- phy. *J Nucl Med* 1988;29:1387–92.
- 5 Bullock R, Patterson J, Park C. Evaluation of ^{99m}Tc-hexamethylpropyleneamine oxime cerebral blood flow mapping after acute focal ischemia in rats. *Stroke* 1991;22:1284–90.
 - 6 Teasdale G, Jennett B. Assessment of coma and impaired consciousness: a practical scale. *Lancet* 1974;ii:81–4.
 - 7 Jennett B, Snoek J, Bond MR, Brooks N. Disability after severe head injury: observations on the use of the Glasgow outcome scale. *J Neurol Neurosurg Psychiatry* 1981;44:285–93.
 - 8 Oder W, Goldenberg G, Spatt J, Podreka I, Binder H, Deecke L. Behavioural and psychosocial sequelae of severe closed head injury and regional cerebral blood flow: a spect study. *J Neurol Neurosurg Psychiatry* 1992;55:475–80.
 - 9 Goldenberg G, Oder W, Spatt J, Podreka I. Cerebral correlates of disturbed executive function and memory in survivors of severe closed head injury: a spect study. *J Neurol Neurosurg Psychiatry* 1992;55:362–8.

HISTORICAL NOTES

Pavlov on neuroimaging

The work of the Russian physiologist Ivan Petrovich Pavlov (1849–1936) continues to influence modern psychophysiology, neurology, and biological psychiatry. Not generally appreciated, however, is his visionary anticipation of the functional neuroimaging techniques the multicoloured products of which are on the verge of becoming standard decorations for the covers of present day neuroscience journals. In a lecture read before the Society of the Moscow Scientific Institute (March 1913), Pavlov mused about the possibility of localising human brain functions by visualisation of those neuronal structures which are activated during the performance of a particular task. The most relevant passage reads:

“If we could look through the skull into the brain of a consciously thinking person, and if the place of optimal excitability were luminous, then we should see playing over the cerebral surface, a bright spot with fantastic, waving borders constantly fluctuating in size and form, surrounded by a darkness more or less deep, covering the rest of the hemispheres.”¹

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- 1 Pavlov IP. *Lectures on conditioned reflexes. Twenty-five years of objective study of the higher nervous activity (behaviour) of animals*. London: Martin Lawrence, 1928:222.