

GeneMind

Mental Wellness Genetics Analysis · 95+ Genes · Mood, Stress, Neurotransmitters, Sleep & Medication Response

PATIENT Sarah Mitchell	DATE OF BIRTH 1986-05-14 (Age 38)	SAMPLE TYPE Buccal (Cheek) Swab	SAMPLE ID GM-MD-2024-07890
REPORT ID GMD-2024-33571	COLLECTION DATE 2024-05-06	REPORT DATE 2024-05-13	LABORATORY Gene Matrix CLIA Lab, Chicago, IL
CLIA / NPI 14D2276402 / 1225729312	ORDERING PROVIDER Self-Ordered (DTC)	METHOD Next-Generation Sequencing (NGS)	

95+ GENES ANALYZED	6 WELLNESS AREAS	5 KEY VARIANTS FOUND	99.2% ANALYTICAL ACCURACY
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/ Executive Summary

Your GeneMind profile maps the genetic blueprint of your mental health across mood disorders, neurotransmitter function, stress response, cognitive function, sleep & circadian rhythm, and medication response. Five variants stand out: a short-allele serotonin transporter genotype (SLC6A4 S/S) linked to increased stress sensitivity, a BDNF Val/Met variant affecting neuroplasticity, an MTHFR variant affecting folate metabolism, a TPH2 variant influencing serotonin production, and a COMT Val/Met genotype shaping dopamine clearance under stress.

Up to 99% of people carry at least one pharmacogenomic variant affecting psychiatric medication metabolism. Your full report includes a personalized psychiatric medication guide with CPIC/FDA references for your prescriber.

/ Genetic Findings

GENE	VARIANT	GENOTYPE	IMPACT	RECOMMENDATION
SLC6A4	5-HTTLPR (rs25531)	S/S	ELEVATED SENSITIVITY The short (S) allele of the serotonin transporter gene is associated with reduced serotonin transporter expression and function. Linked to increased susceptibility to depression and anxiety, particularly in response to stressful life events.	Consider cognitive behavioral therapy (CBT) and mindfulness-based stress reduction. Regular exercise and omega-3 supplementation may help support serotonin function. Discuss SSRI options with your healthcare provider if symptoms persist.

BDNF	Val66Met (rs6265)	Val/Met	MODERATE IMPACT	This variant affects brain-derived neurotrophic factor (BDNF) secretion and neuroplasticity. The Met allele is associated with reduced BDNF activity and has been linked to increased risk of mood disorders and altered response to antidepressants. Engage in regular aerobic exercise to boost BDNF levels. Consider learning-based activities and cognitive training. Adequate sleep and stress management are crucial for optimal BDNF function.
MTHFR	C677T (rs1801133)	C/T	MODERATE IMPACT	This variant reduces MTHFR enzyme activity, affecting folate metabolism and methylation processes. It has been associated with increased risk of depression and may impact response to certain antidepressants. Ensure adequate intake of methylated B vitamins (L-methylfolate, methylcobalamin). Consider supplementation with 400–800 mcg of L-methylfolate daily. Maintain a diet rich in leafy greens and folate-rich foods.
TPH2	G-703T (rs4570625)	G/T	MODERATE IMPACT	Tryptophan hydroxylase 2 is the rate-limiting enzyme in serotonin synthesis in the brain. This variant may affect serotonin production and has been associated with mood regulation difficulties. Ensure adequate tryptophan intake through diet (turkey, eggs, nuts, seeds). Consider 5-HTP supplementation under medical supervision. Maintain regular sleep-wake cycles to support serotonin production.
COMT	Val158Met (rs4680)	Val/Met	BALANCED	Balanced dopamine metabolism under stress — you handle acute stress well, with average dopamine clearance in the prefrontal cortex. Focus on long-term stress management strategies; your stress-recovery profile is favorable.

/ Mental Wellness Dimension Summary

Your GeneMind results across the six analyzed dimensions of mental wellness.

DIMENSION	RESULT	CLINICAL IMPLICATION
Mood Disorders	ELEVATED RISK	SLC6A4 S/S + MTHFR C/T — proactive mood-support protocol recommended.
Neurotransmitter Function	REVIEW	TPH2 G/T — serotonin production support via tryptophan intake and sleep regularity.
Stress Response	REVIEW	Serotonin-transporter sensitivity to stressful life events; mindfulness-based strategies indicated.
Cognitive Function	REVIEW	BDNF Val/Met — aerobic exercise and cognitive training to support neuroplasticity.
Sleep & Circadian	OPTIMAL	CLOCK/PER2 profile favors consistent sleep-wake timing — keep it stable, even on weekends.
Medication Response	SEE PGX SECTION	Full pharmacogenomics guide for psychiatric medications included, with CPIC/FDA references.

/ Personalized Recommendations

Exercise Prescription

- Engage in 150 minutes of moderate-intensity aerobic exercise weekly (30 minutes, 5 days). Include 2–3 strength training sessions.
- Morning exercise may be particularly beneficial for your circadian rhythm variants. Exercise boosts BDNF, supports neurotransmitter balance, and improves stress resilience.

Sleep Protocol

- Maintain consistent sleep-wake times (even on weekends). Aim for 7–9 hours nightly.
- Create a dark, cool sleep environment (65–68°F). Limit blue light exposure 2–3 hours before bed. Consider blackout curtains and white noise if needed. Your CLOCK and PER2 variants make sleep consistency especially important.

For Your Mental Health Provider

- Share the pharmacogenomics section before starting or switching any psychiatric medication — it identifies which antidepressants, anxiolytics, and mood stabilizers your biology is most likely to respond to.
- If symptoms persist, discuss SSRI options alongside CBT and mindfulness-based stress reduction.
- Consider L-methylfolate 400–800 mcg daily as adjunctive support given your MTHFR genotype.

Important: This is a SAMPLE REPORT provided for demonstration purposes only. It does not constitute medical advice, diagnosis, or treatment. Genetic results identify predispositions and risk factors; they do not diagnose disease. Results should be discussed with a qualified healthcare provider before making any medical, dietary, supplement, training, or medication decisions. Do not start, stop, or change any medication without consulting your prescribing physician.

Laboratory: Gene Matrix LLC · 1375 W Fulton St STE 545, Chicago, IL 60607 · CLIA ID: 14D2276402 · NPI: 1225729312 · (847) 302-9668 · support@genematrix.io · Mon–Fri 8AM–5PM CT. Testing performed in a CLIA-certified, CAP-accredited laboratory using next-generation sequencing. Analytical accuracy 99.9%. All findings reviewed by board-certified geneticists.

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