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# **IN BRIEF**

#### **THYROID GLAND**

#### PI3K inhibitor decreases metastatic behavior in thyroid cancer

GDC-0941, an inhibitor of the phosphoinositide-3 kinase (PI3K) pathway, significantly reduced spreading and migration of four thyroid carcinoma cell lines in culture. Furthermore, oral administration of GDC-0941 to a mice model of follicular thyroid carcinoma decreased tumor growth and metastatic lung colonization. These results support the development of PI3K inhibitors to treat thyroid cancer.

**Original article** Burrows, N. *et al.* GDC-0941 inhibits metastatic characteristics of thyroid carcinomas by targeting both the phosphoinositide-3 kinase (PI3K) and hypoxia-inducible factor- $1\alpha$  (HIF- $1\alpha$ ) pathways. *J. Clin. Endocrinol. Metab.* doi:10.1210/jc.2011-1426

#### DIABETES

RNA oxidation marker predicts long-term mortality in T2DM

Urinary levels of the RNA oxidation marker 8-oxo-7,8dihydroguanosine (8-oxoGuo) measured in 1,381 patients newly diagnosed as having type 2 diabetes mellitus predicted mortality after a median follow-up period of 18.7 years. The hazard ratios for patients in the highest 8-oxoGuo quartile compared with patients in the lowest quartile were 1.44 (1.12–1.85) for all-cause mortality and 1.54 (1.13–2.10) for diabetes-related mortality. No relationship was found between urinary levels of a marker of DNA oxidation and mortality in this population.

Original article Broedbaek, K. et al. Urinary markers of nucleic acid oxidation and longterm mortality of newly diagnosed type 2 diabetic patients. *Diabetes Care* doi:10.2337/ dc11-1620

### OBESITY

Inhibition of tissue factor signaling-new antiobesity target?

The absence of PAR2 or the cytoplasmic domain of tissue factor in mice prevented weight gain and insulin resistance caused by a high-fat diet, report Badeanlou *et al.* Genetic ablation or pharmacological inhibition of this signaling pathway reduced adipose tissue inflammation and insulin resistance, respectively, in hematopoietic cells, and pharmacological blockade of the pathway *in vivo* increased energy expenditure. The researchers suggest that Inhibition of tissue factor signaling could be used to improve insulin resistance and prevent weight gain in individuals with obesity.

**Original article** Badeanlou, L. *et al.* Tissue factor-protease-activated receptor 2 signaling promotes diet-induced obesity and adipose inflammation. *Nat. Med.* doi:10.1038/nm.2461

#### **ADRENAL GLAND**

## No benefit of preoperative $\alpha$ -blockade in normotensive pheochromocytoma?

A team at the Ruijin Hospital, Shanghai, analyzed the intraoperative outcomes of patients with normotensive pheochromocytomas who underwent adrenalectomy between January 2003 and July 2011. Patients treated with the  $\alpha$ -blocker doxazosin perioperatively (n=38) were significantly more likely to require the use of vasoactive drugs and colloid fluid during surgery than patients who did not receive doxazosin (n=21), with no significant differences in intraoperative blood pressure and heart rate between groups.

Original article Shao, Y. et al. Preoperative alpha blockade for normotensive pheochromocytoma: is it necessary? J. Hypertens. doi:10.1097/ HJH.0b013e32834d24d9