

Scientists Discover Gene Linked to Higher Rates of Prostate Cancer

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## **Science is a Human Endeavor**

In my article “Scientists Discover Gene Linked to Higher Rates of Prostate Cancer”, it is evident that a broad stroke of humanity has worked together to discover this particular gene. DeCode Genetics in Iceland is credited with the discovery. This company found a variant in men from Iceland. The scientists, headed by Laufey T. Amundadottir, of this company were then able to take this information and were able to detect it in Sweden, and the United States. The study then came into the eye of David Altshuler, who is a medical geneticist at the Broad Institute in Cambridge, Massachusetts. Altshuler was convinced by the result, because the scientists of DeCode was able to back their discovery with statistics.

William Isaacs is a prostate cancer expert from Johns Hopkins University. He shows his excitement and is obviously convinced in the finding when he states, “There haven’t really been any clear cut examples of genes identified by one group and reproduced across multiple study populations.”<sup>1</sup>

This article and fascinating study has clear evidence of an incredible amount of collaboration not only among several scientists, but also a few global institutions. The discovery itself was made by a company in Iceland, and then researched and endorsed by two separate scientific university experts in the United States. International collaboration is essential in the present day, especially now that communication is such a small barrier.

## **Science is Open to Revision**

The scientists at DeCode Genetics have not declared they have found the variant that causes prostate cancer. They have simply discovered a variant common in men with prostate cancer and in the future they might be able to use that information to determine treatment.

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<sup>1</sup> "Scientists Discover Gene Linked to Higher Rates of Prostate ...." 8 May. 2006, <https://www.nytimes.com/2006/05/08/health/menshealth/08prostate.html>. Accessed 8 Sep. 2019.

Prostate cancer is caused by several different factors. It has been extremely difficult to discover common variants, because of all the different reasons prostate cancer is caused. Scientists would discover variants in one population, but could not find the same variant in the next population.

DeCode wants to create a test to diagnose patients on the knowledge of the new variant. However, as Dr. Isaacs points out, many of the men with prostate cancer are over 70 years old and they have diseases other than the prostate cancer that may terminate their life. He and Dr. Altshuler both want to do more studies on whether DeCode's test would be a feasible tool used in clinics.

### **Scientific Knowledge Assumes an Order and Consistency in Natural Systems**

In order for a discovery of a variant, scientists must first assume everything else is consistent, and then search for what is different. The collaboration of scientists involved in the discovery of the variant linked to prostate cancer had to agree that all factors in the human body among the populations they researched were the same. Then, they were able to discover the common variant.

Order and consistency also becomes a problem. Dr. Isaacs points out that one of the problems with knowing how aggressive to fight a disease is that most men who have prostate cancer are well within the winter of their life. Therefore, treatment and other diseases may kill them.

**Make Sense of the problems and persevere in solving them**

DeCode genetics understood there was a massive probability that there was a variant in the populations who were diagnosed with prostate cancer. Considering the number of populations they researched and the millions of genes and variants they certainly had to research, grit and perseverance had to be characteristics of the scientists. Finally, the scientists of DeCode were able to find a single solution, to a more complex problem.

**Use appropriate tools strategically**

DeCode was able to use their statistics to show that 13 percent of men whose family comes from Europe carry this trait. Through their research they were able to determine the risk of getting prostate cancer was increased by nearly 60 percent for those who carry the variant as opposed to those who do not carry the variant. The study was also able to show that statistically the variant occurs at double the rate in African-Americans and still carries the same risk.

**Attend to precision**

DeCode Genetics has to attend to precision as they study their groups for the variant or all results will be found null and void. They were able to communicate their results in a clear and academic way to Dr. Altshuler and to Dr. Isaacs. This gave the doctors confidence in their results. Both doctors seemed to think the discovery was reliable due to the precision of the study.

### References

Scientists Discover Gene Linked to Higher Rates of Prostate Cancer. (2006, May 08). Retrieved from <https://www.nytimes.com/2006/05/08/health/menshealth/08prostate.html>