My Journey with Prostate Cancer

Shared by PCSANM member John Ziegler

Let’s not bury the lede: on September 5, 2019, I had a robotic radical prostatectomy to address (and hopefully eliminate) my prostate cancer. How did we get here? In December 2018, we learned that I have prostate cancer. It wasn’t really startling, given my facility history: Dad had prostate cancer, as did his father before him, and both died from related aspects.

It’s one thing to say “it’s not if, it’s when,” and another to experience it. My cancer was detected relatively early. For those keeping score, my PSA level was 5.0 (a rise from previous tests). Combined with my family history, that was enough to recommend a biopsy. The biopsy results were 4 of 12 cores positive with Gleason scores of 6 (3+3) and 7 (3+4), grade T1C. In current parlance, this is considered stage 2 on a scale of 1 to 5.

The good news is that prostate cancer is usually slow-growing and often curable. Treatment options at that point included active surveillance, external beam radiation, brachytherapy (radioactive seeds), localized therapy, and surgery (radical prostatectomy, either manual or robotic-assisted). We did a lot of research, and learned a lot from our local survivors’ support group (PCSANM). During that period, attending the twice-monthly group meetings was a Saturday afternoon agenda item.

In the first half of 2019, we had visits and consultations with ten medical professionals of various specializations: my primary care general practitioner, urologists, radiologic oncologists, medical oncologists, and cancer research specialists. Most of those were in Albuquerque, but it also included a remote consultation with a researcher in Houston, TX, and an in-person assessment for a clinical trial at Johns Hopkins University in Baltimore, MD. The trial involved focal laser ablation and nanoparticles; I had visions of re-enacting a scene from Star Wars in my groin, but it turned out that my abnormal cells were too diffuse in the prostate gland for such a focal therapy to be effective. So much for the special effects!

See ARMED on page 4
Special thanks to Presbyterian Healthcare Services for its generous support of this newsletter.

Board Members

Rod Geer, Chairperson
Charles Rowland, Vice-Chairperson
David Turner, Treasurer
Audrey Snigowski, Secretary
Lou Reimer, Programs Chairperson
Gene Brooks, Programs Coordinator
Kat Lopez
Michael Weinberg
Phil York

Prostate Cancer Support Contacts Around the State

<table>
<thead>
<tr>
<th>City</th>
<th>Contact</th>
<th>Phone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clovis</td>
<td>Kim Adams</td>
<td>(575) 769-7365</td>
</tr>
<tr>
<td>Farmington</td>
<td>Deb Albin</td>
<td>(505) 609-6089</td>
</tr>
<tr>
<td>Los Alamos</td>
<td>Randy Morgan</td>
<td>(505) 672-3486</td>
</tr>
<tr>
<td>Las Cruces</td>
<td>John Sarbo or Ron Childress</td>
<td>(915) 503-1246</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(575) 522-1083</td>
</tr>
<tr>
<td>Silver City</td>
<td>Herb Trejo</td>
<td>(575) 574-0225 C</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(575) 538-3522 H</td>
</tr>
</tbody>
</table>

In Memory of

With deep sympathy and regret, we list this name:
Paul Livingston

DISCLAIMERS:
PCSANM gives education, information and support, not medical advice. Please contact your physician for all your medical concerns.

No copyrighted material belonging to others is knowingly used in this publication without permission. If any is inadvertently used without permission, please contact our office.

Articles are selected from a variety of sources to give as wide a range of content as possible. PCSANM does not endorse or approve, and assumes no responsibility for, the content, accuracy, or completeness of the information presented.
Men with Low Health Literacy Less Likely to Choose Active Surveillance for Prostate Cancer after Tumor Profiling

Tumor gene profiling is a tool that can help patients with a cancer diagnosis make informed decisions about treatment. In predominantly white populations, among men with early stage, favorable-risk prostate cancer, these tools have been shown to increase patient acceptance of active surveillance -- a common, evidence-based approach to monitor the tumor before a more aggressive treatment, like surgery or radiation.

However, a new study from researchers at the University of Illinois Chicago and Northwestern University shows that in a predominantly Black, urban patient population with substantial social disadvantage, tumor profiling had the opposite effect among men with clinically similar prostate cancers -- it decreased patient acceptance of active surveillance. In fact, men with low health literacy were more than seven times less likely to accept active surveillance if their tumors were profiled, compared with those with high health literacy.

“The data presented in this study provide important evidence that tumor profiling has a different impact in high-risk populations and in populations with less access to health services and education,” said Dr. Peter Gann, professor of pathology at the UIC College of Medicine and corresponding author of the study.

The findings are published in the Journal of Clinical Oncology.

“We generally consider acceptance of active surveillance to be a good thing, as it can lead to improved quality of life and a longer time without treatment side effects,” said Dr. Adam Murphy, assistant professor of urology at Northwestern University Feinberg School of Medicine and first author of the study. “Knowing that low health literacy may discourage men from selecting active surveillance, efforts should be made to provide prostate cancer and active surveillance-focused education for men with low-risk prostate cancer, so that they can make informed treatment decisions.”

“It will be years before we can evaluate if outcomes vary as a result of these decisions, but it is vital that we understand how diverse communities are affected by these test results so that we can support confident, informed decision making,” said Gann, who is member of the University of Illinois Cancer Center of UIC.

The study was conducted as part of a clinical trial called ENACT, for Engaging Newly Diagnosed Men About Cancer Treatment Options. The trial is the first to use a randomized design to evaluate the impact of a genomic test on treatment choice.

In the study, the researchers enrolled 200 men from three public hospitals in Chicago whose clinical findings put them in the very low to low-intermediate prostate cancer risk category, meaning all participants were considered candidates for active surveillance. The participants were randomly assigned at diagnosis to receive standard counseling, or standard counseling plus a discussion of tumor gene profiling test results.

For the intervention group, the Oncotype DX Genomic Prostate Score, or GPS, was used. GPS analyzes tumor cells and measures the activity of certain genes, and then “scores” the aggressiveness of the cancer. The results are presented as probabilities of bad outcomes.

“Because the GPS test has been validated in mostly White patient populations, we particularly wanted to know how the test would affect Black patients’ decision-making process for selecting a course of action for a favorable-risk prostate cancer diagnosis,” Gann said.

Of the participants, 70% were Black, 16% had a college degree, 46% were classified as having low health literacy, and 16% were uninsured. Health literacy was measured by an individual’s ability to understand information about their health.
Armed with all the information we gathered over those six months, we weighed the options and decided that my preferred treatment was a robotic-assisted radical prostatectomy, or an RRP, and that we wanted Dr. Satyan Shah* of the University of New Mexico Cancer Center to perform it. We had quickly developed a comfortable rapport with Dr. Shah, both personally and professionally. He was unfailingly open and honest about all aspects of my particular situation, the anticipated effectiveness of each treatment, and potential for side effects of all options.

On the morning of September 5th, we arrived at UNM hospital and I was checked into the surgery pre-op ward. Over the course of the morning, each member of the surgical team stopped by to introduce themselves and ask if we had any questions. The surgery itself went smoothly (or so I'm told; I slept through it), and I woke an hour later in the post-op ward. I spent one night in the hospital, experienced little pain, and was released the next morning. One day after I left the hospital, I walked into a PCSANM support group meeting (much to my wife’s dismay) and updated my story. I figured that my presence so soon after surgery would be a positive image.

The eighteen months since the surgery have been uneventful. The post-surgery pathology confirmed the cancer diagnosis and grade, and indicated good margins, meaning that it was likely that the surgery had removed all of the diseased flesh. My quarterly blood tests have all shown undetectable PSA levels, another positive sign that prostate cancer is completely behind me. I am still dealing with ED effects, but that’s a trade-off I am comfortable with.

One of the mantras offered throughout my journey by the many people I spoke with – ranging from men at PCSANM to all the doctors visited – was “Do your research, make a treatment selection that you are comfortable with, and don’t second guess it.” We reached that decision with robotic radical prostatectomy, and are happy with the results.

*Dr. Satyan Shah is a member of the PCSANM’s medical advisory board.
A New Way to Detect Prostate Cancer… Inspired by Man’s Best Friend

Dogs can serve as guides for people who are blind, support individuals with autism, and “smell” changes in blood sugar, warning a person with diabetes that they need to take action. (Dogs are now being trained to detect COVID-19!) In cancer, there have been many previous small and uncontrolled studies of dogs’ ability to detect several types, including melanoma, ovarian, bladder, and prostate cancer.

The PSA test for prostate cancer screening can miss some cancers AND signal the presence of non-aggressive cancers that can lead to overtreatment. We need to add better additional diagnostic tests.

Groundbreaking new research published today in the journal *PLOS One* validates that dogs can “sniff out” aggressive Gleason 9 prostate cancers. This information may someday be combined with other data sources to build a “machine nose” for prostate cancer detection.

A team of scientists from Medical Detection Dogs in the UK, the Prostate Cancer Foundation (PCF), Massachusetts Institute of Technology, and Johns Hopkins University performed a series of experiments. Their aim was to combine the strengths of three different methods – canine detection, analysis of odor molecules from urine, and analysis of urinary microbial organisms – to distinguish between cancer and non-cancer samples.

Under rigorous, controlled conditions, two specially-trained medical detection dogs were able to discriminate between prostate cancer and negative-control urine samples. The dogs correctly identified 71% of the samples from patients with Gleason 9 prostate cancer, and were 70-76% correct in identifying samples without cancer. The dogs could even distinguish prostate cancer vs other prostate diseases. Dogs have a remarkable ability to detect odors in very small amounts – they have 300 million olfactory receptors, compared with 6 million in humans, as well as other anatomic differences. Building on that, the specialized training allows them to effectively communicate what they’ve smelled.

In another set of experiments, researchers used an instrument to characterize the types and amounts of odor molecules (called “volatile organic compounds” or VOCs) emitted from urine samples. Analysis of the VOCs in urine showed differences between the cancer-positive vs negative samples. The team also looked at organisms in the urine samples (the “urinary microbiome”) from patients with and without Gleason 9 cancer. They found different types of bacteria in the cancerous vs benign urine samples, though the differences were not sufficient to make the urinary microbiome a useful prediction tool for prostate cancer on its own. Finally, the data from the urine VOC analysis was input into a computer program to “train” it to distinguish between cancer-positive samples and controls.

This pilot study provides compelling evidence that additional R&D is clearly warranted. This combination of three approaches may be used to inform the development of an “artificial nose” sensor that could eventually be a part of your smartphone, to detect potentially lethal prostate cancers much earlier than just a PSA test. More and larger cross-disciplinary, collaborative studies are needed. As this technology advances, the “nose” may eventually be scaled and adapted for other diseases, perhaps as an app on your smartphone.

Will dogs, or an app, replace the PSA test? No. But they could improve upon detection for thousands of patients, earlier in their disease. Most people don’t have a specially-trained, prostate-cancer-sniffing dog, so that is why an app to replicate the dog’s nose needs to be built. (This same approach has revolutionized bomb sniffing in airports: machines now sniff luggage for explosives, instead of dogs.) So, PSA screening remains the gold standard for prostate cancer screening. Start talking to your doctor about screening at age 45 (age 40 if you’re Black, have a strong family history of cancer, or have known cancer risk gene mutations in your family). PSA levels are also a key tool for monitoring prostate cancer after diagnosis.
New Treatment for ED After Prostate Surgery Being Developed, Researchers Say

Men undergoing surgery for prostate cancer may no longer have to live with erectile dysfunction afterward, thanks to an innovative new treatment, researchers said in a paper published Monday by JCI Insight, a peer-reviewed journal dedicated to biomedical research, ranging from preclinical to clinical studies.

The treatment, developed at Albert Einstein College of Medicine in New York City, involves the surgical implantation of a topical drug that regenerates and restores the function of erectile nerves damaged by radical prostatectomy, they said.

When applied to the nerves immediately after injury sustained during surgery, the drug significantly improved erectile function in rats within three to four weeks, according to the researchers.

The treatment still must undergo clinical trials in humans, which means it could be five to seven years before it is available for use, the researchers said.

"What puts people off to getting radical prostatectomy is the associated side effects, including ED," co-author David J. Sharp told UPI in a phone interview.

"What we found is that we can regenerate these nerves," said Sharp, a professor of physiology and biophysics at Einstein.

Radical prostatectomy, or the surgical removal of the prostate gland, is the most commonly used -- and, to date, most effective -- treatment for prostate cancer, according to the American Cancer Society.

Although "nerve-sparing" procedures have been developed, the procedure can still damage the cavernous nerves, which control erectile function by regulating blood flow to the penis, Sharp and his colleagues said.

About 60% of men who have surgery report having erectile dysfunction 18 months later, and fewer than 30% have erections firm enough for intercourse within five years, according to Johns Hopkins Medicine in Baltimore.
Case Western Reserve: First Clinical Trials Set for MRI Cancer Detection

The U.S. Food and Drug Administration has approved human clinical trials to test the safety of cancer-detection technology developed at Case Western Reserve University: a tumor-targeting contrast agent that accurately detects aggressive prostate cancer in a magnetic resonance imaging (MRI) scan.

The molecular-targeted imaging agent is licensed to Molecular Theranostics LLC, a Cleveland based startup company, and its partners U.S. Motek LLC and Jiangsu Motek Pharmaceuticals Ltd. of China.

The agent will undergo a clinical trial at Ohio Clinical Trials Inc. in Columbus through a contract with U.S. Motek. Patient recruitment is expected to start in early May and the trial later in the month.

The imaging agent, known as MT218, was invented in the lab of Case Western Reserve researcher Zheng-Rong Lu, who has been developing the tumor-specific MRI contrast agent for nearly 15 years.

Lu, a co-founder of Molecular Theranostics, and his partners believe the agent could someday allow clinicians to non-invasively and accurately diagnose the malignant prostate cancer in a common MRI scan.

Lu's patented technology was jointly developed by Molecular Theranostics and its affiliates (U.S. Motek LLC and Jiangsu Motek Pharmaceuticals Ltd). Jiangsu Motek Pharmaceuticals announced the FDA approval in March.

Continued from page 6

Being able to reverse the nerve damage, and potentially restore erectile function, could "encourage" more men to undergo the procedure, which is still the best treatment for the most common cancer among men, Sharp said.

Based on the success in these experiments, the Einstein researchers are currently studying whether these drugs can promote nerve regeneration after spinal cord injuries, they said.

"This treatment would be ideal for younger men undergoing radical prostatectomy, because they would be the most concerned about erectile function," Sharp said.

"There are also a lot of nerve injuries that this could be useful for," he said.
Metastatic Prostate Cancer: Don’t Accept Complacency!

Janet Farrar Worthington

You have metastatic prostate cancer, and your doctor has said you’re doing all you can do. How can you be sure? “This is all we can do” is a phrase no cancer patient wants to hear, especially someone with metastatic disease. Medical oncologist and PCF-funded investigator Andrew Armstrong, M.D., M.Sc., hears those six words a lot – from patients who have come to see him at Duke University’s Cancer Center, a comprehensive cancer and clinical trial center. The patients are hoping their local doctor was wrong – that this is, in fact, not all that can be done.

And here’s some good news: Often, there is something more, and the list of options is growing even as we speak. “The FDA has approved many new therapies for advanced prostate cancer,” says Armstrong. The challenge, he adds, is in knowing which of these might be helpful for you – and which are likely a waste of your time and money.

Why don’t all of these drugs work for everyone? Because underneath the umbrella diagnosis of metastatic prostate cancer are many factors that make the response to treatment different in each man. Understanding whether or not you have some of these factors could not only save you thousands of dollars, but could point you away from treatment that is not going to work, and toward better, more promising options.

Do you need a “liquid biopsy?” Armstrong and investigators at five centers recently completed the PROPHECY trial, funded by a Movember-PCF Global Challenge Award. The study’s goal was to use a “liquid biopsy” – a blood test that can detect circulating tumor cells (CTCs) shed by prostate cancer – to evaluate a biomarker called AR-V7 as a predictor of response to androgen receptor-blocking drugs such as abiraterone (Zytiga) and enzalutamide (Xtandi). AR-V7 is a variant androgen receptor that some men develop over time. “AR-V7 does not show up when you’re first diagnosed with prostate cancer,” says Armstrong, “and it generally does not show up before you start hormonal therapy.

It only shows up when a patient has developed resistance to commonly used hormonal therapies like leuprolide or degarelix, and more commonly after he has been taking an androgen receptor pathway inhibitor like enzalutamide or abiraterone.”

The results of the PROPHECY study, published in the Journal of Clinical Oncology and updated this past year in JCO-Precision Oncology, showed that AR-V7 is a “negative predictive biomarker” for response and outcomes to abiraterone or enzalutamide. In other words, if a blood test shows that your cancer cells have detectable AR-V7, these drugs are not likely going to be helpful for you. There are two blood tests for AR-V7: one is an mRNA assay developed at, and offered by, Johns Hopkins, and the other is a more widely available CTC protein-based assay made by Epic Sciences. Both tests are good, says Armstrong. “It’s common practice,” he explains, “that if a man has been on enzalutamide and his cancer has progressed, to try another hormonal agent such as abiraterone, and vice versa. But that strategy can lead to cross-resistance,” where neither drug is effective in this patient. “These drugs are very expensive.”

Abiraterone is now available in a much less expensive generic form, but enzalutamide can cost more than $10,000 – per month! That’s a lot of money, particularly if it’s not going to help you.

New Strategy: Shotgun and Sniper Rifle!

If you have AR-V7, what should you do instead? Think shotgun – many pellets aimed at the disease – and sniper rifle – a highly focused, precision medicine approach. “The answer is not to give up, but also not to give therapies that don’t work,” says Armstrong. “Right now, drugs that are more effective would be chemotherapy: docetaxel and cabazitaxel, and radium-223,” a drug that mimics calcium – and, like calcium, gets absorbed into areas of bone with a lot of cell turnover, particularly areas where bone metastases are forming.” Treating cancer in the bones not only improves quality of life, but has been shown to increase survival.

Continued on page 9
Another experimental way to treat areas of metastasis is with **stereotactic ablative radiotherapy (SABR, or SBRT)**, an intense, focused dose of radiation directly to a metastatic site.

**Gene-targeted treatment** is another option for some men. “I look at AR-V7 as not the only blood test you’re going to do, but as part of a broader plan to find a therapy that fits the patient,” says Armstrong. A small percentage of men have microsatellite unstable (MSI-high) prostate cancer – defects in one or more “spell-checker” genes involved in DNA mismatch repair. This can be identified by tumor genomic sequencing biomarker tests. “About 5 percent of men have microsatellite unstable prostate cancer, and those patients can do very well on immunotherapy such as pembrolizumab – and may even get complete remission of their cancer!”

Another small percentage of men – those who have a defective BRCA1 or BRCA2 gene – may have an excellent response to a PARP inhibitor drug like olaparib or rucaparib and to off label platinum-based chemotherapy. “Ongoing trials are exploring a range of combination approaches of both immune therapies and these targeted agents, as well.”

Armstrong is an investigator in clinical trials for still other treatments: newer immunotherapies, targeted molecular agents, newer AR degraders and other inhibitors of hormone signaling, and **PSMA-targeted radionuclides**, which can detect and attack areas of prostate cancer throughout the body. “A negative test (such as a blood test finding AR-V7) doesn’t mean you close all doors. It just means that other doors may open to you, and if those doors are more likely to help, those are the doors you should open. But the first step is going to see an expert who can open those doors for you.” Look for a **Comprehensive Cancer Center** or a **PCF-VA Center of Excellence** (for Veterans).

And don’t forget: you can help your body fight **prostate cancer**, as well! Exercise can help minimize side effects and maximize the effectiveness of treatment. The **stress hormone**, cortisol, plays a role in some forms of prostate cancer, and lowering stress can help slow down cancer’s growth. Foods that **lower inflammation and insulin resistance** can also slow cancer’s growth, and new evidence suggests that **caloric restriction** can decrease metastasis and increase overall survival.

**To sum up:** Don’t accept complacency. “I see it all the time,” says Armstrong, “and I’ve heard stories you wouldn’t believe,” of patients who have been told there is nothing more that can help them. “Sometimes, if you just do some of these tests, you can find really actionable results.” **There is almost always something else you can do.** There are clinical trials under way and entirely new avenues of treatment, such as PSMA-targeting radionuclides, that offer tremendous promise.

So, consider this: If your doctor doesn’t mention new tests or experimental treatments – or even different uses for existing treatments that might be helpful for you, then it’s up to you to start this conversation. And even during the pandemic, some clinical trials are still enrolling patients.

**It never hurts to ask. Don’t give up.**
Medications for Enlarged Prostate Linked to Heart Failure Risk

widely used medications for benign prostatic hyperplasia (BPH) - also known as enlarged prostate - may be associated with a small, but significant increase in the probability of developing heart failure, suggests a study in The Journal of Urology®, Official Journal of the American Urological Association (AUA).

The risk is highest in men taking a type of BPH medication called alpha-blockers (ABs), rather than a different type called 5-alpha reductase inhibitors (5-ARIs), according to the new research by D. Robert Siemens, MD, and colleagues of Queen’s University, Kingston, Ont., Canada. “While no one should stop taking their BPH medications based on these results, our study contributes new evidence for understanding the complex interaction of factors affecting heart disease risk in men with BPH,” Dr. Siemens comments.

Benign prostatic hyperplasia is a very common condition in men, especially at older ages. It occurs when the prostate gland becomes enlarged, causing urinary symptoms (such as frequent and difficult urination). Millions of men take medications to reduce BPH symptoms - most commonly ABs, 5-ARIs, or a combination of the two.

Both BPH and cardiovascular disease are common in older men, which may reflect shared risk factors or causes. Clinical trials have suggested that men taking ABs or 5-ARIs might be more likely to develop heart failure: a chronic condition where the heart can’t pump enough blood to keep up with demand. However, other studies have found no such link.

To clarify the association between BPH medications and heart failure, Dr. Siemens and colleagues used Ontario health data to identify more than 175,000 men diagnosed with BPH. About 55,000 patients were being treated with ABs alone, 8,000 with 5-ARIs alone, and 41,000 with a combination of ABs and 5-ARIs. The rest were not taking either type of BPH medication.

On analysis of follow-up data, men treated with ABs and/or 5-ARIs were more likely to be diagnosed with heart failure. The risk of developing heart failure were increased by 22 percent in men taking ABs alone, 16 percent for those taking combination therapy, and 9 percent for those taking 5-ARIs alone, compared to the control group of men not taking BPH medications. The associations were significant after adjusting for other characteristics, including heart disease risk factors.

Heart failure risk was higher with older “nonselective” ABs compared to newer “selective” ABs. Risk was higher in men taking ABs for a prolonged time: 14 months or longer.

Dr. Siemens and coauthors emphasize that while the increased probability of developing heart failure was statistically high, the absolute risk was relatively low. Risk factors such as previous heart disease, high blood pressure and diabetes had a much greater impact on heart failure risk compared to BPH medications. The researchers also note the control group of patients not taking 5-ARIs or ABs may have had less severe BPH symptoms, with possible differences in heart disease risk factors.

“Our study suggests men taking ABs and/or 5-ARIs are more likely to be diagnosed with heart failure,” Dr. Siemens comments. “This is an important finding, given that BPH is so common among older men, and that these medications are so widely used.”

Dr. Siemens adds: “Since men with BPH may continue these medications for several years, it is important physicians be aware of this risk, including both primary care physicians and urologists, perhaps especially in patients with previous heart disease or cardiovascular risk factors.”
Doctors Should Address Reduced Sense of Taste and Smell in Cancer Patients, Tulane Study Says

One in six men being treated for advanced prostate cancer experiences a reduced sense of smell and taste, a symptom that could cause increased anxiety among patients because it is also a side effect of COVID-19, according to Tulane researchers.

A study published in the journal Supportive Care in Cancer says a reduced sense of smell and taste among some prostate cancer patients is largely associated with poor appetite and weight loss.

Although the data collection for the study predated the COVID-19 pandemic, the results pose important implications for cancer patients undergoing hormone therapy, chemotherapy and/or bone antiresorptive during the coronavirus crisis.

For advanced cancer patients, losing their sense of taste and smell can have profound impacts on their emotional wellbeing and ability to engage with others socially.

"We wanted to make sure the article mentioned the significance of advanced prostate cancer patients experiencing losses in taste/smell as a side effect of their cancer treatment during the pandemic," said Laura Perry, a Tulane doctoral student in psychology and one of the study's authors. "Since it is a commonly known symptom of COVID-19, the experience may be appraised by patients as especially stressful at this time."

Perry said most symptom assessments in cancer patients do not ask patients about their senses of taste or smell. "Our findings suggest these could be a valuable addition to routine assessments in prostate cancer," she said.

The study surveyed 75 men with advanced prostate cancer, asking them about their appetite, nausea while eating, and taste and smell of food over a 15-month period. Of the patients questioned, 17% experienced poor taste of food and 8% poor sense of smell.

Participants were more likely to experience reduced sense of taste if they were being treated with the drugs denosumab or docetaxel, and they were more likely to experience weight loss if experiencing poor taste of food or poor appetite. Nausea was associated with an increased likelihood of experiencing poor taste and smell.

The study incorporated demographics, treatments and weight data from electronic health records.

Participants of the study were from the greater New Orleans area, where food and eating are central to the city's culture. If cancer patients can no longer enjoy the pleasure associated with food, that, too, can affect them emotionally, researchers said.

"For advanced cancer patients, losing their sense of taste and smell can have profound impacts on their emotional wellbeing and ability to engage with others socially," Perry said.

Lead author Sarah Alonzi, a lab manager in the Tulane Department of Psychology, agreed. "I hope that communicating these findings improve patients' awareness that treatment-related reduction in taste and smell can occur, providing some reassurance for those experiencing these symptoms," she said.

Based on the findings of this study, the authors suggest that clinicians should regularly query patients for changes in sense of taste and smell, especially patients who are experiencing weight loss. During the pandemic, they said, it is especially important that clinicians make patients aware of the potential for treatment-related reduction in taste and smell to reduce COVID-19 anxiety.
A Message from the Chairperson

July 2021

Have you ever thought of contributions as investments? They are. Here are examples of how your investments have helped us achieve our mission over the past several years:

--Since 2017, we have hosted about 1,700 attendees at our regular group meetings that feature guest speakers expert in their field and sharing sessions when attendees are able to meet and talk with others facing similar prostate cancer issues.
--Since 2017, volunteers serving on our Buddy List have held more than 500 one-on-one consultations with men and family members who have concerns and questions about prostate cancer. These consults have occurred with men living in many New Mexico counties, as well as in other states, such as New York, Texas, Illinois, and Louisiana.
--Since 2017, our annual fall conference, which features prostate cancer experts and researchers from around the country, has been attended by about 650 individuals, including online participants from several states.
--We prepare and regularly update a variety of informational materials distributed to various audiences throughout the state, including the medical community.
--In order to assure our message is available throughout the state, we provide regular announcements on New Mexico’s three public TV stations in Albuquerque, Portales, and Las Cruces. Print and electronic news media receive our timely news releases.
--We maintain an impressive library of prostate cancer-related books that address a range of topics.

Your continued investments will help us to increase our outreach and support our mission. Help us to continue by investing today.

Rod Geer
Chairperson of the Board, PCSANM