

BIOMEDICINE

From Denver at the annual meeting of the American Society of Human Genetics

Prostate cancer genetic region mapped

While no one has yet identified a specific genetic defect that causes prostate cancer, scientists have mapped three locations on chromosomes that probably harbor mutations predisposing a man to the malignancy. A fourth such location was unveiled at the meeting, and it contains a twist. Having a genetic defect in a specific area on chromosome 1 seems to boost the risk not only of prostate cancer but of brain cancer, too.

Researchers in the Seattle Prostate Cancer Genetics Consortium studied 141 extended families that each had three or more members with prostate cancer. Twelve of the families included a blood relative who had brain cancer. Members of those 12 families who had either form of cancer displayed the genetic marker much more often than does the general population.

While there is apparently a prostate-cancer mutation at work in this region, such linkage doesn't mean that someone with prostate cancer is necessarily predisposed to brain cancer, says Gail P. Jarvik, a statistical geneticist at the University of Washington Medical Center in Seattle.

"There's not an obvious connection between prostate and brain cancers, not like breast and ovarian cancer," says Elaine A. Ostrander, a molecular biologist at the Fred Hutchinson Cancer Research Center in Seattle. However, the findings hint at disruption of a cancer-suppressor gene in this region of chromosome 1, Ostrander says.

Whatever this gene is, its effects appear to be much more important for prostate cancer than brain cancer, Jarvik says.

— N.S.