Cancer Prevention Research

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EDITORIAL

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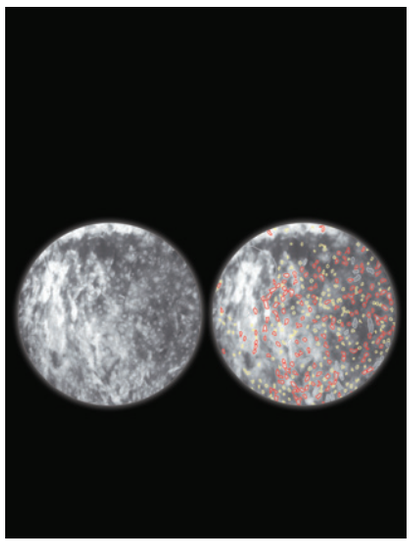
ABOUT THE COVER



The five-year survival rate for patients with oral cancer remains low, in part because diagnosis often occurs at a late stage. The standard of care for evaluation of oral lesions—visual examination under white light illumination—is strongly dependent on the expertise and experience of the clinician. There is a need for tools that can aid clinicians by facilitating early, objective identification of oral neoplasia. Multi-modal optical imaging has the potential to help identify oral neoplasia in real time. Implementation of automated image analysis can improve the accessibility and utility of adjunctive optical imaging technologies. The cover shows a micrograph of an image (circle at left) acquired *in vivo* from an oral lesion site using a fiberoptic fluorescence microscope; it also shows the corresponding processed image (circle at right) that was automatically generated in real time at the point-of-care. The field of view is 720 microns in diameter and the bright dots are cell nuclei. Nuclei classified as abnormal by the processing algorithm are outlined in red, while nuclei classified as normal are outlined in yellow. The automated algorithm gave an overall prediction of "neoplastic" for this oral site; subsequent pathology results indicated severe dysplasia. See the article by Quang et al. (beginning on page 563) for more information.