# RESEARCH HIGHLIGHTS

## **IN BRIEF**

#### REPRODUCTIVE ENDOCRINOLOGY

High dietary fiber consumption is associated with a decrease in reproductive hormone concentrations, according to the BioCycle study. Investigators assessed the dietary fiber consumption of 250 healthy, premenopausal women over two menstrual cycles and found that a 5g increase in total fiber intake each day was associated with a 1.78-fold rise in the risk of an anovulatory cycle.

**Original article** Gaskins, A. J. *et al.* Effect of daily fiber intake on reproductive function: the BioCycle Study. *Am. J. Clin. Nutr.* **90**, 1061–1069 (2009).

#### **BONE**

Adolescents with anorexia nervosa show premature conversion of red marrow to yellow marrow in the peripheral skeleton. Visual assessment of right-knee MRI revealed an approximately twofold lower metaphyseal red marrow score in the femur and tibia of individuals with anorexia nervosa compared with healthy individuals. Ecklund *et al.* attribute this finding to a preference for adipocyte over osteoblast differentiation in the mesenchymal stem-cell pool.

Original article Ecklund, K. et al. Bone marrow changes in adolescent girls with anorexia nervosa. J. Bone Miner. Res. doi:10.1359/jbmr.090805

### **CANCER**

Allogeneic peripheral blood stem-cell transplantation in patients with chemotherapy-resistant pancreatic cancer indicates a pivotal role for tumor necrosis factor in tumor regression. After low-dose total-body irradiation and fludarabine, five patients with advanced unresectable pancreatic cancer received nonmyeloablative allogeneic hematopoietic stem-cell transplantation. Tumor regression with a coinciding substantial elevation of tumor necrosis factor was observed in two patients. Three patients developed acute graft-versus-host disease despite administration of mycophenolate mofetil and ciclosporin.

 $\label{localization} \mbox{Original article} \mbox{ Abe, Y. et al.} \ \mbox{Nonmyeloablative allogeneic hematopoietic stem cell transplantation as immunotherapy for pancreatic cancer. $\it Pancreas$ doi:10.1097/MPA.0b013e3181b576ee$ 

Treatment of patients with advanced medullary thyroid cancer with 125 mg motesanib per day showed an objective response rate of 2% over a period of 48 weeks, according to a phase II trial published in the *Journal of Clinical Oncology*. Of 91 patients with locally advanced or metastatic, progressive or symptomatic medullary thyroid cancer, 81% achieved stable disease for the duration of treatment.

**Original article** Schlumberger, M. et al. Phase II study of safety and efficacy of motesanib in patients with progressive or symptomatic, advanced or metastatic medullary thyroid cancer. *J. Clin. Oncol.* **27**, 3794–3801 (2009).