

DIAGNOSIS

Detection of lung, breast, colorectal, and prostate cancers from exhaled breath using a single array of nanosensors

Peng, G. *et al. Br. J. Cancer* **103**, 542–551 (2010)

The gene and protein changes that accompany tumorigenesis can lead to peroxidation of cell membrane components, and thence to release of volatile organic compounds (VOCs). An Israel-based group has developed a tool that can detect exhaled forms of these VOCs. The group has shown that their nanosensor panel can differentiate between the VOC profiles of healthy volunteers and those of men with prostate cancer.

PROSTATE CANCER

A novel imaging approach for early detection of prostate cancer based on endogenous zinc sensing

Ghosh, S. K. *et al. Cancer Res.* **70**, 6119–6127 (2010)

Researchers have capitalized on the fact that zinc accumulation is impaired in prostate cancer cells to develop a new technique for detection and monitoring of the disease. Levels of mobile zinc in the prostates of transgenic tumor-bearing mice were tracked using *in vivo* optical imaging, and shown to progressively decrease in an age-dependent manner.

PROSTATE CANCER

Young men have equivalent biochemical outcomes compared with older men after treatment with brachytherapy for prostate cancer

Burni, R. J. *et al. Int. J. Radiat. Oncol. Biol. Phys.* **77**, 1315–1321 (2010)

Retrospective analysis of data from almost 400 men aged 60 years or less has shown that patients of this age are just as likely as older patients ($n=1,287$) to be free of biochemical failure after primary brachytherapy. Some of the men who contributed data to this study also received hormone therapy and/or external beam radiation therapy at the time their clinically localized disease was treated with low-dose-rate brachytherapy.

KIDNEY CANCER

A novel tumor grading scheme for chromophobe renal cell carcinoma: prognostic utility and comparison with Fuhrman nuclear grade

Paner, G. P. *et al. Am. J. Surg. Pathol.* **34**, 1233–1240 (2010)

Nuclear changes are a feature of chromophobe renal cell carcinoma. As such, the predictive power of Fuhrman nuclear grade might be compromised when applied to this favorable-prognosis subtype of kidney cancer. A new study shows that eliminating the nuclear atypia that is inherent in chromophobe renal cell carcinoma from tumor grading schema results in prognostication which is superior to that achieved when Fuhrman nuclear grade is included.