



nature publishing group



► **COVER:** 'Metabolism and immunology: inching closer together' by Simon Bradbrook, inspired by this month's Focus on Metabolism and immunology.



LUCY BIRD



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OLIVE LEAVY



YVONNE BORDON

**A** month into 2011 and the chances are that many of our new year's resolutions will already have fallen by the wayside, as the second week in January is apparently the beginning of the end for most people. Weight loss is top of the new year's agenda for many, and we have long known that being overweight can have serious long-term health implications. What we are now beginning to understand are the reciprocal molecular mechanisms that link changes in metabolic pathways to changes in immune pathways, which in turn can affect chronic human diseases such as type 2 diabetes.

As discussed in this month's Focus on Metabolism and immunology, the immunological rationale for maintaining a 'healthy' weight has never been stronger. The articles in this Focus are freely available online (<http://www.nature.com/nri/focus/metabolism/index.html>) until August 2011, thanks to support from sanofi-aventis, so look no further for a scientific boost to your willpower.

And if you're lucky enough to already be the ideal weight, then we have plenty more of interest in terms of human health. On page 131, Stuart Berzins, Mark Smyth and Alan Baxter discuss the evidence that natural killer T (NKT) cell defects have a role in autoimmune, malignant and infectious diseases in humans. They conclude that more detailed analyses of NKT cells from clinical samples are required before the diagnostic, prognostic or therapeutic potential of NKT cells can be determined. Daniel Campbell and Meghan Koch (p119) discuss the phenotypical and functional diversity of regulatory T ( $T_{Reg}$ ) cells, and explain why an understanding of this variation will be necessary for optimal use of  $T_{Reg}$  cells in the clinic. Lastly, Søren Paludan and colleagues (p143) describe what we know of the interactions between herpesviruses and the innate immune system; hopefully this will lead to new treatments for herpesvirus-mediated diseases in humans.

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