One third of individuals with major depressive disorder (MDD) do not respond to first-line antidepressant therapy. There is currently no mechanism for predicting which patients will or will not respond to antidepressants. However, recent discoveries in the genetics of MDD and ‘neuroticism’ (a personality trait closely associated with MDD) suggest that it may be possible to distinguish antidepressant responders from non-responders according to their genetic loading for MDD or neuroticism. We will test this within a high quality sample of patients with MDD treated with antidepressants, as a precursor for a larger stratified medicine project on MDD.