

From the Editor's desk

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THIS MONTH'S ISSUE: TRANSLATING PROTEOMICS TO SOCIO-ECONOMICS

One of the most exciting areas in medical research today is translational research, defined as 'clinical investigation with human subjects (patients or normal volunteers) in which knowledge obtained from basic research with genes, cells, or animals is translated into diagnostic or therapeutic interventions that can be applied to the treatment or prevention of disease or frailty'. This month's issue illustrates psychiatry as a good area for translational research but also shows the polymath skills needed by translational researchers. If we postulated such a person to work on the contents of this issue, they would have a great deal of choice. He or she could start with the evidence from proteomics that there is mitochondrial dysfunction within the brain in schizophrenia (Pennington *et al*, pp. 4–6). This could be developed by our super-scientist, lead to a diagnostic biomarker for schizophrenia, and then investigated in those with putative evidence of the disease. Using the type of positron emission tomography described by Boddaert *et al* (pp. 83–86), the diagnostic biomarker can identify a sub-group of those with schizophrenia who have a specific cognitive deficit and diminished activation in the anterior cingulate cortex.

Using a new drug, not very different from modafinil (Spence *et al*, pp. 55–61), our excited investigator is able to demonstrate in first-episode schizophrenia that there is both greater brain activity and a reduction in phosphodiester and high-energy phosphate levels in the anterior cingulate gyrus. This, as would be predicted by Jensen *et al* (2004), is associated with reduction in symptoms. Further imaging studies

show that the pituitary volume is reduced by the new drug, suggesting a beneficial effect on the hypothalamic–pituitary–adrenal (HPA) axis (Pariante *et al*, 2004), and those in whom pituitary volume is decreased also have improved affective symptoms. A range of clinical studies linked to imaging ones follows, demonstrating improved outcome in this schizophrenic subgroup (now called 'oxidative stress schizophrenia') with the new agent, but this is much less in those with poor social circumstances and greater life stresses. Newer techniques of reducing such stresses are developed whose efficacy is tested by other HPA axis markers and, together with the new treatment, these are shown to reverse the risk of suicide identified by Hawton *et al* (pp. 9–20) in schizophrenia and also, when widely introduced across Europe, to correct, at least partly, the excess of suicides in poor socio-economic areas (Lorant *et al*, pp. 49–54), so that the whole of Europe comes to behave as Turin does today. So the circle is now complete, and proteomics has influenced socio-economics in a logical and consistent way.

A fanciful picture? Well, perhaps. But such a scenario is getting nearer, and although psychiatry has done very well with empiricism over the past hundred years, it is moving towards a better theoretical base and able to test much more specific research questions. We hope to record some of these in future issues.

A TELEVISION CHANNEL FOR MENTAL HEALTH

Marshall McLuhan famously predicted the importance of television in his catchphrase 'the medium is the message', and the power of the medium as an educational resource

continues to grow. A new 'mental health television channel' called Mental Health TV (<http://www.mentalhealth.tv>) has just been launched and is worth a visit. It has a range of challenging videos on subject such as the new Mental Health Act, the use of electroconvulsive therapy and how to deal with bereavement (in musical form). These are all given by something which makes me feel slightly uncomfortable called 'streaming technology' but which, after downloading the appropriate media player, gives a pretty good flow of television-quality pictures and passable sound. It has sections for service users, psychiatrists, students, healthcare workers and lecturers, and has the ambition of producing at least two original 30 minute programmes per month, so there is much more to follow. It could have particular value for patients and I suspect the service user section could be of major importance.

This is quite a change from my early experience of television as a useful medium in psychiatry. In my first post as a house physician in psychiatry (the only one in the country at the time), I saw Dr William Sargant, the arch advocate of drug treatment in psychiatry, using McLuhan's dictum to great effect. He was often on national television and his patients used to refer coyly to his appearances during their out-patient appointments. 'Good', he used to say triumphantly. 'Big Brother was watching you, making sure you were taking your tablets. I hope you were, because I'll find out if you're not'. As his face used to fill the screen whenever he appeared I am sure that George Orwell would have regarded him as ideal for the role. I suppose this oxymoron of 'paranoid compliance' would not find much favour in multidisciplinary settings nowadays, where gentler cooperation is fostered (Kemp *et al*, 1998), but it seemed to work.

Jensen, J. E., Miller, J., Williamson, P. C., et al (2004) Focal changes in brain energy and phospholipid metabolism in first-episode schizophrenia: ³¹P-MRS chemical shift imaging study at 4 Tesla. *British Journal of Psychiatry*, **184**, 409–415.

Kemp, R., Kirov, G., Everitt, B., et al (1998) Randomised controlled trial of compliance therapy: 18-month follow-up. *British Journal of Psychiatry*, **172**, 413–419.

Pariante, C. M., Vassilopoulou, K., Velakoulis, D., et al (2004) Pituitary volume in psychosis. *British Journal of Psychiatry*, **185**, 5–10.