# RESEARCH HIGHLIGHTS

## **IN BRIEF**

#### **NEUROENDOCRINOLOGY**

Adolescent boys with Asperger syndrome do not experience the normal cortisol surge after waking up, which may be associated with characteristics of this population such as resistance to change and need for routine. Brosnan and colleagues measured cortisol levels in 20 adolescent boys with Asperger syndrome and 18 age-matched controls. The cortisol awakening response, while absent in boys with Asperger syndrome, was evident in the controls. Such modulation of the hypothalamic–pituitary–adrenal axis could explain why children with Asperger syndrome possess an inability to react to change, the researchers suggest.

**Original article** Brosnan, M. *et al.* Absence of a normal cortisol awakening response (CAR) in adolescent males with Asperger syndrome (AS). *Psychoneuroendocrinology* **34**, 1095–1100 (2009).

#### DIABETES

A study of infants born to women with type 1 diabetes mellitus in The Netherlands has shown that male babies are more likely than female babies to have congenital malformations. Of 314 pregnancies in women with type 1 diabetes mellitus, 324 infants were born (157 boys, 167 girls). The incidence of preterm birth disorders, congenital malformations and respiratory disorders was higher among boys than girls (39.5% versus 28.7%, 12.7% versus 3.0% and 18.5% versus 10.6%, respectively). Evers et al. hypothesize that male embryos have increased vulnerability to oxidative stress and are thus more likely than female ones to develop defects.

**Original article** Evers, I. M. *et al.* Male predominance of congenital malformations in infants of women with type 1 diabetes. *Diabetes Care* **32**, 1194–1195 (2009).

### **BONE**

Elevated urinary levels of pentosidine, a compound thought to accumulate in and weaken bone, are associated with increased fracture risk in elderly adults with diabetes mellitus. Measurements of urinary pentosidine levels were made in elderly men and women (age 70–79 years) with and without diabetes mellitus (501 and 427 individuals, respectively). High pentosidine levels were associated with increased incidence of clinical fracture and an increased prevalence of vertebral fracture in individuals with diabetes, but not in those without diabetes mellitus. These data might explain, in part, why patients with type 2 diabetes mellitus have reduced bone strength.

Original article Schwartz, A. V. et al. Pentosidine and increased fracture risk in older adults with type 2 diabetes. *J. Clin. Endocrinol. Metab.* doi:10.1210/jc.2008-2498