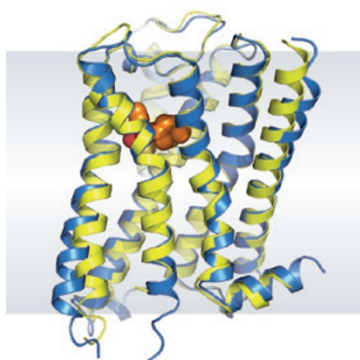


# IN THIS ISSUE



Targeting cancer stem cells p497



Muscarinic acetylcholine receptors p549

Since their identification two decades ago, cancer stem cells — which are thought to be responsible for seeding new tumours — have been intensively investigated. In an Opinion article this month, Pattabiraman and Weinberg discuss our understanding of this cell population and potential anticancer strategies, including targeting developmental pathways that are activated in these cells, such as the Notch, Hedgehog and WNT pathways. The WNT pathway is also the focus of a Review by Kahn, which considers whether this pathway can be safely targeted given its fundamental biological role in numerous cell types. Although no drugs targeting this pathway have yet been approved, it seems that there may be a sufficient therapeutic window for WNT-directed therapies to be used in the treatment of diseases including cancer and neurodegenerative disorders. WNT also has a role in the pathogenesis of neuropathic pain, which is the subject of a Review by Ji and colleagues. Growing evidence indicates that neuroinflammation is important in the induction and maintenance of chronic pain, and Ji *et al.* discuss our current understanding of this process and emerging targets for therapeutic intervention, including various chemokines, proteases and lipid mediators. Finally, a Review by Wess and colleagues focuses on muscarinic acetylcholine receptors, which are established targets for the treatment of chronic obstructive pulmonary disorder and overactive bladder. The recent substantial increase in our understanding of these G protein-coupled receptors, including structural knowledge gained from X-ray crystallography, could unlock their potential to be targeted for the treatment of various diseases of the central nervous system and beyond.

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