Patients presenting with medically unexplained neurological symptoms have been a major challenge to medical theory and practice over many centuries. Presentations can be dramatic and sudden, such as limb paralysis, aphony or blindness, or more insidious, such as chronic fatigue. The labels that have been attached to this group of syndromes over time reflect a broad range of cultural contexts: “hysteria”, “functional” or “psychogenic disorders”, “dissociation” or “somatisation”, to name only a few. Although progress has been made at the conceptual level over the past decades through combination of medical and psychological models, both the theory and treatment of these disorders are still unsatisfactory. In this talk I will explore the contribution that neuroscience can make to their elucidation. I will explain the new techniques of non-invasive neuroimaging and neurophysiology and review their application to unexplained motor and sensory symptoms. I will also assess the contribution that the neuropsychology of patients with identifiable brain lesions (and similar syndromes) can make to the understanding of disorders without readily observable brain correlates. I will finally discuss the relevance of this knowledge for the development and assessment of psychological interventions and suggest some potentially fruitful areas of research and intervention where psychology and neuroscience might be able to join forces.

Biography:
David Linden read medicine, classics and philosophy in Germany. He obtained a DPhil from the University of Oxford for his work on medical ethics in antiquity and a PhD in neuroscience at the Max Planck Institute for Brain Research. He trained in psychiatry and has applied functional imaging and neurophysiological techniques to psychiatric research for the past 15 years. Current research interests include functional imaging of psychopathology, neural substrates of social cognition, genetic imaging, emotion – cognition interactions, cognitive coordination in working memory, treatment and training effects on the brain, and neurofeedback. He is Professor of Translational Neuroscience at Cardiff University and an Honorary Consultant Psychiatrist with special interest in neuropsychiatry. Professor Linden is the author of “The Biology of Psychological Disorders” (2012) and over 100 scientific papers in the fields of biological psychiatry, functional brain imaging, visual and social cognitive neuroscience, and neurofeedback.