Cancer Genetics Program recognized for excellence

The Beaumont Cancer Genetics Program recently received a grant from the Genetic Alliance for its efforts to expand knowledge and awareness about the importance of Family Health History, or FHH, in medicine. The competitive program award will allow Beaumont to implement a customized FHH toolkit at Beaumont Covenant Community Clinic, a federally qualified health center for the underserved population. The goal of the program is to expand knowledge and awareness among health care providers and the public about the importance of FHH in medicine, particularly the knowledge about genetics, cancer risk and cancer prevention.

The award coincides with the Secretary’s Advisory Committee on Genetics Health and Society recently released report that shows a significant need to improve genetic literacy among health professionals and patients. The report recommended that the Department of Health and Human Services help identify strategies for translating genetic knowledge into information that patients can use to make health care decisions.

“This award allows us to create a toolkit for patients and providers that will hopefully improve genetic literacy,” says Dana Zakalik, M.D., medical director of the Cancer Genetics Program at Beaumont. “With programs such as this, we can better integrate genetics and genomics into health care for diverse populations.”
National leader in colorectal cancer research presents at Beaumont symposium

Henry Lynch, M.D., who first described the hereditary colon cancer syndrome currently referred to as Lynch syndrome, or LS, was the keynote speaker at a recent Beaumont Gastrointestinal Cancer Symposium on June 17, 2011.

Dr. Lynch has spent more than 40 years studying families with hereditary colorectal cancer; his research has played an integral role in the development and evolution of the field of cancer genetics. Through his diligent collection of family history, he developed the cardinal principles of hereditary cancers, including early age of onset, multiple primary cancers and Mendelian patterns of inheritance.

He discussed his pivotal involvement in the characterization of LS that ultimately aided researchers in the discovery of the LS-associated mismatch repair genes in the 1990s. He also presented data that may supports the presence of other extra-colonic LS-associated cancers. During his presentation Dr. Lynch emphasized that “genetic counseling is mandatory” in the evaluation of patients suspected of harboring a LS-associated mutation.

Prior to the symposium, the Beaumont Cancer Genetics Program hosted a special Cancer Genetics Case Conference with Dr. Lynch to review challenging LS cases. Health care professionals across Michigan came to participate. “It is an honor to discuss patient cases with Dr. Lynch,” says Dana Zakalik, M.D., medical director of the Cancer Genetics Program at Beaumont. “His expertise and knowledge is priceless.”

Currently Dr. Lynch is the chairman of Preventive Medicine and Public Health, professor of Medicine and director at Creighton University School of Medicine’s Hereditary Cancer Center in Omaha, Neb. He has more than 650 journal article publications and more than a dozen books on the diagnosis, prevention, counseling and treatment of hereditary disorders.
Beaumont genetic counselor weighs in on importance of involving trained genetic counselors in health care team

The availability of genetic testing has grown exponentially in the last decade, with varying degrees of applicability. In the early 1990s fewer than 300 clinical genetic tests were available; in 2011, the number has grown to more than 2,000 clinical genetic tests. Many insurance companies are becoming more aware of the rising costs and preventive medical benefits that may be associated with this increase in genetic testing, and they’re looking for new ways to manage these issues.

This April, Shanna Gustafson, MS, MPH, a certified genetic counselor at Beaumont, was invited to present at the Medical Policy and Molecular Diagnostics/Genetic Testing Forum in Washington D.C., to discuss the benefits of incorporating a trained genetic counselor as an individual member of the health care team. Shanna joined Beaumont’s Cancer Genetics team in the past year and is an active advocate in the National Society of Genetic Counselors.

The meeting was a two-day forum for policy executives from multiple private payers; the forum included workshops and presentations on the topic of genetic testing. Genetic counselors played a prominent role in the content presented, and they contributed significantly to the discussion throughout the presentations. The goal of the conference was to help payers formulate their policies, evaluate their pre-authorization strategies, determine clinical validity of new tests and evaluate genetic risk prediction for preventive medical management. All of these are areas where the expertise of genetic counselors can be utilized.

While in Washington, Shanna met with representatives from Congressman Dave Camp’s (R-MI) and Senator Debbie Stabenow’s (D-MI) offices, on behalf of the National Society of Genetic Counselors. They discussed federal initiatives for national recognition of trained genetic counselors as valuable members of the health care team. “These meetings were well received, and the leaders asked many relevant questions,” says Shanna. “Overall the discussion was positive and encouraging that progress for genetic counselors is being made.”

Legislative Caucus discusses cancer genetics

There has been an explosion of discovering new information in the field of genetics and genomics, which can lead to a personalized medicine approach for each individual. Dana Zakalik, M.D., medical director of the Cancer Genetics Program at Beaumont, presented this information on May 3 to Michigan state senators, representatives, lobbyists and advocates involved in legislation regarding the impact of cancer genetic and genomic testing in health care. This discussion included many different aspects of cancer genetics, such as Hereditary Cancer Syndrome genetic counseling and testing, prognostication tools for tumors, pharmacogenomics (the use of genetic information to tailor therapies) and cancer screening and prevention.

The key issues surrounding genetic testing that were discussed include: education of stakeholders; appropriate utilization of testing continued on page 4
**Beaumont begins universal tumor screening for Lynch Syndrome**

Beginning this summer, Beaumont Health System through the Cancer Genetics Program, will offer universal tumor screening for Lynch Syndrome, or LS. LS is a hereditary condition that increases the risk of cancer in the colon, uterus, stomach and ovaries.

The screening will be done with immunohistochemistry, which uses fluorescently labeled antibodies specific to the MLH1, MSH2, MSH6 and PMS2 proteins to determine if any are absences in tumor cells. A lack of staining indicates which individuals have a higher chance of having LS. Clinicians can then perform risk appropriate surveillance and prevention of the LS associated cancers, ultimately decreasing the risk of cancer.

Individuals who are identified as being at an increased risk will be offered targeted genetic testing for inherited mutation responsible for LS or hereditary colon cancer at a reduced cost. It has been documented that many cases of LS are missed unless a comprehensive tumor-screening program is implemented. This innovative test will be performed on all colon cancer resection specimens at Beaumont Health System. By applying this technology broadly, Beaumont hopes to identify LS and prevent the development of these lethal cancers.

**Legislative Caucus Discusses Cancer Genetics**

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(insurance policies and cost savings opportunities); the importance of comprehensive pre- and post-test genetic counseling; licensure of genetic counselors; oversight, regulation and privacy concerns; direct-to-consumer testing; access for underserved populations; economic implications of genetic testing; and research.

“It is imperative for both health care providers and consumers to be informed and understand the utilization and limitations of genetic technology,” says Dr. Zakalik. “Genetic counselors are the best trained health care professionals to educate both the public and professionals about the use of genetic testing.”