

GeneResilience

Stress Response & Longevity Analysis · 50+ Genes · Stress, Telomeres, Oxidative Defense, Sleep & Cellular Aging

PATIENT Sarah Mitchell	DATE OF BIRTH 1986-05-14 (Age 38)	SAMPLE TYPE Buccal (Cheek) Swab	SAMPLE ID GM-GR-2024-04802
REPORT ID GR-2024-001547	COLLECTION DATE 2024-09-02	REPORT DATE 2024-09-09	LABORATORY Gene Matrix CLIA Lab, Chicago, IL
CLIA / NPI 14D2276402 / 1225729312	ORDERING PROVIDER Self-Ordered (DTC)	METHOD Next-Generation Sequencing (NGS)	

50+ GENES ANALYZED	6 RESILIENCE PATHWAYS	3 KEY INSIGHTS	99.9% ANALYTICAL ACCURACY
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/ Executive Summary

Your GeneResilience profile analyzed 50+ genes across stress response, telomere health, oxidative defense, sleep quality, cellular aging, and longevity markers. The headline: your stress response genes show strong resilience — efficient cortisol regulation and quick recovery from stressful events. You carry favorable NR3C1 and FKBP5 genotypes and a balanced COMT Val/Met genotype. While you cannot change your genes, the recommendations below optimize how they express themselves through lifestyle interventions.

Key insight: Your genetics support efficient stress recovery. Practice mindfulness to maximize this advantage — longevity is only partly written in your genes; the rest is shaped by lifestyle and environment, giving you real power to act.

/ Genetic Findings

GENE	VARIANT	GENOTYPE	IMPACT	RECOMMENDATION
NR3C1	rs41423247	C/C	FAVORABLE Enhanced cortisol receptor sensitivity — your cells respond efficiently to stress hormones and return to baseline quickly.	Your genetics support efficient stress recovery. Practice mindfulness to maximize this advantage.
FKBP5	rs1360780	T/T	FAVORABLE Optimal stress hormone regulation — reduced risk of the exaggerated cortisol spikes associated with the risk allele.	Maintain regular sleep patterns to support healthy cortisol rhythms.
COMT	rs4680 (Val158Met)	Val/Met	BALANCED Balanced dopamine metabolism under stress — you handle acute stress well.	You handle acute stress well. Focus on long-term stress management strategies.

TERT	rs2736100	A/C	TELOMERE SUPPORT Average telomere-maintenance genetics — telomere length, one of the most powerful predictors of biological age, responds strongly to lifestyle for your genotype.	Regular aerobic exercise, Mediterranean-style diet, and stress management are proven telomere-protective for your profile.
SOD2	rs4880	A/G	OXIDATIVE DEFENSE Moderately reduced mitochondrial antioxidant defense — free-radical damage accumulates faster under poor sleep, alcohol, and chronic stress.	Prioritize antioxidant-rich whole foods, limit alcohol, and protect sleep to fortify oxidative defense.
CLOCK	rs1801260	A/G	SLEEP SIGNAL Mild eveningness tendency — your circadian rhythm drifts later without consistent anchors.	Anchor your chronotype: fixed wake time, morning light exposure, and caffeine cutoff 8–10 hours before bed.

/ Resilience Pathway Summary

Your GeneResilience results across the six analyzed longevity and stress pathways.

PATHWAY	RESULT	CLINICAL IMPLICATION
Stress Response — NR3C1, FKBP5, COMT, BDNF, SLC6A4	STRONG	Strong resilience to acute stressors; efficient cortisol regulation reduces chronic stress impact.
Telomere Health — TERT, TERC, OBFC1, RTEL1, NAF1	LIFESTYLE-RESPONSIVE	Average genetics, high lifestyle leverage — interventions below directly protect telomeres.
Oxidative Defense — SOD2, GPX1, CAT, NQO1, GSTP1	SUPPORT NEEDED	Diet-and-sleep-driven antioxidant support recommended.
Sleep Quality — CLOCK, PER2, ADORA2A, BMAL1, CRY1	ANCHORED ROUTINE	Consistency matters more than duration for your chronotype.
Cellular Aging — SIRT1, FOXO3, APOE, TP53, MTOR	FAVORABLE	Longevity-associated variants detected; activate anti-aging pathways via exercise and nutrition.
Longevity Markers — CETP, IGF1R, KLOTHO, ACE, APOC3	FAVORABLE	Profile consistent with extended healthspan potential.

/ Personalized Recommendations

Stress Resilience Protocol

- Daily mindfulness practice (10–20 minutes) — your NR3C1/FKBP5 profile responds especially well to contemplative training.
- Keep cortisol rhythms stable: consistent sleep-wake schedule, morning daylight, limited late-night screens.
- Use exercise as your primary acute-stress outlet — your recovery genetics make it unusually effective.

Longevity & Telomere Protection

- 150+ minutes of aerobic exercise weekly plus 2 resistance sessions — the strongest telomere-protective intervention for your genotype.
- Mediterranean-style diet rich in omega-3s, polyphenols, and fiber; limit alcohol and ultra-processed food.
- 7–9 hours of sleep nightly; treat sleep as a non-negotiable longevity intervention.

Monitoring & Re-Testing

- Track resting heart rate and HRV trends as practical proxies for stress-recovery capacity.
- Re-review this report quarterly — premium members receive updated analysis as longevity science advances.
- Discuss any significant lifestyle changes with a healthcare provider first.

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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