Greetings researcher, and welcome to a new edition of Prostate Insights. We have exciting things to announce and important information about new and current treatments.

More treatments are becoming available today for men who have metastatic prostate cancer. William K. Oh, MD and Charlie Baker from the Tisch Cancer Institute will provide an overview of the unique radiotherapy called Xofigo (radium-223). The article answers common questions, explains the results from the trial that led to its approval, describing how it works, covering side effects, implementation into treatment plans, and more.

We recently held our second annual 2016 Moyad + Scholz Mid-Year Update, which was a unique educational experience for those who attended. The attendees enthusiastically participated in the discussion. The article that recaps the event summarizes the lectures and many of the questions that were posed. DVDs of the lectures and Q&A sessions are available on our website www.pcri.org and are a valuable educational resource for anyone interested in the topics. At the conference, Mark Moyad, MD announced the Moyad Challenge, encouraging attendees to step outside their comfort zone and get to a new level of mental and physical health. Dr. Moyad provides an overview of the challenge in this issue.

Exciting new studies were presented at the 2016 American Urological Association (AUA) meeting this year, and in his article, Mark Scholz, MD is analyzes the studies, breaks them down, and explains their significance to patients. The studies he chose focus on radical prostatectomy and salvage radiation, but also covers an interesting study examining how information found on the internet influences treatment choices.

We are pleased to announce a new addition to our Board of Directors. John Anderson is a U.S. Air Force veteran, business executive, and a well-studied prostate cancer survivor. A brief article introduces him and shares some of his personal thoughts about his new involvement with PCRI’s leadership team.

Silvia Cooper assists patients and caregivers on our Helpline. This issue’s Helpline Corner shares her personal story of managing the cancer treatment for both of her parents. The article demonstrates the integral role of the caregiver when it comes to researching, weighing the options, and making the right treatment choices.

We have the privilege of sharing a useful tool created by our partners at the California Prostate Cancer Coalition (CPCC). This tear out has a list of questions for you and your doctor that can help you initiate conversation with your doctor(s) in a productive and collaborative manner. Be sure to check out their website for more educational resources and information on advocacy.

Our 2016 Prostate Cancer Conference is coming up in the next few months, and we have all the information about speakers, topics, and travel logistics in this issue. Be sure to sign up today and reserve your space at this one-of-a-kind educational experience.

Battling prostate cancer takes a well-rounded understanding that comes from good education, support, and collaboration with your medical team and caregivers. Our hope is that you enjoy this issue of Prostate Insights, and you learn something useful that you can apply to your case.
Bone metastases are a common problem for men living with metastatic hormone resistant prostate cancer (MHRPC), affecting up to 90% of these patients. When the disease progresses, it can be painful and difficult to treat. This article covers a drug called Xofigo (radium-223).

This article recaps our recent spring event. Over 250 patients attended this one-day educational event. Pioneering doctors gave extended lectures and fielded questions from the audience. See pictures from the event and find out how you can get a copy of the DVD.

The Mark Moyad, MD, Challenge was announced at the 2016 Moyad + Scholz Mid-Year Update. This article explains what it is and how you can get involved. Dr. Moyad is encouraging you to take a step out of your comfort zone, do something that is good for your health and well-being, and fun!

Dr. Scholz reviews abstracts from the most recent AUA meeting, highlighting studies that focused on radiation after radical prostatectomy. He explores the impact of timing on treatment efficacy, side effects, and recovery.

We are excited to announce a new addition to our Board of Directors. This article gives a brief biography and some thoughts from Mr. Anderson.

A tool designed by our partners at California Prostate Cancer Coalition to help you talk with your doctor and ask the right questions. Feel free to tear it out and use it as a reference.

Silvia answers Helpline calls, lending a unique and valuable perspective to callers. This issue’s Helpline Corner shares some of her experiences with managing both her father’s and mother’s battle with cancer.

2016 PROSTATE CANCER CONFERENCE INFORMATION
We have an amazing lineup of speakers this year, with topics covering every stage of prostate cancer. You do not want to miss this one-of-a-kind event. Find out when and where the conference will be held and learn how to register.
Radium-223 is used to treat bone metastases, a common problem for men living with metastatic hormone resistant prostate cancer (MHRPC), affecting up to 90% of these patients. When the disease progresses, it can be painful and difficult to treat. Given these potentially debilitating problems, we are constantly looking for new ways to improve our current treatment regimen. The development of a drug called radium-223 (brand name: Xofigo) is a substantial innovation, not only because it causes less toxicity compared to its predecessors, but also because it prolongs life. Patients can now access an agent that treats bone metastases and will improve both quality and duration of life.
Xofigo is a novel treatment approved for prostate cancer, which works by targeting areas of increased bone turnover with radiation. Since the body treats calcium and radium similarly, radium is deposited at the site of the metastases.

**WHAT IS RADIUM-223 AND HOW DOES IT WORK?**

Radium-223 harnesses the physical properties of radium, a radioactive element with similar molecular properties to calcium. Just as calcium is incorporated into bone, so too can radium be incorporated. Because bone metastases induce and activate newly-synthesizing bone, radium is incorporated preferentially into the sites of active metastases. Once radium has accumulated at these sites, it emits radioactivity that damages the surrounding cancer cells. Some of the readers may know the history of radium’s harmful effects from the famous “Radium Girl” lawsuits in the early 1900’s, which involved the negative health outcomes of employees using radium-containing self-luminous paint for items such as watch hands and instrument switches. While the radium used in that paint was excessively harmful, the type of radium used in Xofigo is actually different. The active component of Xofigo is an isotope of the element radium, meaning that it has a different number of subatomic particles called “neutrons” than other types of radium. This specific number of neutrons gives radium-223 a distinct profile of radioactivity. Unlike other isotopes of radium, like the poisonous kind that hurt watchmakers in the early 20th century, radium-223 gives off a very particular type of radiation that makes it safer for medical use. Of the three main types of radiation —alpha, beta, and gamma—radium-223 primarily emits alpha radiation (also called “alpha particles”). Alpha radiation, distinct from beta and gamma radiation, is powerful yet relatively safe — powerful for its distinctive high linear energy and safe for its characteristic short distance of travel. The high energy alpha particles cut through the DNA of the cancer cells but do not travel very far beyond them, with an average trajectory of only 100 micrometers (about ten cells in diameter). Because radium-223 is incorporated mainly at sites of bone metastasis, this cell-killing alpha radiation is targeted predominantly at the cancer cells, keeping your native healthy bone tissues fairly safe.

Radium-223 is given by specialized doctors trained in either nuclear medicine or radiation oncology. Xofigo is injected monthly for a total of 6 months. Not every hospital or office offers it, but referral centers are available for most patients in the US. →

“Because radium-223 is incorporated mainly at sites of bone metastases, this cell-killing alpha radiation is targeted predominantly at the cancer cells, keeping your native healthy bone tissues fairly safe.”
HOW DOES RADIUM-223 AFFECT PROSTATE CANCER?

Radium-223 was approved by the FDA in 2013 after the randomized ALSYMPCA trial demonstrated numerous advantages over placebo. These advantages included delayed symptomatic skeletal events, reduced levels of biochemical indicators of disease (such as PSA and alkaline phosphatase blood levels), and—most importantly—a significant increase in survival.

Symptomatic skeletal events (or SSEs) are a painful consequence of uncontrolled bone metastases. The ALSYMPCA trial scrutinized the time it took for SSEs to occur. This time was defined as the interval between the administration of radium-223 (or placebo) and the occurrence of SSEs such as bone fracture, spinal cord compression, or the necessity of surgery or external beam radiation therapy to treat symptoms. For the patients who received radium-223, the median time to one of these events was extended by 5.8 months compared to placebo. This notable advantage can provide our patients with a significant quality of life benefits.

The trial also analyzed the effect of radium-223 on both alkaline phosphatase (ALP) and prostate specific antigen (PSA) levels. Abnormal bone tissue development, such as that seen in bone metastasis, can increase ALP levels, making ALP a blood-based indicator of potentially active bone metastases. Radium-223 often reduced ALP levels, with a significantly larger proportion of radium-223 patients experiencing at least a 30% reduction compared to the placebo group.

Radium-223 may also reduce PSA levels. As most know, PSA levels are an indicator of cancer progression, with higher PSA values corresponding to worse outcomes. A significantly larger proportion of the radium-223 patients experienced at least a 30% reduction in PSA levels compared to the men who received a placebo. Although most patients do not experience a decline in PSA, they may notice a slowing of the PSA rise, which is a more common outcome with radium-223.

The most significant benefit of radium-223 is its proven survival benefit compared with the placebo group, reducing the relative risk of death by 30%. Indeed, the ALSYMPCA study reports that radium-223 can increase median survival time by 3.6 months, even in a group of men with very advanced prostate cancer. As a reminder, this is a median difference, which means that some patients might have benefited much more, and others less.

Of note, in the ALSYMPCA trial patients were allowed to receive radium-223 alone, or in conjunction with the best standard of care, which could include external beam radiation therapy (EBRT), corticosteroids, antiandrogens, estrogens, estramustine, ketoconazole, and various emerging hormonal therapies. Thus, the results of the ALSYMPCA trial demonstrate what you might expect to see if radium-223 is added to other effective anticancer therapies administered at the same time. Considering the present state-of-the-art, this may include newer androgen-targeted drugs like abiraterone acetate (Zytiga) and enzalutamide (Xtandi).

Learn more about Xofigo (radium-223) at www.PCRI.org

“Because of its closely targeted delivery and highly localized activity, radium-223 has relatively few side effects.”
FEATURED ARTICLE

WHAT ARE THE SIDE EFFECTS OF RADIUM-223?

Because of its closely targeted delivery and highly localized activity, radium-223 has relatively few side effects. The most common are diarrhea, nausea, vomiting, and thrombocytopenia (low platelet count). Diarrhea occurred in about 25% of the radium group and 15% of placebo patients.

The most serious side effects relate to a potential effect on blood counts. Thrombocytopenia occurred in 11.5% of patients on radium-223 and 5.6% of patients on placebo, while neutropenia (a low white blood cell count) occurred in 6.3% of patients on radium-223 and 2% of patients on placebo. Anemia (a low red blood cell count) may also worsen on radium-223, though mild to moderate anemia is already common in many men with advanced prostate cancer.

Since there is a risk that Xofigo may lower blood counts, patients must have adequate blood counts (white and red cells, as well as platelets) before the first injection. With each subsequent treatment, their blood counts (particularly the white count and platelets) must remain above a certain cutoff to allow continuation of the monthly therapy.

WHO IS ELIGIBLE TO TAKE RADIUM-223?

Xofigo is intended to treat symptomatic bone metastases in patients whose prostate cancer is hormone-resistant, meaning the patient’s PSA levels do not respond to Lupron. To be eligible, the patient should not have any cancer in the “soft tissues” such as the liver or lung. Small amounts of metastatic disease in the lymph nodes is permissible, however, because limited disease in the nodes is nowhere near as dangerous as bone disease. The reason Xofigo is withheld from men with liver or lung metastases is that radium-223 attacks only the bone metastases; so it would not be expected to have any effect on cancer that is located in the liver or lung.

Given the risk of bone marrow suppression, it is not recommended that chemotherapy (such as docetaxel or cabazitaxel) be administered concurrently with Xofigo, although clinical trials of the combination are currently underway. Prior chemotherapy does not preclude patients from receiving radium-223. In fact, the ALSYMPCA trial stratified its participants by their status and found that radium-223 has similar efficacy in patients who have, or have not received previous chemotherapy. Even people who were considered too frail to be treated with docetaxel were allowed to receive Xofigo. This means that although efficacy is demonstrated to be similar for pre- and post- chemotherapy patients, studies to determine the optimum sequencing of radium-223 are currently underway.

Given radium-223’s relatively low toxicity and excellent safety profile, it fits nicely into the evolving standard of care for patients with hormone-resistant prostate cancer. Newer treatments such as cabazitaxel, abiraterone, and enzalutamide do not overlap mechanistically with radium-223, so all these agents may be used in sequence and help patients via different approaches.

CONCLUSIONS

Xofigo represents an important new treatment option for men with bone metastases and hormone resistance. It improves both quality of life and overall survival. In that regard, radium-223 can make a big difference to patients and their families living with advanced prostate cancer.

“Newer treatments such as cabazitaxel, abiraterone, and enzalutamide do not overlap mechanistically with radium-223 so all these agents may be used in sequence and help patients via different approaches.”

The Alpharadin in Symptomatic Prostate Cancer Patients (ALSYMPCA) trial enrolled 921 patients with metastatic, castration-resistant prostate cancer. Men in the trial were randomly assigned to receive either radium-223 (six intravenous injections, one every 4 weeks) plus the best standard of care or a placebo plus the best standard of care.

The trial’s primary endpoint was overall survival. Secondary endpoints included time to the first symptomatic skeletal event—such as a bone fracture, spinal cord compression, or the need for radiation to treat bone-related symptoms—and quality-of-life measures.

The trial was funded by Bayer Healthcare Pharmaceuticals and Algeta, the company that developed and manufactures radium-223.

Source: http://www.cancer.gov/types/prostate/research/radium-223-improves-survival
2016 Moyad + Scholz Mid-Year Update Recap

Peter Scholz // PCRI Creative Director

The 2016 Moyad + Scholz Mid-Year Update was an educational event for prostate cancer patients and caregivers and was held at the Los Angeles Airport Marriott. Over 250 patients attended this one-day event and had the opportunity to hear presentations from, and interact with, leading doctors. DVDs of the lectures and Q+A sessions are available at our website www.pcri.org. The DVD is a valuable resource for men and their caregivers. Be sure to order your copy!
**Program Update**

**Event Overview**

Thank you to everyone who made this event possible, and to everyone who took part in this unique experience. Although this second Mid-Year Update was nearly double the size of last year’s event, it was an intimate and focused collaborative experience for everyone who attended. In contrast to the scale of our comprehensive Prostate Cancer Conference that we hold in September—that covers every stage, treatment, side effect, and features breakout sessions and support groups—the Mid-Year Update is intended to help attendees dive deeper into specifically highlighted topics with longer lectures and extended Q+A sessions. This year’s topics were an in-depth exploration of active surveillance and treatment for sexual side effects and dysfunction, both of which are particularly relevant to prostate cancer patients and caregivers.

This year, we were proud to welcome Laurence Klotz, MD, a pioneering doctor, and the forerunner of the medical community’s adoption of active surveillance. His presentation, titled “Active Surveillance: Shrinking the Grey Zone,” covered developments in active surveillance methodology and usage. Some of the topics he covered in his presentation included the PSA screening controversy, causes of over-diagnosis, and the use of multi-parametric MRI. He presented results from new clinical studies which followed active surveillance patients over a longer period of time. He illustrated how Gleason 6 cancer doesn’t have the hallmarks of cancer, although it is still technically cancer. He clarified a common misunderstanding about the relation between cancer volume and the likeliness of harboring higher grade disease. To conclude, he presented a new paradigm for screening.

Following his lecture, Dr. Mark Moyad and the audience posed questions like:

- How many PSA tests should one take before a biopsy?
- What is the importance of the PCA3 test, and what are the uses and limitations with the advent of mp-MRI?
- Why can the analysis of a biopsy report differ between pathologists?
- What is the value of color Doppler for active surveillance?
- Which genomic tests are useful to predict cancer aggressiveness?
- Should active surveillance patients take metformin or capsaicin and how does it affect prostate cancer?
- How do I find a doctor who utilizes active surveillance?
- What is the significance of high volume 3+3=6 disease?
- How do you determine if the prostate is enlarged without a baseline?
- How do you calculate PSA density?
- How does a DRE compare with color Doppler ultrasound?
- Can African American men consider active surveillance?
- Can men diagnosed with Gleason 6 under 50 years of age consider active surveillance?
- What questions should a patient ask when looking for an MRI center?
Mohit Khera, MD, from Baylor College of Medicine gave a presentation titled "New Approaches in the Treatment of Male and Female Dysfunction: Testosterone Therapy and Other Options." His lecture covered current treatment options for sexual dysfunction, new treatments and paradigms, female sexual dysfunction, erectile preservation after treatment, and testosterone therapy for men and women. He presented a powerful perspective of treating ED as a couple's disease. He described in detail how each treatment is used. He provided a clinical perspective on treating the disease and filled common educational gaps. His lecture was full of practical information about how to maximize the effects of treatments. Other notable points in his lecture shed light on sexual rehabilitation after treatment, and the controversy surrounding testosterone supplementation in men who have prostate cancer. He covered issues about the prevalence of ED and how and why it is severely under-diagnosed and under-treated. His Q+A answered questions about:
• What should I know about drug pricing, generic options, compounding pharmacies, and insurance coverage?
• What is Staxyn and should I consider it as an alternative to common ED drugs?
• Is there a greater risk for heart disease in men taking testosterone?
• What are the side effects of testosterone replacement or supplementation?
• What is the strategy for recovery after the use of hormone therapy?
• How is erectile function influenced by hormone therapy?
• What is the protocol for erectile preservation after surgery, radiation, or hormone therapy?
• What are the specific symptoms of low T?
• How do you distinguish between primary and secondary hypogonadism?
• What are the dangers of high-T?
• What is Clomid and is it safe? What is its availability?
• What is the overall safety of testosterone replacement?
• Is there an optimum time of day to take testosterone cream?
• What is the effect of diurnal variation and dosage of testosterone?
• Can men on active surveillance undergo testosterone replacement/supplementation?
• How does diet and exercise, obesity, and diabetes affect testosterone levels?
• Are there any educational gaps about oral drugs?
• What is venous leak and what are the symptoms?
• What is the influence of alcohol on ED and testosterone levels?

After the lectures, Dr. Scholz briefly discussed five important breakthroughs that occurred in the past year, including the use of adjuvant chemotherapy in prostate cancer and how the use of Taxotere and other drugs at an earlier stage is becoming the standard of care. He covered Dr. Peter Grimm’s comparative studies which showed that seed implants gave the best cure rates for early stage cancer. He discussed the potential use of Optivo, a new immune therapy which has minimal side effects and is currently used in lung cancer and melanoma. He covered another immune therapy that is in trial called Olaparib, which is used in advanced cancer patients who have failed all other drugs. He presented the results from a trial that compared robotic surgery vs. normal surgery.

Our new board member, Fabio Almeida, MD, from Phoenix Molecular Institute made a guest appearance and shared information about the development of new imaging agents, which are in development and described the process of undergoing a C11 acetate scan for men with metastatic lesions.

Drs. Scholz and Moyad covered various questions from the audience further expanding on the topics covered by the featured speakers, but also answered questions about advanced prostate cancer treatments including Provenge immunotherapy in combination with SBRT, and the new drug trial for Prostvac. They discussed the use of the PSA test in relapsed disease, and its use in screening. And finally, they discussed the effects of diet on the immune system when used in tandem with immune therapy.

To end the evening, the attendees viewed a special showing of the hilarious, one-man comedy play: “A Man and His Prostate,” performed by Emmy Award-winning Actor Ed Asner.

Although this educational event was focused and delved deep into important topics, it maintained a lighthearted and entertaining tone. To us at PCRI, it is important that information is provided in an accessible and useable way. The topics were delivered thoughtfully, decisively, and interaction between the attendees and the speakers made the information personal and applicable.

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**DVDs of the Lectures and Q+A sessions are now available at www.pcri.org!**
Oh, I have to admit I am shocked that the response to the Moyad Challenge has been so large so quickly (I am going to cry! Not really, but it sounded good!). We are talking hundreds of people that signed up the first day, and it is on par (I like using golf vernacular) to reach thousands of people in just a few months. We have all types of cancer survivors signed up, many doctors and other healthcare professionals, pharma folks, supplement folks, diet folks, retired folks, people from all walks of life, dogs and cats (I made up that last part about cats), and it is simply fabulous!

So, now you are probably asking yourself, “Why did Moyad do this and why is he so darn good looking, muscular, sweet, brilliant, and wonderful?” (Okay, perhaps you did not ask yourself the latter part of that question.) Well, PCRI approached me and threatened me with some sort of violence or embarrassment if I did not do something that motivated people. So, for example, if I did not comply, Dr. Mark Scholz threatened to make me wear one of those patient gowns in his office. You know, the one that allows your gluteus to be exposed to the maximus?! I swear, if I was President of the U.S., and arguably I have as good a chance as any this year of making that happen... Anyhow, if I was President I would pass a law that made it illegal to put on those “it is always a full moon at our medical office” gowns.

Anyway, back to my mundane story that crescendos to the point where you will think you saw the latest Star Wars movie or a Hillary versus Trump future debate. In reality, I am in the middle of a mid-life crisis in 2016, and instead of attempting to cure my arguably temporary dilemma by purchasing a speedy new expensive convertible sports car or “B.S.ing” myself into thinking that 51 is the new 31, I have and continue to find solace and a solution in exercise. After 30 years of espousing exercise as probably the greatest drug ever invented, I believe this more than ever before. Why? Aging is also a game of unshackled, sympathetic overload and entropy or chaos when one does NOT exercise. You’re probably asking, “What does that mean Moyad?” It means you are rewarded for learning about diet and moving a little more like never before as you age. Think about how chaotic the human body gets with aging when one does not exercise in any manner—heart rate increases, blood pressure increases, blood sugar increases, weight and waist size can increase, anxiety, stress, and depression increases. One
of the only factors that we can control to help counteract this messy situation is exercise. The human body is like an aging car, and if you let that car sit there for years and years without maintaining it, then it will rust, and it will get dirty and messy. This is also true of a house, a lawn, a backyard barbecue...

Sure, we also have drugs and supplements that work for many problems and these are all wonderful options when needed, but how do I know if I need any of this stuff unless I actually do my part to change my lifestyle, to see if that can solve or reduce my issue? And, if it does not fix things then at least it ensures that I do actually need to entertain other options, and it arguably also reduces the dosages of those other interventions, so my chances of suffering from serious side effects will go way way down. In other words, exercise is one of the greatest truth tellers ever invented for you, and allows you to be able to really see what your needs are, or are not, as you age.

When diet and exercise does not work there is _______ (fill in the name of your favorite preventive/treatment best selling pill such as Viagra, Flomax, Avodart, Myrbetriq, Vitamin D, Prilosec OTC, Metamucil, Crestor, Metformin, Fosamax, blah blah blah blah blah). And, when my favorite pill is not working well enough then there is diet and exercise to enhance the effects of it. You see, you are in a no lose situation, as long as you play the diet and exercise or lifestyle game!

Recently I read the NY times best selling book “When Breath Becomes Air” and it was remarkable (almost as good as “The Supplement Handbook” by Moyad... Yes! I got in one shameless plug–winning!). This book, written by a neurosurgeon in training, is not just an easy, one day, remarkable read, it is a reminder of why we all need to BEAR HUG LIFE as much as we can while we are alive. But this book was also remarkable because all my close friends including my wife know that I never ever read books, because I do not want to read anything other than medical journal articles 24/7. However, this book and exercise together have become a regular 2016 reboot. It woke me up and reminded me how precious we are, and how our lives have and will change one day, sooner or later, in an instant. Whether it was the recent death of a close high school and college classmate, or my wife’s father dying when she was just a little girl, or one of our wonderful speakers at last year’s PCRI meeting that is no longer alive... It all changes so quickly and all the silly things that we constantly convince ourselves that matter do not really matter. This is of course until we realize that they do not matter. We need to resolve these things; these issues, now or soon, because otherwise they become wasted energy. Anger at a family member, holding a grudge, fighting with a spouse, not writing or calling your friend because ________, waiting on New Year’s day to exercise or get more healthy???. The time is now, not tomorrow and not January 1, 2017.

Exercise or moving regularly is part of your solution and after thousands of research articles we now know with amazing clarity that it reduces your heart rate, blood pressure, blood sugar, helps some reduce weight/waist, and is one of the greatest ways to prevent or reduce the burden of anxiety, stress, and depression. There is no greater anti-aging drug, and yet we search daily for the anti-aging secrets/pills, and exercise is right there staring us relentlessly in the face. But some of us have become desensitized and avoid looking at the elephant and giraffe in the room, as a way to fix things.

“...we search daily for the anti-aging secrets/pills, and exercise is right there staring us relentlessly in the face. But some of us have become desensitized and avoid looking at the elephant and giraffe in the room, as a way to fix things.”

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Moyad Challenge Continued:

As I am writing this today, I just finished a 10-mile run this morning and I have never been so calm, so content, so happy, so grateful for my life, wife, family, employer, boss, parents, kids, nephews, friends, and even my 2 brothers (despite the fact that they treated me like the family piñata for many years, but that is for another time when I can lie back on a couch and have a professional listen to me at 300 dollars an hour) and there is no damn way a new sports car or younger person telling me I actually look 40 years old could supplant these wonderful feelings. Yet, I owe part of that feeling to my daily exercise routine, because otherwise I would be a mess just like a car that sat outside for years without any attention or a lawn with formidable weeds that never received any serious care for years. I think this is the difference between bear hugging life or occasionally giving the anemic thumbs up sign. Now, I want to see this go to the next level. I want people to try new forms of this legal “drug” and challenge themselves and others to do the same. So, I am going to start playing basketball again and I am going to try swimming laps and I will continually provide some lifestyle and diet tips. I want you to bear hug life. And if you think you already do this then I want you to try and bear hug life a little harder this summer. Please come along for the ride because when we do this together it allows you to appreciate a symphony and a solo artist at the same time, and all of this should open more doors that we never appreciated or even thought existed. Thank you, and now I will return you to our regularly scheduled program, but not for long! Stay tuned! Buckle up! Get excited! Get out there and do something you have never done before! Bear hug your friend, your spouse, your dog, your kids, your doctor, ...from surfing lessons to dance class to hiking the Grand Canyon.... just squeeze the heck out of this life! What are you possibly waiting for?

Sign up to take the challenge!
www.pcri.org/moyad-challenge

Abstracts from the 2016 AUA Meeting

By Mark Scholz, MD, PCRI + Prostate Oncology Specialists

AUA is an annual meeting of urologists where data from new studies are presented. This data is presented in abstracts, or summaries of the entire peer reviewed articles. In this article, Mark Scholz, MD, analyzes the data and explains the practical implications of these new studies.

Close to 600 new prostate-cancer-related studies were published at the annual American Urological Association meeting in San Diego this past May. In this article, I want to draw attention to three of the studies in particular. These three studies discuss the optimal timing for administering radiation after surgery, when the surgeon leaves cancer behind. Persistent cancer after surgery, if the PSA is undetectable, is called a positive margin. If the PSA is rising it is called a PSA relapse.

Obviously, there were many interesting reports presented at a meeting of this size. Around 15,000 urologists from all over the world attended. There were prostate cancer studies relating to PSA screening, hormone therapy, active surveillance, prostate imaging, radiation, focal therapy, and of course, surgery. There were far too many topics to cover in this short article. But before we delve into the three post-surgical radiation studies, I want to present results from two other new reports about surgery. I also want to present the results of another, about prostate cancer survival rates in general.
The Surveillance, Epidemiology, and End Results (SEER) Program of the National Cancer Institute works to provide information on cancer statistics in an effort to reduce the burden of cancer among the U.S. population.

Source http://seer.cancer.gov

Mark Scholz, MD, is the Executive Director of the Prostate Cancer Research Institute and the Medical Director of Prostate Oncology Specialists. He co-authored the best-selling book “Invasion of the Prostate Snatchers: No More Unnecessary Biopsies, Radical Treatment or Loss of Sexual Potency

The next study addresses a serious side effect from surgery that I have rarely heard about. This preliminary report indicates that surgery has a major impact on the capacity to have normal orgasms.

Abstract MP69-15: Mark Preston, MD, and other researchers looked into an association with the day of the week that surgery was performed and various outcomes such as operative complications, length of hospital stay, and mortality. This was a retrospective evaluation of the SEER database in 20,955 men. The study found that surgery performed on Monday was associated with an 11% reduced risk of short-term complications and a 17% reduction in the risk of long-term urinary complications. Surgery performed on Friday was associated with a 12% higher complication rate and 19% higher risk for a prolonged hospital stay (>2 days). Mortality was not affected by the day of the week. The authors pointed out that this phenomenon of inferior surgical results toward the end of the week has been reported with other types of surgery besides prostate surgery. They did not offer any speculations about the cause.

The next study addresses a serious side effect from surgery that I have rarely heard about. This preliminary report indicates that surgery has a major impact on the capacity to have normal orgasms.

Abstract MP80-03: Christopher Dechet, MD, and other researchers administered periodic questionnaires to 499 men after surgery. Sixty percent of the men reported that the ability to achieve an orgasm was worse; thirty percent reported no change and ten percent said it was improved. Recovery plateaued at 15 to 21 months. Age was not a material factor except in patients less than 50 years old. Nor did the use of robotic surgery affect the incidence of orgasmic dysfunction. Recovery of orgasmic function was closely associated with recovery of erectile function. The authors also noted that moderate to severe urinary incontinence was associated with worse orgasmic function. The authors concluded, "orgasmic function is negatively impacted by radical prostatectomy and takes 15 to 21 months to recover."

The next study is interesting because it closely mirrors what I commonly see in my clinic. Patients tend to grossly overestimate their chances for dying of prostate cancer. The researchers imply that this misconception is due to information from the internet.

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Abstract MP04-08: In this study the researchers evaluated how well US adults estimated survival for a hypothetical prostate cancer patient using an unrestricted internet search. After that was completed, survival was estimated with cancer-specific nomograms. All the participants were given a pathology report from a 69-year-old man who had surgery. The participants were asked to predict what the hypothetical patient’s 15-year survival would be using unrestricted internet searching. Afterwards, they were asked to re-estimate with a prostate cancer nomogram. 129 people participated in the study. Their average age was 47. Three-fourths had a college degree. After internet searching only 19% were able to offer a reasonably accurate assessment of the hypothetical patient’s survival. After using the nomogram, one-half of the participants came up with a reasonably accurate prediction of survival. The authors concluded that most adults seriously underestimate 15-year survival using unrestricted internet searching and that patients need help finding accurate online health resources.

Now let’s move on to the three abstracts that have important implications for men; cancer that has been left behind after surgery. Over 60,000 men in the United States are treated with radical prostatectomy every year. A positive surgical margin is detected immediately after surgery by the pathologist in 10-50% of men (the incidence is higher with unskilled surgeons and more serious cancers). Men with positive surgical margins or a PSA relapse after surgery are often treated with radiation. Surgery is almost always associated with a slow recovery of urinary continence and sexual function, sometimes requiring up to 2 years. The problem is that there is also evidence that radiation further retards urinary and sexual recovery. Therefore, if radiation can safely be postponed or withheld altogether the chances are better for more complete urinary and sexual recovery. The results of the following study indicate that the impact of radiation on sexual function is the greater concern.

Salvage radiation is radiation treatment that is performed after a prostatectomy fails to remove all of the cancer. There are factors that influence how soon this radiation should be performed. Recent studies analyze the factors that affect sexual recovery, side-effects, and survival.

Abstract: MP04-11: In this study the authors administered questionnaires to 113 men at three specific time points: before surgery, after surgery but before radiation, and after radiation. The patients were divided up into two groups: The ones who had radiation within a year of surgery (median 8 months) and those who had more delayed radiation (median 28 months). The authors found that there was no significant difference in the rate of recovery of urinary function between the two groups. However, men receiving early radiation were found to have worse recovery of sexual function compared to the men whose radiation was administered later.

“...men receiving early radiation were found to have worse recovery of sexual function compared to the men whose radiation was administered later.”

Since delaying radiation seems to be associated with better rates of sexual recovery, the next important question is what kind of impact does the timing of radiation have on cancer control. This is an important question because previously-performed trials show that radiation right after surgery in men with positive margins reduces the risk of future metastases and improves survival. The problem with these previously performed studies is that the men who had immediate radiation were only compared with men who had their radiation delayed until the PSA was 2.0 or higher. The next two studies address the important question, "Would there still be a survival advantage for immediate radiation over delayed radiation if men with positive margins were monitored very closely without any immediate radiation, but had radiation initiated at the very first sign of a PSA rise (above 0.5)?"
Abstract MP14-08: To answer this question, the authors of this study evaluated 596 men with positive margins after surgery, whose PSA was undetectable. The patients were divided into two groups: Those who had immediate radiation within 6 months of surgery while the PSA was still undetectable, and men who started radiation at the first indication of a PSA increase, before their PSA rose higher than 0.5. In the latter group 60% of the men never did develop a PSA increase and therefore never required radiation. However, in the other 40% delayed radiation was initiated after the PSA began to rise but before it increased above 0.5. Metastasis-free survival at 10 years for the first group, the men who had radiation right after surgery was 90%. For the other group, with either no radiation or delayed radiation, it was 89%.

Abstract MP14-12: In this study, the authors divided 422 men with positive margins into four groups: radiation right after surgery (PSA < 0.2), radiation started after a PSA relapse but while the PSA was less than 0.5 (the same as Abstract MP 14-08), radiation started after the PSA had risen above 0.5, and men who never received any radiation whatsoever, no matter how high the PSA increased. The men in the first two groups (immediate radiation and radiation with a PSA < 0.5) were 4.3 times less likely to develop metastases over the next 8 years compared to the other groups. There was no significant difference between the men treated with “early” (PSA <0.2) or “immediate” radiation after relapse (PSA < 0.5).

Both of these studies are retrospective. The problem with retrospective studies is that unsuspected factors can impact the accuracy of results. Despite this limitation, we now have two studies indicating that men with positive margins can safely forgo immediate radiation as long as they monitor their PSA levels very closely and initiate radiation at the very first sign of a PSA relapse.

While these two new studies address a very important question, men should realize that the presence or absence of positive margins is only one of many important prognostic factors that predict for cancer problems in the future. The other important factors are node status, the PSA level prior to surgery, the Decipher genetic test, and the Gleason score. The two studies I just presented should be applied to men who have a positive margin and otherwise have favorable prognostic factors. Such men can safely delay radiation until there is evidence of a PSA relapse. Conversely, men who have unfavorable prognostic factors need immediate aggressive multimodality therapy regardless of their margin status. The final study we will review addresses treatment for men with unfavorable prognostic factors.

Abstract MP50-01: Several luminary researchers, Drs. James Eastham, Peter Scardino, Francesco Montorsi, and Alberto Briganti, evaluated the use of aggressive post-op treatment in men with lymph node metastasis after surgery. Their study evaluated 1,338 men with node metastases who received immediate testosterone inactivating pharmaceuticals (TIP) and compared their survival rates with men who were treated with TIP plus radiation. The difference between the 10-year mortality risk of the men getting immediate combination therapy and those receiving TIP alone ranged from 5% in patients with low risk features to 40% in men with a high disease burden.

Final Comments

The results of all these new studies indicate that the selection of treatment after surgery should depend on the characteristics of each patient. Treatment, therefore, can range from observation, to radiation alone at the first sign of PSA relapse, to immediate combination therapy with hormone therapy plus radiation*.

* A study presented at the 2015 Urology meeting also indicated that Taxotere chemotherapy can be beneficial in men with metastatic cancer in the lymph nodes.
A COLLABORATIVE LEARNING EXPERIENCE FOR PATIENTS + CAREGIVERS

SEPTEMBER 9-11, 2016 // LOS ANGELES AIRPORT MARRIOTT
The Prostate Cancer Conference is an event where you can interact with leading doctors and have your questions answered. Presentations cover every prostate cancer topic from treatment options to side effect management. Multiple Q+A and breakout sessions put you in contact with practicing physicians and leading researchers from around the world. You will also glean from the experiences of your fellow patients and caregivers in support groups, breakout sessions, dinners, and excursions.

The interactive nature of the event is a breath of fresh air on your journey and a source of hope and encouragement. You will find empowering information that is relevant to your case. We look forward to seeing you in September!

The conference is held at the Los Angeles Airport Marriott. A special room rate of $120/night is available until August 18, 2016, by calling the Marriott directly at 310.641.5700 or by visiting www.PCRI.org for the online booking link.

- Discounted airline booking with Delta is available via www.delta.com. When booking online, select Book A Trip, click on Advanced Search and use the meeting code NMKZ8
- Discount car rental through AVIS using discount code #D374541
- There is a complimentary shuttle from LAX terminals to the Marriott
- A reduced self-parking rate of $19/day is available for those who are driving to the conference

For info + registration visit: www.pcri.org/2016-conference or call 310.743.2116

[Event Overview]

[Travel + Lodging]

[Featuring]

-presentations from practicing physicians and leading clinical researchers on new developments, treatments, pharmaceuticals, and clinical trials for every stage of prostate cancer
- Presentations on reducing treatment side effects and maximizing quality of life
- Interaction with experts in extensive Q+A and “Ask The Experts” breakout sessions
- Support groups
- Informational sessions for caregivers
- Exhibit hall featuring resources and products from our industry partners
- Explore Los Angeles by signing up for our Malibu Winery excursion

[Speakers + Topics]

Mark Emberton, MD | Hifu & Other Novel Prostate Cancer Treatments
Gary Leach, MD | Fixing Incontinence After Prostate Cancer Treatment
Eugene Kwon, MD | The Revolution in Prostate Cancer Imaging
Mark Moyad, MD | Moyad’s Magical Mini Review of Alternative Therapy: From Marijuana to Multivitamins
Charles “Snuffy” Myers, MD | Snuffy Myers, MD vs. Mark Moyad, MD: Mayhem At The Marriott
Nicholas Vogelzang, MD | Hormone Resistance and Bone Metastases
Howard Sandler, MD | Early Stage Chemotherapy & Breakthroughs in Radiation Therapy

Early Bird Special:

Register before July 30, 2016 to get 50% off registration!
PCRI is proud to welcome John Anderson to our Board of Directors. His experience will be invaluable to our leadership team as he helps to advance our mission.

### Introducing

**John D. Anderson**

John Anderson is a retired business executive and prostate cancer survivor. He graduated from Miami University in 1967, served as an officer in the U.S. Air Force during the Vietnam era, and earned a Master’s Degree in Business Administration from the University of Southern California in 1974. He served in various finance and banking positions in the Los Angeles and San Francisco areas before settling into a career in the multi-family housing business where he was Senior Vice President of Asset Management at Everest Properties in Pasadena, California. He retired from that position at the end of 2014.

He was diagnosed with high-risk prostate cancer in June of 2004. There was relatively little information available at the time regarding prostate cancer treatment options. After extensive research and travel to prostate cancer treatment specialists he found his way to an oncologist. He began a two-year treatment cycle of hormone blockade, radiation and chemotherapy that has resulted in no surgery and a low and stable PSA.

### Thoughts from Mr. Anderson

When I was diagnosed with high-risk prostate cancer I immediately commenced the big research project to learn about my disease. Prostate cancer had taken my father’s life in 1974 when information was nearly non-existent and treatments were primitive by comparison to today’s protocols. Even in 2004, when I was diagnosed, it took some digging to understand my disease. The internet was just beginning to take off and relatively little information was online at the time. Over a few months I was able to compile a framework of understanding through information found online, books about the disease, and online chat rooms that offered support.

I spent several months going through this process, interviewing skilled medical professionals who treated prostate cancer. By the time I was done I well understood the risks and side effects of the various treatment protocols of the day. Our oncologist suggested a combination of non-invasive modern therapies that made sense to me. I began a two-year treatment plan with my oncologist that has resulted in a low, stable PSA with little in the way of side effects, and a very high quality of life. Fourteen years after my initial diagnosis, at age 70, I still ski, bike, travel, and enjoy a wonderful family life.

The PCRI is now providing patients with the type and quality of information that I wish I could have found when I was newly diagnosed. Men and their loved ones need to understand that there are multiple treatment options and that there are serious side effect risks from invasive procedures. In joining the Board, my goal is to help PCRI expand its education and patient empowerment in prostate cancer so that patients around the world can find, modern, current information on state-of-the-art advanced diagnostic tools and treatment options in one place.
PROSTATE CANCER:
INFORMED DECISION MAKING
FOR MEN 40 AND OVER

There is much debate on the value of PSA testing and the diagnosis of prostate cancer.

10 QUESTIONS TO ASK YOUR DOCTOR ABOUT YOU AND PROSTATE CANCER

1. I want to know my risk for developing aggressive prostate cancer. What tests are there to learn my risk? The two basic methods for determining your risk for developing aggressive, life-threatening prostate cancer are the prostate specific antigen (PSA) blood test and the digital rectal exam (DRE).

2. What is a “baseline PSA” and what is the value of a “baseline PSA”?
A baseline PSA is your initial PSA blood test at about age 40 that allows you and your physician to watch how your PSA varies over time.

3. What is the importance of family history, ethnicity, and exposure to Agent Orange?
A family history of prostate cancer, especially in a first-degree relative (father, brother, son), increases your risk of developing prostate cancer. Certain ethnicities also carry a high risk of developing aggressive prostate cancer, i.e., African-American men have approximately twice the incidence and death rate from prostate cancer as Caucasian men. Prior exposure to Agent Orange may also increase the risk of developing aggressive prostate cancer.

4. If I have a PSA test and it comes back high, what other tests are there that I can have to determine if I need a biopsy?
Your physician will want to rule out an infection and/or an enlarged prostate, both of which can cause the PSA levels to increase. A repeat PSA should be obtained. There are tests such as free PSA, PCA3, PHI, 4K Score and others which may be useful in some instances. Free calculators can help integrate your PSA with your age, family history, and other parameters to estimate your risk of prostate cancer and high-grade prostate cancer. See http://tinyurl.com/caprisk.

5. What are the benefits of detecting aggressive or potentially aggressive prostate cancer early?
As with most cancers, the earlier aggressive prostate cancer is diagnosed the greater the chance that the cancer will still be confined to the prostate and thus curable.

6. What are the risks of NOT detecting an aggressive or potentially life-threatening prostate cancer early? It will be more difficult, even impossible, to cure. Once the cancer escapes the prostate it can invade the lymph nodes and may spread to the bones and elsewhere (metastasis).

7. What are the risks of a biopsy?
There is a risk of bleeding, which is usually minor, and of an infection, which is reduced through pre-biopsy antibiotics. The other risk is diagnosing an insignificant cancer. Most men would think this is worth the risk, but this is a personal decision.

8. If I have a biopsy and it reveals cancer, do I necessarily have to have treatment? What is “Active Surveillance”? You do not necessarily have to have treatment. If a relatively low-risk cancer is found, you may be a candidate for Active Surveillance, under which PSA and other tests are performed periodically to ensure that you receive timely treatment, if necessary.

9. Why shouldn’t I wait until I have urinary or other symptoms to have my first PSA?
When cancer has progressed to the point that symptoms are present, the disease has usually spread and is difficult or impossible to cure.

10. If I am willing to live with the potential side effects of a biopsy or of treatment, shouldn’t I have the option of doing further testing?
Weighing side effects of any possible testing, diagnosis, and treatment against the chance of living a full life is a very personal decision based upon your own values. Most men would at least like to know if they have prostate cancer. Armed with accurate information, you can make a joint decision with your physician as to what steps, if any, to take.

PSA testing is currently a man’s best defense against dying of potentially lethal prostate cancer and against developing metastatic prostate cancer. Individuals have a fundamental right to choose whether or not they want to know if they have prostate cancer, prior to becoming symptomatic.

Knowledge is Power!
www.prostatecalif.org

California Prostate Cancer Coalition

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1. Some aggressive prostate cancers produce only small amounts of PSA and therefore DRE’s should always be performed in addition to the PSA test. Prior to the blood draw, the physician should tell the patient that the physician is only looking for potentially lethal prostate cancer.

2. After obtaining an initial PSA for a patient, the physician should refer to guidelines that stratify the patient’s risk for life-threatening prostate cancer. Frequency of future PSA testing depends on that risk assessment (www.mskcc.org/cancer-care/adult/prostate/screening-guidelines-prostate).

3. Having a father or brother with prostate cancer more than doubles a man’s risk of developing prostate cancer. The risk is greater for men with several affected relatives, especially young relatives. Men who eat a lot of red meat or dairy products seem to have a higher chance of developing prostate cancer. Other possible risk factors include obesity, prostatitis, STD’s, exposure to Agent Orange and lack of exercise.

4. To determine if a biopsy is warranted, asymptomatic patients with a high PSA and at least a 10-year life expectancy should have a repeat PSA. A free calculator (http://tinyurl.com/caprisk) can integrate PSA, age, family history, and other factors to generate risks of prostate cancer diagnosis and high-risk cancer diagnosis. Other tests used in some cases include free-versus-bound PSA and the PHI algorithm. (Journal of Urology Volume 185, Issue 5, Pages 1650-1655, May 2011)

5. Since the 1990s when PSA testing became widespread, there has been a >40% decline in prostate cancer mortality. (American Cancer Society). Most of this decline can be attributed to screening efforts and improvements in treatment for high-risk disease detected early through screening (Etzioni Cancer Causes Control 2008).

6. A large European randomized trial of screening vs. no screening (ERSPC) found a 21-29% reduction in prostate cancer mortality risk through PSA screening. (Schröder, NEJM 2012) A randomized trial in the U.S. (PLCO) found no benefit—but 79% of the men in the “usual care” arm of this study received at least one PSA test, so the trial authors concluded that the trial shows only that annual screening offers no clear benefit over ad hoc PSA testing associated with routine primary care. (Andriole, JNCI 2012) Thus the PLCO does not contradict the ERSPC, and there really should be no controversy about the fact that screening saves lives.

7. Risk of infection with a biopsy is minimized when the patient pre-medicates with antibiotics; and pain from a biopsy should be minimized with anesthetic compounds.

8. Most prostate cancers found today are low-risk and do not require treatment. Active Surveillance (AS) is an accepted alternative for low-risk, non-aggressive prostate cancer. Currently there are tools, including genomic tests, that help determine who is an appropriate candidate for AS. Overtreatment of low-risk disease does remain prevalent in the U.S., however, and patients should be referred to urologists who understand risk stratification of prostate cancer and who routinely offer the surveillance option to men with low-risk disease.

9. When cancer has progressed to the point that symptoms are present, the disease has usually spread and is no longer curable.

10. A man cannot begin to make any decision about his prostate health without knowing his PSA and keeping track of any changes. Focusing testing on men at highest risk of life-threatening disease helps balance the potential benefits and harms of screening.

PSA testing is currently a man’s best defense against dying of potentially lethal prostate cancer and against developing metastatic prostate cancer. Individuals have a fundamental right to choose whether or not they want to know if they have prostate cancer, prior to becoming symptomatic.

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California Prostate Cancer Coalition

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Thirteen years ago, my life suddenly changed when I found myself entering the world of “cancer.” I was young, busy, and healthy. I had never been sick, and neither had anyone else in my family. Then we found out my mom was diagnosed with squamous cell carcinoma (head, neck, and throat). When my family found out about my mother’s cancer diagnosis, we went through the typical series of emotions—shock, fear, confusion, and despair.

We relied heavily on the guidance of her physician, who was selected by her insurance, not our family. Little did we realize, her physician was overloaded with many patients just like her, and could not offer her the individualized care she needed. We did not know how naive we were about healthcare. Decisions and choices were being made without the necessary research and knowledge to do so. Two years later, my mom passed away. There are no guarantees that we would have had a better outcome had we traveled a different path. However, my retrospective analysis tells me that it would have. Perhaps my mom would be here today enjoying her grandchild.

Fast forwarding several years, my dad was diagnosed with prostate cancer at the age of 81. Due to our previous experience with my mother, my sister and I learned our lesson and we very quickly took control of our father’s healthcare. We thoroughly researched his situation and made a point to understand his diagnosis. We compiled a list of questions and we pursued answers, without concern as to whether or not we would offend or take up too much of the doctor’s time. Whenever there was any gray area in our understanding, we asked for more comprehensive clarification. We looked into alternative treatments, areas less investigated, and always questioned each and every option, answer, and suggestion. We knew that our approach to dealing with our dad’s illness needed to be informed and educated. My sister and I unequivocally believe that this path was empowering and rewarding, unlike what we experienced with our mom. Seven years later, my dad is now 88 year old; living a wonderful, healthy life, and very much enjoying his grandchild.

On my dad’s journey, we chose a prominent urologist and sought a second opinion to confirm his recommended treatment plan. We were referred to a prostate oncologist by a close friend. After our two-hour consultation with him, it became clear that the best path for our dad was an “out of the box” treatment approach. Our father was being offered the consideration of individualized care that he needed, not the “standard treatment protocol.” Through our dad’s oncologist, we were introduced to PCRI. The introduction was fortuitous.

The lessons learned through our experiences resonated with the very mission that PCRI embodies—to help prostate cancer patients and caregivers research their treatment options. I found the PCRI principles so in line with my personal values and, in 2011, I had the opportunity to join the PCRI team. In my role as a Help- line Facilitator, it has been a joy to help individuals in their most vulnerable time; to pursue the knowledge and treatment options they need. Enabling them to fight cancer, one decision at a time.

My journey as a daughter, caregiver, and advocate has taught me that “It is imperative that you take control.” The PCRI Helpline is here to help you accomplish this.
The Prostate Cancer Research Institute is a 501 (c)(3) charitable not-for-profit organization located in Los Angeles, California. Our mission is to help men research their options. We assist them with their research by disseminating information that educates and empowers. Our programs help them understand their type of prostate cancer and the best way to treat and manage it.