

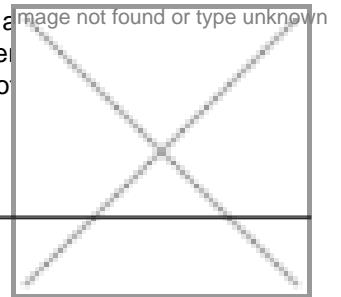
## Crazy Patent

13 April 2003 | News



The patent has been granted to a method for inducing cats to exercise and it consists of directing a beam of invisible light produced by a hand-held laser apparatus onto the floor or wall or other opaque surface in the vicinity of the cat. Then move the laser so as to cause the bright pattern of light to move in an irregular way fascinating to cats and to any other animal with a chase instinct.

*Source: Swiss Jokes*

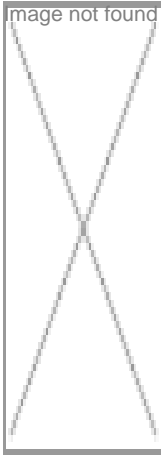


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### Vinegar 'pinpoints cancer'

Vinegar can help to identify cervical cancer in women. Research carried out in South Africa has found that washing the cervix or neck of the womb with vinegar shows up potentially cancerous cells, reports the BBC World Service. An early trial has suggested the technique is as effective as a pap smear which is the more usual way of spotting the disease.

Doctors believe their research could pave the way for developing countries to introduce a cheap and effective screening program for cervical cancer. Vinegar comprises 95 percent water and 5 percent acetic acid. When this solution is placed on the cervix, it turns potentially cancerous tissue white. This enables nurses to offer patients an immediate diagnosis by simply looking at the cervix. This compares with a pap smear which usually needs to be sent off to a laboratory for testing.



Dr Lynn Denny, a gynaecologist at Groote Schuur Hospital in Cape Town and one of those involved in the trial, said results are promising. "We are using this method almost like a pap smear. We have found that the ability of direct vision inspection is as good as and sometimes better than a pap smear," she said. "This test will identify white lesions on the cervix that are pre-cancerous lesions, equivalent to what the pap smear will detect."

Many countries in the developing world are unable to afford to implement a national screening programme for cervical cancer. Dr Denny believes this technique could offer them a viable alternative. Doctors at Groote Schuur Hospital buy their vinegar at a local supermarket. "It is not just cost effective it is also logistically a much simpler method of screening," she said. "No extra infrastructure is required and we are using the most rudimentary equipment." The only drawback to the vinegar test is that it sometimes suggests women have cervical cancer when they do not - so-called false-positive results. However, this also occurs with pap smears. "You end up over-treating large numbers of women," Dr Denny said.

*This story is featured in the radio programme Health Matters on the BBC World Service.*

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### A glossary of genome expressions

**Backcross:** A cross between an animal that is heterozygous for alleles obtained from two parental strains and a second animal from one of those parental strains. Also used to describe the breeding protocol of an outcross followed by a backcross.

**Bacterial artificial chromosome (BAC):** A vector used to clone DNA fragments (100- to 300-kb insert size- average, 150 kb) in Escherichia coli cells. Based on naturally occurring F-factor plasmid found in the bacterium E. coli.

**Base:** One of the molecules that form DNA and RNA molecules.

**Base pair (bp):** Two nitrogenous bases (adenine and thymine or guanine and cytosine) held together by weak bonds. Two strands of DNA are held together in the shape of a double helix by the bonds between base pairs.

**Base sequence:** The order of nucleotide bases in a DNA molecule; determines structure of proteins encoded by that DNA.

**Base sequence analysis:** A method, sometimes automated, for determining the base sequence.

**Behavioral genetics:** The study of genes that may influence behavior.

**Bioinformatics:** The science of managing and analyzing biological data using advanced computing techniques. This is important in analyzing genomic research data.

**Bioremediation:** The use of biological organisms such as plants or microbes to aid in removing hazardous substances from an area.

**Biotechnology:** A set of biological techniques developed through basic research and now applied to research and product development. In particular, biotechnology refers to the use by industry of recombinant DNA, cell fusion, and new bioprocessing techniques.

**Birth defect:** Any harmful trait, physical or biochemical, present at birth, whether a result of a genetic mutation or some other nongenetic factor.

**Blast:** A computer program that identifies homologous (similar) genes in different organisms, such as human, fruit fly, or nematode.