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Cover: In their study, A. E. McDonald, G. C. Vanlerberghe and J. F. Staples (pp. 2627–2634) discovered that the electron transport chain protein alternative oxidase (AOX), which confers cyanide-resistant mitochondrial respiration, is widespread in the animal kingdom. AOX is found in species such as (from top left clockwise): the echinoderm *Strongylocentrotus purpuratus* (photo credit: Dr Louise Page), the hemichordate *Saccoglossus kowalevskii* (photo credit: Dr Chris Cameron), and the molluscs *Mytilus californianus* (photo credit: Dr Rich Palmer) and *Lymnaea stagnalis* (photo credit: Dr Louise Page).

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