



GT News

RESEARCH

Researchers have shown an antisense compound to inhibit the growth and survival of cancer cells. The antisense sequence 2-5A works by limiting the action of telomerase, an RNA protein whose expression is linked to cellular immortality and tumour formation. Telomerase is found in 70-80% of all malignant tumours but is undetectable in normal cells, making it a good candidate for anticancer therapies. Experimental results showed that the majority of malignant glioma cells in culture with 2-5A were killed within 14 days. Additionally, **John Cowell** and his team at the **Lerner Research Institute** (Cleveland, OH, USA) found that the antisense molecules significantly reduced tumour mass over

a 14 day period when human tumours were implanted in nude mice. *Oncogene* 1 July 1998

A group of researchers, from the **University of Toronto** (Toronto, Ontario, Canada), have discovered a gene related to nicotine addiction and the amount smokers smoke. The CYP2A6 gene encodes for an enzyme which metabolizes nicotine. **Rachel Tyndale**, who led the research, found that people who lack a fully functional CYP2A6 gene were significantly protected from nicotine addiction and were likely to smoke less. Additionally the team suggests that people carrying the defective allele of the gene are significantly less likely to suffer from

smoking related diseases as they are less likely to remain smokers through addiction.

Nature **393**(6687): 750

The Vollum Institute of Oregon Health Sciences University (Portland, OR, USA) in conjunction with **Icos Corporation** (Bothell, WA, USA) have discovered a gene linked to cellular differentiation and control of multiple cell cycle checkpoints. The Ataxia telangiectasia and Rad 3 related gene (Atr) mediates a link between cell cycle checkpoint regulation and the p53 apoptosis gene. **Mathew Taylor** of the Vollum Institute, believes the research could provide important clues into the steps that occur at the initiation of cancer cells. *Nature Genetics* **19**(1): 39-46