



Newsletter

Prostate Cancer 101, Inc.

<http://prostatecancer101.org>

December, 2007

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

Come One, Come All to our Annual Sharing and Caring Gathering

On Tuesday, December 18 at 4:30 PM At the Hurley Reformed Church
Refreshments will be served

Here is the opportunity to share your story and to ask those questions that may be preying on your mind. Other members will relate their experiences and may in turn have their own questions. Who knows, you may just be the one to have the answer!



We are delighted and indeed fortunate that Dr. Yoram Beer, a good friend to PCa 101, has not only graciously accepted our invitation to join with us but has offered to answer any medical questions which you may have pertaining to prostate cancer and its treatment. Who could ask for a better opportunity?

And just to sweeten the pot, there will be refreshments along with the camaraderie. Now with a line-up like that, how can you resist? So don't!

Be there and be prepared to smile!

A Happy and Blessed Holiday Season to all of you from the Officers and Board. Merry Christmas, Happy Chanukah and a Happy, Healthy New Year.



Thank you all for your Contributions

Roy & Lillian Anderson
Gary & Laurie Adriance
Robert & Alice Barringer
John and Joan Breithaupt
Stephen Bogdanffy
John & Margaret Deatcher
Bob & Mariette Gorsline
Harvey & Arlene Kronick
Walter & Susan Libenson
Paul Noble
Earl Prochaska
Sheldon & Bernadine Quimby
Avery Leete Smith
Edw. & Barbara Surowitz

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

Our Special Thanks and Notices of Import

Thanks:

To **John Decker** for personally extending the invitation to Dr. Beer to be with us this month.

To **Yavuz Birturk** for the hours of preparation necessary to videotape the speaker sessions and for all his efforts and assistance in matters audio and visual.

To **Walt Sutkowski** for the interminable time and effort necessary to compile the newsletter and maintain our website, and for putting up with me.

To **Fred, Gene and Arlene** for making sure the men at the First Tuesday meetings are given the best information and care and to those men who have cared enough to return and help others.

To **Ward Miller** for keeping the mailing list and coordinating with the membership list for so many years and keeping us on an even keel.

And let's not forget **Bob Mig-gins and Ralph Calcavecchio** for making sure the hall is set up properly for the lecture series.

To **Frank Guido** for the wonderful benefit he ran for us to help us keep solvent and to get the word out about Prostate Cancer. Don't forget to go to Mariner's Harbor and the new and delightful Little Italy to say thanks to Frank.

Notices:

If you want the Ultra Sensitive PSA test at Quest or any other Lab, make sure they fill in the proper code. **Peter Randlev** has reported that the code at Quest is 41392A. Double check with your phlebotomist and make sure your doctor requests it on his scrip.

The Vassar Hospital Cancer Library closed rather suddenly, but through the efforts of **Peter Randlev** the books on prostate cancer were picked up and delivered by him personally to Benedictine Hospital to Dr. Tapen in the hope that other men may utilize them. Thank you, Peter, for being on the alert and making the commitment in time and legwork to make it happen.

Don't forget you can always go to our website

www.prostatecancer101.org

to look at any of the newsletters from the past couple of years.

If you need any brochures or posters for your doctor's office or any organization, please call or email and I'll get them to you. It's a simple way to participate. And don't forget to **notify us of any changes in your address or email.**

Without the efforts of these folks we could not function as an organization. We can always use your help and ideas, so come and join us in getting out the word.

Diane Sutkowski

The Other Chief Cook and Bottle Washer

May you have warm words on a cool evening, a full moon on a dark night, and a smooth road all the way to your door.

Irish Toast

May all your troubles last as long as your New Year's resolutions.

Joey Adams

Grapefruit Effect On Drug Levels Has Sweeter Side

By SYLVIA PAGÁN WESTPHAL

Many patients know that grapefruit juice doesn't mix with certain popular drugs -- notably cholesterol-busting statins such as Zocor and Lipitor. Too much *Citrus paradisi*, and the blood levels of some medicines can rise to toxic levels.

But the grapefruit effect may have a silver lining. Research suggests the fruit's ability to interact with drugs may be exploited to make some medicines more powerful.

At the University of Chicago, scientists are studying grapefruit juice in combination with an experimental anticancer compound, hoping to boost the drug's weak effects. In Florida, Bioavailability Systems LLC, a small biotechnology company, claims to have purified the grapefruit compounds responsible for the boosting effect and has been able to improve the blood levels of an anti-HIV drug. "This is definitely a lemons to lemonade story," says James Harris, founder and chief scientific officer of the company.

The approach aims to tackle a major problem for drug manufacturers: the great degree of variation in how people absorb drugs. Partly to blame is the fact that individuals have different levels of

an enzyme in the intestines and liver, called CYP3A4, that breaks down drugs before they even have the chance to get into the bloodstream. People with very active CYP3A4 get lower amounts of drugs into their systems than those with low levels of the enzyme.

But powerful compounds in the grapefruit called furanocoumarins obliterate CYP3A4 in the gut. The result: More drug gets into the bloodstream. For some anti-cholesterol statins, for example, taking one tablet with a glass of grapefruit juice "is like taking at least 10 tablets with a glass of water," says David Bailey, a pharmacologist at the University of Western Ontario who discovered the grapefruit effect in the early 1990s. It's why some major blockbusters, like the statin Mevacor or the anticancer drug Gleevec, contain warnings against taking these drugs with grapefruit juice.

But for certain drugs that have a hard time reaching optimal blood levels at prescribed doses, some doctors are interested in intentionally boosting the effects with grapefruit. Generally, the idea would be to give a booster to all

patients who are taking a weak drug. While some patients may have naturally low levels of the CYP3A4 enzyme and thus wouldn't need it, there's no practical way to test individuals right now, so researchers are using a blanket approach. As long as a drug does not have what is known as a "narrow therapeutic window" -- meaning that a relatively small increase in dose makes it toxic -- boosting shouldn't necessarily lead to large increases in side effects, the theory goes.

"More patients will receive meaningful therapy from the one-dose-fits-all approach," says Dr. Harris.

Still, many drugs, such as the blood thinner Warfarin and certain antibiotics, do have a narrow window. For such drugs, a blanket approach to boosting would be too risky. Boosting should be reserved for only a few disease areas -- like infectious diseases or cancer -- where the risk of side effects from higher drug levels is worth taking, says Dr. Harris. "This is not to be used to help get the ninth non-sedating antihistamine to the market."

Don't Try This at Home

Experts also warn that people should not try boosting on their own to make an expensive medication last longer or make their medicines more effective. Only a clinical trial can show whether the approach is helpful for an individual drug, they say. And it is impossible to know who will respond too strongly or not at all to the grapefruit effect. In people who take multiple drugs, the approach could backfire by interfering with the effects of other medicines that are already working well without boosting.

In one effort to home in on the best way to exploit the grapefruit effect, researchers Ezra Cohen and Mark Ratain at the University of Chicago are conducting a 30-patient study of grapefruit juice with an experimental cancer drug called rapamycin. The drug -- sold by [Wyeth](#) as an immunosuppressant -- is usually poorly absorbed into the blood. Normally only about 14% of the amount in a pill gets into people's bloodstream, but so far, the researchers have seen that when combined with grapefruit juice, the blood levels of the drug can increase up to fourfold, says Dr. Cohen. (The scientists get a "standardized" grapefruit juice concentrate from the Florida De-

partment of Citrus, which analyzed different batches to find one with high levels of furanocoumarins.)

Bioavailability Systems studied its grapefruit extract with a modestly effective anti-HIV drug and saw an average 40-fold increase in blood levels, says Dr. Harris. The company has created synthetic mimics of the grapefruit compounds that it plans to test in human trials next year.

The quest to capture the grapefruit effect underscores another important aspect of how drugs are metabolized: The food we ingest can have a profound impact on drug performance. It's why pharmaceutical companies routinely test their drug candidates under fasting and nonfasting conditions. Even changing the fat content of a meal can have a major effect on a drug's efficacy.

A case in point is Tykerb, an anticancer drug manufactured by [GlaxoSmithKline](#) PLC. A recent company-sponsored study showed that the drug's blood levels increased by 167% when taken with a low-fat meal, compared with taking the drug on an empty stomach -- and by 325% after a high-fat meal.

Drs. Ratain and Cohen argue that these kinds of food-drug

interactions should be explored to lower drug costs. In a recent editorial in the *Journal of Clinical Oncology*, the researchers ruffled some industry feathers by arguing that taking Tykerb with food (the label says not to) might allow patients to take lower doses, leading to a potential cost savings of 60% off the drug's \$2,900-a-month price tag. Savings could be about 80% if Tykerb were taken with grapefruit juice as well, they said, since the drug interacts with CYP3A4.

Other anticancer drugs are broken down by CYP3A4, posing the "compelling" possibility of using grapefruit juice to lower their cost as well, says Dr. Cohen. "Oral oncology therapies are costing \$3,000 to \$5,000 a month. So it's almost like a new world when it comes to drugs costs. If we can lower the costs of those by 50%, you're talking about hundreds of millions of dollars saved," Dr. Cohen says.

But not everyone agrees it would be wise to "prescribe" food or drinks to patients as a drug booster. For one, the approach doesn't address the issue of patient variability. In the case of Tykerb, giving the drug with a high-fat meal increased blood levels differently depending on the person, says Peter Ho, head of cancer-drug discovery at Glaxo. That's why the company

decided, together with the Food and Drug Administration, that the label should recommend taking it on an empty stomach. "At the low end it increased by twofold, but at the high end some subjects had as much as a 24-fold increase, and that's a problem," Dr. Ho says.

There is "no question" that grapefruit juice will increase the blood levels of rapamycin, adds Wyeth's head of medical affairs Joseph Camardo, but he is less convinced that the effect can be consistent. "Our position is, it is not likely to bring the variability to an acceptable level," he says.

Another concern is the variation in quality among juice brands. "The actual amount of these active ingredients varies substantially between grapefruit juices and even the same lot," says researcher Paul Watkins from the University of North Carolina in Chapel Hill, who has done research on the grapefruit compounds.

Dr. Harris believes that one way to address some of these concerns is to standardize the grapefruit compounds into a pill with a defined dose. That would take away at least one of the variables.

"If you take the components out and put them in a pill then it becomes something that's a little more manageable," says Wyeth's Dr. Camardo.

Blocking Efficacy

Meanwhile, the grapefruit continues to surprise the scientific community. Recently, another class of compounds in the fruit was found to block a different set of proteins in the intestine known as "transporters." These transporter proteins actively shuttle drugs from the gut into the bloodstream. Blocking these transporters prevents some drugs from entering the system. This finding may mean that grapefruit is contraindicated with certain drugs for a whole new set of reasons.

One such compound called naringin affects the efficacy of the popular allergy drug Allegra by blocking these transporters. "Even a normal glass of juice will reduce the effects of Allegra by half," says Dr. Bailey, whose team made the discovery last year. "It's the tip of the iceberg," he adds. "Big pharma is very interested."

Write to Sylvia Pagán Westphal at sylvia.westphal@wsj.com

We spend January 1 walking through our lives, room by room, drawing up a list of work to be done, cracks to be patched. Maybe this year, to balance the list, we ought to walk through the rooms of our lives... not looking for flaws, but for potential.
Ellen Goodman

Sounding Out Prostate Cancer

By John Brant Photographs
by Nathan Kirkman

More and more men are facing a medical conundrum: Either risk losing your sex life forever, or travel abroad for a \$20,000 procedure that the FDA hasn't approved yet.

Jack Barkin, MD, picks up a scalpel and cuts a quarter-inch incision below the navel of patient Mike Bowman, a 54-year-old medical-equipment salesman from North Carolina. Bowman lies with a spinal anesthetic in a semiconscious sprawl, his legs spread in a stirrup chair similar to those used by obstetricians. Through the incision Dr. Barkin guides a suprapubic catheter into Bowman's bladder, which will remain in place for a few days after this morning's procedure until the swelling in the prostate area has subsided. Before this, Dr. Barkin ran a Foley catheter up Bowman's penis to flush water through the prostate region and to fill the bladder. "For better visibility," explains Dr. Barkin. "Water is good and air is bad for conducting ultrasound." Then Dr. Barkin slides a lubricated probe, which is connected to a Sonablate

500 acoustic ablation device, eight inches up Bowman's rectum. Turning away from his patient—he will not touch Bowman again during the ensuing two-hour procedure—he clicks the mouse of the Sonablate's computer, firing up the R2-D2-size machine. Deep inside Bowman, the probe shoots out three beams of high-intensity focused ultrasound (HIFU), an energy source similar to what doctors use to dissolve kidney stones. The beams triangulate Bowman's cancerous prostate, which appears as a fan-shaped gray mass on the computer's monitor. "This doesn't look so bad," says Dr. Barkin. "The cancer is small enough that we can treat it in two sections instead of three."

Indeed, Bowman's prostate is in such relatively good shape (meaning that its tumors are well-defined, threatening neither to invade surrounding tissue nor metastasize to distant parts of his body) that if it were 20 years ago, he may not have known he had prostate cancer until it was too late. It wasn't until 1985 that the FDA approved PSA screening, a test that measures levels of prostate-specific antigen in the blood; an elevated score—from 4 to 10 ng/mL—suggests the presence of cancer. In the absence of early symptoms and timely diagnosis, he may very well have become one of the nearly 30,000 American men who die annually from the disease, the most common cancer among males.

Today, however, patients like

Bowman—fit, affluent, sexually active men in their forties, fifties, and sixties with early-stage prostate cancer—are Dr. Barkin's prime customers. They're living the short-straw end of the statistics that show that, in North America, men are 35 percent more likely to develop prostate cancer than women are to develop breast cancer, and that by 2015, the number of newly diagnosed prostate-cancer cases will jump to 300,000 a year—a 50 percent increase from today. These medical early adopters have considered every treatment option covered by insurance in the United States—scalpel surgery, radiation, cryotherapy, and brachytherapy—and have chosen instead to pay \$20,000 out of pocket to come here, the Can-Am HIFU clinic in Toronto, where Dr. Barkin uses ultrasound to heat their prostate tumors to 212°F, destroying them in less than three seconds. "Basically," says Dr. Barkin, rather matter-of-factly, "we're cooking the prostate."

The speed of the procedure, however, isn't what will draw an estimated 700 American men across the border to Canada or to clinics in Central America to pay for a treatment that has yet to gain FDA approval. Rather, it's HIFU's astonishingly low rate of erectile dysfunction. "I do every kind of prostatectomy, from scalpel to robotics," says Dr. Barkin, "and the rate of erectile dysfunction

with all other treatments, no matter how skilled the surgeon, is around 50 percent. With HIFU, it's less than 10 percent. Plus, you can't beat the recovery time."

At Dr. Barkin's clinic, which he runs as a sideline to his standard urology practice at Toronto's Humber River Regional Hospital, men are treated as outpatients on Saturday. On Sunday, most feel well enough to go sightseeing.

The operating room is small, brightly lit, and oddly cheerful, seeming more like a dentist's office than a place of life-or-death stakes. Content that the procedure is proceeding smoothly, Dr. Barkin, an inveterate teacher, launches into a quick lecture on the walnut-shaped gland that is the prostate. The first spurt of an ejaculation comes from the prostate, he explains, whose evolutionary function is to secrete enzymes that protect sperm from acids in the vagina. All male mammals possess a prostate. In humans, it sits at the crossroads of several crucial organs: the rectum, anus, bladder, urethra, and seminal vesicles. Two razor-thin bundles of nerves run vertically along both sides of the prostate and are largely responsible for stimulating and preserving erections. "Here you can see them plain as day," says Dr. Barkin, pointing out two faint dark lines on the monitor. I fix my eyes on the glowing computer screen, which shows sonic beams systematically zapping

Bowman's tumors into benign scar tissue, which possesses an eerie resemblance to cooked popcorn.

Bowman's long journey to this fifth-floor cancer clinic—marked only by a hastily word-processed sign next to the elevator—began three months earlier, in July, on the day that his prostate biopsy returned positive. "My first thought was, I'm going to die," recalls Bowman. "My second was, Why me?" After the initial shock and subsequent pulse of anger, Bowman confronted his first fateful choice: Treat or not treat? Take out the gland that delivers a man so much pleasure during the first half of his life, and so much anxiety later, or proceed with watchful waiting?

The concept of watchful waiting, in which a physician closely monitors an untreated prostate-cancer patient for spiking PSA levels or other signs that the malignancy threatens to spread, never appealed to Bowman. At 54, he was in his prime, in good shape, and with many good years ahead of him—years, reckoned Bowman, that could allow his cancer to spread insidiously into other organs, his liver perhaps. Or maybe the cancer would beeline for his colon before heading north to his lungs.

Many physicians would argue

that Bowman's concern was for naught. In the great majority of cases, prostate cancer is so slow growing that Thomas Stamey, MD, the Stanford University urologist who pioneered PSA screening, has been reported as saying that up to 90 percent of the prostatectomies performed during the last decade were unnecessary. Indeed, only one in four men with latent prostate cancer will ever show symptoms, even if left untreated, and there is a less than 20 percent chance that men ages 50 to 54 with early-stage prostate cancer will die from it. Moreover, no long-term studies have proved definitively that treating prostate cancer increases longevity. Mountains of data, by contrast, attest to treatment's bleak side effects, the most prominent being the likelihood of erectile dysfunction and urinary incontinence.

What bothered Bowman, however, was that despite intense ongoing research, there's no reliable way to predict the nature of a prostate tumor—whether it's among the aggressive 25 percent that kills, or the more benign 75 percent that rarely produces symptoms. "I can understand the statistical argument, but from a personal survival standpoint, the whole idea of 'watchful waiting' seems absurd," says Bowman. "Wait for what? For the tumors to magically dry up and go away, like warts? Or for the cancer to invade my spine and liver, and

then decide it's time to treat it?"

As recently as a decade ago, scalpel prostatectomy, which was pioneered in the 1940s, was the standard treatment for prostate cancer, and excising the malignancy—nerve bundles and all—was the surgeon's primary, and often sole, concern. In their defense, surgeons had little choice in the matter. Most men seeking treatment back then had reached stage II of the disease, and since their cancer had already spread, saving their lives almost always entailed removing the gland. Today, however, with PSA screening standard for men older than 50 and early diagnoses increasingly common, the effort to save those delicate nerve bundles—through techniques such as nerve-sparing radical prostatectomy, robotic surgery, and now HIFU—has blossomed into a multibillion-dollar industry. In short, men with prostate cancer finally have a say regarding the preservation of their sex gland.

"One guy might say, 'This cancer freaks me out. Cut it out with a knife and damn the consequences,' " says Dr. Barkin. "A second man might want every precaution taken to preserve the nerves and erections by being less aggressive, but if the moment comes, err on the

side of killing the cancer. A third man might say he'd rather die than live with erectile dysfunction. And men do die for that reason. You'd be surprised how many."

The sheer number of available prostate-cancer treatments—there are six mainstream options—initially bewildered Bowman, and, like many newly diagnosed men, he spent weeks studying the voluminous and contentious literature on the subject. "I worked day and night," he recalls, "but I never seemed to get tired. I felt like I was in a war, fighting for my life. And just like war, there was the fog: too much information." He obsessively surfed Web sites, interviewed a range of urologists, and discovered that, invariably, each one recommended his own pet procedure.

This was due partly to the confidence each physician had in his craft, but it would be naive to assume that none of them had an eye on financial gain. National spending for prostate-cancer treatment, after all, is about \$8 billion annually. And the more patients a physician treats, the bigger his piece of the prostate-cancer pie. What was once an unglamorous medical specialty has, in the last 20 years, developed into one of the most lucrative.

While none of the six standard treatment options are guaranteed

to cure prostate cancer, all are effective. A study in the *New England Journal of Medicine*, for example, showed that prostate-cancer patients who underwent surgery were 44 percent less likely to die from the disease than men treated by watchful waiting. But life expectancy wasn't Bowman's chief concern. "I just didn't want to lose my potency, and no conventional treatment could offer the successful statistical outcome I wanted in that regard," says Bowman. "In fact, having prostate cancer brought home the degree to which sexuality permeates everything I think and do. Your sex is who you are, to a certain extent. And I never quite realized that until I was in danger of losing it."

Bowman first learned about HIFU while researching on the Web. The more he learned about it, the better it sounded. HIFU technology was first used to treat prostate-cancer patients in France in the 1990s, and was refined by researchers at the Indiana University School of Medicine, who developed the first version of the Sonablate machine. To date, HIFU has been used on more than 20,000 patients worldwide, and the Sonablate 500 scored a success rate of 94 percent in patients with low-grade localized cancer, according to recent research by Toyoaki Uchida, MD, of Japan's Tokai University.

"In the course of my sales work,"

says Bowman, "I've sat in on a lot of surgical procedures and seen things I'd like to forget. For my own surgery, I wanted the least invasive, most controllable procedure possible." But Bowman quickly learned that this favorite treatment of aging rock stars, airline pilots, and, intriguingly, American physicians, comes with a significant catch: It's not offered in the United States (nor is it covered by U.S. insurers, for that matter). To receive it, one must travel to Europe, Japan, Mexico, or Canada and pay a fortune in medical expenses.

Bowman's plight raises an important question: Why isn't HIFU available in the United States? "The FDA is very rigorous when it comes to clinical trials for cancer treatment," explains Naren Sanghvi, who helped develop the Sonablate machine. "In the case of the Sonablate 500, studies must prove unequivocally that it resolves prostate cancer. Then researchers must follow the trial participants for years to determine that the cancer doesn't recur." In the United States, such data has been slow in coming. The Canadian government approved the procedure in 2004, but it is not covered by national health insurance because Health Canada is still waiting on 10-year results and it pays for the other

treatments that are currently as effective.

In the summer of 2006, the Sonablate 500 passed the first round of testing in the United States, which deemed it safe for clinical trials. Last spring, clinical trials began at two clinics in Tennessee and one in Texas. To enroll, visit focus-surgery.com. According to Sanghvi, test data will be gathered and evaluated over the next several years, and if all goes well, FDA approval will follow within the next decade. "Every American urologist who looks at HIFU is intrigued," says Ian Thompson, MD, chair of the urology department at the University of Texas Health Science Center at San Antonio. "But the big question, and the greatest hurdle for FDA approval, is whether HIFU can be proved to cure prostate cancer. And that takes time."

Once the procedure is complete, it takes Bowman several minutes to shake off the anesthesia. He emerges groggily, feeling his way back into reality bit by bit, almost at the pace it took the Sonablate to cook his prostate. News that the procedure was a success takes a while to sink in. He is reluctant to sit up in bed, let alone take his first steps down the hallway toward the recovery room, but once he gets his

legs under him, he feels a surge of relief and energy. He vows that when he returns to Charlotte he will mount the soapbox about prostate cancer.

"The week before the Komen Foundation's Race for the Cure, you couldn't turn on the television or walk down the street without hearing about breast cancer," he says. "Well, September is National Prostate Cancer Awareness Month in the United States. Are you aware of that fact? I didn't think so."

Then, in midafternoon, almost exactly seven hours after Mike Bowman entered the clinic, Dr. Barkin gives him the okay to leave. Bowman accepts a nurse's arm in the elevator, but once out on the sidewalk and tasting the cool autumn air, he lets go. The nurse urges him to move cautiously, to cross Bay Street at the traffic light, but Bowman, declaring that he's ravenous, is eager to get back to his hotel.

"Hell, let's jaywalk," he says, stepping lightly off the curb.

Three days later, back home in Charlotte, Bowman's bladder function returns to normal and a doctor removes his catheter. The next night, his greatest fear regarding prostate-cancer surgery is laid to rest.

Fatal Cancer Cells Identified-

Daily Democrat | 11.23.2007

UC Davis researchers have identified cells that help jumpstart prostate cancer growth midway through the disease, eventually causing it to become fatal.

The discovery is an important link to finding new treatments targeting this cellular function and reducing cancer deaths among American men.

"A number of cancer researchers are interested in microRNAs and how they are involved in diseases like leukemia," said Ralph deVere White, director of the UCD Cancer Center, professor of urology and senior author on the study. "But this is the first research to specifically look at the functional effects of microRNAs on the progression of prostate cancer."

Relatively new discoveries in genetic research, microRNAs are small, single strands of RNA that regulate gene expression processes between larger strands of RNA.

Working with 19 samples from the cancer center's repository of prostate cancer cells, deVere White and his team used high-resolution analysis techniques to identify microRNAs that were differentially expressed.

Of five that were distinct, one immediately caught Davis researchers' attention. They have identified cells that help jumpstart prostate cancer growth midway through the disease, eventually causing it to become fatal.

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RNA that regulate gene expression processes between larger strands of RNA.

Working with 19 samples from the cancer center's repository of prostate cancer cells, deVere White and his team used high-resolution analysis techniques to attract their attention because of its presence at high levels in both androgen-dependent and androgen-independent prostate cancer cells.

Androgens, such as testosterone, are known to promote tumor growth. While androgen suppression treatments slow the progress of prostate cancer, they do not cure it.

"One of the most confounding things about prostate cancer is that after a period of success with androgen suppression therapy, the cancer starts to thrive again," deVere White explained. "That's when the disease becomes fatal. This particular microRNA supports the ability of prostate cancer cells to exist and grow in its androgen-independent state. And we currently have no effective treatments for the androgen-independent state of the disease."

Now having identified a cellular link between the two phases of prostate cancer, deVere White and colleagues are hopeful that miR-125b screening will at some point become a standard diagnostic tool and that genetic and chemotherapy treatments can be developed that remove this essential survival mechanism for cancer cells.

Before this can happen, the team needs to first find out if a microRNA "knock-out" can be safely accomplished.

"We simply don't know yet all that microRNAs do for us," said deVere White. "We will use animal models to see if we can reduce or remove one of more of them without interfering with other essential molecular functions."

Another important next step is to identify the full range of microRNAs involved in prostate cancer.

"There are believed to be thousands of microRNAs, and we have only identified a handful that is important to prostate cancer," said Xu-Bao Shi, a project scientist with the UC Davis Department of Urology and lead author on the study. "We must

next identify if others are involved along with their regulating patterns and mechanisms in order to gain a more comprehensive picture of how they contribute to the onset and progression of the disease. Our study definitely opens up a whole new avenue in prostate cancer research."

The study will be published in a future issue of the *Proceedings of the National Academy of Sciences*.

Besides skin cancer, prostate cancer is the most common malignancy in American men. It is estimated that 218,890 men in the United States will be diagnosed with and 27,000 men will die of prostate cancer in 2007.

The UCD Cancer Center is leading the way in identifying the molecular pathogenesis of carcinoma of the prostate, enhancing therapeutic response and identifying chemopreventions.

Source: National Prostate Cancer Coalition

The only man I know who behaves sensibly is my tailor; he takes my measurements anew each time he sees me. The rest go on with their old measurements and expect me to fit them.
George Bernard Shaw

Tumeric

BY JACQUELINE STRAX

Turmeric, also called curcumin, has been used in Asian cookery for thousands of years. Powder ground from the dried root is an ingredient in curry. Turmeric is one of the cheaper spices and makes a vivid splash of color, so it gets heaped into low-market curry blends as fill. Not such a bad idea.

Turmeric holds a high place in Ayurvedic medicine as a "cleanser of the body" and today science is finding a growing list of diseased conditions which turmeric's active ingredient heals. Broad interest in curcumin's anti-inflammatory effects is increasing.

Researchers are examining curcumin as a possible immunosystem stimulator that can modulate the activation of T cells, B cells, macrophages, neutrophils, natural killer cells, and dendritic cells; downregulate various proinflammatory cytokines and chemokines, and enhance antibody responses. This activity, write M. D. Anderson researchers G. C. Jaggetia and B.B. Aggerwal, suggests "that curcumin's reported beneficial effects in arthritis, allergy, asthma, atherosclerosis, heart disease, Alzheimer's disease, diabetes, and cancer might be due in part to its ability to modulate the immune system.

Together, these findings warrant further consideration of curcumin as a therapy for immune disorders. (J Clin Immunol. 2007 Jan;27(1):19-35).

Credits: photo of Turmeric root from SEASite(South East Asia Resources U Northern IL.) is from their Ingredients Reference: Recipes, Indonesia page.

Ground from the root of a plant (*Curcuma longa* L.) of the ginger family, found wild in the Himalayas and grown across South Asia, turmeric powder is surprisingly bland, not hot, tangy or peppery. The powder tastes a little sour. The first time I put some on my tongue I suspected my jar, purchased from a supermarket, was stale. Turmeric is pungent, bitter and astringent, not sweet like ginger. Fresh root, which goes well in snacks and main meals, as yet may be hard to find outside of stores in Asian neighborhoods. Turmeric capsules are sold through a number of suppliers.

But why make this spice part of the diet? Let's not romanticize South Asian nutrition today. Although India is doing relatively well, 47% of children there are underweight (Nutrition for Health Development, chart). South Asia's nutritional crises and disparities are harsh. Centuries of charcoal fires for home and industry have contributed to deforestation.

Clean water, a cure for malaria, vaccinations and reproductive health care, not more spices, are what most of the citizens of those lands need to improve their health. Yet the very survival of peoples in South Asia must at times have depended on informed use of a wide array of stored dried plants including turmeric root.

Source: psa rising

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

1st

Tuesday

3rd

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4:30 p.m. monthly

**SEMINAR
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Hurley Reformed Church Hall, Hurley, NY

Upcoming Events:

December 18, 2007, Tuesday will be our annual Sharing and Caring Meeting. In lieu of a speaker any and all men attending can share their stories, ask questions of one another and just talk – friend to friend. Our special invited guest, **Dr. Yoram Beer**, will be there to answer any questions than you may put to him on the subject of prostate cancer and it's after-effects. Here's your opportunity to talk to a wonderful doctor and a true friend of PCa101. As an added enticement, refreshments will be served. Who can resist that?

If you need or want to help:

PCa 101 Seminar
First Tuesday of every month

Fred Bell 845 338-1161
Fwbelljr1@aol.com

Gene Groelle 845 338-1805
Gro226@aol.com

Website & Newsletters
<http://prostatecancer101.org>

Walt Sutkowski 331-7241
wsutkowski@hvc.rr.com

Greeters/Church Hall Setup

Bob Miggins 382-1305
GD7M37@verizon.net

Ralph Calcavecchio 331-2369

2008 Programs

Arlene Ryan 338-9229
Aryan@hvc.rr.com

Diane Sutkowski 331-7241
dsutkowski@hvc.rr.com

Membership, etc.

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