

Supporting those with prostate cancer and their families since 1991

Quarterly Newsletter October 2024 Volume 31, Issue 4

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Scan to learn more about PCSANM



Support Group Meetings

Meetings are held at Bear Canyon Senior Center, 4645 Pitt St. NE in Albuquerque, from 12:30 p.m. to 2:45 p.m. on the first and third Saturday of most months.

Meeting topics and information may be found at:

https://www.pcsanm.org/meetings/

Please call 505-254-7784 or email pchelp@pcsanm.org with questions.

13th Annual Prostate Cancer Conference

Saturday, October 26, 2024 8:30 a.m. - 12:45 p.m.

Sandia Preparatory School Theater 532 Osuna Rd. NE, Albuquerque

Please join PCSANM for a free, informational conference for those with prostate cancer, their families, and friends.

- Updates in Urology: Role of Diet and Testosterone Replacement, Dr. Laura Mihalko, Urologist, Raymond G. Murphy VA Medical Center
- Updates in the Use of PSMA and Radiopharmaceuticals for Diagnosis and Treatment in Prostate Cancer, Dr. Gregg Franklin, Radiation Oncologist, New Mexico Cancer Center
- Updates in Advanced & Recurrent Prostate Cancer, Dr. Andrea Teague, Medical Oncologist, Christus St. Vincent Regional Medical Center
- Homologous Recombination Repair (HRR) Testing, Christi Capers, Field Medical Director, Pfizer





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In Memory

With deep sympathy and regret, we list this name:

Eric Schultz

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DukeHealth, News & Media Front Page: September 4, 2024

Study Solves Testosterone's Paradoxical Effects in Prostate Cancer

Press Release

A treatment paradox has recently come to light in prostate cancer: Blocking testosterone production halts tumor growth in early disease, while elevating the hormone can delay disease progression in patients whose disease has advanced.

The inability to understand how different levels of the same hormone can drive different effects in prostate tumors has been an impediment to the development of new therapeutics that exploit this biology.

Now, a Duke Cancer Institute-led study, performed in the laboratory of Donald McDonnell, Ph.D. and appearing this week in Nature Communications, provides the needed answers to this puzzle.

The researchers found that prostate cancer cells are hardwired with a system that allows them to proliferate when the levels of testosterone are very low. But when hormone levels are elevated to resemble those present in the normal prostate, the cancer cells differentiate.

"For decades, the goal of endocrine therapy in prostate cancer has been to achieve absolute inhibition of androgen receptor function, the protein that senses testosterone levels," said lead investigator Rachid Safi, Ph.D., research assistant professor in the Department of Pharmacology and Cancer Biology, at Duke University School of Medicine.

"It's been a highly effective strategy, leading to substantial improvements in overall survival," he said. "Unfortunately, most patients with advanced, metastatic disease who are treated with drugs to inhibit androgen signaling will progress to an aggressive form of the disease for which there are limited therapeutic options."

Using a combination of genetic, biochemical, and chemical approaches, the research team defined the mechanisms that enable prostate cancer cells to recognize and respond differently to varying levels of testosterone, the most common androgenic hormone.

It turned out to be rather simple. When androgen levels are low, the androgen receptor is encouraged to "go solo" in the cell. In doing so, it activates the pathways that cause cancer cells to grow and spread. However, as androgens rise, the androgen receptors are forced to "hang out as a couple," creating a form of the receptor that halts tumor growth.

"Nature has designed a system where low doses of hormones stimulate cancer cell proliferation and high doses cause differentiation and suppress growth, enabling the same hormone to perform diverse functions," McDonnell said.

In recent years, clinicians have begun treating patients with late-stage, therapy resistant prostate cancers using a monthly, high-dose injection of testosterone in a technique called bi-polar androgen therapy, or BAT. The inability to understand how this intervention works has hindered its widespread adoption as a mainstream therapeutic approach for prostate cancer patients.

"Our study describes how BAT and like approaches work and could help physicians select patients who are most likely to respond to this intervention," McDonnell said. "We have already developed new drugs that exploit this new mechanism and are bringing these to the clinic for evaluation as prostate cancer therapeutics."

ZERO - The End of Prostate Cancer

ZERO offers direct resources for all those impacted by prostate cancer, including:

ZERO360 Comprehensive Patient Support 1-844-244-1309, <u>zerocancer.org/zero360</u>

Peer Support zerocancer.org/mentor

ZERO Caregiver Connector Program zerocancer.org/caregiver-connector

Educational Resources zerocancer.org

MedPage TODAY: August 28, 2024

Is Exercise an Effective Treatment for Prostate Cancer?

Howard Wolinsky, Contributing Writer, MedPage Today

The saying, "Let food be thy medicine, and medicine be thy food," has been attributed to the Greek physician Hippocrates, who is considered the father of Western medicine.

Rob Newton, PhD, DSc, a pioneering Australian exercise physiologist, has a different take: "Let exercise be thy medicine, and medicine be thy exercise." Newton has been a pioneer in the emerging field of exercise oncology, which uses physical fitness to enhance the lives of people with cancer.

In 2004, Newton founded the Exercise Medicine Research Institute at Edith Cowan University in Perth, Australia. And earlier this year, at the meeting of the American College of Sports Medicine in Boston, Newton and other leading researchers and clinicians in the field launched the International Society of Exercise Oncology, which is aimed at advancing the science and practice of exercise medicine as a treatment for people with cancer and for cancer survivors.

Newton's Pioneering Research and Influence

Research by Newton and others has shown that exercise unleashes more than 20 physiological mechanisms within the body that may slow or stop the progression of prostate cancer. He has also conducted research demonstrating that muscle mass (which can only be improved through exercise) is more important for the survival of men with prostate cancer than fat mass (which is most effectively controlled by diet therapy).

Other research in the field suggests that physical activity is associated with lower overall mortality and lower prostate cancer mortality. More broadly, Newton and his team have conducted research in cancer of the breast, lung, brain, pancreas, ovaries, bladder, melanoma, and colon, as well as in mesothelioma.

But Newton's specialty is prostate cancer. Some of his research on prostate cancer -- which showed for the first time that targeted exercise decreases bone loss in men with prostate cancer who were on androgen deprivation therapy -- is starting to make its way into clinical recommendations. In fact, Newton is co-author of the Australian position statement on exercise medicine in cancer management. "Certainly, there is a strong association between being physically active and greatly reduced risk of prostate cancerspecific death," Newton said.

Beyond his own work, Newton has had an influence on how other researchers approach the field of exercise oncology.

Kinesiologist Kerry Courneya, PhD, who directs exercise oncology research at the Behavioral Medicine Laboratory and Fitness Center at the University of Alberta in Edmonton, Canada, said Newton has inspired research in the emerging field. His group's ERASE Trial showed that a 12-week aerobic high-intensity interval training program improved several cardiometabolic biomarkers in patients with prostate cancer on active surveillance; this may contribute to cardiovascular health benefits and could potentially influence signaling pathways in the progression of prostate cancer.

Meanwhile, epidemiologist Stacey Kenfield, MS, ScD, director of the Urologic Clinical and Translational Science program at the University of California San Francisco, and her colleagues found that a moderate-to-vigorous aerobic program with brisk walking improves fitness and certain quality of life metrics among men on active surveillance for prostate cancer.

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MedPage TODAY: August 28, 2024

Is Exercise an Effective Treatment for Prostate Cancer?

Howard Wolinsky, Contributing Writer, MedPage Today

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Kenfield has worked with Newton since 2015. She now serves as director of the Study Coordination Center for the INTERVAL-GAP4 study -- the first and largest trial to determine if targeted exercise medicine actually extends the life of men with metastatic castrate-resistant prostate cancer. Newton and Fred Saad, MD, founder of the Oncology Urology Clinic at the University Hospital of Montreal, serve as co-principal investors of GAP4, the results of which are being analyzed now.

Speaking about Newton, Kenfield told me: "Rob's exercise research is expansive and cuts across age, gender, body composition, size (overweight and obesity), and a range of chronic diseases. Through his leadership in cancer, Rob has played a pivotal role in expanding cancer survivorship care to advanced cancer patients. He has made substantial contributions to understanding the mechanisms through which exercise impacts body systems to help reduce declines in strength, improve functional ability, and reduce cancer-related fatigue. His work as a whole truly contributes to and supports the concept that exercise is medicine."

A Career Shift

Before devoting his research to exercise and cancer, Newton had a completely different career trajectory -helping elite athletes reach their performance goals.

In 1994-1995, he was a performance consultant on the strength and conditioning program for the Chicago Bulls -- one of the National Basketball Association's greatest dynasties -- around the time when they won six NBA championships. He worked with all of the Bulls' legendary players, including Scottie Pippen, Toni Kukoc, Steve Kerr, and Luc Longley -- save one, Michael Jordan, who had his own trainer and training facility.

"I only saw Michael during games and team training," Newton told me. His job was to help players develop maximal muscle power, such as jumping higher and boosting speed on the court.

"Elite athletes are almost a different species from 'normal' humans. They are genetically gifted with specific anatomical and physiological and mental advantages, which they hopefully can build through physical training and practice to be outstanding in their sport," Newton said. But his career took a turn as he watched his father's decline following prostatectomy and adjuvant radiation therapy.

"On the urologist's advice to rest, my dad sat in the front yard in the sun, and exercised as little as possible, because that's what he was told to do," recalled Newton. "And he became weaker and less functional, and then two years later, he died of a stroke. I can't say for sure, but I wonder if they had not operated, if they just sort of left him alone, if he may have survived longer. He certainly would have had a better quality of life. The last two years of his life were absolutely dreadful. Everything in my fiber told me this was wrong. I watched him and I said, 'This advice is wrong."

For the past 27 years, Newton has focused on the role of exercise in cancer management, predominantly in patients with prostate cancer. "I find it more rewarding and feel I am making a difference," he said.

Newton told me that one of the most important findings of his research is that maintaining or increasing muscle mass through resistance training is absolutely critical for people with or at risk of prostate cancer. He said muscle tissue is a "drug store" within the body and keeping it large and dispensing regularly through exercise actually increases the capacity of the body to identify and destroy prostate cancer cells.

Newton is author of the forthcoming book aimed at cancer patients, *My Exercise Medicine for Cancer*.

CURE: July 25 2024

What Patients Should Know About Radiation Treatment

Alex Biese

Radiopharmaceuticals, defined by the National Cancer Institute as drugs that contain radioactive substances, are at the forefront of treating patients with prostate cancer, as one radiation oncologist explained in an interview with CURE®.

"The newest addition to the arsenal of treatments that we can use is Pluvicto [(lutetium Lu 177 vipivotide tetraxetan, also known as 177Lu-PSMA-617]," said Dr. Malay S. Rao, a radiation oncologist with Cooperman Barnabas Medical Center in Livingston, New Jersey.

Pluvicto, a radioligand therapy, <u>was approved by the Food and Drug Administration in 2022</u> to treat patients with PSMA-positive metastatic castration-resistant prostate cancer, including those previously treated with other therapies including androgen receptor pathway inhibitors and taxane-based chemotherapy.

Rao spoke with CURE® about how drugs such as Pluvicto work. He also discussed treatments via hypofractionated radiation therapy and what the most important factor is for newly diagnosed patients with prostate cancer to consider.

CURE®: How does a drug like Pluvicto work to treat prostate cancer?

Rao: Pluvicto is a medicine that is injected into your blood. Depending on the type of equipment [the treatment center] has, it can take anywhere from one minute up to 30 minutes to infuse the medicine. The way the medicine works is there are these cell surface receptors that we call PSMA, standing for prostate-specific membrane antigens, and Pluvicto latches on to those cell surfaces, which typically are found more so on prostate cancer cells than any other bodily cells.

So, we exploit that mechanism where we're trying to target the medicine to just seek out the prostate cancer cells — unlike chemotherapy, which really targets all rapidly dividing cells in your body [and] that could include your hair, the lining in your gut, the Pluvicto's specific for that membrane receptor. Once it latches, it gets internalized into the cell, once internalized, it releases a small radioactive molecule or atom, which then deposits the radioactive dose, thereby killing that cancer cell.

I would imagine that because of this highly targeted approach, the overall impact on a patient's quality of life is very different than it would be from previous standards of care.

You're right, given that it has a very targeted mechanism. These types of medicines are a much newer category with a different mechanism of action than the conventional chemotherapy agents. And I think, increasingly, we probably will see more use of this technology in the future application as we come up with more products driven to target different cancers, not just prostate.

Another topic I'd like to discuss is a hypofractionated radiation therapy. What is that and how is that used to treat prostate cancer?

Hypofractionated radiation therapy, the term itself means doing less fractions, meaning the number of treatments. Conventionally speaking, for decades now we've been doing prostate external beam radiation, for anywhere from about an eight- to nine-week course; 44 to 45 treatments has been the standard. The newer approach has been looking to see if we can do the same regimen quicker, faster, with fewer visits, yet maintain safety and maintain the same level of cure rates.

And, multiple studies have been done in North America, Europe, and they've all come to the same conclusion that yes, we can do what we did over nine weeks and cut it down to something as short as five to six weeks, thereby reducing health care costs, improving patient convenience and yet maintaining safety and efficacy.

For newly diagnosed patients with prostate cancer, what should they know in general about the array of radiation treatments that are currently available to them?

For newly diagnosed prostate cancer, the most important thing to consider is, is your cancer low risk, intermediate risk or high risk? We start by putting your cancer into one of these buckets, because that

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CURE: July 25 2024

Radiation Treatment (cont.)

Alex Biese

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really narrows down our treatment options. And unlike most other cancers, what's unique here is low-risk prostate cancer can be further subdivided into very low risk, also. And sometimes the intermediate cancers can be divided into favorable or unfavorable.

And that distinction is important because often for low risk prostate cancers, and depending on your age, favorable-risk intermediate prostate cancers, can be followed with active surveillance, which typically involves checking your PSA [prostate-specific antigen, a protein associated with the presence of prostate cancer in the body] with a blood test twice a year, maybe repeating the biopsy and/or MRI at the one year anniversary from your previous biopsy date.

So there's a lot of vetting we do to make sure you meet these criteria for active surveillance. The advantage of active surveillance being that it avoids the treatment-related side effects. It helps you maintain your sex life or your intimacy, if that's still an important factor in your quality of life. And many times, depending on the person in front of you, maybe that's high priority and they're not willing to forego that as a treatment side effect that often comes whether surgery or radiation, [patients] can develop permanent erectile dysfunction. That's the first thing that needs to be looked at. There's often staging studies that also accompany this diagnosis.

And last but not least, there's something called a genomic fingerprint of your cancer, which is really being utilized more and more frequently for prostate cancer. And it really analyzes the tissue specimen from your biopsy. And we send it to a lab, which then sequences your tumor's genomic sequencing, look for high-risk genes and then gives us the score, which we try to interpret as, "Is the fingerprint of your cancer low, indolent, slow growing, or do you harbor more aggressive genes that make your cancer aggressive?" So that's also another piece we've been incorporating into the decision making.

Raconteur: May 7, 2024

Recognizing the Benefits of Prostate Cancer Support Groups

'Patient choice' has supplanted 'doctor knows best' as the new healthcare mantra. But how many men with prostate cancer are qualified to make an informed choice if they are advised: "You could have prostate removal or radiotherapy, or focal therapy or hormone therapy, or several together."

Andrew Gabriel, 62, an independent patient-advocate, says: "Prostate cancer may be unique with its large number of treatment options, so the patient is left to decide. "This is 'shared decision making' whereby, notionally, you get the information you need in the clinic. But a clinician can't cover everything in a 10 to 20 minute consultation."

As a patient advocate, Andrew spends between 60 and 90 minutes advising newly diagnosed patients. This may seem extraordinary, but Andrew, who was diagnosed with the disease six years ago, says: "There is so much to discuss, much of which clinicians do not routinely cover. Hospitals provide written information, but there's nothing better than talking to someone who's had the treatment and knows about its nuances."

Hormone therapy is one example of this. A common prostate cancer treatment, hormone therapy blocks the male hormone testosterone and can cause fatigue, hot flashes, loss of muscle mass, breast swelling, loss of libido and the ability to get an erection. Andrew says: "You'll find plenty of men in support groups with experience dealing with such side effects. One thing I stress is that you cannot go for several years without an erection and expect it to still work when you finish treatment. "You need to preserve your erectile function while you've got no libido with erectile dysfunction medications."

Peter, a retired doctor, who became incontinent after undergoing prostate cancer surgery, joined a support group reluctantly after hospital staff suggested that it might help him. He says: "I thought it would be full of whining old men. Nothing could be further from the truth. What I found was a warm, easy space, with people talking freely — a world full of men with problems like mine. There were no taboo subjects. Feeling as if you are in a safe place is the key to a successful support group."



PCSANM *Lifeline* Newsletter Celebrating 33 years of supporting individuals with prostate cancer and their families

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A Message from the Chairperson October 2024

Greetings Everyone,

I'm excited to share that the 2nd Annual Dave Riddle Memorial Golf Tournament, held on September 14th at Santa Ana Golf Club, was a tremendous success! A huge thank you to Terry Riddle, the mastermind behind the event, for orchestrating such an incredible day. Thanks to Terry's efforts, we had the maximum number of teams participate, and 23 businesses, including REDW CPAs and Financial Advisors, Bob's Painting, Syn Lawn, and Custom Information Services, sponsored contests and holes.

A special shout-out goes to Presbyterian Healthcare Services for stepping up as the corporate sponsor. And, of course, heartfelt thanks to all the PCSANM volunteers who contributed both in the lead-up to and on the day of the event. We truly couldn't have pulled it off without your hard work and generosity.

Beyond raising the crucial funds needed to expand PCSANM's services, the tournament also gave us a valuable platform to raise awareness about the importance of PSA testing and the services we provide. Conversations are already underway to make next year's event even bigger and better.

Thank you all for your unwavering support!

Warm regards,

Rad Ger

Rod Geer

Chairperson of the Board, PCSANM