

Thanks for making this year's conference a success!



So Many New Things in 2013 PCRI Conference

By: Mark Scholz, M.D.

Every September, the PCRI invites leading prostate cancer experts to share their thoughts about the latest developments in prostate cancer treatment. The pace of scientific discovery in this field accelerates more rapidly each year. For past conferences, we often had to search high and low for sufficiently interesting clinical studies to fill the two-day agenda of the conference. However, in 2013 our struggle was to find sufficient time in our limited schedule to introduce all of these new developments. Hopefully this brief summary can bring home some of the more important highlights.



Prostate cancer treatment needs to be personalized for each patient, a theme which constantly surfaced throughout the weekend. For a couple years now, PCRI with its *Shades of Blue* program has focused on emphasizing the importance of each individual knowing the characteristics of his specific disease. However, knowing one's Shade is only the beginning. New genetic tests can enable an even more specific understanding of the subtle differences between disease behavior within the same shade category.

For example, during the interlude between Dr. Bahn's two live prostate biopsy patients I was able to briefly introduce two new genetic tests that are now commercially available, **Prolaris** and **OncoType Dx**, tests that can help men in the Sky and Teal shades obtain a more accurate measure of the aggressiveness of their tumor. Both tests look at multiple genes in the prostate cancer cells that are removed at the time of prostate biopsy. Prolaris predicts the risk of ten-year mortality from prostate cancer. OncoType can refute or confirm the accuracy of the initial risk category of the *Shade of Blue*.

Two additional genetic tests need to be mentioned. **Confirm MDx**, another test that can be performed on a previously performed needle biopsy, can "sniff out" the presence of prostate cancer *even if the needle biopsy was read as clear*. This test can provide additional assurance that a negative biopsy is truly negative and that the needle did not simply miss the cancer. Confirm MDx is about as accurate as doing a second biopsy but, thankfully, it eliminates the need to go back to the doctor for more snips.

The **Know Error** test is also a genetic evaluation that can confirm a genetic match between the prostate tissue removed during a biopsy and an additional swab of cells obtained from the inner lining of the patient's mouth. This test helps prevent mistakes in a patient's identity by inadvertent switching of specimens in the lab. Studies have shown that errors such as these occur in about 1% of the patients in the United States.

The stark contrast of personalized medicine with public health medicine was vividly conveyed in the debate about PSA screening between **Mack Roach**, M.D., a radiation oncologist from UCSF and **Timothy Wilt**, M.D., a public health expert from the University of Minnesota. Dr. Wilt cogently argued that in the sense of the global population, PSA screening does more harm than good because it causes unnecessary radical treatment to be given to 80,000 men each year. Dr. Roach countered that forgoing PSA screening would increase prostate mortality from 30,000 men a year to 50,000 a year by failing to diagnose and treat the men who have more serious types of prostate cancer.

The debate was of particular interest, because these doctors come from two totally different perspectives, the world of public health and the world of personalized medicine. PSA screening is a double edged sword that is proven to result in harm when ignorant patients and doctors let their cancer fears drive them into unnecessary radical treatment. But PSA is not exactly the cause of overtreatment. Overtreatment is caused by a lack of education about the truly benign nature of *Low-Risk* disease. Forgoing PSA screening altogether is also a dangerous policy as it would lead to delayed diagnosis of *High-Risk* prostate cancer to a point when it is no longer curable.

"Prostate cancer treatment needs to be personalized for each patient..."
-Dr. Mark Scholz

Nick Vogelzang, M.D. was charged with the impossible task of reviewing all the new therapies for men in the *Royal Shade of Blue* (advanced prostate cancer). The list has now expanded to include **Provenge, Zytiga, Xtandi, Jevtana** and **Xofigo**. Xofigo is a brand new form of targeted, highly-potent radiation treatment that was FDA approved this summer that is administered monthly by intravenous injection. Xofigo is attracted like a magnet to the malignant areas in the bone where it concentrates and delivers high potency radiation.

One of the most amazing presentations of the whole conference was given Saturday evening by Dr. **David Hung** the CEO of Medivation at our gala dinner. Dr. Hung shared an incredibly inspiring personal story about coming out of retirement ten years ago to start the company that developed **Xtandi**, the new, recently FDA-approved pill for advanced prostate cancer. Bringing a brand new treatment to market in less than ten years is close to miraculous. In addition to Xtandi's potential in advanced disease, it also has potential for men with early-stage prostate cancer, a topic I blogged about in more detail in September.

Awareness about new ways to reduce treatment-related side effects got a huge boost when Dr. **Duke Bahn** introduced his celebrity patient **Ryan O'Neal** who is a **Focal Cryosurgery** success story. I must confess, despite the wonderful potential of focal treatment, the real highlight of the presentation was Dr. **Mark Moyad's** interview of Mr. O'Neal and all the information he elicited about Farrah Fawcett, Lee Majors and the Hollywood entertainment world. Mr. O'Neal showed he is a real trooper, coming to the conference even though he was suffering from the flu. He has been very grateful for the absence of debilitating side effects from his treatment and wanted to volunteer his time to raise awareness.

To me, perhaps the most encouraging talk about what we can expect in the near future was given by Dr. **Chuck Drake** from Johns Hopkins who discussed recent developments in the area of harnessing the anti-cancer powers of the **immune system**. Dr. Drake shared about the amazing results seen in the treatment of metastatic melanoma by the simultaneous use of two immune treatments. Durable complete remissions are being seen in a stubborn disease that in the past has been considered totally hopeless. Dr. Drake is the preeminent clinical expert in the world on immune therapy for prostate cancer and is doing ground-breaking research on immune therapy for prostate cancer. We were most privileged to have him come to the conference and share his expertise.

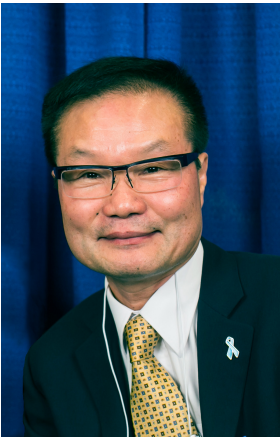
Space is too limited to cover all the excellent presentations. Stay tuned for the conference DVD's which will be available shortly. Also, please come and visit us at our new, recently updated PCRI website. Join the PCRI's Blue Community to learn more about prostate cancer and to help others better understand this complex world. □

Live On-Stage Prostate Biopsy at The PCRI Conference

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This is a follow-up report to the live prostate ultrasound and biopsy demonstration that was performed at the PCRI conference on September 7, 2013.



You never know what might happen at our September PCRI conference. This year Dr. Duke Bahn somehow convinced two volunteers to undergo a live targeted biopsy on stage at the conference. The procedure was videoed from an adjoining room complete with sound effects and was shown in its full glory to the conference attendees. The amplified snap of the biopsy gun sent shivers up the spine of the audience in the auditorium.

Both patients were considered potential active surveillance candidates per random 12-core biopsies that had been done by an outside urologist. However, suspicious findings detected by Color Doppler Ultrasound indicated the possible presence of occult, higher-grade disease that had been missed by the random biopsy.

The live images from the Color Doppler used by Dr. Bahn were projected onto a large screen during the presentation. After Dr. Bahn identified the suspicious area in the prostate he fired his needle gun, leaving a "vapor" trail across the gland that was easily seen on the video feed.

At the conclusion of the presentation, Dr. Bahn promised to report his pathologic findings in the next issue of Insights. The pathologic findings of the biopsy are listed below:

Patient #1 Findings:	Patient #2 Findings:
<div>1. Gleason 7=3+4 with up to 64% of the tissue cores showing cancer (vs. 30% by the initial biopsy).</div> <div>2. Left neurovascular bundle was positive and showing invasion from the cancer.</div>	<div>1. Gleason grade 6 cancer with a 20% tissue core invasion, a larger cancer than was detected by the random biopsy. Therefore the lesion detected by Color Doppler is indeed the "index tumor".</div>
<div>Conclusion: After targeted biopsy, the cancer is no longer found to be a Low-Risk disease. It is Intermediate to High-Risk. Due to these findings, he will no longer be a candidate for active surveillance. If he had not undergone this targeted biopsy he would have inappropriately been continued on active surveillance with disease that extends outside the prostate into the surrounding neurovascular bundle. The test provided a clearer picture of this man's disease allowing for the choice of a more appropriate treatment strategy.</div>	<div>Conclusion: The gentleman's cancer is confirmed to be Low-Risk. He can consider active surveillance to manage his cancer. He will need a PSA test every three months and an ultrasound in another 6 months. By doing so, we can clearly view the PSA trend and more importantly the known index tumor can be monitored objectively with a color-Doppler ultrasound. If there is no evidence of disease progression, he can stay on active surveillance. If not, he should consider an appropriate loco-regional treatment.</div>

Final Thoughts:

Proper treatment selection is based on accurate staging information. This live on-stage demonstration shows how effective Color Doppler Ultrasound is at detecting cancer abnormalities potentially missed by random biopsy. These two cases illustrate the importance of proper ultrasound evaluation. Without knowing the correct cancer grade and staging information, it would be almost impossible to make an appropriate management decision. □