What is Claimed is:

1. Use of fasoracetam in the preparation of a medicament for treating Tourette syndrome (TS) in a subject determined to have at least one copy number variation (CNV) in a metabotropic glutamate receptor (mGluR) network gene, wherein an effective amount of fasoracetam is to be administered to the subject, thereby treating TS.

2. The use according to claim 1, wherein the CNV is a duplication or deletion.

3. The use of any one of claims 1 or 2, wherein fasoracetam is to be administered at a dose of 50-400 mg, 100-400 mg, or 200-400 mg, and wherein the dose is to be administered once, twice, or three times daily.

4. The use according to any one of claims 1-3, wherein the TS is one or more of: persistent (chronic) motor tic disorder, persistent (chronic) vocal tic disorder, or provisional tic disorder.

5. The use according to any one of claims 1-4, wherein the subject is between the ages of 5 and 17, 5 and 8, 8 and 17, 8 and 12, or 12 and 17.

6. The use according to any one of claims 1-5, wherein the fasoracetam is to be administered in combination with another pharmaceutical or non-pharmaceutical therapy.

7. The use according to any one of claims 1-6, wherein tic symptoms are reduced in the subject following at least 1 week, such as at least 2 weeks, such as at least 3 weeks, such as at least 4 weeks of the treatment with fasoracetam.

8. The use according to claim 7, wherein the tic symptoms comprise frequency and/or degree of movement.

9. The use according to any one of claims 1-8, wherein symptoms of inattentiveness, hyperactivity, and/or impulsiveness are reduced in the subject following at least 1 week, such as at least 2 weeks, such as at least 3 weeks, such as at least 4 weeks of treatment with the activator.

10. The use according to any one of claims 1-9, wherein the subject also has obsessive compulsive disorder (OCD), and wherein symptoms of OCD are reduced in the subject following at least 1 week, such as at least 2 weeks, such as at least 3 weeks, such as at least 4 weeks of treatment with the activator.

11. The use according to claim 1, wherein the use comprises detecting CNVs in mGluR network genes by subjecting a sample isolated from said subject to a screen that assesses CNVs in at least 2, 3, 4, 5, 6, 7, 8, 9, or 10 mGluR network genes.

12. The use according to claim 11, wherein CNVs in mGluR network genes are determined by subjecting the sample to a screen that assesses CNVs in at least 5, 6, 7, 8, 9, 10, 15, 20, 30, 40, 50, 60, 70, or all of Tier 1 mGluR network genes.

13. The use according to claim 11, wherein CNVs in mGluR network genes are determined by subjecting the sample to a screen that assesses CNVs in at least 50, at least 100, at least 150, at least 175, or all of Tier 2 mGluR network genes.

14. The use according to any one of claims 1-13, wherein the subject has TS as well as one or more of obsessive compulsive disorder (OCD), schizophrenia, and attention deficit hyperactivity disorder (ADHD).