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IN BRIEF

NEUROENDOCRINOLOGY

Epigenetic silencing regulates timing of puberty in rats

Lomniczi *et al.* show that the timing of puberty in female rats is controlled by epigenetic silencing mechanisms that operate in the neuroendocrine brain. They identify Polycomb group (PcG) proteins as the silencers of the *Kiss1* gene, which encodes a puberty-activating component. Before puberty, expression of two key PcG genes, *Eed* and *Cbx7*, decreases, which enables *Kiss1* expression to increase. The researchers demonstrate that preventing reduced EED silencing of *Kiss1* at the onset of puberty disrupts the pulsatile release of gonadotropin-releasing hormone and delays puberty.

Original article Lomniczi, A. *et al.* Epigenetic control of female puberty. *Nat. Neurosci.* doi:10.1038/nn.3319

BONE

Odanacatib improves bone strength in women with low BMD

Brixen and co-workers conducted a 2-year, placebo-controlled, randomized trial of the cathepsin K inhibitor odanacatib in 214 postmenopausal women with low areal BMD. The study aimed to assess the effect of the drug on trabecular and cortical bone compartments and strength at the hip and spine. Odanacatib treatment resulted in increases in volumetric and areal BMD, decreases in bone resorption, maintenance of bone formation and increased estimated bone strength at the hip and spine.

Original article Brixen, K. *et al.* Bone density, turnover, and estimated strength in postmenopausal women treated with odanacatib: a randomized trial. *J. Clin. Endocrinol. Metab.* doi:10.1210/jc.2012-2972

THYROID FUNCTION

A call for age-specific TSH reference intervals

Researchers used the TSH measurements of 153,127 adults without obvious thyroid disease in Tayside, Scotland, UK, to reveal the distribution of TSH levels in different age groups. Significant increases in median TSH levels and the 97.5th percentile TSH levels were found with increasing age, whereas the 2.5th percentile TSH level decreased with age. The investigators suggest that use of these age-specific reference intervals for TSH, especially in individuals >70 years old, would result in reclassification of many individuals from an abnormal to a normal result.

Original article Vadeloo, T. *et al.* Age- and gender-specific TSH reference intervals in people with no obvious thyroid disease in Tayside, Scotland: The Thyroid Epidemiology, Audit, and Research Study (TEARS). *J. Clin. Endocrinol. Metab.* doi:10.1210/jc.2012-3191

PAEDIATRICS

Promoting care of children with endocrine disorders

In *Pediatrics*, a group of experts on behalf of the Global Pediatric Endocrinology and Diabetes group define the health-care needs of children with endocrine disorders and diabetes mellitus. Particular reference is made to the care of children with endocrine disorders in developing-world settings and the ways in which health outcomes can be improved. The authors outline the responsibilities of health-care providers, the pharmaceutical industry and government bodies in promoting the improved care of paediatric endocrine disorders.

Original article Zacharin, M. *et al.* Promoting excellence in the care of pediatric endocrine diseases in the developing world. *Pediatrics* doi:10.1542/peds.2012-0848