Nature Reviews Endocrinology **11**, 194 (2015); published online 17 February 2015;
doi:10.1038/nrendo.2015.19;
doi:10.1038/nrendo.2015.20;
doi:10.1038/nrendo.2015.21;
doi:10.1038/nrendo.2015.22

IN BRIEF

OBESITY

New pathway in the distribution of body fat identified

Mutations in genes encoding WNT co-receptors, *LPR5* and *LPR6*, are known to be associated with cardiometabolic disorders. A team of researchers has now investigated the role of *LPR5* in adipose tissue. They found that patients with gain-of-function mutations had increased fat accumulation in the lower body, whereas a common *LPR5* allele (rs599083) was associated with increased abdominal accumulation of fat. Furthermore, *LPR5* expression was higher in abdominal adipocyte progenitors than in gluteal adipocyte progenitor cells and knockdown of the gene in the two progenitor cell populations led to different outcomes in fat distribution.

Original article Loh, N. Y. *et al.* LRP5 regulates human body fat distribution by modulating adipose progenitor biology in a dose- and depot-specific fashion. *Cell Metab.* **21**, 262–272 (2015)

METABOLISM

Limostatin—a incretin—suppresses insulin production

Experiments in *Drosophila melanogaster* have revealed that limostatin, a peptide hormone, suppresses insulin production and secretion and can therefore be classed as a incretin hormone. Flies that lacked limostatin displayed features similar to hyperinsulinaemia, hypoglycaemia and increased adiposity. The researchers suggest that neuromedin U receptors are a human orthologue for limostatin, as NMRU1 is expressed in human islet β cells and purified neuromedin U suppressed insulin secretion in isolated human β cells.

Original article Alfa, R. W. *et al.* Suppression of insulin production and secretion by a incretin hormone. *Cell Metab.* **21**, 323–333 (2015)

THYROID GLAND

Improving survival in patients with papillary thyroid cancer

Patients with papillary thyroid cancer generally have a good long-term prognosis; however, the benefits of adjuvant radioactive iodine therapy in patients with intermediate risk have been debated. In a new study in patients with intermediate-risk papillary thyroid cancer, 21,870 patients received the adjuvant therapy and 6,452 patients did not. After a mean follow-up of 6 years, adjuvant radioactive iodine therapy was shown to be associated with improved overall survival.

Original article Ruel, E. *et al.* Adjuvant radioactive iodine therapy is associated with improved survival for patients with intermediate risk papillary thyroid cancer. *J. Clin. Endocrinol. Metab.* doi:10.1210/jc.2014-4332

NEUROENDOCRINE CANCER

Genomics of pheochromocytomas and paragangliomas

A new multi-omics study has revealed genomic alterations that underlie pheochromocytomas and paragangliomas. The analysis showed that the genetic status of these tumours is strongly correlated with multi-omics data (for example, methylation patterns and microRNA expression profiles). Tumour subtypes can therefore be defined on the basis of a set of genomic alterations. The researchers suggest that omics-based tests will be developed in the future that will enable precise molecular classification of these tumours, paving the way to personalized medicine.

Original article Castro-Vega, L. J. *et al.* Multi-omics analysis defines core genomic alterations in pheochromocytomas and paragangliomas. *Nat. Commun.* doi:10.1038/ncomms7044