaspase-1 and the caspase inhibitor z-vad-fmk completely prevented IFN-? apoptotic effects (*Gut* 2001, **49**:251-262).

Understanding of the prevalent defects in cell cycle control as well as detection of intact proapoptotic pathways in cancer cells may help to define new anti-tumoral strategies.

References

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