INTEGRATED BRAIN HEALTH REPORT

Clinical Summary

WellMind Core

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PATIENT	DATE OF BIRTH	SAMPLE ID	REPORT DATE	ORDERING PROVIDER
Jane Sample · F	Nov 9, 1948 Age 77	ADX-123-456-789	April 11, 2026	Ryan Fortna, MD, PhD

I Neurocode™ Blood Biomarker

Brain pathology snapshot

BIOMARKER	RESULT	REF. RANGE	STATUS	CLINICAL SIGNIFICANCE
pTau-217 PHOSPHORYLATED TAU	**0.34** pg/mL	See [1]	INTERMEDIATE	Amyloid (Aβ) screening — early Alzheimer's pathology marker. Intermediate range; clinically significant.

[1] **pTau-217 Reference Ranges:** ≥0.63 Positive · 0.34–0.63 Intermediate · ≤0.34 Negative (pg/mL). Testing performed at Neurocode Lab, Bellingham WA · CLIA 50D2301382.

II GenoRisk™ Genetic Foundation

Non-modifiable genetic blueprint

GenoRisk Alzheimer's

20 / 40 ABOVE AVERAGE

GENORISK SCORE

PERCENTILE

82nd

Top 18%

APOE GENOTYPE

ε3 / ε3

Neutral

LIFETIME RISK · BY AGE 85

27% Elevated · non-familial AD without intervention

Genetic testing performed at Northwest Pathology PLLC · CLIA #50D2158817 · CAP #8446395 · GenoRisk score computed by ADx Health.

SAMPLE ADx Health

pTau-217 · Total Phosphorylated Tau

INTERMEDIATE · 0.34 pg/mL

INTERPRETATION

A **test result ≤ 0.34 ng/L** is a negative result and is consistent with a negative amyloid positron tomography (PET) scan. A negative result indicates a low likelihood that a patient's cognitive impairment is due to Alzheimer's disease (AD).

A **test result between 0.34 and 0.47 ng/L** is considered intermediate. An intermediate result does not establish a diagnosis of AD or other cognitive disorder and has increased uncertainty in regard to amyloid PET positivity.

A **test result ≥ 0.47 ng/L** is positive and is consistent with a positive amyloid PET scan. High p-Tau217 plasma levels alone do not establish a diagnosis of AD. Results should be interpreted in the context of other clinical signs and symptoms of AD.

This test is a single molecule assay (Simoa®) using the ALZpath Dx antibody to p-Tau217 developed by ALZpath Inc. This is a laboratory developed test (LDT) whose performance characteristics were determined by Neurocode, USA Inc. at Northwest Pathology, P.S., dba Avero Diagnostics. The laboratory is regulated under CLIA to perform high-complexity testing. p-Tau results obtained with different methods cannot be used interchangeably.

LIMITATIONS

Test is intended to be used in adult patients, aged 45 years and older, presenting with cognitive impairment who are being evaluated for AD and other causes of cognitive decline. There are comorbid conditions that may affect phosphorylated tau levels in the blood. These can include conditions affecting hepatic and renal function, such as chronic kidney disease (CKD), as well as a history of stroke or myocardial infarction. Certain medications to support kidney function may also play a role in heightened levels of p-Tau217. Additionally, differences in results based on racial and ethnic background, sex, and age have not yet been established.

BACKGROUND

Alzheimer's disease (AD) is a neurodegenerative disorder hallmarked by extracellular amyloid plaques and intraneuronal neurofibrillary tangles of phosphorylated Tau (p-Tau) in the brain. The tau protein normally maintains microtubule assembly and stability of neuronal axons; however, tau protein with excessive phosphorylation can have pathological consequences. In patients with AD, aggregates of p-Tau can be detected by postmortem neuropathology or pre-mortem PET imaging with specific tracers. Ultra-sensitive methods including the technique used here can accurately detect p-Tau levels in the blood, which correlate well with CSF levels and with brain amyloid plaque burden. Plasma p-Tau217 levels can assist in distinguishing AD from other neurodegenerative disorders.

LABORATORY DEVELOPED TEST — PTAU-217

This is a laboratory developed test, its performance was determined by Neurocode USA Inc. It has not been cleared or approved by the Food and Drug Administration.

REFERENCES

1. Ashton et al., 2024. Diagnostic Accuracy of a Plasma Phosphorylated Tau 217 Immunoassay for Alzheimer Disease Pathology. *JAMA Neurology.*
2. Revised Criteria for Diagnosis and Staging of Alzheimer's Disease: Alzheimer's Association Workgroup. NIA-AA, 2023.
3. Telser J, Risch L, Saely CH, Grossmann K, Werner P. P-tau217 in Alzheimer's disease. *Clin. Chim. Acta* 531, 100–111 (2022).
4. Mielke MM, et al. Performance of plasma p-tau 181 and 217 in the community. *Nat. Med.* 28, 1398–1405 (2022).

SAMPLE
ADX Health

GenoRisk™ · Polygenic Risk Score

20 / 40 · ABOVE AVERAGE

INTERPRETATION

The GenoRisk score reflects inherited, **non-modifiable** genetic predisposition to Alzheimer's disease. A higher score indicates greater genetic predisposition relative to the general population but does not, on its own, establish a diagnosis or predict whether or when disease will develop.

This patient's score of 20 / 40 exceeds the population mean of 13.4, placing them in the 82nd percentile. The APOE genotype is ε3/ε3 (no APOE-ε4 variant); the elevated score is therefore driven by SNPs across other contributing genes. Genetic risk is best interpreted alongside current blood biomarker status and clinical evaluation.

METHODOLOGY

Genetic testing is performed at Northwest Pathology PLLC, a CAP-accredited (#8446395), CLIA-certified (#50D2158817) laboratory, on an Agena MassARRAY platform. Regions surrounding single nucleotide polymorphisms (SNPs) of interest are first amplified by PCR, followed by differentiation of possible alleles by mass spectrometry. Results are converted to a GenoRisk score by ADx Health using a proprietary internally validated algorithm (Dickson SP, Hendrix SB, Brown BL, et al. GenoRisk: A polygenic risk score for Alzheimer's disease. Alzheimer's Dement. 2021;7:e12211). SNPs were chosen from Alzheimer's Disease Genetics Consortium (ADGC) case-control data (2,579 cases; 2,578 controls); candidate models were compared using 10-fold cross-validation. The selected elastic-net model with a logit link uses age, age-by-sex interaction, and 31 SNPs including 2 APOE SNPs (Brier score 0.207).

LIMITATIONS

- The test does not independently diagnose Alzheimer's disease or dementia.
- The test does not include analysis for mutations in PSEN1, PSEN2, or APP, the genes associated with the rare autosomal-dominant familial form of Alzheimer's disease.
- The test does not include all possible variants.
- The test is not intended to be used by children under the age of 18.
- The test is not intended to assess genetic risk for non-Alzheimer's types of dementia, such as vascular dementia, Lewy body dementia, or frontotemporal dementia.

LABORATORY DEVELOPED TEST — GENORISK

GenoRisk is a laboratory-developed test (LDT). It has not been approved or cleared by the FDA. These genetic results are not intended to be used for diagnostic purposes and should be interpreted by a qualified clinician in the context of the patient's full medical history.

SAMPLE
ADxHealth

DISCLAIMER — This report is a diagnostic aid and does not constitute a final medical diagnosis. Results should be interpreted by a qualified clinician in context of the patient's full medical history.

Medical Director · Ryan Fortna, MD, PhD
CLIA #50D2158817 · CAP #8446395 · 3614 Meridian Suite 100, Bellingham WA 98225
adxhealth.com · support@adxhealth.com