

FIG. 1A

A. Figure 1 Cohorts used in study depicting flow of discovery, prioritization, validation, and testing of biomarkers

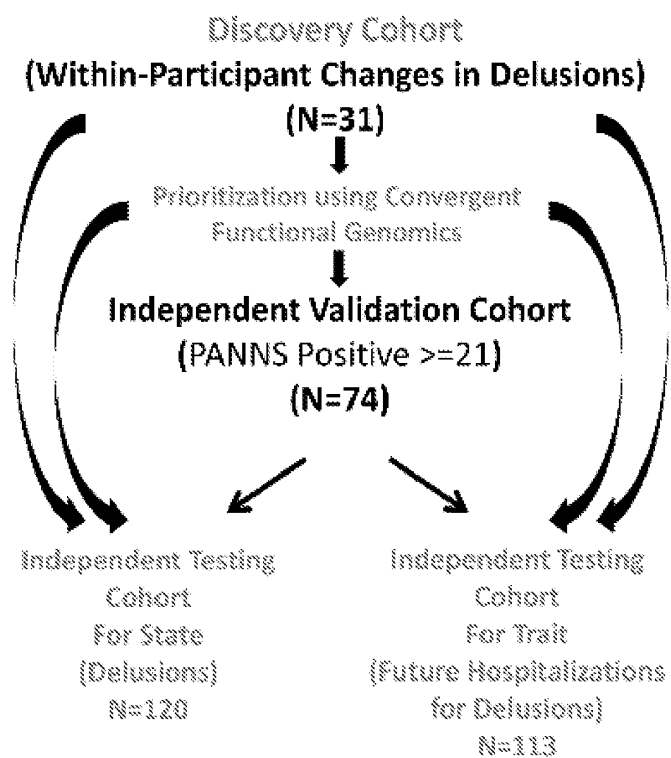


FIG. 1B

B. Discovery Cohort:
27 male and 4 female psychiatric participants who have at least one switch between a Low Delusion state visit and a High Delusion state visit.

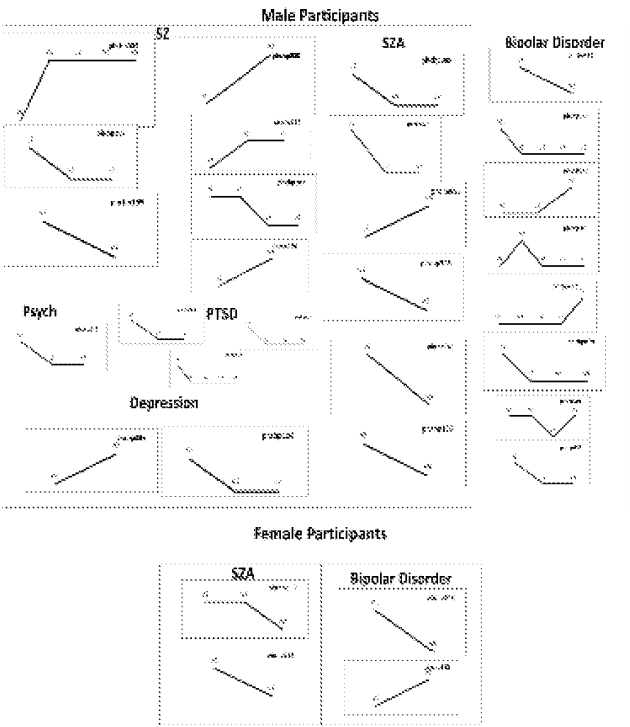


FIG. 1C

C. Delusions Scoring as part of administration of the Positive and Negative Symptom Scale (PANSS)

	Delusions Score	State	Definition
None	1	Absent	Definition does not apply
	2	Minimal	Questionable pathology; may be at the upper extreme of normal limits
Low	3	Mild	Presence of one or two delusions which are vague, uncrystallized, and not tenaciously held. Delusions do not interfere with thinking, social relations, or behavior.
	4	Moderate	Presence of either a kaleidoscopic array of poorly formed, unstable delusions or of a few well-formed delusions that occasionally interfere with thinking, social relations or behavior.
High	5	Moderate Severe	Presence of numerous well-formed delusions that are tenaciously held and occasionally interfere with thinking, social relations, or behavior.
	6	Severe	Presence of a stable set of delusions which are crystallized, possibly systematized, tenaciously held, and clearly interfere with thinking, social relations, or behavior.
	7	Extreme	Presence of a stable set of delusions which are either highly systematized or very numerous, and which dominate major facets of the patient's life. This frequently results in inappropriate and irresponsible action, which may even jeopardize the safety of the patient or others.

FIG. 1D

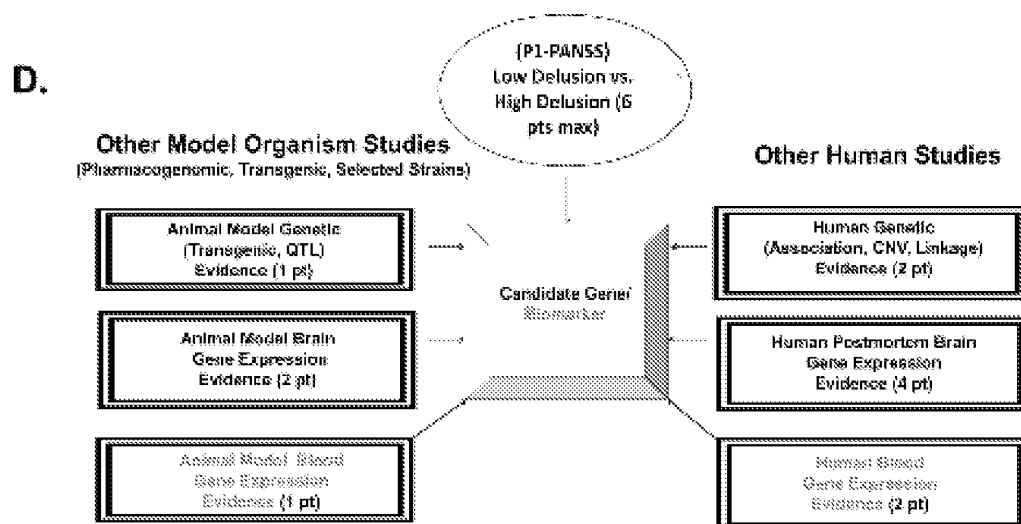


FIG. 1E

E.

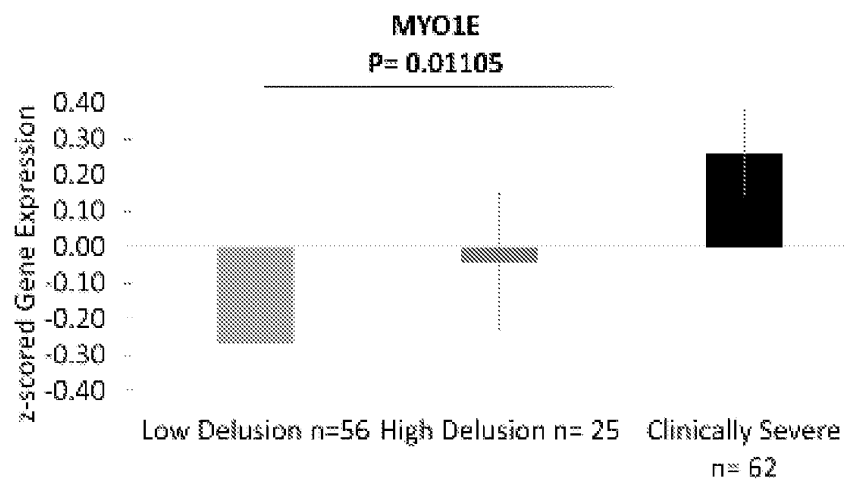
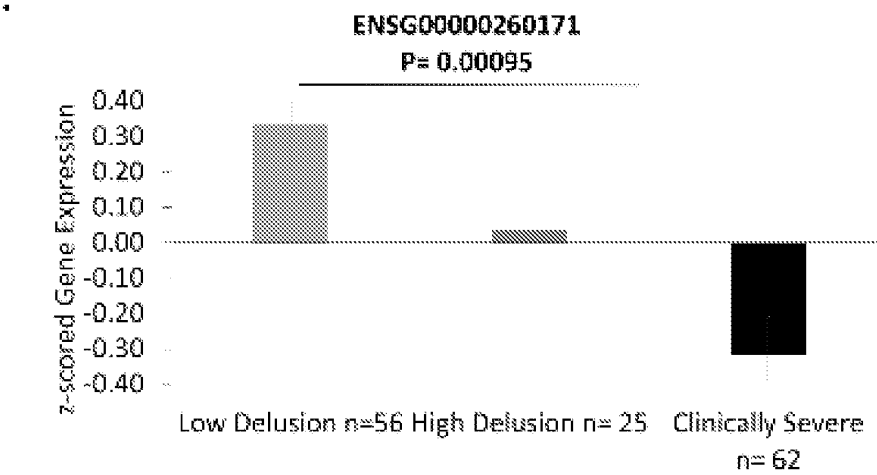


FIG. 1F

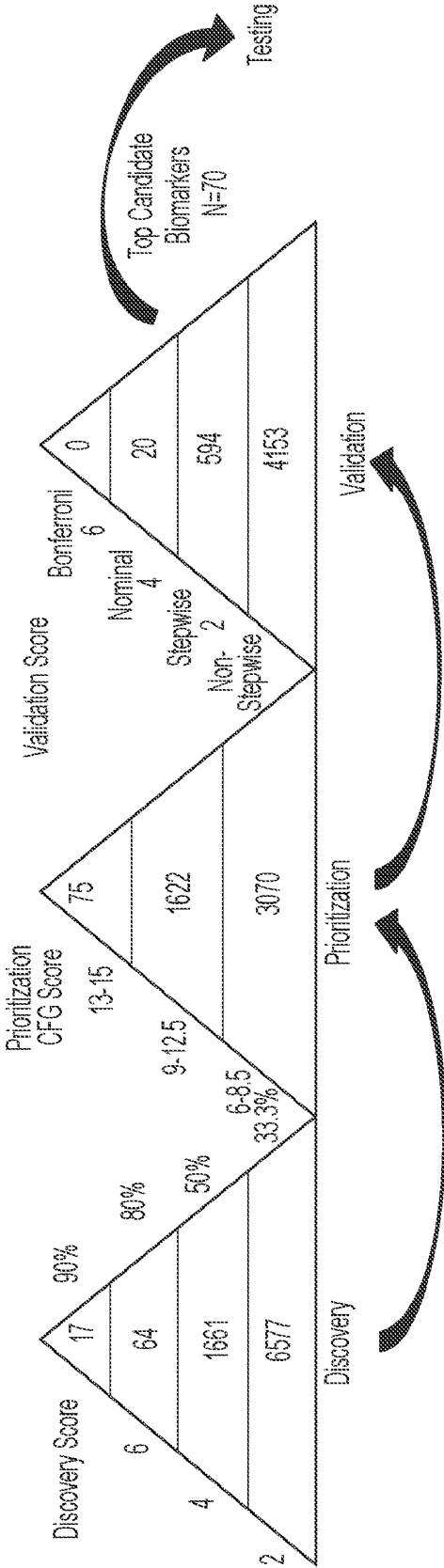


FIG. 1G

A. Figure 1 Cohorts used in study depicting flow of discovery, prioritization, validation, and testing of biomarkers

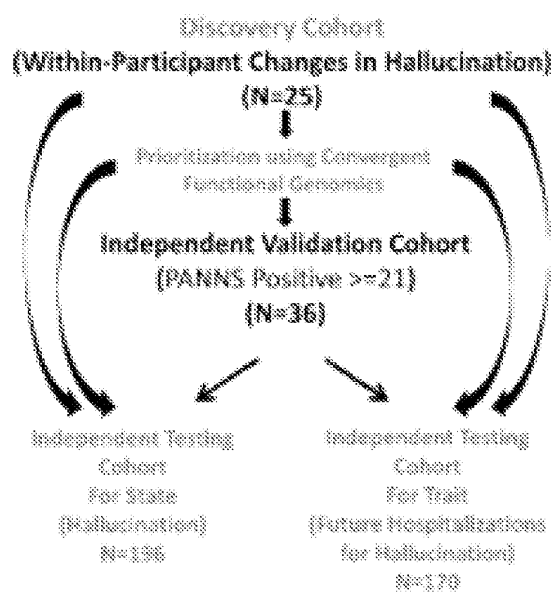


FIG. 1H

B. Discovery Cohort:

20 male and 5 female psychiatric participants who have at least one switch between a Low Hallucination state visit and a High Hallucination state visit.

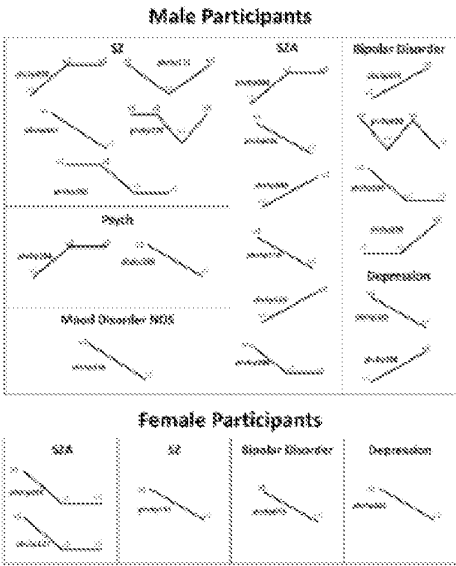


FIG. 1I

C.

Nonverbal communication as part of administration of the Positive and Negative Symptom Scale (PANSS)

Nonverbal Communication		Definition
None	Score	
	1	Absent: Observer does not apply
	2	Mild: Observable gestures; may be or not appropriate to context
	3	Mild: Observer clearly sees frequent but inappropriate, or clear, manner of negative affect responses which do not seem to be related to thinking or behavior
High	4	Moderate: Maladaptive responses frequently but not consistently and the patient's thinking and behavior are affected only to a minor extent
	5	Moderate: Maladaptive responses frequently but not consistently and the patient's thinking and behavior are affected only to a minor extent
	6	Severe: Maladaptive responses frequently and consistently, making major disruption of thinking and behavior. Patient may have no responses, and thinking is severely affected by negative content and verbal responses to them
	7	Extreme: Patient is almost totally preoccupied with maladaptive, which severely disrupts thinking and behavior. Maladaptive responses are possible, but patient is preoccupied and unable to respond or provide verbal and nonverbal responses, including adherence to contextual maladaptive

FIG. 1J

D.

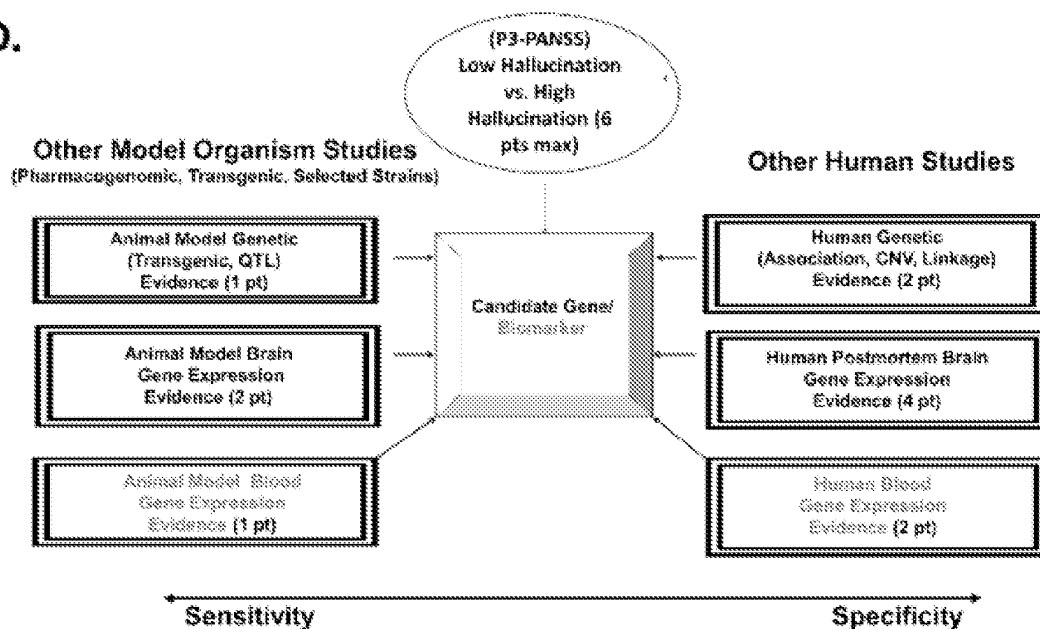


FIG. 1K

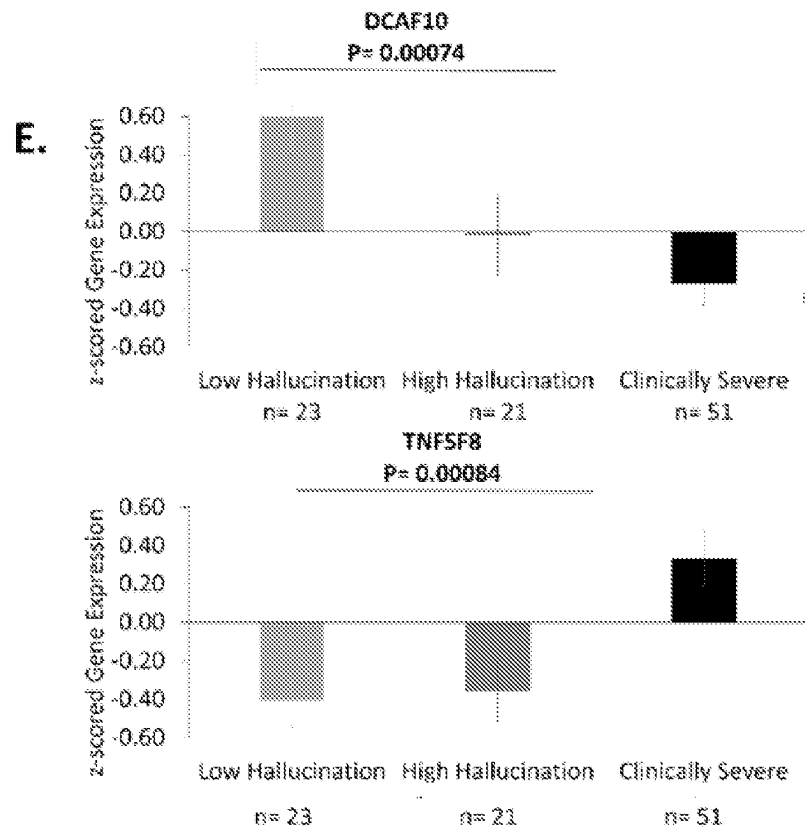


FIG. 1L

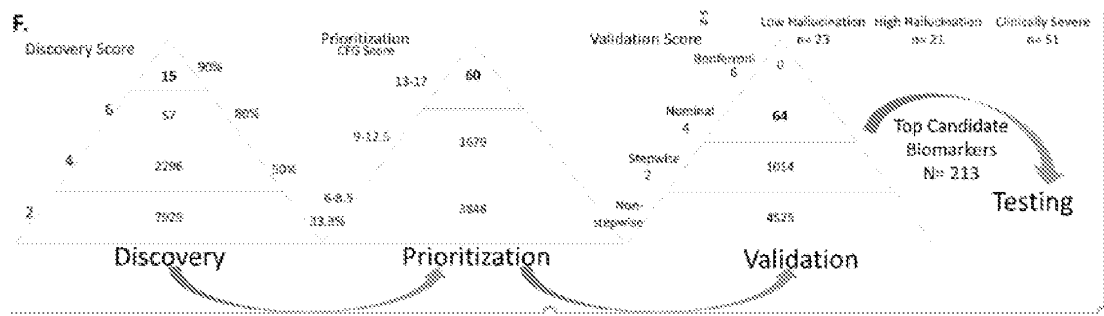


FIG. 2A

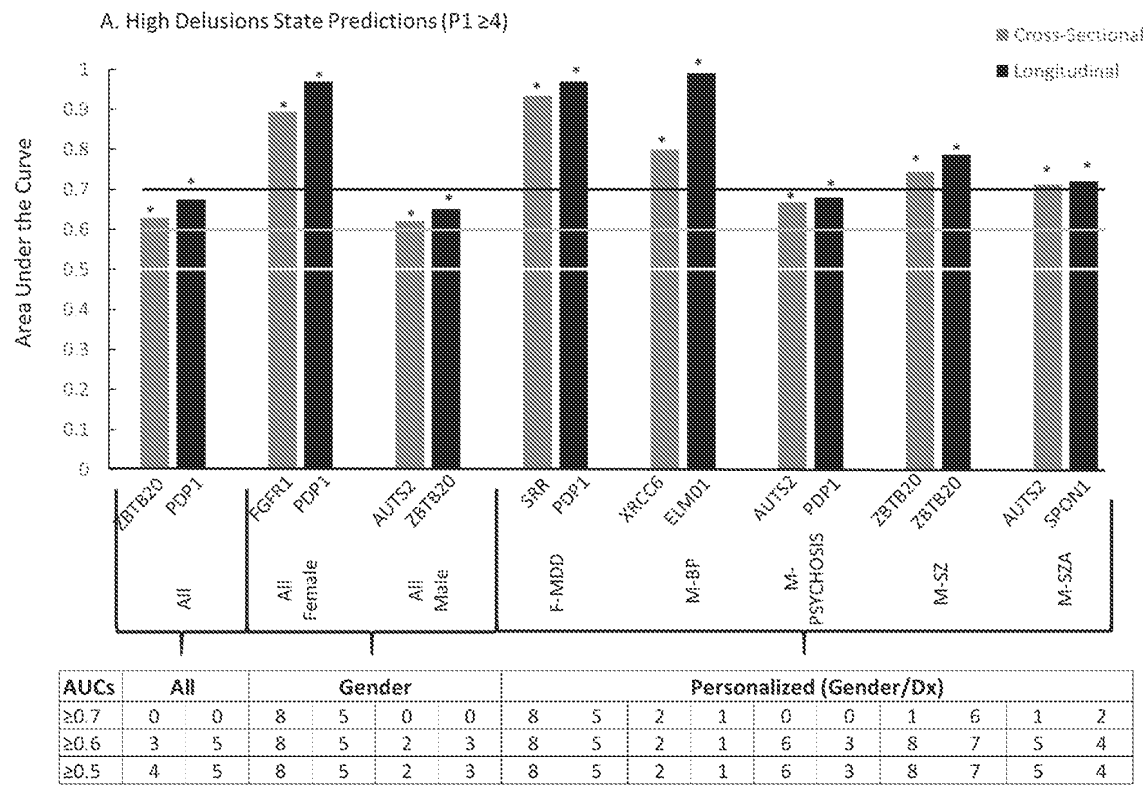


FIG. 2B

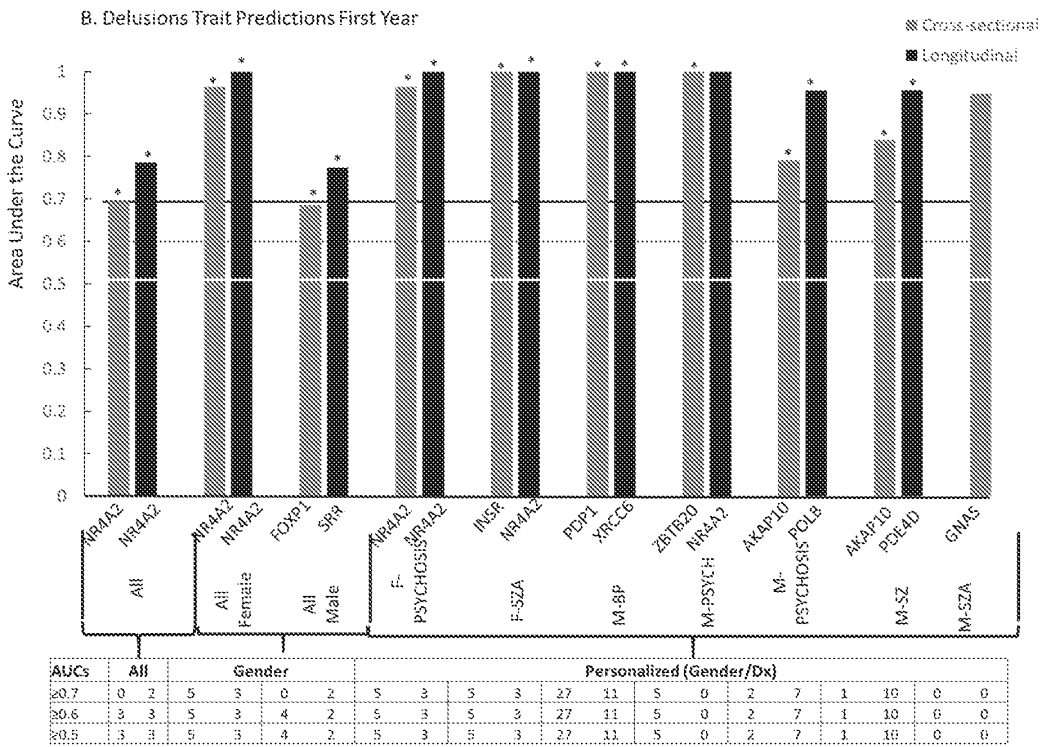
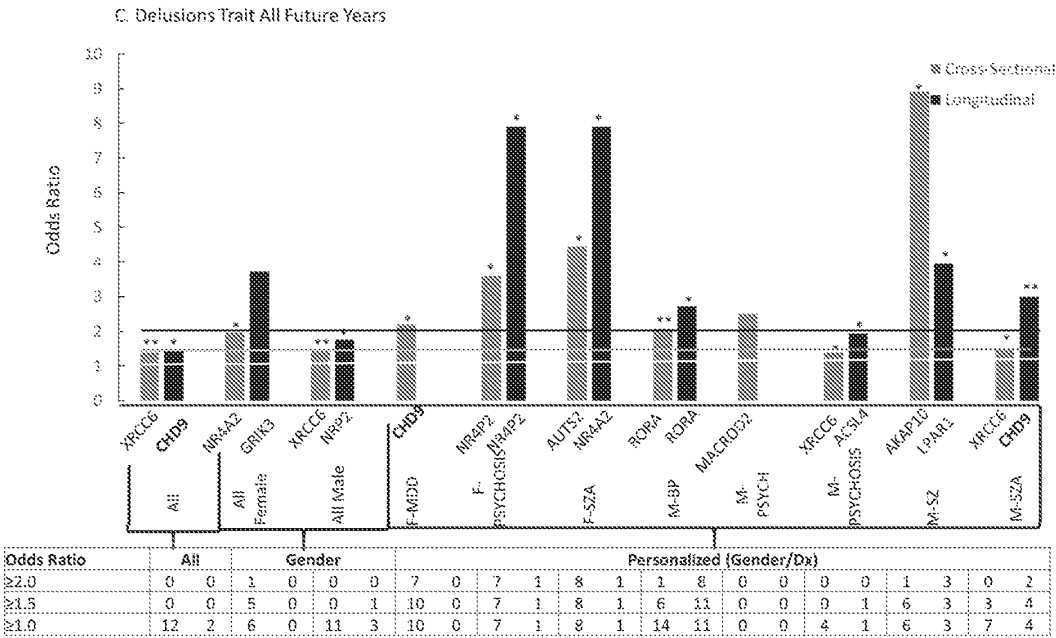


FIG. 2C



D. High Hallucinations State Predictions ($P3 \geq 4$)

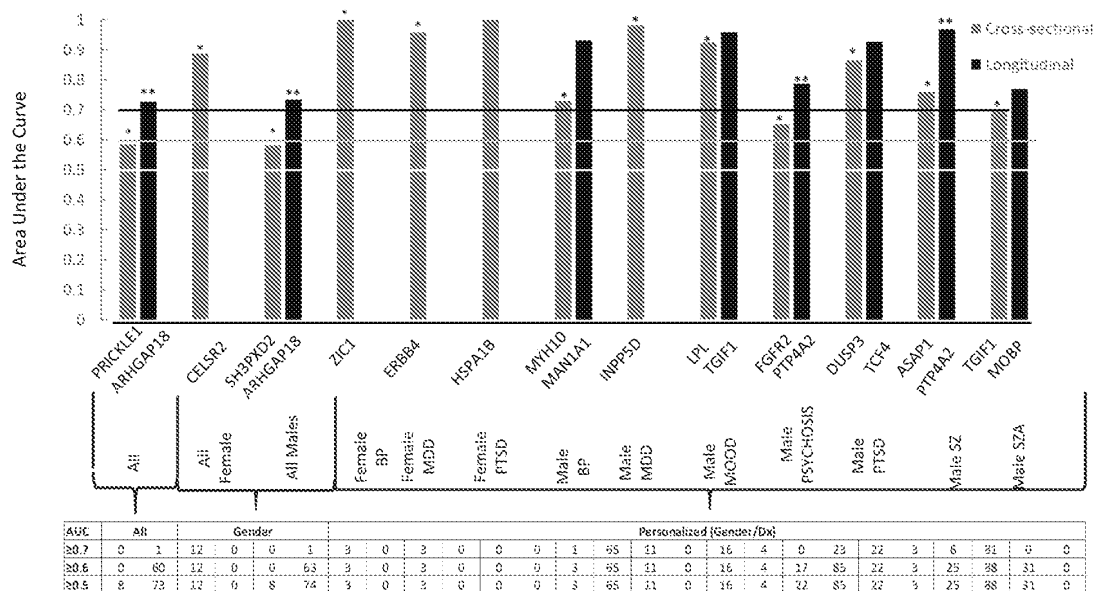
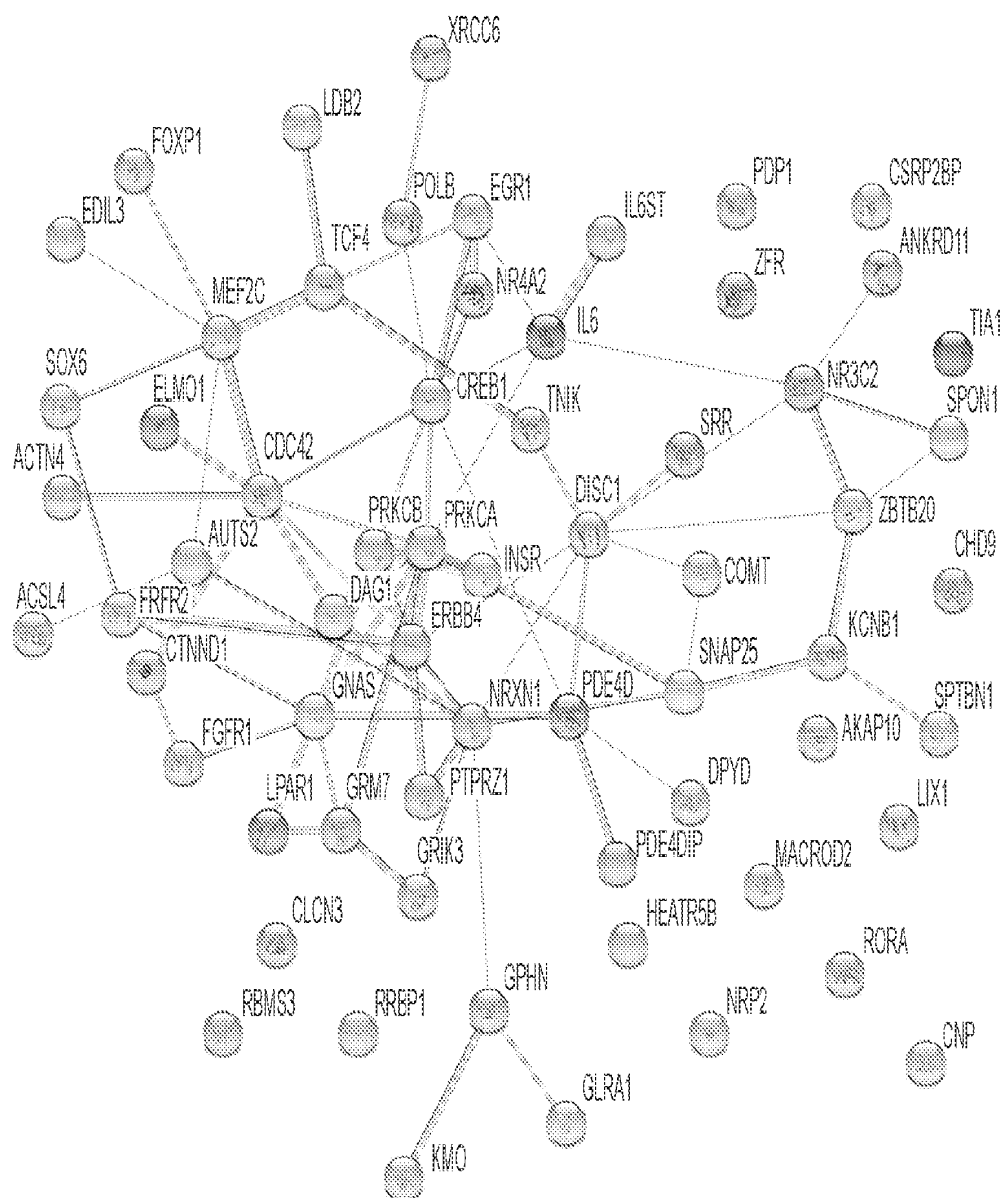
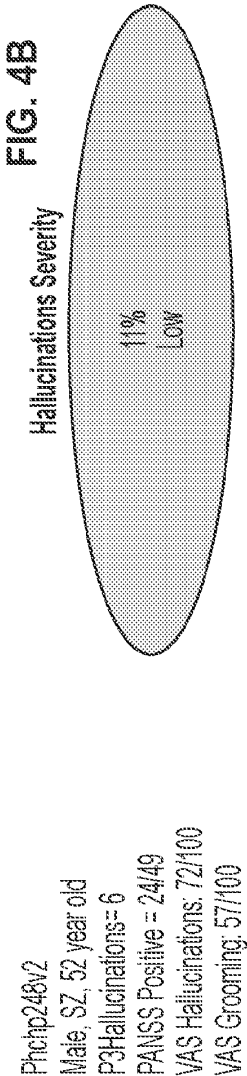


FIG. 3A





By categories			
Current (State)	All PRL ARHGAP18 PTP4A2	Gender PRL ARHGAP18 ARHGAP18 PTP4A2 ARHGAP18 ARHGAP18	Low Score - 11%
Short- Term Risk (First Year Hospitalizations with Hallucinations)	All RTN4 CUL4A LAMA4	Gender/Dx RTN4 RTN4 ENPP2 MRTFA LUZP1 NFATC2IP	Low Risk - 6%
Long- Term Risk (All Future Hospitalizations with Hallucinations)	All DLG1 FAT4 DST	Gender/Dx FAT4 ENPP2 DST MRTFA LPL ZEB2	Intermediate Low Risk - 33%

List of Suggested Existing Psychiatric Medications:

Drugs	Percentile
Clozapine	50
Citalopram	20
Olanzapine	10
Omega 3 Fatty Acids	10