Humans

Interview:
- DSM-IV or ICD-10
- personality questionnaires

 GENETIC STUDIES IN HUMAN POPULATION

GAD2, RGS2, PPARGC1A, GABRA2, OPRM1
ALAD, CDH2, PSAP, EPB41L4A,
DYNLL2, GLO1, PTGDS

Mouse Models

Behavioral testing

IDENTIFICATION OF CANDIDATE GENES

QTL: Gad2, Rgs2, Ppargc1a, Gabra2, Oprm1,
TrkB

Gene expression profiling: Glo1, Gsr, Alad,
Cdhh2, Psap, Epb41l4a, Dynll2, Ptgs

FUNCTIONAL ANALYSIS OF CANDIDATE GENES

Gad2, Rgs2, Glo1

Evaluate effect on human phenotype

Therapeutic validation

specific phobias

obsessive-compulsive disorder

social phobia

posttraumatic stress disorder

panic disorder

generalized anxiety disorder

Human conditions:
- social phobia
- posttraumatic stress disorder
- obsessive-compulsive disorder
- specific phobias
- panic disorder
- generalized anxiety disorder

Gene expression in Mice:
- Gad2, Rgs2, Ppargc1a, Gabra2, Oprm1, TrkB
- Glo1, Gsr, Alad, Cdhh2, Psap, Epb41l4a, Dynll2, Ptgs

Candidate genes: GAD2, RGS2, PPARGC1A, GABRA2, OPRM1
ALAD, CDH2, PSAP, EPB41L4A, DYNLL2, GLO1, PTGDS

Evaluate effect on human phenotype

Therapeutic validation