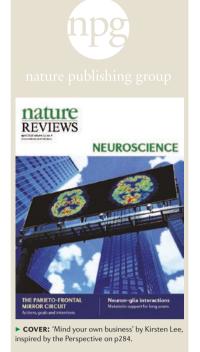
FROM THE FDITORS











n this issue, we publish four articles in fields of neuroscience that have sparked controversy.

Whether astrocytes exocytose neurotransmitters and therefore directly influence information processing in neurons has been the subject of heated debate for almost two decades. As part of our series on neuron-glia interactions, Hamilton and Attwell (page 227) review the postulated roles of 'gliotransmission' in neuronal function and discuss the validity of the arguments that have been raised for and against this concept.

A Perspective article by Klaus-Armin Nave, which is also part of the neuron—glia interaction series, addresses another controversial topic on page 275. Ensheathment by myelin restricts the access of axons to extracellular metabolic substrates, which might be a problem for the maintenance of long axons. Nave proposes that a hitherto overlooked function of ensheathing glia is to meet the metabolic demands of long axonal tracts for rapid impulse propagation and axonal transport.

Since their discovery in the 1990s, the function of mirror neurons — as well as their existence in humans — has been highly debated. On page 264, Rizzolatti and Sinigaglia provide their view on the function of the parieto-frontal mirror system in action perception, focussing on evidence for and criticisms of the proposed role of this system in encoding the intentions and goals of the actions of other individuals.

Lastly, in a Perspective article on page 284, Ariely and Berns discuss how neuroimaging can be used in product marketing. Although some people have expressed concern about the use of 'mind-reading' techniques for commercial goals and others have criticized the interpretation of some neuromarketing data, the authors suggest that neuroimaging at an early stage of product development might provide valuable customer feedback.

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