Our guest speaker for the April meeting was Bernadette Greenwood, BScRT(R)(MR) Director of Clinical Services, Desert Medical Imaging, who gave us an interesting update on Focal Laser treatment and Multi-Parametric (MP) MRI Biopsy. Bernadette first visited us in June 2011 when she was working for the Phillips company which developed a transrectal MRI guided biopsy system by utilizing the DynaTRIM device coupled with DynaCAD image analysis. After furthering her education and
joining Desert Medical Imaging, she returned in January 2015 to tell us about transrectally delivered MP-MRI-guided laser focal therapy.

She led off by discussing the controversy of MP-MRI's utilizing a 3T (Tesla) or 1.5T magnet. Only about 10% of the MRI machines in the country have a 3T magnet, thus availability is a real issue. Rather it is about the person driving the machine, the software on the machine and the coil that is being used. If metals exist in the patient from other operations, a 3T image is easily distorted. They use a 1.5T magnet.

Comparison was made between incidence of breast cancer and prostate cancer including funding for each. The number of new cases estimated in 2014 is about the same at 230,000 for both and there were an estimated 40,000 deaths from breast cancer and 30,000 from prostate cancer. Yet the research dollars for breast cancer is more than double that for prostate cancer at $625mm vs $288mm which points out the need to influence politicians and agencies to understand the need for more attention to prostate cancer.

She traced the progress of biopsy procedures (slides are available on the DVD available in the library or from the website). Focusing on the biopsy today, it is easy to understand why an MP-MRI guided biopsy is a superior method. Rather than inserting needles in a random or matrix pattern vs. inserting them utilizing MP-MRI images to guide the needle to the target is a no-brainer.

As a refresher course on how the Gleason score is attained:

It is the sum of the primary grade and the secondary grade starting with the most dominant group of cells. The pathologists then rates it as—for example a 3+4=7 and that score is used by the urologist or oncologist to work with the patient to determine if treatment is necessary or how aggressive treatment may need to be.

She cautioned that there is a revised Gleason rating system—2005 ISUP Modified Gleason System and you should make sure when you get your score that you find out which was used. To learn about the ISUP system look up: European Urology, Volume 58 Issue 3, September 2010, Pages 369-373 on your browser.

Can you get ratings from MRI that let you know your risk? Bernadette talked about new PI-RAD standards recently developed that help determine your risk or need for further testing.
If your rating is 1, 2, or 3, not too worrisome and follow-up MP-MRI's would be recommended. A rating of 4 or 5 should be biopsied for determination of risk.

In their clinical trials only men with MP-MRI guided biopsies will be accepted.

At their facility the MP-MRI guided biopsy is accomplished by inserting an index-finger-sized needle guide inserted into the rectum and needle insertion is guided using the blue dials. Surface coils that wrap around the patient are utilized for the MP-MRI imaging.

If imaging indicates the need for a biopsy, it is performed later the same day, if scheduling permits, or the following day.

**Patient Preparation:**
- Informed consent signed
- Off of anticoagulant therapy
- Fleets enema x2 1-2 hours before Bx
- Three day Cipro 500mg PO bid + Cefotaxime(Claforan) 1 g IV day of
- NPO 1-2 hours, light breakfast AM
- Empty bladder immediately before
- I.V. for conscious sedation (Versed)
- Benzocaine gel for needle guide insertion
- 2 cc subcapsular 1% Lidocaine local anesthetic

**Post Biopsy Expectations:**
- Patient should not drive due to conscious sedation
- Some rectal/anal pain
- Day or two of mild rectal bleeding
- Mild hematuria for several days
- Hematospermia for up to 3-4 weeks occasionally

**MR Guided Prostate Biopsy Risks (1%)**
- Excessive rectal bleeding
- Excessive hematuria
- Urinary retention
- Patient should demonstrate they can void before leaving the center
- Urinary infection/urosepsis

If the Gleason score is 6 and organ confined or Gleason 7 (3+4 or 4+3) the patient may elect for their focal laser clinical study. Gleason 8 or above does not qualify. She showed slides of the equipment and

(Continued on page 4)
technical information provided as well as sample images. (Again, these slides are available on the DVD of the meeting.) Contoured parameters including safety margins are defined for treating and the same device that was used for the biopsy is used for laser guidance.

They have treated 64 patients with a total of 91 lesions in their study (NCT 02243033) at Jan, 2016. 9 of these were recurrent after other treatments.

- Age range: 48-85 years
- Initial PSA Range = 0.1 – 28 Mean = 7.03
- MRI tumor volume Range = 0.1 – 10.3 cc Mean = 3.15 cc
- Total procedure time = 1.5 - 4.0 hours

**Patient Withdrawal**

- 1 patient expired from metastatic melanoma
- 1 patient developed metastatic melanoma
- 3 patients withdrew for personal reasons
- 1 patient withdrew after negative 6 month bx (GS 3+3) because of travel
- 2 patients elected radiation therapy (1 EBRT, 1 PBT)
- 5 patients went on to whole gland therapy (11%)
  - 4 incidence cancer patients (2 GS 4+4, 1 GS 4+3 multifocal, 1 3+4) elected RP*, 1 GS 3+3 patient elected PB before 6mo. Bx. Importantly, no additional technical difficulty reported with RP

**Results: Treatment Naïve**

- No serious adverse events, no morbidity
- 1 patient developed UTI which was managed with IV antibiotics
- 1 patient expelled carbonized applicator tip
- 1 patient required suprapubic catheter
- 2 cases of asymptomatic periprostatic necrosis
- 3 cases of retention cyst
- 13 patients with positive biopsy at treatment site consistent with residual/recurrent cancer
- Positive margin rate = 20%
- 10 regions retreated with laser focal therapy

There has been a 35% decrease of mean PSA one year after laser focal therapy, no statistically significant change in IPSS ((International Prostate Symptom Score-(incontinence)) or SHIM(Sexual Health Inventory-Men) scores.

**Small Series Conclusions**

1. Outpatient MR guided transrectal laser focal therapy of prostate cancer is feasible and safe
2. Recurrence rate = 20%
3. Whole gland therapy rate = 11%
4. Patients are still re-treatment viable (focal or whole gland therapy)
5. Continuity of imaging modality: Multiparametric MRI >> MR Guided Bx >> MR Guided Focal Therapy

The DVD of this meeting is available by the next meeting date in the library or on our website: www.ipcsg.org. As mentioned herein, the DVD will includes slides used in the full presentation.
**FUTURE MEETINGS**

May 21.  Paul Dato, MD, Urologist / Medical Director Genesis Healthcare Partners. Subject: Immunotherapy Probabilities

Jun 18. Roundtable. A panel of members talk of their experiences followed by Q&A, then break-out sessions by treatment type for networking.

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**ON THE LIGHTER SIDE**

“Have you ever noticed that anybody driving slower than you is an idiot, and anyone going faster than you is a maniac?” — George Carlin

“Sometimes the road less traveled is less traveled for a reason” — Jerry Seinfeld

When I see lovers' names carved in a tree, I don't think it's sweet. I just think it's surprising how many people bring a knife on a date.

Late one night a mugger wearing a mask stopped a well-dressed man and stuck a gun in his ribs. "Give me your money," he demanded. Scandalized, the man replied, "You can't do this – I'm a US Congressman!" "Oh! In that case," smiled the robber, "Give me MY money!"

Bus driver to passenger: Don't you want to sit down?  Passenger: No, I am in a hurry.

Patient: Doctor help me please, every time I drink a cup of coffee I get this intense stinging in my eye. Doctor: I suggest you remove the spoon before drinking.

Most of the time, when you cry, nobody notices the tears you shed. Most of the time, when you're facing trouble, nobody feels your pain. But try farting in public just one time!

If at first you don’t succeed . . . so much for skydving. -Henny Youngman

I intend to live forever. So far, so good. -Steven Wright

Politics: “Poli” a Latin word meaning “many”; and "tics" meaning “bloodsucking creatures”. Robin Williams
The US Preventive Services Task Force (USPSTF) is updating its controversial guidance about prostate cancer screening, and a final research plan was published online last week.

The plan will guide a systematic review of the available evidence on prostate cancer screening.

In turn, the systematic review "will form the basis of the Task Force's updated recommendation statement on this topic," according to the USPSTF website.

In 2012, the organization formally recommended against routine prostate-specific antigen (PSA)-based prostate cancer screening for healthy men, regardless of age.

However, the document left room for use of the test in the clinic. "Clinicians should understand the evidence but individualize decision-making to the specific patient or situation," read the final document, which was published in Annals of Internal Medicine (2012;157:120-134).

Nonetheless, use of the PSA test has since dropped, especially among primary care providers, as reported by Medscape Medical News.

In their research plan, the USPSTF will be looking at multiple "key questions."

The very first question addresses higher-risk men: "Does the effectiveness of PSA-based screening vary by subpopulation/risk factor (e.g., age, race/ethnicity, family history, and clinical risk assessment)?"

But the question might not be fully answerable, said Richard Hoffman, MD, MPH, an internist at the University of Iowa in Iowa City, and an expert in shared decision-making about prostate cancer screening.

"Finding high-quality data to answer this will be challenging," Dr Hoffman told Medscape Medical News. None of the major screening trials enrolled men younger than 50 years, most subjects were white, and investigators did not routinely assess clinical risk.

"While some studies are now recruiting patients to address screening in higher-risk populations, it will likely take at least a decade to determine the effects of screening on morbidity and mortality," he summarized.

In the meantime, Dr Hoffman is concerned that "abandoning PSA screening" is proving harmful.

The rate of distant-stage prostate cancers in the United States is increasing, according to a population-based study for which he was lead author (Cancer Epidemiol Biomarkers Prev. 2016;25:259-263). However, "it's too early to tell whether this will lead to an increase in prostate cancer mortality," he said.

The USPSTF research plan separates the review of evidence about the potential harms of PSA testing, biopsy, and treatment.

This separation is a good idea, said Dr Hoffman.

"While the literature on biopsy harms is pretty comprehensive, we still need to better understand the implications of overdiagnosis and overtreatment," he pointed out.

Emerging evidence on the benefits and harms of active surveillance is an especially important area of research.

"Many experts believe that the harms of screening can be mitigated by withholding active treatment for men whose cancers appear unlikely to ever cause clinical problems," Dr Hoffman explained.

No matter what the USPSTF recommends, urologists must lead the way with their own PSA testing guidance, said Jesse D. Sammon, DO, a urologist from Brigham and Women's Hospital in Boston. "It is incumbent on us to come up with smarter screening strategies."

Dr Sammon believes that current recommendations from the American Cancer Society and the American Urological Association have evolved intelligently.
Both organizations now recommend joint decision-making about PSA testing with men 55 to 69 years of age. "The great survival benefit [of the testing] is in this age group," he told Medscape Medical News.

Therefore, the mortality benefit justifies consideration of the test, in spite of the known risks, Dr Sammon argued.

Dr Hoffman is a consultant to the Informed Medical Decision Foundation in Boston. Dr Sammon has disclosed no relevant financial relationships.

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**FEATURED May 10 IN THE WALL STREET JOURNAL – HEALTH**

Forwarded by Prostate Snatchers Blog.

**A BETTER PROSTATE CANCER TEST?**

Distinguishing aggressive disease from slow-growing tumors means more patients can forgo treatment.

Several new prostate-cancer tests aim to reduce needless biopsies and unnecessary treatments by sorting out harmless from aggressive tumors. 30 MILLION U.S. men will have a PSA test. 6 MILLION of them will be found to have elevated PSA levels. 1 MILLION of them will undergo a prostate biopsy. 180,000 men who have biopsies will be diagnosed with prostate cancer. Another 180,000 men will have prostate cancer the biopsy missed. 100,000 men with prostate cancer will have low-risk tumors that are unlikely to spread or cause symptoms. 60,000 men with low-risk cancers will undergo surgery or radiation anyway, probably unnecessarily.

mpMRI vs BIOPSY

Mark Scholz, a prostate oncology specialist in Marina del Rey, Calif., maintains that an mpMRI can yield much of the same information as a biopsy and far less invasively. Low-risk prostate cancers barely register, he says, adding, "When patients find out they have a choice between 12 harpoon sticks to the prostate through the rectum or an MRI, they are on board big time."

Joel Copeland, 62 years old, has been monitoring his PSA closely for a decade; his two brothers were diagnosed with prostate cancer. He opted for an MRI instead of a biopsy when his PSA bounced up in 2013. "I don’t like needles, but that’s not the point," Mr. Copeland says. "The point is, biopsies can cause infection and miss cancers."

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**New model for active surveillance of prostate cancer tested**

From Science News, April 27, 2016

Urologists at University of California, San Diego School of Medicine and Genesis Healthcare Partners have tested a new model of care for patients with low-risk prostate cancer. The evidence-based approach uses best practices to appropriately select and follow patients to avoid disease overtreatment. Results of the three-year study are now published online in the journal of Urology.

"Active surveillance is a strategy that is recommended by physician and quality organizations to avoid the overtreatment of slow-growing prostate cancer," said Christopher Kane, MD, senior author and chair of the Department of Urology at UC San Diego Health. "Acceptance of this strategy by patients and urologists, however, has lagged for a number of reasons. What we have developed is a safe method to enhance acceptance and use of this disease management approach."

Active surveillance (AS) is the practice of closely monitoring slow, indolent forms of prostate cancer with prostate-specific antigen (PSA) blood tests, digital rectal prostate exams and, potentially, biopsies.

(Continued on page 8)
Kane added that AS recognizes that there is a large group of men with a form of low-grade prostate cancer whose long-term survival is not impacted by non-treatment.

"With this new model, we were able to increase rates of surveillance to benefit patients through use of provider education and a standardized report card," said Franklin Gaylis, MD, Chief Scientific Officer, Genesis Healthcare and the study’s first author. "With this university and private-practice research collaboration, we were able to monitor 190 patients undergoing active surveillance while evaluating the effectiveness of our own individual clinical practices."

Urologists at Genesis Healthcare and UC San Diego Health jointly developed a reporting mechanism to improve the process of tracking patients with prostate cancer. The research team developed standardized selection criteria based on scientific literature for patients to be followed with AS according to tumor characteristics, including clinical cancer staging, Gleason (pathology grading) and PSA scores. In addition, comparative dashboards were developed to show individual physician AS adoption rates compared to their peers.

"What we found is that active surveillance increased from 43.75 percent to 82.6 percent among the very low-risk patients," said Gaylis, a voluntary professor in the Division of Urology at UC San Diego School of Medicine. "Besides this approach, enhancing quality of care through established standardized processes and outcomes feedback, there may be a benefit from a cost-savings perspective. This model may be particularly helpful as the U.S. switches from a volume to value-based system of care for reimbursement requiring physicians to improve quality while at the same time reducing cost."

Prostate cancer is the most prevalent solid organ malignancy among American men, accounting for almost 30 percent of new cancer diagnoses. The National Institutes of Health estimates approximately 220,800 new cases of prostate cancer will be identified in 2015.

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**Shorter, intensive radiation can be recommended in early prostate cancer**

From Science Daily, April 4, 2016

Publishing April 4 in the *Journal of Clinical Oncology*, the research team compared the shortened radiation therapy schedule of about 5.5 weeks to the standard 8-week regimen to determine if rates of cure were similar. Both treatment schedules were similar in terms of controlling cancer, but doctors reported slightly more mild side effects in patients getting the shorter radiation schedule.

"This study has implications for public policy," said the study’s principal investigator, W. Robert Lee, M.D., a professor in the Department of Radiation Oncology at Duke. "Because the shorter regimen has advantages such as greater patient convenience and lower costs, it’s important to establishing whether we can cure as many patients with the shorter regimen. Our study provides that information for the first time."

Lee and colleagues, working as part of NRG Oncology, a non-profit cancer research organization, enrolled about 1,100 men whose prostate cancer was diagnosed early, before it had spread. Roughly half the patients were randomly assigned to receive the typical regimen of 41 treatments; the other half received the higher dose over just 28 treatments.

At five years, disease-free survival was no different between the two groups, with 85.3 percent of men in the traditional group being cancer-free, compared to 86.3 percent of men in the shorter regimen group. Overall survival at five years was also no different, at 93.2 percent and 92.5 percent respectively.

Mild gastrointestinal and genitourinary toxicity as reported by doctors was observed more frequently in patients getting the higher daily dose, shorter frequency radiation, but no differences were observed in
more severe side effects, which were rare (less than 5 percent) with either regimen. The researchers also asked patients to describe their own experiences of side-effects, but these data have yet to be analyzed.

"An estimated 220,000 men are expected to be newly diagnosed with prostate cancer each year in the United States, and the majority will have early-stage disease at low risk for recurrence," Lee said. "These findings should help guide clinical decisions, and doctors should be comfortable recommending a shorter radiotherapy course as an alternative to the conventional schedule."

**NETWORKING**

The original and most valuable activity of the INFORMED PROSTATE CANCER SUPPORT GROUP is “networking”. We share our experiences and information about prevention and treatment. We offer our support to men recently diagnosed as well as survivors at any stage. Networking with others for the good of all. Many aspects of prostate cancer are complex and confusing. But by sharing our knowledge and experiences we learn the best means of prevention as well as the latest treatments for survival of this disease. So bring your concerns and join us.

Please help us in our outreach efforts. Our speakers bureau consisting of Lyle LaRosh, Gene Van Vleet and George Johnson are available to speak to organizations of which you might be a member. Contact Gene 619-890-8447 or gene@ipcsg.org to coordinate.

Member and Director, John Tassi is the webmaster of our website and welcomes any suggestions to make our website simple and easy to navigate. Check out the Personal Experiences page and send us your story. Go to: http://ipcsg.org

Our brochure provides the group philosophy and explains our goals. Copies may be obtained at our meetings. Please pass them along to friends and contacts.

Ads about our Group are in the Union Tribune 2-3 times prior to a meeting. Watch for them.

**FINANCES**

We want to thank those of you who have made special donations to IPCSG. Remember that your gifts are tax deductible because we are a 501(c)(3) non-profit organization.

We are again reminding our members and friends to consider giving a large financial contribution to the IPCSG. This can include estate giving as well as giving in memory of a loved one. You can also have a distribution from your IRA made to our account. We need your support. We will, in turn, make contributions from our group to Prostate Cancer researchers and other groups as appropriate for a non-profit organization. Our group ID number is 54-2141691. Corporate donors are welcome!

If you have the internet you can contribute easily by going to our website, http://ipcsg.org and clicking on “Donate” Follow the instructions on that page. OR just mail a check to: IPCSG, P. O. Box 4201042, San Diego CA 92142
Directions to Sanford-Burnham-Prebys Auditorium
10905 Road to the Cure, San Diego, CA 92121

Take I-5 (north or south) to the Genesee exit (west).
Follow Genesee up the hill, staying right.
Genesee rounds right onto North Torrey Pines Road.
**Do not turn into the Sanford-Burnham-Prebys Medical Discovery Institute or Fishman Auditorium**
Turn right on Science Park Road. Watch for our sign here.
Turn Left on Torreyana Road. Watch for our sign here.
Turn Right on Road to the Cure (formerly Altman Row). Watch for our sign here.