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PEOPLE


Martha Stewart

Richard Van Etten, MD, PhD, began his new role as director of the Chao Family Comprehensive Cancer Center at the University of California, Irvine, on October 1. He succeeds the center's founding director, Frank Meyskens Jr., MD, and interim director, Sheldon Greenfield, MD.

Van Etten previously served as chief of the division of hematology/oncology and director of Tufts Cancer Center in Boston, MA. Internationally recognized for his research, he studies the molecular pathogenesis of leukemia, particularly dysregulated kinases such as the BCR-ABL, FGFR1, and JAK2 V617F kinases. In addition, he has an interest in oxidative stress and the role of the peroxiredoxin family of antioxidant enzymes in cell signaling.

After postgraduate training in internal medicine and hematology at Boston's Brigham and Women's Hospital, he completed a fellowship at the Whitehead Institute in Cambridge, MA.

Norman Sharpless, MD, has been appointed director of the University of North Carolina (UNC) Lineberger Comprehensive Cancer Center in Chapel Hill, effective January 1. He will succeed H. Shelton Earp, MD.

A graduate of UNC and the UNC School of Medicine, Sharpless is currently Lineberger's deputy director, Wellcome Distinguished Professor of Cancer Research, and professor of medicine and genetics. A practicing medical oncologist, he studies the role of the INK4/ARF tumor suppressor locus in human cancer and aging. In addition, he codirects UNCSeq, a large clinical trial at UNC that uses next-generation sequencing of tumor DNA to define optimal chemotherapy regimens in patients with advanced cancer.

A recipient of numerous awards, Sharpless holds 12 patents and has authored more than 100 research papers.

Avoiding Overdiagnosis and Overtreatment

A group of experts advising the National Cancer Institute recommends revising the definition of cancer and refining how cancers are detected and treated in an effort to curb overdiagnosis and overtreatment of conditions that may not be life-threatening (JAMA 2013;310:797–8).

Among the proposals is a call to no longer define indolent or low-risk lesions as cancer. Rather, the term "cancer" should be used only to describe "lesions with a reasonable likelihood of lethal progression if left untreated," the authors write.

The group says, for example, that premalignant conditions such as ductal carcinoma in situ (DCIS) or high-grade prostatic intraepithelial neoplasia should be renamed "indolent lesions of epithelial origin."

Taking the word "cancer" out of such diagnoses could lead to a more thoughtful, less frightening discussion between patients and their doctors about what to do next, says Laura Esserman, MD, lead author of the report and director of the Carol Franc Buck Breast Care Center at the University of California, San Francisco (UCSF).

When patients are told that their condition is "cancer," they tend to be much more aggressive with therapy, Esserman comments. "Treatment decisions shouldn't be made out of fear," she says.

The national push for increased cancer screening in recent decades has meant that more early-stage cancers are being found and treated. But data generally have shown that screening has not led to a drop in mortality rates. Detection and removal of precancerous colon polyps and cervical lesions are exceptions, the authors note.

"Our assumption back in the 1980s was if you found it early, you could fix the problem. But cancer is a lot more complicated than we thought," Esserman says.

The report suggests that the Institute of Medicine or another independent group convene a multidisciplinary panel made up of pathologists, imaging specialists, surgeons, oncologists, and other experts to discuss these issues.

The working group also calls for research to predict which lesions are destined for a serious outcome and which are not, and how to best confront each scenario with strategies such as active surveillance or chemoprevention.

Other recommendations include focusing screening on high-risk populations, raising the thresholds for biopsy, and creating registries for low-risk lesions. Esserman and her colleagues at UCSF plan to launch a DCIS registry in early 2014.

"I'm not saying cancer isn't serious," Esserman sums up. "I'm saying it's time for us to start focusing our interventions on the things that are lethal." ■

Metabolic Imaging Points Out Prostate Cancers

The first clinical trial of imaging tumor metabolism using hyperpolarized MRI shows that the technique is safe in humans and can highlight differences in how normal and cancerous prostate tissues metabolize sugars (Sci Transl Med 2013:198,198ra108). If confirmed in further studies, the approach may provide a noninvasive way to analyze the aggressiveness of prostate tumors and monitor response to therapy.

"We know that metabolism is a good way to assess the aggressiveness of a tumor," says Sarah Nelson, PhD, a professor of radiology at the University of California, San Francisco (UCSF), and lead author on the paper. Tumor tissue has a different metabolism from healthy tissue and tends to convert the sugar pyruvate into lactate rather than into other metabolites, she explains. This conversion is more pronounced in more-aggressive tumors.

The effect is invisible in conventional imaging scans but can be observed by MRI with a special contrast agent treated to generate a hyperpolarized spin state in a carbon-13 nucleus in pyruvate. This results in a 10,000-fold enhancement in image contrast relative to conventional MRI.

While hyperpolarized pyruvate has been used to image abnormal metabolism in tumors in animals, it hasn't been safe to use in humans. The agent can be created only at temperatures nearing absolute zero—much too cold

AACR American Association for Cancer Research

CANCER DISCOVERY

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