Cognivue®

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Founder and CEO
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**COGNIVUE ENABLES CARE**

- *Cognivue* is an artificial intelligence neurological tool, not a computerized psychological questionnaire

- *Cognivue* promotes cost-effective dementia care in primary care office practices

- *Cognivue* aligns patients, families, and practitioners by moving beyond dementia as an accusation
Psychophysics Distinguishes Aging and AD
UTILITY OF COGNIVUE

Detect and monitor disease neurological deficits

One Year Longitudinal Study in Aging and AD

Stability in normal aging
Decline in early Alzheimer’s
NEURAL MECHANISMS OF COGNIVUE

A Optic Flow Stimulus Paradigm

- Fixate
- Stationary
- Radial
- Stationary

B Optic Flow Field Evoked Responses

Correlates of Navigational Performance

Total Navigational Score

Standardized Regression Value (thresholds + N200 + contrast)

R² = .95
LINKS TO AGING AND ALZHEIMER’S

Hyperactivity of soluble Aβ
Loss of activity with Aβ plaques

Loss of signal coherence in aging and early AD
SIX KEY POINTS

1. Detect functional impairment
2. Monitor disease progression
3. Assess therapeutic efficacy
4. Access neural mechanisms
5. Foundation of complex behaviors
6. Domain-specific impairment measures
COGNIVUE COMMERCIALIZATION

Bottom-Up Processing
- Visuo-Motor Function
  - Dynamic Adaptation
- Shape Processing
  - Spatial Attention
- Cortical Function Domains
- Language

Top-Down Control
- Motion Processing
  - Temporal Integration
- Language Processing
  - Learning & Memory

Cerebral Assessment Systems™
COGNIVUE PSYCHOPHYSICAL TESTING

Sensory-Motor Testing

Motor Control
Calibrate to Patient
Visual Salience

Perceptual Testing

Letters
Shapes
Words
Motion

Memory Testing

Letters
Shapes
Words
Motion

Report Generation
Cloud Archives
Post-hoc Analyses
Contextualized F/U Testing

Practitioners & Researchers
Doe, John
02-01-1956
11-21-2014 13:30 PM
Administrator
Otto B. Jones
Age 55 - 59 years, and known condition

Average score = 98 (+/-1.3)
≥ 75 is consistent with being unimpaired.
≥ 50 is consistent with being impaired.
51 - 74 is intermediate and indeterminate.
Clinical contextualization is required.

The Cognivue System

Secure access on Cognivue, desktops, and portable devices

Cognivue – 10 Tests in 10 Minutes
COGNIVUE’S FDA VALIDATION

3rd FDA Validation Study

N = 401 subjects 55–95 yo impaired vs. unimpaired

Cognivue vs. SLUMS

PPA & NPA

.82 & .98

3rd FDA Reliability Study

N = 356 subjects tested twice

Cognivue re-test correlation = .90

PPA = .89, NPA = .93, ICC = .94

SLUMs re-test correlation = .82

PPA = .87, NPA = .87, ICC = .87
COGNIVUE’S ADVANTAGES

1) Objective psychophysics
2) Neurological assessment
3) Linked to brain electrical activity
4) 10 minute testing in doctor’s office
5) Simple test interpretation algorithm
6) Easily explained to patients and families
PLATFORM TECHNOLOGY TARGETS

- Cognitive Disorders – Dementias, Deliriums, Syndromes
- Movement Disorders – Parkinsonism and overlap syndromes
- Affective Disorders – Depressions, Manias, Psychoses
- Acquired Disorders – Head injury and medicinal SEs
- Developmental Disorders – Conditions and Pathopotential
### TECHNOLOGY ATTRIBUTES & GAPS

**Concept-of-Interest Measured:** Domain-specific cortical function

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<th>CONSIDERATION</th>
<th>ATTRIBUTE</th>
<th>GAP</th>
<th>COMMENTS</th>
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<td>510K Compliant</td>
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Bringing cognitive care to primary care