

Prostate Cancer



Rick Myers, PhD is a faculty investigator and the president and science director at the HudsonAlpha Institute for Biotechnology

Prostate cancer is the third leading cause of death in men in the United States. In 2020, more than 191,930 new cases will be diagnosed and 33,330 deaths will occur in the U.S.* Richard Myers, PhD and researchers in the Myers Lab at HudsonAlpha Institute for Biotechnology are researching measurable biological characteristics – or biomarkers – for prostate cancer and using those discoveries to improve testing and treatments.

Q What prostate cancer research is currently being done at HudsonAlpha?

A The goal for our prostate cancer research is to continue to make advances in identifying biomarkers for this common type of cancer. In fact, we are leveraging our discovery of a biomarker associated with recurrence of prostate cancer in men. This prostate cancer signature indicates if a cancer is likely to be aggressive, requiring equally aggressive therapies, or is likely to be slow growing and not affect the long-term health of a man. We want to develop an inexpensive, non-invasive test for early detection of prostate cancer by measuring the presence of our diagnostic markers in the bloodstream. Finally, by using powerful genomic technologies that are available at HudsonAlpha, we are working to identify potential new targets for drug therapies for prostate cancer.



Credit: Darryl Leja, NHGRI.

Q Are all men at risk for developing prostate cancer?

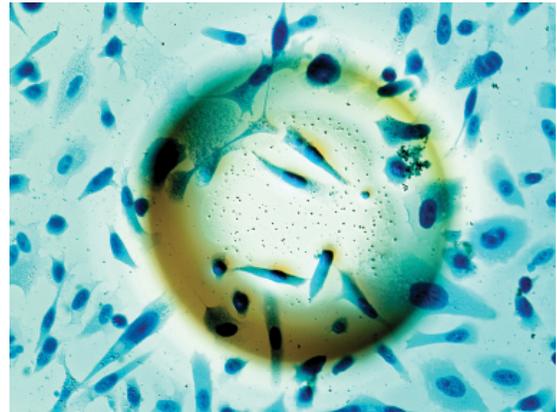
A Yes, all men have some risk for developing prostate cancer, although your age, family history and ethnicity all influence your risk. Prostate cancer is the most common cancer in American men except for skin cancer, and it is the second leading cause of death from cancer in men, according to the National Cancer Institute. Men over age 65 have increased risk for prostate cancer compared to men under age 65. Additionally, African-American men are diagnosed with prostate cancer more often than white men and are more likely to die from the disease.

Information is POWER



Q If I have a family history of prostate cancer, what does that mean?

A A man whose father, brother, or son has had prostate cancer is two to three times more likely to develop the disease himself, according to the National Cancer Institute. If you have a close relative who has been diagnosed with prostate cancer, you may carry an inherited genetic mutation that increases your risk.



Q How can I learn more about my genetic risk for prostate cancer?

A HudsonAlpha's *Information is Power* initiative offers free genetic cancer risk testing for 28–30-year-old men and women in Madison, Jackson, Limestone, Marshall and Morgan County. The test, developed and offered by Kailos Genetics, screens for about two dozen genes linked to an increased risk of several types of cancer, including prostate cancer. Gene mutations associated with increased risk of prostate cancer are *BRCA1*, *BRCA2* and *HOXB13*.

*Sources: American Cancer Society <https://www.cancer.org/cancer/prostate-cancer/about/key-statistics.html> and the National Cancer Institute www.cancer.gov/types/prostate.