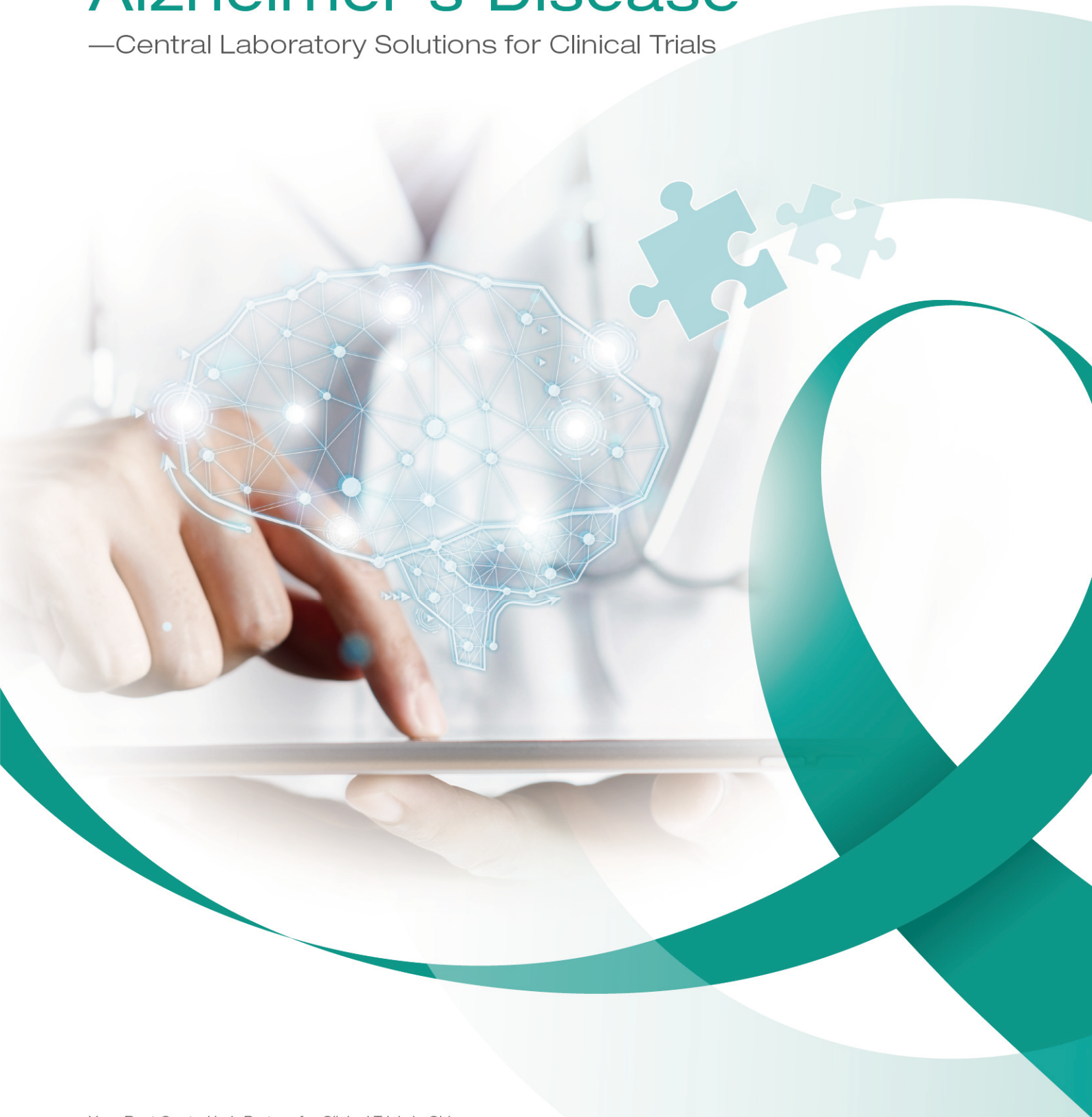


Alzheimer's Disease

—Central Laboratory Solutions for Clinical Trials



The Challenge



Alzheimer's disease (AD) is the most common neurodegenerative disorder, marked by insidious onset and early diagnostic challenges. Key hallmarks include amyloid- β (A β) deposition and hyperphosphorylated tau(p-tau) aggregation. Symptoms lag behind pathology by up to 10–20 years—allowing significant A β burden to accumulate before cognitive decline appears.

China has the world's largest AD patient population

~38.8 million adults aged 60+ have MCI

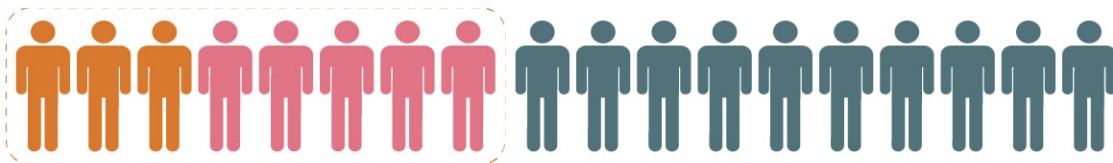
3877

~15.1 million have dementia

1507

~9.8 million are diagnosed with AD

983



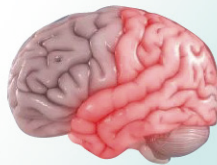
Data source: Chinese Expert Consensus on the Diagnosis and Treatment of Mild Cognitive Impairment Due to Alzheimer's Disease (2024)

Mild Cognitive Impairment(MCI)

Mild Alzheimer's

Moderate Alzheimer's

Severe Alzheimer's



AD-derived MCI

Mild AD

Moderate AD

Severe AD

Early identification and diagnostic intervention

With disease-modifying therapies (DMT) targeting A β —including lecanemab and donanemab—now receiving approvals, early detection of AD neuropathological changes is more crucial than ever. The clinical success of these therapies depends on identifying patients in the earliest stages, creating an urgent need for scalable, accurate screening solutions.

The Shift to Blood-Based Biomarkers

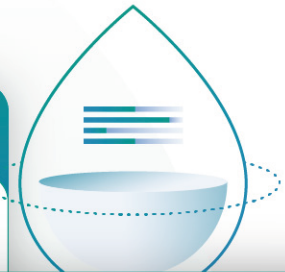


Current diagnostic methods—amyloid positron emission tomography (PET) imaging and invasive cerebrospinal fluid (CSF) assays—are limited by high cost, slow turnaround, and poor patient tolerability. Advances in high-sensitivity immunoassays have enabled a shift to blood-based biomarker detection, offering a minimally invasive, scalable solution for the early AD screening and diagnosis.

The clinical value of blood-based biomarkers is increasingly recognized in leading clinical guidelines and consensus statements

(NIA-AA) Revised Criteria for the Diagnosis and Staging of Alzheimer's Disease (2024)

Changes in blood-based AD biomarkers, such as A β and p-tau, align with neuropathological alterations, supporting their feasibility for clinical diagnosis of AD



Chinese Expert Consensus on the Diagnosis and Treatment of Mild Cognitive Impairment Due to Alzheimer's Disease (2024)

Plasma A β 42/40, p-tau217, p-tau181, NfL, and GFAP, along with integrated models, are recommended for early screening, diagnosis, and disease progression evaluation in AD-related MCI, may serve as DMT follow-up biomarkers (II b)

Chinese Guideline for Clinical Application of Fluid Biomarkers for Alzheimer's Disease (2024 Edition)

Individual plasma A β 42, A β 42/40, p-tau181, or p-tau21 can be used for AD diagnosis and assessing the risk of disease progression (1B)
Plasma A β 42/40 ratio, p-tau181, and p-tau217 can be used for screening AD patients, whereas plasma GFAP and NfL can be used for dementia screening (1B)



Clinical Practice Guideline for Blood-Based Biomarker Tests for Alzheimer's Disease (2024)

Screening: Blood p-tau217 and p-tau181 are highly correlated with AD pathology in AD-derived MCI or AD (IA)
Diagnosis: Blood p-tau217 and p-tau181 are highly correlated with AD pathology in AD-derived MCI or AD (IA)

Peripheral blood biomarkers for early clinical research of AD

1

Blood based multi-biomarker panels, compared to single biomarkers, provide more accurate predictions

2

Blood based multi-biomarker panels, compared to CSF analysis and PET, offer a simpler and minimally invasive alternative

3

Suitable for large-scale screening, long-term monitoring, and beyond

Our Capabilities

AD fluid biomarkers support a range of applications —from screening, diagnosis, to disease staging, prognosis, and clinical trial enrollment. We provide high-quality standardized central laboratory support for AD therapeutic development using multiple ultra-sensitive platforms, including Lumipulse and Simoa, to deliver reliable, regulatory-ready biomarker data.

A Amyloid- β

T Tau (T)

N Neurodegeneration

I Inflammation

Genetic risk-related genes

Cerebrospinal fluid/blood

A β 1-42
A β 1-40

P-tau 181
P-tau 217
P-tau 231

NfL

GFAP

APOE, PSEN1,
PSEN2, APP,
SORL1, TREM2,
ABCA7, etc.

High-sensitivity platforms such as Lumipulse and MSD cover core AD fluid biomarkers, while molecular platforms such as qPCR and NGS comprehensively cover AD-related genetic risk genes

Lumipulse
(Fujirebio)



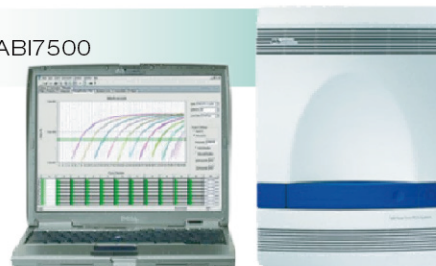
MSD



NovaSeq600



ABI7500



KingMylab Lumipulse Platform: Empowering Efficient Solutions for Alzheimer's Disease Clinical Trials

| International high-quality standards central lab

Built upon internationally recognized quality systems including CAP, CLIA, and ISO 15189;
Full compliant with GCP/GCLP requirements for clinical trials under NMPA, FDA, and EMA.



CSF and plasma biomarkers completed developed and analytical validated on Lumipulse: A β 42, A β 40, P-tau181, P-tau217, NfL, GFAP
Enabling early AD detection, disease progression monitoring, and therapeutic development.

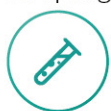


Test list	Index
amyloid- β	A β 1-42
	A β 1-40
Tau (T)	P-tau 181
	P-tau 217
AD-related index	NfL
	GFAP

| Product features

Minimally Invasive

Peripheral blood sampling



Rapid

Multiplex biomarker results in just 30 minutes



Ultra-Sensitive

Picogram-level analytical sensitivity



Accurate

High specificity
High accuracy
Excellent reproducibility

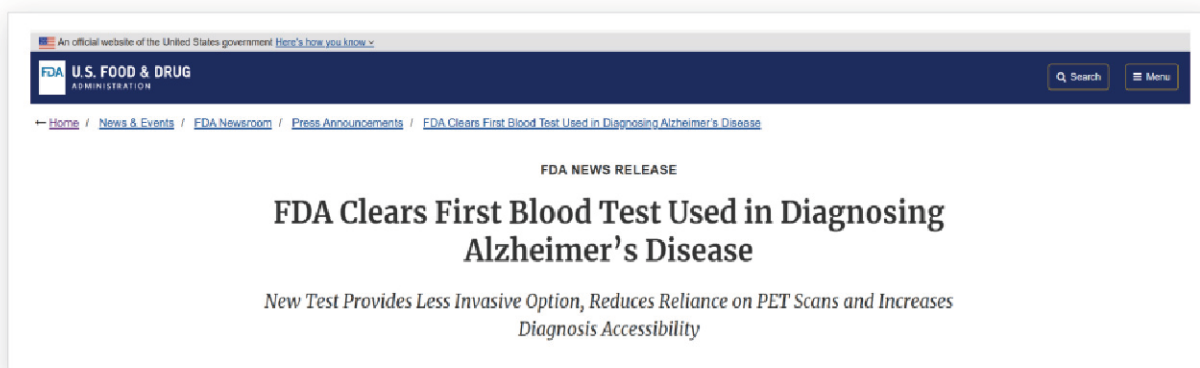
Authoritative

NMPA/ FDA/CE Registered
Full 3Q validation

User-Friendly

Highly automated workflow
Minimizes manual intervention & variability

| First FDA-Cleared AD Blood Test on Lumipulse: P-tau217/A β 42





Scientific, Compliant & Comprehensive
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Accelerating drug development, advancing human health

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