East Lancashire Prostate Cancer Support Group Newsletter





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Faster, cheaper test can help predict risk of metastasis in prostate cancer

Patients https://www.sciencecodex.com/faster-cheaper-test-can-help-predict-risk-metastasis-prostate-cancer-patients-624151

Philadelphia, December 12, 2018 - For men newly diagnosed with prostate cancer or patients previously treated, the risk of metastasis is a crucial determinant of whether to choose conservative management or undergo further treatment. For prostate as well as other cancers, primary tumor growth or spread is driven by amplifications or deletions of portions of the genome known as copy number alterations (CNAs). A report in The Journal of Molecular Diagnostics describes a new assay to assess CNAs that is cheaper, faster, repro-

ducible, and requires less tissue than other diagnostic techniques and has the potential to significantly enhance prostate cancer evaluation.

Metastases occur in approximately 16 percent of prostate cancers and account for 8 percent of all male cancer deaths. Accurate prediction at the time of diagnosis can identify men at risk for metastasis who would benefit from aggressive therapy. Detection of CNAs in prostate tissue or blood can provide an indication whether previously diagnosed disease has progressed. The amplified and deleted genes represent novel targets for treating aggressive prostate cancer.

"We have demonstrated that CNAs can be detected rapidly and accurately with the new **Next-Generation Copy** Number Alteration (NG-CNA) assay. The impact of this information is two-fold: to assure aggressive therapy at the time of diagnosis for men with metastasis-prone disease and provide a rationale for active surveillance (and not overtreatment) for men with indolent disease," explained lead investigator Harry Ostrer, MD, of the Department of Pathology, Albert Einstein College of Medicine, Bronx, NY, USA.

The NG-CNA assay is a targeted amplification sequencing technique that is able to analyze 902 genomic sites belonging to 194 genomic regions. Compared to array comparative genomic hybridization array (CGH), NG-CNA can process samples faster and decrease the cost per sample. "For example, with NG-CNA the cost of DNA extraction, library preparation, and sequencing reagents can be \$20 to \$40 per sample, compared to nearly \$1000 for whole genome sequencing," said Dr. Ostrer.

In fact, "massively multiplexed assays, like the NG-CNA assay, provide an entry into personalized medicine applications at a fraction of the cost of traditional whole genome sequencing approaches," added first author Viacheslav Fofanov, PhD, of the School of Informatics, Computing, and Cyber Systems, Northern Arizona University, Flagstaff, AZ, USA.

Another practical advantage of NG-CNA is that the results are easier to decipher than whole genome sequencing. The new assay allows hundreds to thousands of samples to be processed in a single run, with a typical turn-around time of 36 hours. Samples evaluated with the NG-CNA assay also require less data storage than whole genome sequencing. "This allows our approach to move from large reference laboratories to smaller, more resource-constrained independent laboratories as needed," added Dr. Ostrer.

A further benefit of the NG-CNA assay is that it can process smaller amounts of material (as low as 12.5 ng) than required by other techniques, allowing cell lines, surgical samples, and biopsies to be analyzed. The CNA approach also provides a single platform onto which other sequencing tests, such as companion diagnostic tests, can be incorporated.

In previous work, the researchers developed the metastatic potential score (MPS) as an indicator of metastatic potential, using data from other measurement techniques. They found the MPS to be highly predictive of prostate cancer, triple negative breast cancer, and lung adenocarcinoma metastases. In the current investigation, NG-CNA assay data were used to compute the MPS in 70 prostate cancer surgical research samples with known clinical outcomes, and the results were highly correlated with that of the Oncoscan CNV assay. In a separate group, clinical and analytical validity was found between surgical samples and matched biopsies run exclusively on the NG-CNA platform. An MPS threshold of 0.99 delineated high risk from low risk tumors.

"We believe the addition of the NG-CNA assay onto a standard cancer gene testing platform will augment personalized medicine by identifying aggressive tumors and genetic mutations that are predictors of response to targeted therapies," said Dr. Ostrer.

Credit:

Elsevier

December 12, 2018



21 Jun 2019 Dear Dave

Thanks to everybody who came to this year's AGM & Conference last week. It was a most enjoyable day with excellent presentations and lively discussions. The <u>slides of the presentations are available to download on our website</u>.

As discussed, we would like to invite a wife or partner of a man with prostate cancer to become a member of the Board of Trustees. If a wife/partner is interested, please complete <u>this application form</u>. If you would like to discuss the position informally first, please call me on 07818 404 004.

A couple of other things...

Those of you at the AGM will have seen <u>this video asking people to support us on Father's Day</u> with our fundraising campaign to Cycle (and Bike) to the Moon and #SaveaDad. It is also being promoted extensively on social media. If you'd like to help, go <u>here</u>.

Manversation are conducting a telephone survey with 18-45 year old males who have a father that is currently living with prostate cancer OR a father that has passed away in the last three years who had prostate cancer. To find out more, go here.

Catherine Gentili from the University of West England is also conducting a survey into the the psychological and physical challenges that patients diagnosed with prostate cancer experience. To read more and take the survey, go here.

Many thanks for your support.

Best regards Roger Wotton Chairman 07818 404 004



Burnley Classic Vehicle Show 30th June 2019

Formerly the Towneley Classic Car Show, the Burnley Classic Vehicle Show is hosted by The Rotary Club of Burnley in conjunction with Burnley Borough Council, it is now in it's 35th year and is more popular then ever.

Enter this link in your browser to register your vehicle http://www.burnleyclassicvehicleshow.org/show-info/entry-forms/

Held in the grounds of Towneley Hall it is a family friendly event with lots to see and do for everyone. There is a small funfair for the children, access to Towneley Hall and the grounds (which include walks, nature trails and even a pitch and putt course), plenty of stalls with information about local charities and attractions, plenty of lovely food with a bar and of course we can't forget the classic vehicles themselves!

Best of all, the entire event is free (although there is opportunity to donate) and all money raised is distributed by the Rotary Club of Burnley to selected charities.

This years show looks set to be bigger and better than ever, with local radio station 2BR keeping us entertained!

The next event is on Sunday 30th of June 2019 and we look forward to seeing you. ELPCSG will be there, presenting an awareness day.



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From Left to Right Hazel Goulding (Treasurer) Leon D Wright (IT Admin) Stuart Marshall (Secretary) Steve Laird (Vice Chairman) Dave Riley (Chairman)

We are a group of local people who know about prostate cancer. We are a friendly organisation dedicated to offering support to men who have had or who are experiencing the effects of this potentially life threatening disease.

The East Lanc's Prostate Cancer Support Group offers a place for free exchange of information and help for local men and their supporters (family and friends) who may be affected by this increasingly common form of male cancer.

At each meeting we strive to be a happy, supportive and upbeat group of people; encouraging open discussion on what can be a very difficult and perhaps for some an embarrassing subject. We have lively, informative, interactive, sharing and above all supportive meetings.

Obituary

Stuart Marshall

James Marginson

I've just received sad news about James

His Nephew answered the phone and informed me that James had passed away in April.

He was taken into hospital and then to the Hospice

where he passed away peacefully.

His PC had spread in to his bones

James Leslie Marginson Peacefully on Saturday 20th April 2019 at the East Lancashire Hospice, Fortified by the Rites of Holy Mother Church, James aged 87 years. The dearly beloved husband of the late Christine and a much loved brother and uncle.

(The Lancashire Telegraph)











