in twins: clinical and neurochemical data. Mov Disord

- 11 Singer HS, Hahn IH, Moran TH. Abnormal dopamine uptake sites in postmortem striatum from patients with Tourette's syndrome. Ann Neurol 1991;30:558-62.
- 12 Farde L, Hall H, Ehrin E, Sedvall G. Quantitative analysis of D₂ receptor binding in the living human brain by PET. Science 1986;231:258–61.
 13 Brooks DJ, Turjanski N, Sawle GV, Playford ED, Lees AJ.
- PET studies on the integrity of the pre- and post-synap-tic dopaminergic system in Tourette's syndrome. Adv Neurol 1992;58:227-33.
- 14 Spinks TJ, Jones T, Gilardi MC, Heather JD. Physical per-
- Formance of the latest generation of commercial positron scanner. *IEEE Trans Nucl Sci* 1988;35:721-5.
 Brooks DJ, Salmon EP, Mathias CJ, et al. The relationship between locomotor disability, autonomic dysfunction, and the integrity of the striatal dopaminergic system, in patients with multiple system atrophy, pure autonomic failure and Parkingon? disease studies with PET. Brain failure, and Parkinson's disease, studies with PET. Brain 1990;113:1539-52.
 16 Hume SP, Myers R, Bloomfield PM, et al. Quantitation of
- Carbon-11 labelled raclopride in rat striatum using positron emission tomography. Synapse 1992;12:47-54.
 Zhu MY, Juorio AV, Paterson IA, Boulton AA. Regulation
- Zhu MY, Juono AV, Paterson IA, Boulton AA. Regulation of aromatic L-aminoacid decarboxylase by dopamine receptors in the rat brain. *J Neurochem* 1992;58:636-41.
 See RE, Sorg BA, Chapman MA, Kalivas PW. In vivo assessment of release and metabolism of dopamine in the ventrolateral striatum of awake rats following admin-istration of dopamine D1 and D2 receptor agonists and antagonists. *Neuropharmacology* 1991;30:1269-74.

- 19 Lane RF, Blaha CD, Rivet JM. Selective inhibition of mesolimbic dopamine release following chronic adminis-tration of clozapine: involvement of a₁-noradrenergic receptors demonstrated by in vivo voltammetry. Brain Res 1988;460:398-401.

- Res 1988;460:398-401.
 20 Singer HS, Hahn IH, Krowiak E, Nelson E, Moran T. Tourette's syndrome: a neurochemical analysis of postmortem cortical brain tissue. Ann Neurol 1990;27:443-6.
 21 Sawle GV, Hymas NF, Lees AJ, Frackowiak RSJ. Obsessional slowness. Functional studies with positron emission tomography. Brain 1991;114:2191-202.
 22 Wong DF, Pearlson GD, Young LT, et al. D2 dopamine receptors are elevated in neuropsychiatric disorders other than schizophrenia. J Cereb Blood Flow Metab 1989;9(suppl 1):S593.
 23 Singer HS, Wong DF, Brown JE, et al. Positron emission tomography evaluation of dopamine D-2 receptors in adults with Tourette syndrome. Adv Neurol 1992;58: 233-9. 233-9
- 24 Chase TN, Foster NL, Fedio P, et al. Gilles de la Tourette syndrome: studies with the Fluorine-18-labelled Syndrome: studies with the Fluorine-18-labelled Fluorodeoxiglucose positron emission tomography. Ann Neurol 1984;15:S175.
- 25 Stoetter B, Braun AR, Randolph C, et al. Functional neuroanatomy of Tourette syndrome. Limbic-motor interactions studied with FDG PET. Adv Neurol 1992;58: 213-26
- 213-20.
 26 Sawle GV, Lees AJ, Hymas NF, Brooks DJ, Frackowiak RSJ. The mechanisms of clinical improvement in Gilles de la Tourette syndrome following limbic leucotomy: PET demonstrates changes in regional cerebral oxygen metabolism (abstract). Mov Disord 1992;7(suppl 1):51.

NEUROLOGICAL STAMP

François Magendie (1783-1855)

François Magendie, born in Bordeaux in 1783, was appointed Professor of Medicine at the College de France in Paris in 1831. He made important discoveries in neurophysiology and nutrition and is regarded by some as the father of experimental pharmacology. He is best remembered for his work on the cerebrospinal fluid and the canal in the brain that bears his name. One of his most important contributions was proof (in a litter of puppies) that the anterior roots of the spinal nerve were motor and the posterior sensory. A bitter dispute over the priority for the discovery ensued with the distinguished physiologist Charles Bell.

Magendie was also the first to produce decerebrate rigidity, the effects of excision or section of the cerebellum and of "circus movement" resulting from a lesion of the optic thalamus.

His investigations in pharmacology introduced bromine, quinine, emetine, and morphine into medical practice and he showed the effect of strychnine on the paralysed spinal cord. His Formulaire was published in 1821

In 1815, post-revolutionary France was short of food. Magendie was appointed Chairman of a Commission to investigate the nutritional value of various food extracts. He showed the need for adequate amounts of the right sort of protein in a diet, laying the foundations for the science of nutrition. In 1842 he published an influential book that helped to reform clinical medicine along physiological lines.

He died on his birthday in 1855 and was honoured in 1985 in the Heroes of Medicine series issued by the Republic of Transkei. (Stanley Gibbons 178).

L F HAAS

