Medical Xpress

Vanderbilt-Ingram Cancer Center launches online genetic research tool

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Vanderbilt-Ingram Cancer Center (VICC) has launched the nation's first personalized cancer decision support tool, "My Cancer Genome," to help physicians and researchers track the latest developments in personalized cancer medicine and connect with clinical research trials for their patients.

This web-based information tool (www.MyCancerGenome.org) is designed to quickly educate clinicians on the rapidly expanding list of genetic mutations that impact different cancers and, at the same time, enable them to more easily research various treatment options based on specific mutations.

My Cancer Genome is the latest addition to VICC's Personalized Cancer Medicine Initiative, which was unveiled last year.

"Next-generation, or genetically-informed cancer medicine, holds the promise of tailoring anti-cancer treatment according to individual patient tumor characteristics," said William Pao, M.D., Ph.D., associate professor of Medicine and director of Personalized Cancer Medicine at VICC.

"Staying abreast of these fast-paced research changes may be difficult for time-pressed oncologists and medical caregivers. In particular, knowledge about rare variants found in cancers may be hard to track down, especially in busy clinics. We launched this web-based tool to enable a genetically-informed approach to cancer medicine that we

believe can be more efficient and effective."

With just a few clicks, users can get up-to-date information on the clinical significance of specific mutations.

Here's how it works: A doctor receives tumor profiling results from the lab that show a mutation in a specific gene. The doctor remembers a little about the gene, but hasn't seen that result very often, as it is relatively uncommon.

Instead of having to search through a great deal of literature, the physician can log on to VICC's My Cancer Genome tool and, within a few minutes, find the latest information about the clinical implications of the gene, either by reading the summary version or delving further into the primary literature through web links. The physician can then recommend treatment that is currently available or refer the patient to a clinical trial that is testing a targeted therapy for that gene.

Finally, the patient also can go to the VICC website and learn more about their cancer by using the My Cancer Genome tool.

"We designed this online tool to be comprehensive, scalable and easy for clinicians to use," said Mia Levy, M.D., Ph.D., assistant professor of Biomedical Informatics and Medicine and Cancer Clinical Informatics Officer for VICC.

"This new online tool is already linked to Vanderbilt University Medical Center's StarPanel electronic medical record database to help our physicians make treatment decisions quickly, based on the best science available.

"Once we test a patient's tumor for specific mutations, the test results stay in a patient's medical record, so as new treatment options become

available for each mutation, our physicians will have that information at their fingertips," Levy said.

The first two forms of cancer featured on VICC's My Cancer Genome information tool are lung cancer and melanoma, with plans to add content on breast, colon and other cancers in a few months.

"We envision that VICC's My Cancer Genome can become a global research and resource platform connecting the entire cancer community, including doctors, researchers, students, patients and caregivers.

"We will be reaching out in the future to encourage all stakeholders to contribute information so that we can improve information flow and accelerate the development of better personalized targeted therapy for all cancer patients," Pao said.

Provided by Vanderbilt University Medical Center

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