

## Autistica Funds for Pioneering Projects – March 2010

### **A molecular and cellular analysis of mechanisms underlying cortical development in genetic models of autism**

*£64,797 over two years*

Professor Peter Kind at the University of Edinburgh will extend his work on the single gene disorder Fragile X syndrome, which produces autism-like symptoms, to explore the point in brain development when loss of this key gene has greatest impact. This type of work provides valuable insight into the point when therapeutic interventions designed to address damaging alterations in brain function may be most beneficial.

### **Identification of microRNA and microRNA binding site variants increasing risk of Autism Spectrum Disorders**

*£93,648 over two years*

Dr Janine Lamb at the University of Manchester is exploring whether variations in microRNA – small molecules that regulate gene function including in brain development – might have a role to play in increasing risk for autism. This kind of research may help us to understand the biological basis of autism and potentially indicate new therapeutic targets and treatments.

### **Electrophysiological pilot studies of auditory sensory-perceptual processing in toddlers at risk for autism**

*£25,548 over two years*

Dr Joseph McCleery at the University of Birmingham will explore whether toddlers at risk for autism (those with a diagnosed older sibling) respond differently from other children to speech and non-speech sounds. This project, which builds upon the work of the British Autism Study of Infant Siblings will contribute to the development of methods for early detection and diagnosis of autism and language-learning delays.

### **Establishing an ASD Research Family Register through UK paediatricians**

*£95,509 over two years*

Dr Jeremy Parr at the University of Newcastle is piloting an Autism Research Register to underpin UK-wide autism research. The families of children with a recent autism spectrum diagnosis will be invited by child health teams in nine pilot areas to join the register, which will be both a valuable resource for researchers and enable large numbers of children with autism and their families to contribute to research. Early work in Newcastle has shown that around 50% of families are keen to do so.