

Projects on Calcium Signalling in Bipolar Disorder from the Molecular Psychiatry Group

Some of the strongest genomic risk factors for bipolar disorder impact the regulation of brain calcium levels. This includes the risk gene *CACNA1C* which encodes the pore of the L-Type Calcium channel Cav1.2. Furthermore, there is evidence that calcium levels are altered in the cells of people with bipolar disorder. Calcium channels are known to be targets for drugs, but the currently available drugs are not selective for the brain. Our group is exploring more about the human genetic and transcriptional signals linking bipolar risk to calcium signalling to identify new and improved treatment targets for bipolar disorder. In addition, we work with patient-derived and engineered cell lines to investigate cellular calcium changes in bipolar disorder and study the potential of calcium levels as biomarkers to guide targeted treatments in bipolar disorder.

Please contact Professor Jeremy Hall (Jeremy.hall@psych.ox.ac.uk) or Dr Arne Mould (arne.mould@psych.ox.ac.uk) if this area is of interest to discuss potential projects.