Newsletter

Prostate Cancer 101, Inc.

http://prostatecancer101.org

October, 2009

The Prostate Cancer Information and Support Group of the Mid-Hudson

In Memoriam
John Breithaupt
June 13, 1927 – Sept. 3, 2009
Man of distinction

For those of you who may not have known him personally, John was one of the founding fathers of the group that became Prostate Cancer 101. He, Ron Koster and John Decker met through Beverly Finnegan at the ACS, where they had each ventured for guidance on a way to help men with the same diagnosis. Each of them had already received treatment for prostate cancer and saw the need for a group in Kingston to support and educate others. They started the group under the Man to Man banner back in 1995 and we became independent as PCa101 in 2003. Since our inception in 1995 hundreds of men and their families have come to us for help. They have left their first meeting with a better understanding of their options and with the knowledge on how to be their own best advocate.

John was our librarian; the contact for literature regarding prostate cancer. In the early days he secured grants to aid in the purchase of educational materials. He then distributed books to area libraries and to new members. John was a stalwart, contributing member until he became too ill to continue. His kindness, caring and loving ways will be missed.

John was one of four children of H. Lee and Jennie Van Buskirk Breithaupt. He and his twin brother, Lee, (who died in an auto accident in his twenties) were born in Phoenicia and spent their early years there. Lee and John (right) are shown in their Navy uniforms in the picture on the right. His boyhood friend, Lonnie Gale, recalls riding their sleds down Powderhouse Hill straight across Route 28, past the shoemakers and right on down Jay Street. They ice skated down the Chichester Creek and out onto the frozen Esopus. Skiing at Simpson's Slope was part of the many sports in which he participated.

John played football at Cornwall High School and baseball on the undefeated Lanesville team. Lonnie remembers some lively times at Harry's Bar and Tavern (Doyle's) after the games and rides in a 1937 Packard "Woodie". Who would have thought it of our self effacing friend?

John attended Camp Irondale, later called Camp Woodland. Lonnie recalled one particular hike when they stayed for a week in a cave on Wittenberg Mountain shooting pesky porcupines and picking blueberries when food supplies ran out.

John was a graduate from the University of Bridgeport and served honorably in the U.S. Navy in World War Two on a destroyer escort.

He worked at IBM for 34 years where he was a respected manager of the recreation center and community relations. A very young IBM programmer met him when he took on a unique challenge in an aspect of plant functions. After having a more than difficult time and being upset with himself, he went to John to offer his resignation from a post for which he had been selected. John rejected that resignation and instead gave him reason to continue and to get around the problem successfully; so much so that it started a bit of a trend. This turned out to be one of those few events in this man's life that are truly life altering.

"There are a few very special people we get to know as we pass through each other's space…John was truly the mold for them. He has a very golden place in my memories." Richard DeLorenzo, who was that young programmer.

John married his loving and steadfast wife, Joan, on October 26, 1957. They were a loving and united couple for more than 50 years, living in Hurley and at the farm near the Phoenicia Railroad

Station. One of his nephews even built a log home there and was married in a stone circle in the woods. John enjoyed spending time on his property and loved the sport of fly fishing. You'd find him in waders in a stream every chance he could get.

John's many talents included singing tenor in choral groups including the Old Dutch Church (above, Jim Hejduk, Cindy Jones, John, Gloria Simmons,and Marianne Rogers) for over 28 years. Cindy Jones became minister of music there in 1967 and shares this fond memory, "As good tenors are hard to come by, and humble ones, at that, John was ideal and faithful ." She recalls teaching him the tenor aria from Mendelssohn's "Elijah" (If with all your hearts you truly seek me). He used to call her "Teach" and had something of a dry humor which made him winsome.

He was not a "Johnny one note" and loved Big Band music, the vocalizations of Ella Fitzgerald, Sarah Vaughn, June Christy and even Chris Botti.

John was diagnosed with prostate cancer in 1991 and as his dear Joan, said; I often wondered if his situation might have been different had PCa 101 existed then. Though this disease claimed him, it cannot claim the good he has left behind nor the respect, admiration and love of those who were fortunate enough to know him. He was an honorable man, loving husband, role model to his nieces and nephews and others who knew him, gentleman, a man of many parts, all of them respected. Well done, John Breithaupt, good and faithful servant.

Diane Sutkowski

Thank you all for your Contributions

Joseph & Harriet Batty
Kenneth Egan
Helmy & Jennifer El-Sharif
Tom Grasso
Dennis Kipp
David Lustig
Bruce & Mary Miller
Kevin Reynolds
Paul & Mary Ann Totta
David & Barbara Wansor

In Loving Memory of
John Breithaupt
Joan Breithaupt

In Memory of
Ron Koster
Leonard & Marlene Nelson

Prostate Cancer 101 is a 501 (c) (3) IRS approved non-profit organization. Your tax deductible donations should be mailed to:

Prostate Cancer 101
c/o Diane Sutkowski, Treasurer
8 Alcazar Avenue
Kingston NY 12401-4302

The Heart of Ulster County
Frank "Butch" Guido

One of our preeminent members, Frank Guido, restaurateur, altruistic benefactor to many, man for all seasons and seasonings, has been chosen by the Ulster County Chamber of Commerce and the Ulster Development Corporation as this year's recipient of the Heart of Ulster County award.

Frank is not only the Heart of Ulster County, but is in the hearts of many individuals and charities that he has helped over the years with no fanfare or publicity. If someone needs help, Frank is there, be it for a friend's funeral luncheon or a charity that needs help to host an event. Mariner's and Little Italy quietly take care of the details. He has earned the trust and gratitude of many by being a friend – the one you can rely on. The one we all should be.

Back in 2005 Frank ran a 50/50 at Mariner's Harbor for our benefit and the winner, Joseph O'Connor of Mainetti, Mainetti & O'Connor, contributed his winnings to us also. We were surprised by this kind gesture then, but we know that it is part of Frank's persona. He's a "just do it" kind of guy. He is certainly a man who has the respect and thanks of many; for people who needed help, for his community, for many people in high and low stations and above all his family and friends.

We add our special gratitude to Frank for all he has done to help us continue to educate and support those newly diagnosed men, or those with recurrence, who need our help so much. You may recall that Frank sponsored a beautiful benefit under the Floyd Patterson Foundation for Prostate Care at Mariner's Harbor two years ago which swelled our coffers and those of the Prostate Cancer Research Institute. No one has ever done as much to help us financially, and Frank did it with grace.

Congratulations, Frank, on a title you have earned by your deeds over many years. You are truly the Heart of Ulster County and lead by example.

Detecting The Undetectable In Prostate Cancer Screening

ScienceDaily | 10.20.2009

A team of Northwestern University researchers, using an extremely sensitive tool based on nanotechnology, has detected previously undetectable levels of prostate-specific antigen (PSA) in patients who have undergone radical prostatectomy.

The researchers found measureable PSA levels in each post-operative patient in its study, thanks to the power of the nanoparticle-based bio-barcode assay developed at Northwestern. The technology is 300 times more sensitive than commercially available PSA tests. After the removal of the prostate gland, patients typically have PSA levels that are undetectable when measured using conventional diagnostic tools.

This ability to easily and quickly detect very low levels of PSA may enable doctors to diagnose men with prostate cancer recurrence years earlier than is currently possible. Prostate cancer is the second leading cause of cancer death for men in the United States. (Only lung cancer is more deadly.)

"We have defined a new zero for PSA," said Chad A. Mirkin, George B. Rathmann Professor of Chemistry in the Weinberg College of Arts and Sciences, professor of medicine and professor of materials science and engineering. "This level of sensitivity in detecting low concentrations of PSA will take the blinders off the medical community, especially when it comes to tracking residual disease."

The study will be published online during the week of Oct. 19 by the Proceedings of the National Academy of Sciences (PNAS). Mirkin and C. Shad Thaxton, M.D., assistant professor of urology in Northwestern's Feinberg School of Medicine, led the study. (Both are members of the Robert H. Lurie Comprehensive Cancer Center of Northwestern University.)

"This new PSA assay may alter the management of patients who have been treated with surgery for prostate cancer," said William J. Catalona, M.D., professor of urology at the Feinberg School and director of the Clinical Prostate Cancer Program at the Lurie Cancer Center. He was the first to demonstrate that the PSA test, a simple blood test, could be used as a screening tool for prostate cancer.

"Studies have shown that post-operative radiation therapy given early to patients with adverse pathology, called adjuvant radiation, reduces the recurrence rate and improves survival," Catalona said. "Because the 'nano-PSA assay' is more sensitive than the current commercially available PSA tests, it may allow physicians to target adjuvant radiation for patients destined to have a life-threatening tumor recurrence."

The study is an early indicator of how nanotechnology can be used to improve medical diagnostics and early cancer detection. In the case of prostate cancer recurrence following primary surgical treatment, patients with detectable but non-rising PSA levels could be reassured that their cancer will not recur. This reassurance potentially could be delivered much earlier than with conventional diagnostic tools. For patients with increasing levels of PSA, detected

before conventional tools are able, doctors could diagnose a recurrence and intervene accordingly.

Furthermore, the effectiveness of post-operative treatment could be assessed by monitoring a patient's PSA levels. Tracking PSA levels early, before conventional tools are able, may allow doctors to validate treatments for recurrent cancer, such as radiation, hormone therapies and chemotherapies. The most effective will be able to keep down PSA levels.

"The first route to a new therapeutic is a good diagnostic tool, and that's what we have here," said Mirkin, director of Northwestern's International Institute for Nanotechnology. "This bio-barcode assay, or a variant of it, could be a commercial tool in as little as 18 months. The technology is there. Now it's a business decision."

PSA is a protein produced by the cells of the prostate gland and found in the bloodstream. This pilot study looked at serum samples from 18 post-prostatectomy patients collected over the course of a number of years.

The researchers were able to reliably and accurately quantify PSA values at less than 0.1 nanograms per milliliter, the clinical limit of detection for commercial assays. The lower limit of detection for PSA using the bio-barcode assay is approximately 300 times lower than the lower limit of detection for commercial tests. The PSA measurements were used to classify the patients as either having no evidence of disease or having a relapse of disease.

The Northwestern team is now conducting a similar retrospective study of 260 patients and eventually plans to do a large prospective study.

The ultra-sensitive technology is based on gold nanoparticle probes, decorated with DNA and antibodies that can recognize and bind to PSA when present at extremely low levels in a blood sample. A magnetic microparticle, outfitted with a second antibody for PSA, also is used in the assay. When in solution, the antibody-functionalized particles "recognize" and bind to PSA, sandwiching the protein between the two particles.

The key is that attached to each tiny gold nanoparticle (just 30 nanometers in diameter) are hundreds of identical strands of DNA. Mirkin calls this "bar-code DNA" because they have designed it as a label specific to the PSA target. After the "particle-protein-particle" sandwich is removed magnetically from solution, the DNA is removed from the sandwich and read using a Verigene® ID system, a nanotechnology platform designed to detect and quantify DNA.

The amount of PSA present is calculated based on the amount of bar-code DNA. For each molecule of captured PSA, hundreds of DNA strands are released, which is one of the ways the PSA signal is amplified.

The title of the PNAS paper is "The Nanoparticle-Based Bio-Barcode Assay Re-Defines 'Undetectable' PSA and Biochemical Recurrence Following Radical Prostatectomy." In addition to Mirkin and Thaxton, other authors of the paper are Robert Elghanian, Audrey D. Thomas, Savka I. Stoeva, Jae-Seung Lee, Norm D. Smith and Anthony J. Schaeffer of Northwestern, and Helmut Klocker, Wolfgang Horninger and Georg Bartsch of Innsbruck Medical University in Austria.

Note: Authors Mirkin, Thaxton and Smith are shareholders in Nanosphere, Inc., the company that licensed the bio-barcode assay from Northwestern University.

Source: Zero The Project to End Prostate Cancer

Dendreon to seek Provenge approval in November – Reuters

24 September 2009

Posted by jacquie strax

Reuters and Wall Street Journal report today that Dendreon plans to seek US FDA approval for Provenge prostate cancer vaccine in November. Dendreon "expects regulators to act on the application by the middle of next year, the company said on Thursday."

To start from an updated report in the Wall Street Journal, which adds this information to Reuters' coverage of Dendreon 's share prices today. The points are excerpted and reordered:

Although Dendreon's data were performed under a special protocol assessment, the company still must get a cautious FDA's approval in bringing an entirely new type of therapy to the market, including the resolution of manufacturing questions.

Although the company essentially froze its development of other products as the Provenge trial was being completed, it is now planning to study Provenge's effectiveness in earlier stages of prostate cancer, as well as the possibility of providing patients with a booster after their initial treatment.

Production will begin at a New Jersey facility that will initially operate at 25%, bringing up to $60 million to $125 million in revenue in the six months after launch.

Dendreon expects that first facility to be fully functional in the first half of 2011 and operations in Atlanta and Los Angeles to be available in the second half of that year.

The company said that it recently signed an agreement with the American Red Cross for patients to use the organization's cell collection, or apharesis, centers so that the needed cells can then be shipped to Dendreon's production facilities.

In transporting the product, the company will use a third-party service to transport the cells to its manufacturing facilities within 18 hours.

Dendreon will provide a tracking system, similar to that used by major shipping carriers, that allows patients and physicians to follow the progress of their cells in the process.

The Reuters report posted here earlier today focuses mainly on share prices:

Shares of Dendreon fell more than 3 percent in morning trading after the timetable, which was provided at a company meeting with industry analysts and was in line with previous company forecasts.

Dendreon has been in talks with potential partners to market Provenge outside the United States, but had not yet mentioned the partnership efforts during the analyst meeting.

Provenge would be the first approved 'therapeutic' cancer vaccine. While conventional vaccines prevent diseases, Provenge treats the condition, which is diagnosed in one of every six American men and is the second-leading cause of death among that population.

The Seattle biotechnology company previously said it

would submit an application for Provenge in the fourth quarter.

Shares of Dendreon have exploded 10-fold this year following the release of data in April that showed Provenge prolonged lives of patients about four months. That compares to a two-to-three month survival extension in separate studies for Sanofi-Aventis' (SASY.PA) Taxotere, the current standard of care.

Dendreon on Thursday noted that Taxotere, a chemotherapy, can cause harsh side effects that were not seen with Provenge — a potential big selling point as well as an advantage to patients.

Shares of Dendreon fell 93 cents, or 3.3 percent, to $27.34 in morning trading on Nasdaq.

(Reporting by Ransdell Pierson and Lewis Krauskopf, editing by Dave Zimmerman)

Source: psa-rising.com

"The bulls and the bears aren't dangerous on Wall Street—it's the bum steers you need to look out for"

PSA Velocity May be Irrelevant in Detection of Prostate Cancer

Measuring velocity of prostate cancer specific antigen rise over time may not be necessary before deciding whether a man needs a prostate biopsy, according to a large new study from urologists at US and European cancer centers.

PSA velocity (PSAV) is a term used for change in PSA levels in the blood over time. Instead of basing a decision to recommend biopsy (or not) on a single annual PSA reading, the urologist looks at a series of tests and calculates the rate of rise over time.

The new study suggests that calculating PSA velocity does not help to detect prostate cancer once PSA and age are taken into consideration.

This finding was reported by European Association of Urology this August. "Some guidelines," Scardino notes, "do incorporate PSAV cut points as an indication for biopsy."

To evaluate prostate specific antigen (PSA) velocity as an aid in detection of prostate cancer, Dr. Peter Scardino of Memorial Sloan-Kettering and European colleagues looked at results of a large screening study in the Netherlands and Sweden.

To find out whether calculating PSAV actually enhances prediction of biopsy outcome, his team looked at results from 2742 men with PSA < (below) 3 ng/ml at initial screening in a large European study (the European Randomized Study of Screening for Prostate Cancer in Rotterdam, Netherlands, or Göteborg, Sweden). All of the patients were eventually biopsied due to elevated PSA. Scardino and his team report:

Measurements

"Total, free, and intact PSA and human kallikrein 2 were measured for 1-6 screening rounds at intervals of 2 or 4 yr. We created logistic regression models to predict prostate cancer based on age and PSA, with or without free-to-total PSA ratio (%fPSA). PSAV was added to each model and any enhancement in predictive accuracy assessed by area under the curve (AUC).

Results and limitations

"PSAV led to small enhancements in predictive accuracy (AUC of 0.569 vs 0.531; 0.626 vs 0.609 if %fPSA [% free PSA] was included), although not for high-grade disease. The enhancement depended on modeling a nonlinear relationship between PSAV and cancer. There was no benefit if we excluded men with higher velocities, which were associated with lower risk. These results apply to men in a screening program with elevated PSA;

men with prior negative biopsy were not evaluated in this study"

"In men with PSA of about >/= (above or equal to) 3 ng/ml, we found little justification for formal calculation of PSAV or for use of PSAV cut points to determine biopsy. Informal assessment of PSAV will likely aid clinical judgment, such as a sudden rise in PSA suggesting prostatitis, which could be further evaluated before biopsy.

Conclusions
"In men with PSA of about 3 ng/ml, we found little justification for formal calculation of PSAV or for use of PSAV cut points to determine biopsy. Informal assessment of PSAV will likely aid clinical judgment, such as a sudden rise in PSA suggesting prostatitis, which could be further evaluated before biopsy.

Take Home Message
"Although there is a statistical association between prostate-specific antigen (PSA) velocity and prostate cancer, PSA velocity does not help detect prostate cancer once PSA and age are taken into consideration."

SOURCE
Prostate-Specific Antigen Velocity for Early Detection of Prostate Cancer: Result from a Large, Representative, Population-based Cohort
Vickers AJ, Wolters T, Savage CJ, Cronin AM, O'Brien MF, Pettersson K, Roobol MJ, Aus G, Scardino PT, Hugosson J, Schröder FH, Lilja H.

Source: psa-rising.com

Older Prostate Cancer Patients' Chances of Surviving on Non-Invasive Treatment

Older men who were diagnosed with prostate cancer after early 1990 and were treated with conservative management ("Watchful Waiting") lived significantly longer than men in similar situation ten or twenty years previous to that.

This is the finding of a large new study based on Medicare patients' records. The study is published in September 15 issue of the Journal of the American Medical Association (JAMA) by a team at The Cancer Institute of New Jersey (CINJ).

Most newly diagnosed prostate cancers today have clinically localized disease, detected by the PSA test (Prostate Specific Antigen blood test) and digital rectal exam in the doctor's office.

For men with localized disease major treatment options include surgery, radiation, or conservative management (popularly known as "Watchful Waiting," also called Active Surveillance).

Especially for older men with competing health conditions such as diabetes or cardiovascular disease, conservative management can be a reasonable choice. Between 56 and 60 percent of men in this study (depending on tumor grade) had a risk of dying of causes other than prostate cancer within ten years following diagnosis.

The early 1990s saw the start of significant changes and improvements in methods of diagnosing, classifying and treating prostate cancer. Some of these changes have remained controversial to this day.

Dr. Grace L. Lu-Yao and colleagues say outcomes for conservative management in the era since the prostate-specific antigen (PSA) became available had not been fully assessed. s Dr. Lau-Yao's study is one of the largest and most reliable studies to affirm that overall, changes overall had a positive impact. She says the team's findings may lead to reassessment of treatment options for localized prostate cancer.

A Medicare records database was used to find out what happened to 14,516 men aged 66 or older who were diagnosed with with stage T1 or T2 prostate cancer cancer from 1992 through 2002 and who did not receive surgery or radiation within six months of diagnosis.

The study found that for patients in this category the risk of dying

from prostate cancer over a ten-year period after diagnosis declined by more than 60 percent compared with patients diagnosed in the 1970s and 1980s. A prostate cancer patient's risk of dying from prostate cancer over a ten-year period following diagnosis declined by more than 60 percent compared with patients diagnosed in the two previous decades, the study found.

For example, among patients with medium-risk cancer, men aged 66 to 74 had between a 2 and 6 percent chance of dying from prostate cancer within ten years compared to 15 to 23 percent in the earlier period.

"Improved survival was also observed in poorly differentiated disease. The use of chemotherapy (1.6%) or major interventions for spinal cord compression (0.9%) was uncommon."

The authors say the improvement in survival rates since the early 1990's could relate to such factors as:

Earlier diagnosis due to the increased use of the PSA blood test.
Changes in how disease is classified
and Advances in medical care.
The study also showed that men aged 66 and older with low- to intermediate-risk cancer without initial surgery or radiation have a low risk of needing palliative therapy. Only four to eleven percent of men in this group used palliative surgery, radiation, or chemotherapy to alleviate pain or cancer symptoms over a ten-year period following diagnosis.

Grace Lu-Yao, PhD, the lead author, notes that previously the survival outlook for prostate cancer, especially disease detected through the PSA test, has not been well described. The study by her team represents the most comprehensive look at this subject to date, she says.

"The lack of solid data has often made it difficult for medical professionals to determine the most appropriate treatment and to predict patient outcomes for this population. These latest findings depict a more accurate survival outcome for the contemporary prostate patient," she noted.

The improved survival reported in JAMA is in line with findings of another study, to be published September 16 by some of the same authors in the Journal of the National Cancer Institute (JNCI) (Volume 101, Issue 18), which documents significant changes in the risk profile of prostate cancer patients diagnosed and treated today.

One unique feature of Dr. Lu-Yao's study is that more than half of the patients were over age 78. Men of this age merit special study because of their particular situation. The rate of prostate cancer rises in men of 75 years and older, but by this age men often have other health conditions to contend with also. This makes age 75 and older prime candidates for conservative management (or intelligent "Watch and Wait").

According to Dr. Lu-Yao, not enough information has been collected on this group of patients because in previous studies they have often been excluded or under-represented.

Lu-Yao cautions that because the men in the study were older than 65, the data may not apply to younger patients. She also notes that longer follow-up data are needed for prostate patients who are expected to live for more than ten years.

For this study the researchers made use of stored information from cancer registries and healthcare visit data collected by Medicare and known as SEER -- Surveillance, Epidemiology and End Results. All of the SEER registries hold the highest level of certification of data quality.

Prostate cancer is the second leading cause of cancer death in men and strikes one in six men. In New Jersey alone, 6,000 new cases of the disease are expected this year with 192,000 new cases nationally.

The study, Outcomes of Localized Prostate Cancer Following Conservative Management, appears in Journal of the American Medical Association (JAMA) (Vol. 302, No. 11).

First Evidence of Virus Link to Some Prostate Cancers

By Monday, September 07 2009 00:00

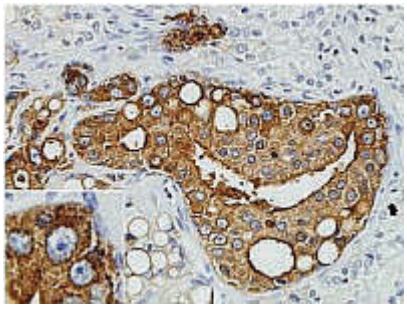
Grace Lu-Yao, PhD, MPH is both the lead author of the JAMA study and the senior author of another study on this topic published in Journal of the National Cancer Institute (JNCI study. Dr. Lu-Yao is cancer epidemiologist at CINJ, a Center of Excellence of UMDNJ-Robert Wood Johnson Medical School. Dr. Lu-Yao is also associate professor of medicine at UMDNJ-Robert Wood Johnson Medical School and of epidemiology at UMDNJ-School of Public Health

The study was paid for in part by the U.S. Army Medical Research team at Department of Defense, by Ohl Foundation, National Cancer Institute (R01 CA 116399), and by The Cancer Institute of New Jersey Core Grant (NCI-CA-72720-10).

The study, Outcomes of Localized Prostate Cancer Following Conservative Management, appears in Journal of the American Medical Association (JAMA) (Vol. 302, No. 11). Authors are: Grace L. Lu-Yao, MPH, PhD; Peter C. Albertsen, MD; Dirk F. Moore, PhD; Weichung Shih, PhD; Yong Lin, PhD; Robert S. DiPaola, MD; Michael J. Barry, MD; Anthony Zietman, MD; Michael O'Leary, MD, MPH; Elizabeth Walker-Corkery, MPH; Siu-Long Yao, MD.

Source: psa-rising.com

A type of virus known to cause leukemia and sarcomas in animals has been found for the first time in human prostate cancer cells, according to researchers at the University of Utah and Columbia University medical schools. Their discovery may help in identifying a viral cause of prostate cancer. This would open opportunities for developing diagnostic tests, vaccines, and therapies for treating the cancer.



The researchers say they found the XMRV virus in almost a third of the prostate tumors they looked at.

"We found that XMRV was present in 27 percent of prostate cancers we examined and that it was associated with more aggressive tumors," said Ila R. Singh, M.D., Ph.D., associate professor of pathology at University of Utah and the study's senior author. "We still don't know that this virus causes cancer in people, but that is an important question we're going to investigate."

Along with providing the first proof that XMRV is present in malignant cells, the study also confirmed that XMRV is a gammaretrovirus, a simple retrovirus first isolated from prostate cancers in 2006 by the researchers at the University of California, San Francisco (UCSF), and the Cleveland Clinic. Gammaretroviruses are known to cause cancer in animals, but have not been shown to do so in humans.

The new study compared benign (non-malignant) prostate tissues with prostate cancer tissues and found much higher rates of XMRV virus in malignant cells.

Singh's team examined more than 200 human prostate cancers, and compared them to more than 100 non-cancerous prostate tissues. They found 27 percent of the cancers contained XMRV, compared to only 6 percent of the benign tissues. The viral proteins were found almost exclusively in cancerous prostate cells, suggesting that XMRV infection may be directly linked to the formation of prostate

tumors.

Retroviruses insert a DNA copy of their genome into the chromosomes of the cells they infect. This sometimes happens close by a gene that regulates cell growth, disrupting normal cell growth, resulting in more rapid proliferation of such a cell, which eventually develops into a cancer. This is how gammaretroviruses in general cause cancer. Singh is currently examining if a similar mechanism might be involved with XMRV and prostate cancer.

Previous research on possible links between XMRV (full name XMRV (Xenotropic murine leukemia virus-related virus) and prostate cancer included work showing that XMRV is a virus that can be attacked by immune system elements, notably interferon (IFN) and its helper chemicals (B. Dong, Robert H. Silverman et al, 2007). The Cleveland Clinic research focused on possible genetic links between XMRV and some familial prostate cancers.

Dr. Singh's results challenge the family connection. She and her colleagues showed that susceptibility to XMRV infection is not enhanced by a genetic mutation, as was previously reported. If XMRV were caused by the mutation, only the 10 percent of the population who carry the mutated gene would be at risk for infection with virus. But Singh found no connection between XMRV and the mutation, meaning the risk for infection may extend to the population at large.

While the study answers important questions about XMRV, it also raises a number of other questions, such as whether the virus infects women, is sexually transmitted, how prevalent it is in the general population, and whether it causes cancers in tissues other than the prostate.

"We have many questions right now," Singh said, "and we believe this merits further investigation."

Viruses have been shown to cause cancer of the cervix, connective tissues (sarcomas), immune system (lymphoma), and other organs. If the retrovirus is shown to cause prostate cancer, this could have important implications for preventing viral transmission and for developing vaccines to prevent XMRV infection in people.

CREDITS, LINKS AND SOURCES

Ila R. Singh, M.D., Ph.D., associate professor of pathology at University of Utah, is also a member of the U of U's Huntsman Cancer Institute and associate medical director at ARUP Laboratories. She moved to Utah from Columbia University Medical Center in 2008, where she began this research. She remains an adjunct faculty member at Columbia.

ARUP Laboratories is a national clinical and anatomic pathology reference laboratory. Owned by the University of Utah, ARUP offers a menu of medical tests.

The study was scheduled for publication Sept. 7 online in the Proceedings of the National Academy of Sciences.We will update this link when it appears.

University of Utah Health Sciences

Fibrils of prostatic acid phosphatase fragments boost infections with XMRV (xenotropic murine leukemia virus-related virus), a human retrovirus associated with prostate cancer. Hong S, Silverman RH, et al. J Virol. 2009 Jul;83(14):6995-7003.

Prevalence of human gammaretrovirus XMRV in sporadic prostate cancer. Fischer N, Hellwinkel O, Schulz C, Chun FK, Huland H, Aepfelbacher M, Schlomm T. J Clin Virol. 2008 Nov;43(3):277-83.

A new human retrovirus associated with prostate cancer.. Hung Fan, PNAS 2007.

An infectious retrovirus susceptible to an IFN antiviral pathway from human prostate tumors Beihua Dong et al.

Source: psa-rising.com

Prostate Cancer 101, Inc.
8 Alcazar Avenue
Kingston, NY 12401-4302

1st Tuesday

SEMINAR For Newly Diagnosed

3rd Tuesday

Distinguished Lecturer Series

4:30 p.m. monthly

Hurley Reformed Church Hall, Hurley, NY

Poughkeepsie Man to Man Group
Our brothers in support and education

Meetings are held the First Thursday of the month at the Central Hudson Auditorium on South Road in Poughkeepsie, starting at 6:30 p.m. Various doctors and speakers are on the agenda and one on one help is available after the meeting.

Contact
Paul Totta 845 297-7992
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If you need or want to help:

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First Tuesday of every month

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