Synopsis no.: *S2.31*

Preliminary title: Is the excess of psychosis in people of African origin in Europe due to people of such origin with a predisposition to bipolar disorder being more likely to present psychotic symptoms than white people?

Contact info for the person(s) proposing the synopsis

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Publication category: Following from core incidence and GWAS papers

Working and writing group: Incidence group: Robin Murray, Marta Di Forti, Giada Tripoli, Diego Quattroni, Jean-Paul Selten, Andrea Tortelli, Ilaria Tariccone, Andrei Szoke, James Kirkbride, Craig Morgan; Mick O'Donovan and Alex Richards, Jim van Os.

Work Packages involved: WP2 and the Cardiff team

Partners involved from whom candidate co-authors (*additional to working and writing group*) should be nominated:

Objectives (scientific background, hypothesis, methods, and expected results):
This study takes as its starting point the extensive literature showing that people of African origin residing in European countries have a higher incidence of psychosis than native whites. We will address the question of whether at least part of this excess may be due to people of African origin with a predisposition to bipolar disorder being more likely to present psychotic symptoms than white people.

We anticipate that people of African origin will indeed show a higher incidence of psychosis across Europe as a whole than white patients, and that controls of African origin will show a higher prevalence of minor psychotic symptoms than white controls.

1) We hypothesize that the PRS for schizophrenia (PRS-Sz) will not differentiate between patients and controls of African origin; this will be unlike white patients where the PRS-Sz will differentiate patients and controls

2) We further hypothesize that the PRS for bipolar disorder (PRS-BP) will differentiate between patients with non-affective psychosis and controls of African origin; this will be unlike white patients where the PRS-BP will not differentiate patients with non-affective psychosis and controls

Should the above hypotheses be confirmed this would imply that the excess of non-affective psychosis in people of African origin in Europe is essentially an excess of

bipolar disorder but which presents with psychotic symptoms.

Data needed for the study: 1. Incidence data for people of African and white origin in each of the sites – obtained from or calculated with the group examining migration. 2 CAPE data from controls for each of the sites for people of African and white origin. 3. Polygenic Risk Scores for schizophrenia and for bipolar disorder for African origin and native white patients and controls; 2.WP2 main MRC1 and MRC2 data for cases and controls

Plan for statistical analysis (overall strategy):

- Incidence data for people of African and white native origin across Europe as a whole will have been established by, or will be calculated in collaboration with, the Migration group.
- Prevalence of minor psychotic symptoms will have been calculated by, or will be calculated in collaboration with the Migaration and CAPE groups, and will be compared for people of African origin and native white in the control groups across Europe as a whole.
- We will require access to the Polygenic scores (Ps) for Schizophrenia and for Bipolar Disorder fas calculated by Alexander Richards for cases and controls of African and native white origin respectively.

- Data analyses will be carried out using PRcise and R

Other analyses/methods: NA

Involvement of external Parties (non EU-GEI): Conrad Iyegbe, Evangelos Vassos, Paul O'Reilly, Cathryn Lewis , all from the SGDP IoPPN, KCL

IPR check:

Timeframe: Start June 2017

Additional comments: