

## BIOMEDICINE

## Homing in on the prostate cancer gene

Researchers have zeroed in on the location of a gene linked to prostate cancer, according to a new report. The finding may eventually lead to a genetic test that would foretell some men's risk of prostate cancer.

The prostate is a walnut-sized gland that surrounds the male urethra. Prostate cancer is common, afflicting 340,000 men in the United States each year and killing an estimated 40,000.

Jeffrey M. Trent of the National Center for Human Genome Research, part of the National Institutes of Health in Bethesda, Md., and his collaborators studied North American and Swedish families with a history of prostate cancer. Using molecular techniques, the researchers combed the genome for a gene that, when mutated, increases the likelihood that a man will develop prostate cancer. Their study shows that such a gene is located on the long arm of chromosome 1, one of the 23 pairs of human chromosomes. The team published its findings in the Nov. 22 *SCIENCE*.

The study indicates that the gene accounts for about 30 percent of all cases of inherited prostate cancer. Scientists believe it may also underlie some cases of noninherited prostate cancer, which accounts for 91 percent of the incidence of the disease.

Black men in the United States suffer the highest rate of prostate cancer of any population studied. The two U.S. black families included in the new study had the mutant gene, which the researchers have dubbed *hereditary prostate cancer 1*.

The team must now identify the actual gene and determine its function. Once they do, they may be able to offer families a blood test to identify the mutant gene. If prostate cancer is caught early, it is treatable, so the researchers believe that a genetic test could be a lifesaver for some men.