PASS IT ON

For Individuals and Families With a History of Cancer

Newsletter of the Cancer Genetic Counseling Service

ACCESS TO OUR GENETIC COUNSELING SERVICE HAS EXPANDED

THE KARMANOS CANCER GENETIC COUNSELING SERVICE IS NOW AVAILABLE AT THE FOLLOWING LOCATIONS:

- Karmanos Cancer Institute (KCI) - Detroit Headquarters
- KCI at Weisberg Cancer Center - Farmington Hills
- KCI at McLaren Flint
- KCI at McLaren Macomb
- KCI at McLaren Greater Lansing
- KCI at McLaren Bay Region
- KCI at McLaren Northern Michigan
- KCI at McLaren Port Huron
- KCI at The Toledo Clinic Cancer Center

We offer virtual (video or telephone) sessions at all sites and the option of in-person visits at both the Detroit and Farmington Hills locations. Find more information, including contact information and phone numbers for each site, at **karmanos.org/genetics**

Self-Referrals are accepted at every location.

IN THIS ISSUE

BARBARA ANN Karmanos CANCER INSTITUTE Wayne State University

LITERATURE REVIEW

SCIENTIFIC HIGHLIGHTS IN GENETICS

In this edition of the Cancer Genetic Counseling Service newsletter, we highlight a new article released from the Journal of Clinical Oncology Precision Medicine in June 2022. The article is titled "Germline Variant Spectrum Among African American Men Undergoing Prostate Cancer Germline Testing: Need for Equity in Genetic Testing" by Giri et al. This study was a collaboration between researchers and clinicians at Thomas Jefferson University and Ambry Laboratory. See below for more details!

ARTICLE TAKEAWAYS

Background: Guidelines for prostate cancer (PCA) genetic testing have expanded, with impact on clinical management and hereditary cancer assessment. African American (AA) men have lower engagement in genetic testing, with concern for widening disparities in genetically informed care. The researchers evaluated the range of genetic testing results in a cohort of men with prostate cancer enriched for AA men who underwent genetic testing to inform tailored care, treatment, and management strategies.

Methods: Participants included African American (n = 237; 56%) and White men (n = 190; 44%) with prostate cancer tested with a 14-gene panel: ATM, BRCA1, BRCA2, CHEK2, EPCAM, HOXB13, MLH1, MSH2, MSH6, NBN, PALB2, PMS2, RAD51D, and TP53.

Results: The data set included 427 men all tested using the 14-gene prostate cancer panel.
KEY FINDINGS:

- The overall positive pathogenic/likely pathogenic (P/LP) mutation rate was 8.2%
- Lower mutation rates were reported among African American men (5.91%) vs White men (11.05%); P = .05
- Rates of inconclusive variants of uncertain significance (VUS) were 25.32% (African American men) vs 16.32% (White men); P = .02
- Incidences of carrying multiple inconclusive VUSs were 5.1% (AA men) vs 0.53% (White men); P =.008
- The positive P/LP spectrum was narrower in African American men (BRCA2, PALB2, ATM, and BRCA1) than White men (BRCA2, ATM, HOXB13, CHEK2, TP53, and NBN).

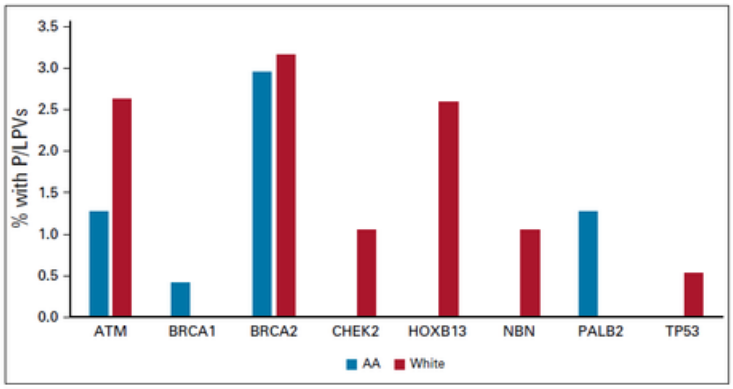

FIG 1. Spectrum of germline P/LPVs among AA and White men. AA, African American.

Conclusions: Germline evaluation in a cohort enriched for AA men highlights the narrower spectrum of germline contribution to prostate cancer with significantly higher rates of multiple inconclusive VUSs in DNA repair genes. These results underscore the imperative to engage AA men in genetic testing, the need for larger panel testing in AA men, and the necessity to incorporate novel genomic technologies to clarify VUS to discern the germline contribution to PCA. Furthermore, tailored genetic counseling for AA men is important to ensure understanding of inconclusive VUS and promote equitable genetics care delivery.

Did you know that Karmanos Cancer Institute is actively recruiting male participants for a new study that aims to identify patients who may be at increased risk of developing prostate cancer?

Men may be eligible if:

- Age between 35-70
- No prior history of prostate cancer
- Family history of prostate, ovarian, or breast cancer

The prostate cancer risk program is led by our experienced genitourinary physicians at KCI.

If you would like more information, please contact Amanda Mladenovski at 313-576-9386.

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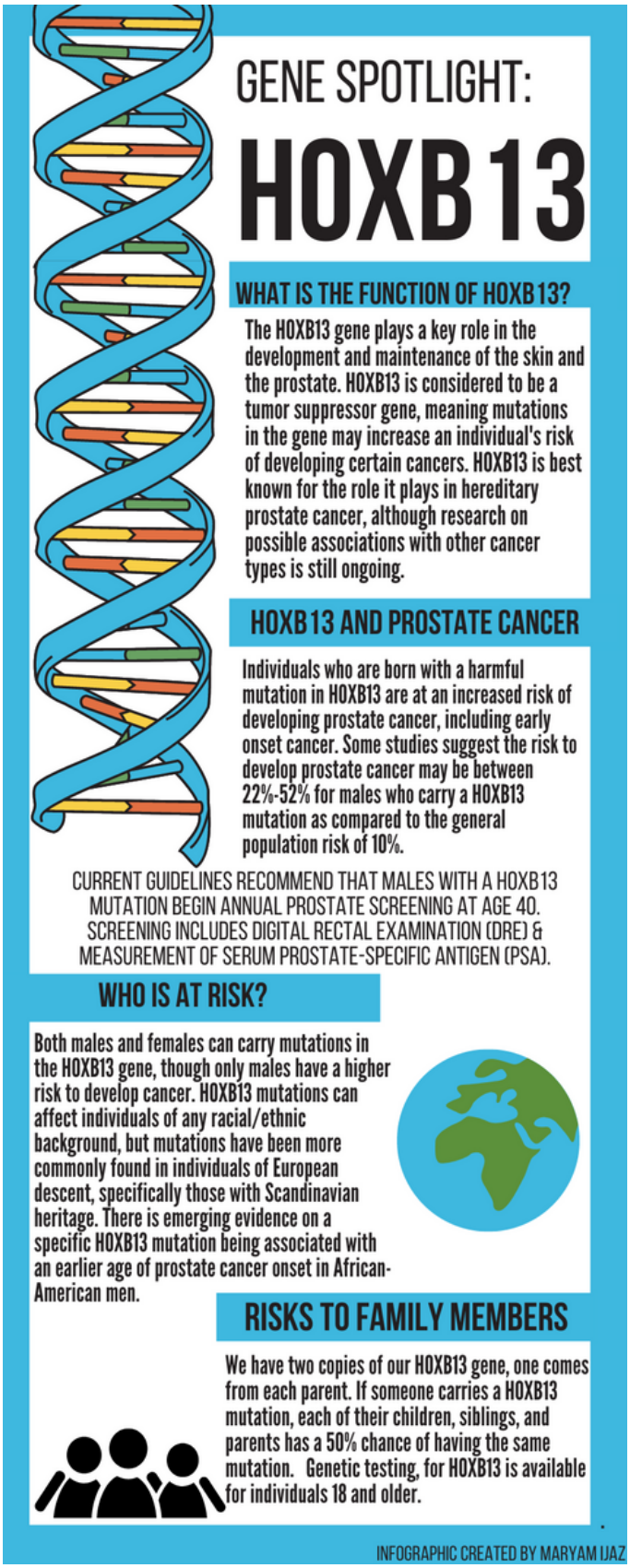

REMINDER: We offer annual virtual genetic counseling appointments for any individual who has a positive genetic testing result. These appointments give us the chance to update you regarding any new information learned about that gene.

Screening recommendations or known cancer risks may change over time. In addition, it gives us the opportunity to update your family history, review the importance of testing your relatives for your cancer gene mutation, and help facilitate such testing for your family members.

You can call us at 313-576-8748 to schedule your annual Genetics follow-up appointment!

This award recognizes and pays tribute to genetic counselors who provide exceptional and irreplaceable care to families dealing with major health challenges.

Patients & caregivers are invited to nominate genetic counselors by answering a few questions. Selected genetic counselors may be honored during the NSGC annual conference in October.

Last year, our very own Nancie Petrucelli was nominated by patient, Jennifer Traub. Nancie provided genetic counseling services to Jennifer's family over a 20-year span. Jennifer shared the following about her experience,
"...I am 100 percent confident that I would not even be here today, or in as good health as I am, had it not been for the information that I got from genetic counseling."

Read more about this heartwarming story at www.bit.ly/3Y42gan

To nominate a genetic counselor, please visit GC-heart.com or scan the QR code.

Be sure to nominate your genetic counselor by May 31.

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