Pandora is pleased to announce the publication of the first Research Supplement of BJPsych International (May 2015), which is available (as is every issue of the journal) for free download at http://www.rcpsych.ac.uk/publications/journals/ijnipol.aspx.

The journal’s mission is to address matters of practical relevance to patients’ care with a focus (although not exclusively so) on the mental health needs of low- and middle-income countries as well as the socially excluded in higher-income countries. The Research Supplement covers a wide range of subjects, including service developments, undergraduate training, the use of guidelines from the National Institute for Health and Care Excellence and the World Health Organization’s Mental Health Gap Action Programme (mhGAP) in various parts of the world, and an examination of research productivity in Arab countries.

Healthy gut fauna for healthy brain

Have you ever imagined that bacteria living in your gut could have ‘conversations’ with your brain? The gut microbiome and its role in the function of body and brain have been the focus of research in recent years. S. R. Dash’s summary of the evidence on Medscape makes interesting reading. The gut microbiota are established at birth and alterations in their composition appear to play a role in a range of body and brain disorders. There is bidirectional communication between the gut and the brain, which can be direct or indirect, via the enteric nervous system, neurotransmitter modulation, endocrine and immunoinflammatory systems. The gut microbes have been implicated in conditions such as type 2 diabetes, cardiovascular disorders, multiple sclerosis, anxiety and depression. A healthy balanced diet and good lifestyle encouraging growth of the right bacteria, living in harmony in the gut, are the road to good physical and mental health!

S. R. Dash (2015) The microbiome and brain health: what’s the connection? Medscape, 24 March.

Precision medicine comes to psychiatry!

Are you disillusioned with successive diagnostic classification systems based on symptom categories? Like other medical disciplines, psychiatry is calling out for ‘precision medicine’. Cancer research has led the way, with molecular diagnosis leading to better-defined treatments and improved outcomes. Could this be achieved in psychiatry? Modern biology, in particular cognitive, affective and social neuroscience, are producing new insights and ‘mental’ disorders are soon to be recognised as ‘brain’ disorders caused by disruptions to neural, cognitive and behavioural systems.

The National Institute for Mental Health has launched a ‘precision medicine for psychiatry’ project, the Research Domain Criteria (RDoC) initiative, with the aim of rethinking research into psychopathology. This has gained momentum, with over 1000 papers in the last year and with similar initiatives emerging in Europe, such as the Roadmap for Mental Health Research funded by the European Commission and a call from the European Union’s Innovative Medicines Initiative.
to link clinical neuropsychiatry with quantitative neurobiology. This does not mean that drugs are the only answer to treatment. Targeted psychological treatments such as cognitive–behavioural therapy can use the brain’s capacity for neuroplasticity to remedy or restore communications within neurocircuits in some psychiatric conditions.

Insel, T. R. & Bruce, N. C. (2015) Brain disorders? Precisely. Science, 348, 609. doi: 10.1126/science.aaa2355

Brain grey matter and blood groups

We know of some drugs such as lithium increasing brain grey matter but did you know that our own blood group, ABO type, has a major role to play? There is evidence that people with blood group AB have a higher incidence of cognitive deficits. This led researchers to examine possible differences in grey matter volumes between people with blood group O and those with other blood groups; none of the participants had cognitive impairment or neurodegeneration. They found that those with blood group O had larger volumes of grey matter in the posterior ventral portion of the cerebellum (areas responsible for sensorimotor information) as well as in the temporal and limbic regions, including the left hippocampus. These findings point to a neuroprotective role for the blood group O alleles and suggest that blood group types are relevant to the development of the nervous system as well as the ageing process.

De Marco, M. & Vepperi, A. (2015) ‘O’ blood type is associated with larger grey-matter volumes in the cerebellum. Brain Research Bulletin, 116, 1–6. doi: 10.1016/j.brainresbull.2015.05.005

Mental illness and creativity – is there a link?

The connections between creativity and mental illness were made as far back as ancient Greece and Aristotle, and it has fascinated people for centuries. The authors of this study tried to examine this possible connection using scientific methods. They investigated whether common genetic variants that affect risk for schizophrenia and bipolar disorder also underlie advantageous cognitive traits. They used polygenic scores or cumulative genetic profiles from across the genome and generated separate polygenic risk scores for schizophrenia and bipolar disorder on non-Icelandic populations. They then tested the ability of polygenic scores to predict the corresponding disease in 86,292 people in Iceland and looked for an association between these polygenic scores and creativity. Creativity was defined as individuals belonging to national artistic societies of actors, dancers, musicians, visual artists and writers. Both the schizophrenia and bipolar disorder polygenic risk scores were associated with creativity. The authors conclude that creativity may increase the risk of psychiatric disorder. Nevertheless, in the absence of other important pathogenic factors it is unlikely that our talented artists or writers will experience mental illness.

Power, R. A., et al (2015) Polygenic scores for schizophrenia and bipolar disorder predict creativity. Nature Neuroscience (online). doi: 10.1038/nn.4040

Stranded and drowned in the Mediterranean – who cares?

Almost daily we hear of boats full of people capsizing on the way to Europe. Italy and Greece are constantly on the alert, fishing out desperate people from overcrowded boats reaching their waters. About 1500 people are thought to have perished in the Mediterranean between January and May 2015. The survivors face an uncertain future. European citizens are facing the biggest test of their humanity and sense of responsibility to the rest of the world. Many European countries need to reflect on their colonial past and more recent involvement in Africa and the Middle East and ponder over how they became so affluent and powerful. With power comes responsibility. Unfortunately, globalisation has failed to decrease the gap between the rich and the poor in the world. It seems to serve the economic interests of the powerful, with no real benefit to those who are weak. Is this a matter for doctors to consider? Pandora welcomes readers’ views.

A beautiful mind

It is with great sadness that Pandora reports the death of the famous mathematician John Forbes Nash. His remarkable research has been applied to a number of important areas, including macro-economics, arms control and political science. He shared the Nobel Prize in Economics in 1994 and was on his way from a ceremony in Oslo, where he had been awarded the 2015 Abel Prize, accompanied by his wife, Alicia de Larde Nash, when their taxi crashed, killing them both, on 23 May. John Nash became more widely known by the film A Beautiful Mind, which was based on his life and which portrayed him battling with delusions and hallucinations. However, psychiatric treatment enabled him to continue his high-calibre work despite his illness (schizophrenia). His life shows how serious as schizophrenia, can be controlled (he was treated with powerful antipsychotic drugs) and its presence should not be an end to one’s aspirations.