What Are We Finding? Many of you have asked what we are finding in all the blood samples and family data you have provided. It is a good question, and a question to which we wish we could offer a simple answer. Unfortunately, we have not found a "magic bullet" for prostate cancer, but we are narrowing the search for the genes. It is likely that there are several genes involved in developing prostate cancer. To date, four areas on the human genome have been identified as possible locations for prostate cancer susceptibility genes. We are using your DNA samples and family history information to investigate these areas and are continuing to search for new regions of interest.

In 1996, a group at Johns Hopkins University identified the first region associated with hereditary prostate cancer, called HPC1. Based on results from the PROGRESS families and results from several similar studies being conducted around the country, it appears that a gene located within the HPC1 region may account for only a small subset of families with prostate cancer. Our first analysis of HPC1, published in the American Journal of Human Genetics, found very little evidence that this region is important in PROGRESS families. A second analysis, using data from times as many families, is currently in publication (in the journal Genetic Epidemiology) but still our data do not provide evidence that this locus is very important in PROGRESS families.

The second prostate cancer region identified, PCAP, was identified by a group of French researchers in 1997. We have looked at this region in the PROGRESS families and find it does not account for more than a small subset of hereditary prostate cancer in our group of families. Our results about this region were published in the American Journal of Human Genetics (v.64, 1087-1095, 1999).

The third prostate cancer susceptibility region was described in detail in our last newsletter and was published in the American Journal of Human Genetics (v.64, 776-787, 1999). This is called the CAPB locus, which may be important in families with a history of both prostate cancer and brain cancer. No other groups have yet published data to confirm or refute this finding. The PROGRESS team is hoping to collaborate on further analyses of this region with the groups participating in the international consortium (see article in this newsletter about the ICPCCG).

The most recent region identified by the group at Johns Hopkins University is called HPCX and is located on the X chromosome. Because the X chromosome is passed from mother to son, this is the first prostate cancer region identified in which only a woman may pass on the disease gene to her sons. We are currently finishing the analysis of the region in the PROGRESS families and our tentative results indicate this region may account for only a small proportion of families in our study. We hope to publish our results soon, and will let you know when the paper is available.

So far, none of the four regions identified for hereditary prostate cancer have accounted for a large proportion of the prostate cancer in PROGRESS families. We know there are other genes to be discovered and we are continuing to search using the blood samples you have provided. We are systematically looking at your DNA samples and are almost halfway through the analysis of these data. Using this "genome screen" technique, we hope to provide more answers about prostate cancer in the future. Based on our preliminary data, we have new clues as to where other prostate cancer susceptibility genes may be located and are following up on these regions.

If you would like to read any of our published papers, please call our toll-free number and we will gladly send you a reprint of the article.

Also, for more background information about the laboratory science behind our project, please see the article in the Spring/Summer 1998 edition of the PROGRESS Report newsletter.

If you are missing any of our newsletters, they are available on our web site or by calling our toll-free number, 1-800-777-3035.
New Funding for PROGRESS!

PROGRESS began with the generous funding from Michael Milken’s research foundation, called CaPCURE. Our funding from CaPCURE will officially end in 1999, and we are pleased to tell you we have recently been awarded a grant from the National Institutes of Health to continue our study. As part of this new five-year grant, we are planning to continue sending newsletters to keep in contact with you about our progress and study results. We also plan to continue enrolling new PROGRESS families and will collect new information about our existing families. One of the new activities we will undertake is the collection of tumor tissue samples from the men in PROGRESS who have had prostate cancer. Tumor tissue is often stored by the hospital where the cancer was diagnosed or treated. These samples will be used to look at the differences between DNA in the blood cells and DNA in the tumor cells. If you wish to participate in this next phase of the study, we will be sending release forms and more details to some of you in the near future.

International Prostate Cancer Consortium

The Fred Hutchinson Cancer Research Center, home of PROGRESS, recently hosted a meeting of the International Consortium on Prostate Cancer Genetics (ICPCG). Scientists gathered from around the U.S. and abroad to share ideas and information about prostate cancer genetic research. In addition to the Seattle scientists, the participants from the U.S. represented many institutions, including the University of Utah, Johns Hopkins University, Mayo Clinic, Stanford University, M.D. Anderson Cancer Center, and the University of Michigan. The other countries represented included Finland, Norway, France, Australia, the United Kingdom, and Canada. The group meets semi-annually, each time at a different location. The meetings are coordinated by the National Cancer Institute.

Many of the groups participating in the ICPCG are conducting family genetic studies very similar to PROGRESS. Recently, the ICPCG participants collaborated on a large analysis of the HPC1 locus. By pooling our data and looking at this area of the genome in a larger group of families, a technique called a “meta-analysis,” we hoped to better understand the importance of that region in families with prostate cancer. Nine groups from the ICPCG including PROGRESS analyzed data in the HPC1 region from 772 families! Only coded data are used, so no confidential information is shared. The group presented the results at the recent American Urological Association meeting in Dallas. A paper describing the results is in process and we will let you know when the paper is published.

CONTACT INFORMATION

Call Us Toll-Free
1-800-777-3035

E-Mail Us
progress@fhcrc.org

Mailing Address
FHCR
The PROGRESS Study
1100 Fairview Ave. N;
MW 814
Seattle, WA 98109

PROGRESS Web Site
www.fhcrc.org/science/phs/progress_study