EXHIBIT 2

DECLARATION OF DALE G. WATSON

I, Dale G. Watson, Ph.D., declare as follows:

- I am licensed to practice psychology in California. I specialize in clinical and forensic neuropsychology. I am a member of the American Psychological Association (APA) and subdivisions of that organization including Division 33 (Intellectual and Developmental Disabilities), Division 40 (Society for Clinical Neuropsychology), and Division 41 (American Psychology – Law Society). I am also a member of the International Neuropsychological Society (INS), the National Academy of Neuropsychology (NAN), the International Society for Intelligence Research (ISIR), the American Association on Intellectual and Developmental Disabilities (AAIDD), and the Society of Personality Assessment (SPA).
- 2. I received my Bachelor of Arts degree, with a major in psychology, from California State College, Sonoma in 1975. I received my Master of Arts degree in Clinical Psychology from John F. Kennedy University in Orinda, California in 1980. In 1988, I earned a Ph.D. in Clinical Psychology from the California School of Professional Psychology (CSPP) in Berkeley, California. CSPP was accredited by the APA and is now a school within Alliant International University with a campus in San Francisco, California.
- 3. I have been in private practice in the Bay Area of California since 1990. In addition, I am an adjunct faculty member at the Wright Institute, an APA accredited institution in Berkeley, California, where I teach a 3-trimester course in

Graduate Level Psychodiagnostic Assessment focusing on intellectual, academic and psychological evaluation. This course covers the broad array of psychological assessment instruments utilized within the field of assessment and includes modules on the assessment of intellectual functioning, academic skills, and personality assessment.

4. In California, I have given expert testimony in the Superior Courts of Alameda, Contra Costa, Fresno, Los Angeles, Marin, Monterey, Riverside, Sacramento, San Mateo, Santa Clara, San Francisco, and Shasta Counties. I have also qualified and testified as an expert in Maricopa County, Arizona; Howard County, Arkansas; Butts county, Georgia; Latah County, Idaho; Caddo Parish, Louisiana; Custer County, Montana; Anderson County, South Carolina; Harris County, Texas; York County, Virginia; and King and Whatcom Counties in Washington. I have qualified and testified in United States District Courts of Arkansas, California, Montana, Oklahoma, and Tennessee. From the early 1990s until 2003, I was on the panel of forensic examiners for the Superior Court in Contra Costa County, California. In that role, I regularly examined criminal defendants referred by the court for the evaluation of competency to stand trial and insanity. I have also completed several "Atkins" evaluations assessing intellectual disabilities in my role as a forensic neuropsychologist. I assessed Darryl Atkins, the defendant in Atkins v. Virginia, after the U.S. Supreme Court found it a violation of the constitution to execute the intellectually disabled. I also assessed Anderson Hawthorne and authored the declaration filed with the state habeas petition that

resulted in the California Supreme Court's decision allowing for evidentiary hearings in state habeas proceedings upon a prima facie showing of intellectual disability. Over the course of my career I have evaluated several hundred capital appellants.

- 5. I previously served as a Consulting Neuropsychologist to Neurobehavioral Cognitive Services (NCS) of Dixon, California, a residential/outpatient braininjury rehabilitation program, between 2000 and 2015. In that role, I was involved in the evaluation of individuals with moderate to severe brain injuries resulting from trauma, stroke, and other neuropathological processes.
- 6. I was a Clinical Neuropsychologist for NeuroCare in Concord, California from 1989 to 1992. In that role, I conducted neuropsychological evaluations, and was involved in post-acute rehabilitation of the brain-injured, treatment planning, psychotherapy for individual, couples, and groups, substance abuse treatment, cognitive rehabilitation and crisis intervention. From 1986 to 1989, I was on staff at Specialized Rehabilitation Services in Fremont, California. In that capacity, I coordinated the Treatment Team for the Brain Injury Rehabilitation Program (1986-87), and conducted case management, patient education, and individual and group psychotherapy for the Chronic Pain Management Program.
- 7. I have given numerous presentations throughout my career to professional, academic, and legal organizations. Topics of my presentations have included the neuropsychology of mental retardation and other intellectual disabilities, the neuropsychology of schizophrenia, neuropsychological assessment and brain

impairment, brain functions including executive functioning, the roles of psychology and neuropsychology in forensic evaluations, the impact of norms on neuropsychological evaluation, and the teaching of psychological assessment.

- I am the author of a chapter entitled "Intelligence Testing," which was included in the recent publication of the American Association on Intellectual and Developmental Disabilities (AAIDD), *The Death Penalty and Intellectual Disability*, edited by Edward A. Polloway (2015).¹
- 9. Neuropsychology is the study of the relationship between brain functions and behavior. The discipline of neuropsychology is fully accepted by the relevant professional communities as providing information for the evaluation, description, and diagnosis of brain-related conditions affecting cognition, sensory-motor functioning, memory, language, auditory processing, intelligence, and executive functions. Neuropsychologists commonly utilize batteries of tests to provide information relevant to questions of behavioral functioning.
- 10. My curriculum vita is attached to this declaration as Appendix 1 and test results are found in Appendix 2.

Evaluation of Ledell Lee, Jr.

11. At the request of defense counsel Cassandra Stubbs, I examined Ledell Lee, Jr. at the Varner Correctional Facility on April 13, 2017 and April 14, 2017. I conducted a clinical interview and two full days of neuropsychological testing.

¹ Watson, D. G. (2015). Intelligence testing. In E. A. Polloway (Ed.), *The death penalty and intellectual disability* (pp. 113-140). Washington, DC: AAIDD.

- 12. I also have reviewed the declaration from the mitigation specialist Elizabeth Vartkessian, Ph.D. and have relied upon the information contained in that affidavit for additional social history information. I have not reviewed a number of documents that would provide relevant information to my opinions, including Mr. Lee's medical records, school records, and records from incarceration. Counsel have informed me that they are new on the case and that these records were not previously collected. In the event counsel can obtain these records, I will consider and weigh those records in evaluating my opinions. As explained below, I believe these records would be extremely valuable in evaluating adaptive deficits and to an ultimate determination of intellectual disability.
- 13. Mr. Lee put forth excellent effort throughout our testing. I administered both stand alone and embedded measures of performance validity and Mr. Lee's performance is judged to be valid.
- 14. The battery of tests administered to Mr. Lee included the following:
 - Behavioral Observations
 - Mental Status Examination
 - Advanced Clinical Solutions for the WAIS-IV and WMS-IV Social Cognition Test (ACS SCT)
 - Aphasia Screening Test (AST)
 - Auditory Consonant Trigrams (ACT)
 - b Test (bT)
 - Boston Naming Test (BNT)
 - BRIEF-A (BRIEF)
 - Brown Location Test (BLT)
 - California Verbal Learning Test-II (CVLT-II)
 - Conners' Continuous Performance Test III (CPT-III)
 - Dichotic Word Listening Test (DWLT)
 - Digit Vigilance Test (DVT)

- D-KEFS Design Fluency Test (D-KEFS DFT)
- D-KEFS Tower Test (D-KEFS TWR)
- D-KEFS Proverb Test (D-KEFS PT)
- D-KEFS Twenty Questions Test (D-KEFS TQT)
- D-KEFS Verbal Fluency Test (D-KEFS VFT)
- Finger Tapping Test (FTT)
- Forced Choice Test (FCT)
- Green's Medical Symptom Validity Test (MSVT)
- Grip Strength (GS)
- Grooved Pegboard Test (GPT)
- Halstead Category Test (HCT)
- Iowa Gambling Task (IGT)
- Judgment of Line Orientation (JOLO)
- Lateral Dominance Exam (LDE)
- National American Adult Reading Test (NAART)
- Neuropsychological Assessment Battery (NAB) Mazes Test (MAZ)
- One Minute Estimation (OME)
- Rey Auditory Verbal Learning Test (RAVLT)
- Rey Complex Figure Test (RCFT)
- Ruff-Light Trail Learning Test (RULIT)
- Seashore Rhythm Test (SRT)
- Sensory-Perceptual Examination (SPE)
- Sentence Repetition (SR)
- Speech Sounds Perception Test (SSPT)
- Tactile Form Recognition Test (TFRT)
- Tactual Performance Test (TPT)
- Test of Memory Malingering (TOMM)
- Texas Functional Living Scale (TFLS)
- Token Test (TT)
- Trail Making Test A & B (TMT)
- Wechsler Adult Intelligence Scale IV (WAIS-IV)
- Wechsler Memory Scale IV Flexible Approach (WMS-IV)
- Wide Range Achievement Test 4 (WRAT-4)
- Wisconsin Card Sorting Test (WCST)
- 15. Mr. Lee's intellectual abilities were assessed using the Wechsler Adult

Intelligence Scale, Fourth Edition (WAIS-IV). His performance on the WAIS-IV

falls within the Low Average to Borderline range of intelligence. Nonetheless, his

performance raises the possibility that he has a Mild Intellectual Disability. His Full Scale IQ (FSIQ), a measure of general intellectual ability, was 82, but is most appropriately represented as a score of 79, taking into account the Flynn Effect.² The latter score places his measured intellectual ability in the range between 75 and 83 and at the 8th percentile rank. This finding is somewhat above the 2nd to 4th percentile ranks usually associated with a diagnosis of Intellectual Disability. However, with the advent of the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5), confirmed by the United States Supreme Court in *Hall v. Florida*, 572 U.S. (2014), there has been a shift from emphasizing IQ to the role of adaptive functioning in making the diagnosis. This necessitates a complete and thorough examination of Mr. Lee's adaptive functioning. Furthermore, given that IQ scores can change over time, additional investigation into intellectual and adaptive deficits is necessary in order to evaluate the presence of intellectual disability.

16. The evaluation of intellectual functioning provides the context for a more detailed analysis of his neurocognitive functioning. On the WAIS-IV, Mr. Lee's General Ability Index (GAI) was 79 (Flynn-corrected to 76 and at the 5th percentile). The GAI assesses his core intellectual capacities without the impact of either working memory or processing speed, both of which fell within the Average range (Working Memory Index (WMI) = 92 / 30th percentile rank; Processing Speed

² The Flynn Effect relates to the phenomenon of the inflation of IQ scores as a test's norms become increasingly obsolete. The WAIS-IV was normed in 2007 requiring an adjustment downward of Mr. Lee's FSIQ of 3 points, equaling an FSIQ of 79.

Index (PSI) = $92 / 30^{\text{th}}$ percentile rank). In contrast, his verbal capacities fell in the Low Average range (Verbal Comprehension Index (VCI) = 87). More strikingly, his non-verbal intellectual abilities fell in the Borderline range (Perceptual Reasoning Index = $75 / 5^{\text{th}}$ percentile rank / 95% Confidence Interval (CI) = 70 - 82). This part score falls in the range of Intellectual Disability absent any Flynn correction.

- 17. The pattern of WAIS-IV IQ scores was relevant to the nature of Mr. Lee's neurocognitive dysfunction. The difference between the VCI and the PRI of 12 points was significant and initially raises the question of greater right versus left hemisphere dysfunction. It is apparent that he has deficits in fluid or "on the spot" reasoning and visual processing with relatively intact verbal functions such as vocabulary. Were someone to rely solely on assessing Mr. Lee's vocabulary to understand his neurocognitive abilities, they would entirely miss the nature of his brain dysfunction.
- 18. Neuropsychological assessment revealed Mr. Lee to have significant and serious deficits in academic skills, memory abilities, motor functions, social cognition, and executive functions. The findings are indicative of diffuse brain dysfunction, worse in the right hemisphere, with particular evidence of frontal-striatal and temporal lobe dysfunction. The temporal lobes are responsible for an array of cognitive tasks most notably including language and memory. The frontal-striatal system is involved in executive processes, active learning and recall, and making tasks routine.

Academic Functioning

19. Mr. Lee's academic skills are somewhat limited, though generally consistent with his educational attainment. He could sight read at the 8.6 grade level, comprehend at the 9.7 grade level, and perform math at only the 5.9 grade level. His performance does fall over one standard deviation below the mean – and this finding is relevant to a diagnosis of Fetal Alcohol Spectrum Disorder (FASD) as discussed below.

Memory Functioning

- 20. Mr. Lee has striking deficits in both verbal and non-verbal memory and learning.
- 21. Verbal recall was assessed with list-learning measures and paragraph length verbal recall measures including the Rey Auditory Verbal Learning Test (RAVLT), the California Verbal Learning Test, Second Edition (CVLT-ii), and the Logical Memory scales from the Wechsler Memory Scale, Fourth Edition, Flexible Approach (WMS-IV).
- 22. The results of the RAVLT are illustrative of his deficits in verbal learning and recall. This task required him to learn a list of 15 words presented five times. He initially recalled five words an average performance and one reflecting adequate auditory attention. Subsequently he recalled 7, 6, 9, and 7 words over the next four trials. This performance reflects poor learning capacity. Over the course of the next four trials following his initial recall, he essentially acquired only two additional words. Following a distractor, he could only recall five of these same 15 words a performance indicative of moderate memory impairment and falling at

only the 4th percentile rank. Some 30 minutes later he could only recall four of the words. Notably, on a recognition task, where he was asked if a number of words were on the list he had learned, he could recognize eight of the words – though this is still moderately to severely impaired and fell at only the 0.1 percentile rank. Moreover, his recall was vulnerable to intrusion errors such that he falsely recalled six words that were not actually on the list – a reflection of "source memory" deficits, a marker of frontal lobe dysfunction. This latter performance reflected severe impairment, falling at only the 0.01 percentile rank. This pattern of performance not only represents dysfunction of the left hippocampal/medial temporal lobe memory system but of the frontal-striatal executive memory system as well.³ He has difficulty learning new verbal information, storing that information.

- 23. Mr. Lee demonstrated equal, if not greater, impairment on measures of visual recall. These measures included the Rey Complex Figure Test (CFT), the Brown Location Test (BLT), the Ruff-Light Trail Learning Test (RULIT), and the Visual Reproduction subtests of the WMS-IV.
- 24. Mr. Lee's performance on the Rey Complex Figure Test illuminated marked memory retrieval deficits and a striking failure of executive functions to organize

³ Koziol and Budding (2009) have specifically addressed this pattern of performance and indicated it is a feature of dysfunction within the frontal-striatal system rather than the hippocampal/temporal lobe system (Koziol, L. F., & Budding, D. E. (2009). *Subcortical structures and cognition: Implications for neuropsychological assessment*. New York: Springer, p. 229.) They wrote, in similar cases, "there is an obvious disparity between limited response production on voluntary recall trials and completely intact recognition.... There is very good retention but very poor self-activation that results in limited voluntary access" (p. 229). They further noted, "a shallow but incremental learning slope ... implicates frontal systems" (p. 230).

his behavior. To begin with, Mr. Lee's copy of a complex figure was marred by a disorganized, piecemeal approach to the task. Rather than taking a gestalt approach to the task, he instead focused on details such that when finished his drawing had several significant distortions. His copy score, reflecting visual spatial capacities, fell at only the 0.01 percentile rank and was classified as severely impaired. Just a few minutes later, his drawing from memory performance was markedly simplified and even more distorted. Approximately 30 minutes later it had even less relationship to the original figure and was marred by perseverative repetitions of a particular design element. On each of these recall tasks his performance fell at below the 1st percentile rank and was severely impaired. However, on recognition testing his performance improved somewhat, to the 2nd percentile rank – reflecting moderate impairment. At that point, I performed a procedure to test the limits of his impairment – I showed him how to draw the figure using a gestalt approach. Now, when he copied the figure it was more organized and his recall three minutes later had improved substantially – to the Below Average range (Immediate Recall after demonstration = $44t / 27^{th}$ percentile rank). This procedure demonstrated that Mr. Lee's recall of visual information is particularly poor by, once again, a failure of the fronto-striatal executive memory system, this time of the right hemisphere.

25. Similar failures to learn visual information were seen on a measure of spatial recall (Brown Location Test Trials 1 – 5 Free Recall Total = -2.46z / 0.6 percentile

rank). Likewise, his ability to learn a visual trail over multiple trials was impaired (RULIT Total Correct Trials $2-10 = 33t / 5^{\text{th}}$ percentile rank).

Sensory and Motor Functions

- 26. Comparing the performance of an individual on their right and left sides is a technique borrowed from neurology. On sensory and motor measures, there are known relationships of performance on tasks of the right and left sides. These comparisons can assist in identifying lateralized brain damage to either the left or right hemispheres of the brain. As is well known, the left hemisphere of the brain controls motor and sensory functions on the right side of the body and vice versa.
- 27. Though Mr. Lee performed reasonably well on measures of fine motor speed (Finger Tapping) and control (Grooved Pegboard Test) he demonstrated lateralized dysfunction on the Tactual Performance Test (TPT). The TPT is a measure of complex visual spatial problem solving tapping into the mapping capacities of the posterior regions of the brain as well as the planning capacities of the frontal regions. The task required Mr. Lee to place puzzle pieces in a formboard, while blind-folded, first with his right hand, then his left, and finally with both together. Most individuals with intact capacities can place the 10 pieces into the board with their dominant hand in about 6 to 7 minutes. They then will cut their time with their non-dominant hand by about a third to 4 to 5 minutes. Finally, they can reduce their time by one third again with both hands. Mr. Lee initially placed the 10 blocks in the board with his right hand in 7'38" an adequate performance. However, with his left hand he required 10'33" fully three minutes

slower than with his right hand. He then required 6'07' with both hands together, barely improving on his right hand performance and suggesting that the left slowed even this performance. The pattern of performance between the right and left hands likely reflects lateralized impairment of the right hemisphere – consistent with the IQ findings and the more severely impaired visual memory functioning. This pattern was similarly reinforced on the Tactile Form Recognition Test which also showed lateralized dysfunction impacting the right hemisphere.

Executive Functioning

28. Executive functions are brain-related cognitive processes that control planning, generating hypotheses, cognitive flexibility, initiating activity, organization, decision-making and problem solving, judgment, inhibition and regulation of behavior, and utilizing feedback to change a behavior or response. The importance of executive functions in activities of daily living is well recognized. Individuals with executive dysfunction tend to become stuck in "mental ruts" - demonstrating perseverative behaviors that involve the continuance of behaviors beyond their relevance. In contrast, cognitive flexibility, or the ability to shift sets, is required any time an individual attempts to solve a problem using multiple pieces of information. The individual must incorporate feedback concerning the effect of each piece of information and then consider how the new information affects subsequent choices or behavior. The process is dynamic in that it requires continuous evaluation and incorporation of new information. Executive functions are necessary to plan and organize behavior, reason abstractly, and perceive

accurately and respond appropriately to social expectations; they are required for effective and environmentally appropriate behavior. The frontal lobes of the brain are largely responsible for these functions.

- 29. Mr. Lee demonstrated both strengths and weaknesses in this domain. He had notable strengths in verbal abilities with profound deficits in non-verbal executive functions – consistent with some degree of lateralized brain dysfunction, worse within the right hemisphere. For example, he was readily able to generate words beginning with either a specified letter or a specified category. These abilities are putatively the result of left hemisphere processes. In contrast, he was severely impaired on measures of visual problem solving.
- 30. Mr. Lee demonstrated a remarkable failure to learn and problem solve on a cardsorting test requiring conceptual thinking. The *Wisconsin Card Sorting Test* (*WCST*) requires an individual to match cards from a deck of cards to one of four "key" cards – based upon the color, shape, or number of design elements on the card. For example, a card might have four blue circles on it, which might be matched to a key card with two blue crosses – sorting to color. Each time a choice is made the person is told whether they are correct or incorrect and in this way, most people learn to do the task and typically can complete six different sorting rules (e.g., color, shape, or number completed twice) in fewer than 128 cards.
- 31. Mr. Lee's performance on the WCST was profoundly impaired. He did not complete any of the expected six categorical sorts and was "on target" only 9 percent of the time a performance falling at only the 1st percentile rank of the

population. Though his errors on the WCST included perseverative responses, his difficulties appeared principally to be due to a conceptual failure. Of the 128 cards, he was correct on only 40 of them. This level of performance represents a marked inability to reason and analyze in novel problem solving situations and reflects a degree of confusion that is likely to impact his independent functioning.

- 32. On a measure of visual planning under timed conditions, Mr. Lee was mildly impaired with a performance falling just beyond 1 standard deviation below the mean (NAB Mazes test = $39t / 14^{th}$ %ile).
- 33. Though Mr. Lee performed well on several measures from the Delis-Kaplan Executive Function System (D-KEFS), he did, nonetheless demonstrate mild deficits in set switching on the Design Fluency Test (Condition 3 Switching: Total Correct = 6SS / 10th %ile).
- 34. Finally, on another visual reasoning task assessing abstraction, concept formation, and flexible thinking when confronted with novel and complex tasks requiring analysis, he performed well below expectations and in the Mildly to Moderately Impaired range (Halstead Category Test = 99 errors / SS = 4 / 2^{nd} %ile). This task required the capacity to discern the most salient aspects of a problem-situation, to devise a solution/approach, monitor the effectiveness of the approach when given feedback as to its accuracy, and adapt the approach as needed to reach an accurate solution. This task is a general measure of neuropsychological integrity sensitive to impairment in many regions of the brain.

35. It is apparent from the above that Mr. Lee has clear and consistent findings of impaired executive functioning impacting non-verbal abilities.

SOCIAL COGNITION

- 36. Social cognition is the capacity to understand social communications and intention by interpreting facial expressions and the use of intonation and prosody in speech to convey emotion. Importantly, "...affect recognition and face processing abilities are primary to understanding deficits in social functioning commonly observed in individuals with developmental, neuropsychiatric, and neurological disorders."⁴ Deficits in social cognition commonly result in impairment in understanding and coping with the complexities of relationships and daily functioning.
- 37. On the *ACS Social Cognition Test*, Mr. Lee demonstrated a mixed pattern of intact and impaired social perception skills. He struggled to understand and process the tonal qualities and prosody of language to understand social communications. His performance on the Social Perception Prosody index was mildly impaired (10th percentile rank) reflecting limitations in his understanding of complex social interactions that "use prosody to understand emotional content of a verbal expression, to link prosody with facial expressions, to discriminate sarcasm from other emotions, to label emotions from prosody, to express the impact of prosody

⁴ Holdnack, J. A., & Whipple Drozdick, L. (Research Directors) (2009). *Advanced Clinical Solutions for WAIS–IV and WMS–IV (ACS) Clinical and Interpretive Manual*. San Antonio, TX: Pearson, p. 299.

on the meaning of a verbal statement, and to link an auditory expression of emotion to an interaction between two people."⁵ He thus seemed to struggle at times to match a pictures to their corresponding taped, emotionally significant statements.

Fetal Alcohol Spectrum Disorders

- 38. Based on my evaluation, interview, and review of records, I am convinced, to a reasonable degree of professional certainty, that Mr. Lee has a neurodevelopmental disorder. The most probable condition is that of a Fetal Alcohol Spectrum Disorder (FASD). FASD is a group of conditions, caused by maternal alcohol consumption during pregnancy. Alcohol is a teratogen that causes disruptions in the process of cell proliferation, migration and differentiation in the body and brain. These conditions include Fetal Alcohol Syndrome (FAS), partial fetal alcohol syndrome (pFAS), alcohol-related neurodevelopmental disorder (ARND) and alcohol-related birth defects (ARBD).
- 39. FAS is a permanent birth defect syndrome caused by maternal consumption of alcohol during pregnancy, characterized by growth deficiency, a unique cluster of facial anomalies, and central nervous system abnormalities.
- 40. FAS requires specific facial anomalies to be diagnosed wherein, in the other conditions, the characteristic dysmorphic facial features of FAS may not be present. Nonetheless, cognitive deficits remain.

⁵ *Id.*, p. 366.

- 41. Mr. Lee has at least some of the characteristic facial anomalies found in FAS. His eyes are notably short and wide set, a cardinal feature of FAS. Moreover, he has truly remarkable ears, highly unusual and deformed. There is a lack of internal detail and one is actually pointed on the posterior edge. Mr. Lee recalls being teased as a child and called "Dr. Spock" because of his unusual ears. The deformity is a strong indicator of FAS. In addition, he has a flat nasal bridge another associated feature. Because other neurodevelopmental disorders can present with dysmorphic features, further investigation of Mr. Lee's genetic background and his mother's use of substances/medications must be explored.
- 42. The Center for Disease Control (CDC) has developed diagnostic criteria for FAS. These criteria include the following central nervous system abnormalities:
 - I. Structural
 - 1) Head circumference (OFC) at or below the 10th percentile adjusted for age and sex.
 - 2) Clinically significant brain abnormalities observable through imaging.
 - II. Neurological

Neurological problems not due to a postnatal insult or fever, or other soft neurological signs outside normal limits.

III. Functional

Performance substantially below that expected for an individual's age, schooling, or circumstances, as evidenced by:

1. Global cognitive or intellectual deficits representing multiple domains of deficit (or significant developmental delay in younger children) with performance below the 3rd percentile (2 standard deviations below the mean for standardized testing) or

2. Functional deficits below the 16th percentile (1 standard deviation below the mean for standardized testing) in at least three of the following domains:

a) cognitive or developmental deficits or discrepancies

b) executive functioning deficits

c) motor functioning delays

d) problems with attention or hyperactivity

e) social skills

f) other, such as sensory problems, pragmatic language problems, memory deficits, etc.⁶

43. My examination of Mr. Lee addressed the Functional criteria associated with FAS as outlined by the CDC. He has demonstrated deficits falling below the 16th percentile, i.e., 1 standard deviation below the mean, in the areas of executive functioning, academic skills, motor functioning, social skills, and memory functions. Mr. Lee meets the requirement of impaired brain function as described

⁶ National Center on Birth Defects and Developmental Disabilities Centers for Disease Control and Prevention Department of Health and Human Services. (n.d.). Fetal Alcohol Syndrome: Guidelines for referral and diagnosis. Retrieved April 16, 2017, from https://www.cdc.gov/ncbddd/fasd/documents/fas_guidelines_accessible.pdf

by the CDC for Fetal Alcohol Syndrome (FAS). Confirmation of this diagnosis will require additional investigation of his mother's substance use. The work of Elizabeth Vartkessian, Ph.D., mitigation specialist, provides initial support for the proposition that Mr. Lee's mother may have drank alcohol during her pregnancy with him.

44. In sum, I believe Mr. Lee has significant brain impairments, a neurodevelopmental disorder, a probable Fetal Alcohol Spectrum Disorder, and likely has either borderline or mild Intellectual Disability. I believe these are life-long impairments, that the physical markers of dysfunction are readily apparent, and would have been uncovered at any point since Mr. Lee's trial had a competent psychologist or neuropsychologist evaluated Mr. Lee.

I swear that the foregoing is true and correct to the best of my knowledge under penalty of perjury under the laws of the United States. Executed in Contra Corra County, State of California, on the 17 day of April, 2017.

Dale G. Watson, Ph.D.

Clinical & Forensic Neuropsychology Mail: 3377 Deer Valley Road, PMB 310, Antioch, CA 94531 Office: 866-536-5301 / Fax: 925-757-3690 Email: watson.dale@comcast.net

CURRICULUM VITAE

MARCH 20, 2017

EDUCATION:

1988	Ph.D.	California School of Professional Psychology-Berkeley/Alameda
		Clinical Psychology (APA accredited)
1980	M.A.	John F. Kennedy University, Orinda, CA.
		Clinical Psychology
1975	B.A.	California State College, Sonoma, Rohnert Park, CA.
		Psychology

PROFESSIONAL EXPERIENCE:

1990- Private Practice

Pinole, CA.

- Forensic Evaluation/Trial Consultation.
- Comprehensive Neuropsychological/Psychodiagnostic Assessment services.
- Mental Retardation "*Atkins*" evaluations.
- Adjudicative Competency & to be Executed, Insanity, Mitigation and Future Dangerousness.
- Trial testimony in Superior and Federal District Courts.
- Individual Psychotherapy.

2007- Adjunct Faculty

1994-2000 The Wright Institute, Berkeley, CA. (APA accredited)

- Teaching 3-trimester courses in Graduate Level Psychodiagnostic Assessment including intellectual and psychological evaluation and neuropsychological screening.
- Dissertation supervision.

2000-2016 Consulting Clinical Neuropsychologist

Neurobehavioral Cognitive Services, Dixon, CA.

- Neurocognitive rehabilitation services including consultation and treatment planning.
- Individual and Group Psychotherapy with neurologically impaired patients.
- Neuropsychological and Psychodiagnostic Assessment.

1990-1992 Clinical Neuropsychologist

NeuroCare, Concord, CA.

- Acting program director (July 1991).
- Psychology team leader.
- Supervision of interns and the behavioral technician.
- Post-acute rehabilitation of the brain-injured.
- Neuropsychological evaluation.
- Treatment planning.
- Individual/Couples/Group Psychotherapy.
- Substance Abuse treatment/Cognitive Rehabilitation/Crisis Intervention.

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PROFESSIONAL EXPERIENCE (CONTINUED):

1989-1990 Psychological Assistant

Supervisor: James Cole, Ph.D. NeuroCare, Concord, CA.

- Post-acute rehabilitation of the brain-injured.
- Neuropsychological evaluation.
- Treatment planning.
- Individual/Couples/Group Psychotherapy.
- Substance Abuse treatment/Cognitive Rehabilitation/Crisis Intervention.

1988-1990 Psychological Assistant

Supervisor: Virginia Wulf, Ph.D., Pinole, CA.

• Individual/Couples Psychotherapy.

1988-1989 Psychological Assistant

Supervisor: Norbert Ralph, Ph.D.

Comprehensive Assessment Services/Sausalito Professional Clinic Sausalito, CA.

- Psychodiagnostic evaluations of hospitalized, adolescent substance abusers.
- Hospital Consultation (New Beginnings Modesto).

1986-1989 Psychological Assistant

Supervisors: Michael Shore, Ph.D./Harry Noda, Jr., Ph.D. Specialized Rehabilitation Services An affiliate of Transitions / Bay Area Recovery Centers, Fremont, CA.

Brain Injury Rehabilitation Program (1986-1987)

- Coordinating the Treatment Team.
- Neuropsychological and Psychodiagnostic Evaluation.
- Cognitive Rehabilitation.
- Individual Psychotherapy/Case Management.

Chronic Pain Management Program

- Individual/Group Psychotherapy.
- Case Management.
- Biofeedback Training.
- Patient education.

1981-1986 Clinical Coordinator/ Psychological Assistant

Supervisors: Sheila Bastien, Ph.D./Ann Hoff, Ph.D.

Spectrum Psychology Associates, Berkeley, CA.

- Clinical Coordination.
- Neuropsychological, Psychodiagnostic and Vocational Evaluation.
- Evaluation of the Developmentally Disabled
- Individual Psychotherapy.
- Forensic psychology.

1984-1985 Clinical Psychology Intern (Academic Year)

Supervisor: Neil Young, Ph.D.

Community Education and Counseling Center, Fremont, CA.

- Individual Psychotherapy within a Control Mastery framework.
- Group and Couples Psychotherapy.
- Community Needs Assessment (Program Evaluation).

CURRICULUM VITAE

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PROFESSIONAL EXPERIENCE (CONTINUED): Clinical Psychology Intern (Academic Year) 1983-1984 Supervisor: Joan Roth, Ph.D. Northern California Reception Center, California Medical Facility, Vacaville, CA. Psychodiagnostic Evaluation of court referred criminal offenders. • Group Psychotherapy with Category "B" inmates (Pre-operational Transsexuals). • Individual Psychotherapy. • 1983 **Teaching Assistant** Neuropsychological Measurement Laboratory California Graduate School of Marital and Family Therapy, San Rafael, CA. Taught the laboratory section of Neuropsychological Assessment using the Halstead-Reitan Battery. 1983 **Clinical Psychology Intern** East Bay Activities Center, Oakland, CA. Milieu therapy in classroom setting with emotionally disturbed children. Co-Leader: Neuropsychological Assessment - An In-service Training Workshop. Sonoma County Office of 1983 Education. 1-day in-service training workshop with psychologists and nurses. • 1982 **Teaching Assistant** Neuropsychological Measurement Laboratory California School of Professional Psychology, Berkeley, CA. Taught the laboratory section of Neuropsychological Assessment using the Halstead-Reitan Battery. • 1982 **Teaching Assistant** Neuropsychological Measurement Laboratory California Graduate School of Marital and Family Therapy San Rafael, CA. Taught the laboratory section of Neuropsychological Assessment using the Halstead-Reitan Battery. • 1979-1980 **Counselor Intern** Contra Costa County Alcoholism Information and Rehabilitation Service (AIRS), Antioch, CA. Conducted Alcoholism Education Orientations. • • Individual, Marital and Group Psychotherapy. 1978-1979 **Counselor Intern** John F. Kennedy University Community Counseling Center, Concord, CA. Individual, Marital, and Family Psychotherapy. ٠ Peer Supervision. . 1975 Staff Counselor New Horizons Center, Pittsburg, CA. Milieu treatment of developmentally disabled and psychotic adolescents and young adults. Liaison to Consulting Psychiatrist. • **PROFESSIONAL TRAINING:** 2017 "R-PAS Coding Solutions." Donald J. Viglione, Ph.D., Society for Personality Assessment, March 19, 2017, San Francisco, CA 7 CE Units.

- 2017 "Proficiency in Personality Assessment: Producing an Integrated Report." Hades Pade, Psy.D. & A. Jordan Wright, Ph.D., Society for Personality Assessment, March 15, 2017, San Francisco, CA 3.5 CE Units.
- "Developmental Amnesia: Memory Formation in the Absence of Remembering." Faraneh Vargha-Khadem, Ph.D., 2017 International Neuropsychological Society (INS) 45th Annual Meeting, February 1, 2017, New Orleans, LA 1 CE Unit.

- 2017 "Frontal Cortex and Human Behavior: Evidence from Intracranial Recording." Robert T. Knight, M.D., International Neuropsychological Society (INS) 45th Annual Meeting, February 1, 2017, New Orleans, LA 1 CE Unit.
- 2017 "Adult Aphasia: Classifications, Localization, and Neuroimaging." Nina Dronkers, Ph.D., International Neuropsychological Society (INS) 45th Annual Meeting, February 1, 2017, New Orleans, LA 3 CE Units.
- 2017 "Clinical Assessment of Frontal Lobe Functions: A Historical Perspective of the Application of the Boston VA Jamaica Plains VA Process Approach." Donald Stuss, Ph.D., International Neuropsychological Society (INS) 45th Annual Meeting, February 1, 2017, New Orleans, LA 3 CE Units.
- 2016 "21st Century Neuroimaging Applications in the Practice of Clinical Neuropsychology." Erin Bigler, Ph.D., National Academy of Neuropsychology, October 21, 2016, Seattle, WA. 3 CE Units.
- 2016 "Overview of Recreational and Medical Marijuana: Ethical, Scientific and Legal Issues Across the Lifespan." Godfrey Pearlson, Ph.D., National Academy of Neuropsychology, October 20, 2016, Seattle, WA. 2.0 CE Units.
- 2016 "Neuropsychological Assessment and Preclinical Alzheimer's Disease." Dorene Rentz, Ph.D., National Academy of Neuropsychology, October 20, 2016, Seattle, WA. 3 CE Units.
- 2016 "Historical, Conceptual, and Empirical Factors in Performance and Symptom Validity Assessment." Glenn Larrabee, Ph.D., National Academy of Neuropsychology, October 19, 2016, Seattle, WA. 3 CE Units.
- 2016 "Legal and Ethical Challenges Using the DSM-5: Best Practices." Pamela Harmell, Ph.D., Professional Psych Seminars, March 3, 2016. Online at <u>http://www.psychsem.com/</u> 6 CE Units.
- 2015 "Behavioral Neurology: Integrating the Neurologic Examination for the Neuropsychologist: Neuroanatomic Localization of Common Pathologies, Interventions, and Higher Cognitive Functions." Lola Morgan, M.D., Annual Conference, National Academy of Neuropsychology, November 7, 2015, Austin, TX. 2 CE Units.
- 2015 "Moving Neuropsychology from the Backdoor to the Front Door: Embracing Outcomes in Research and Practice." Gordon J. Chelune, Ph.D., Annual Conference, National Academy of Neuropsychology, November 6, 2015, Austin, TX. 1 CE Units.
- 2015 "The New Metabolic Cascade and Comprehensive Model of Concussion: Looking to Drive Clinical Practice." Christopher Giza, M.D. and Michael McCrea, Ph.D., Annual Conference, National Academy of Neuropsychology, November 6, 2015, Austin, TX. 3 CE Units.
- 2015 "Improving the Methodology for Assessing Mild Cognitive Impairment in Children, Adults, and Older Adults." Grant L. Iverson, Ph.D., Annual Conference, National Academy of Neuropsychology, November 5, 2015, Austin, TX. 1 CE Units.
- 2015 "Performance Validity Testing in At-Risk Populations: Ethical Practices." Kyle Brauer Boon, Ph.D., Annual Conference, National Academy of Neuropsychology, November 5, 2015, Austin, TX. 3 CE Units.
- 2015 "Frontal Lobe Functioning: Clinicians Beware Appearances May Be Deceiving." Donald T. Stuss, Ph.D., Annual Conference, National Academy of Neuropsychology, November 4, 2015, Austin, TX. 1 CE Units.
- 2015 "The Ethical Practitioner: Assessing Executive Functioning in an Emotional World." Yana Suchy, Ph.D., Annual Conference, National Academy of Neuropsychology, November 4, 2015, Austin, TX. 2 CE Units.
- 2015 "Decision Making: The Role of the Evidence-Based Practitioner." Gordon Chelune, Ph.D., Annual Conference, National Academy of Neuropsychology, November 4, 2015, Austin, TX. 2 CE Units.
- 2015 "R-PAS Intermediate Level Workshop: Sharpening Coding, Administration, and Interpretation Skills." Philip Erdberg, Ph.D., ABPP & Donald Viglione, Ph.D., ABAP, October 24-25, 2015, San Francisco, CA. 13 CE Units.
- 2015 "Neuro-Oncology for Neuropsychologists." Michael W. Parson, Ph.D., ABPP, 13th Annual Conference, American Academy of Clinical Neuropsychology, June 19, 2015, San Francisco, CA. 3 CE Units.

- 2015 "Chronic Issues and Controversies in Mild TBI." Rodney D. Vanderploeg, Ph.D., ABPP & Heather G. Belanger, Ph.D., ABPP, 13th Annual Conference, American Academy of Clinical Neuropsychology, June 19, 2015, San Francisco, CA. 3 CE Units.
- 2015 "Multiple Performance & Symptom Validity Tests in Neuropsychological Assessment." Glenn J. Larrabee, Ph.D., ABPP & Jeremy J. Davis, Psy.D., ABPP, 13th Annual Conference, American Academy of Clinical Neuropsychology, June 18, 2015, San Francisco, CA. 3 CE Units.
- 2015 "Current Controversies in Neuropsychology Computerized Brain Training: What's the Evidence?" Aaron Nelson, Elkhonon Goldberg, & Robert S. Wilson, 13th Annual Conference, American Academy of Clinical Neuropsychology, June 18, 2015, San Francisco, CA. 1 CE Unit.
- 2015 "Advanced Neuropsychological Report Writing." Jacobus Donders, Ph.D., ABPP, 13th Annual Conference, American Academy of Clinical Neuropsychology, June 18, 2015, San Francisco, CA. 3 CE Units.
- 2015 "Development, Revision, and Implementation of the HCR-20 Version 3." Kevin Douglas, Ph.D., Consolidated Continuing Education and Professional Training (CONCEPT), February 4, 2015, Webinar (3 CE units).
- 2014 "Ethics: Informed Consent, Confidentiality, and Diagnosing." At Health, Inc. and PsychoEducational Resources, Inc. February 1, 2014. Online http://www.athealthce.com, (1 CE unit).
- 2014 "From Exner to R-PAS: Surviving the Transition." Andrew Pojman, Ed.D. & Barbara Peterson, Ph.D. The Wright Institute Continuing Education Program. February 1, 2014. Berkeley, CA (6 CE units).
- 2013 "Statistics 2: Inference and Association." Michelle Everson. The Institute for Statistics Education at Statistics.com. October 10, 2013 November 11, 2013. (5 CE units).
- 2013 "Cognitive Science, Technology, and Neuropsychological Test Development: A Look at the Past and Future." Dean Delis, Ph.D. Annual Conference of the National Academy of Neuropsychology (NAN). October 18, 2013. San Diego, CA (2 CE credits).
- 2013 "Brains in the 'Cloud': The Amnesic Patients H.M., E.P. and the Digital Brain Library. Jacopo Annese, Ph.D. Annual Conference of the National Academy of Neuropsychology (NAN). October 18, 2013. San Diego, CA (2 CE credits).
- 2013 "Unfolding, Unfurling, and Unraveling: Imaging of Brain Development in Adolescence, Early, and Middle Adulthood." Monte S. Buchsbaum, M.D. Annual Conference of the National Academy of Neuropsychology (NAN). October 18, 2013. San Diego, CA (3 CE credits).
- 2013 "Conners Continuous Performance Test: Revised Version of the Visual Paradigm and New Audio Paradigm." Gill Sitarenios, Ph.D. & Kent Lam, Ph.D. Annual Conference of the National Academy of Neuropsychology (NAN). October 17, 2013. San Diego, CA (2 CE credits).
- 2013 "Scientific Update on Mild Traumatic Brain Injury (MTBI). New Evidence for Diagnosis and Management." Michael McCrea, Ph.D. Annual Conference of the National Academy of Neuropsychology (NAN). October 17, 2013. San Diego, CA (3 CE credits).
- 2013 "Early Detection of Alzheimer's Disease." Ronald C. Petersen, M.D., Ph.D. Annual Conference of the National Academy of Neuropsychology (NAN). October 16, 2013. San Diego, CA (1 CE credits).
- 2013 "Emotion, Decision-Making, and the Prefrontal Cortex Across the Lifespan." Daniel Tranel, Ph.D. Annual Conference of the National Academy of Neuropsychology (NAN). October 16, 2013. San Diego, CA (3 CE credits).
- 2013 "Forensic Neuropsychology: A Scientific Approach to Forensic Neuropsychology." Glenn J. Larrabee, Ph.D. Annual Conference of the National Academy of Neuropsychology (NAN). October 16, 2013. San Diego, CA (3 CE credits).
- 2013 "Statistics 1: Probability and Study Design." Michelle Everson. The Institute for Statistics Education at Statistics.com. September 11, 2013 October 12, 2013. (5 CE units).

- 2013 "Schizophrenia: The Role of Symptom Domain on Patient Outcomes." Henry A. Nazralla, M.D. & Joseph P. McEvoy, M.D. MCE LLC. Online <u>http://www.naccme.com/node/6424/course/6707/presentation</u>, January 24, 2013 (1.5 CME).
- 2012 "Meyers Neuropsychological Battery and Meyers Neuropsychological Software System." John E. Myers, Psy.D., ABN, ABPdN. The American College of Professional Neuropsychology, June 15-16, 2012. Irvine, CA (12 CE credits).
- 2011 "Introduction to the Rorschach Performance Assessment System: Practical Clinical Training and Case Illustrations." Donald Viglione, Ph.D. & Philip Erdberg, Ph.D. Alliant International University, June 3 & 4, 2011. San Francisco, CA (12.5 CE credits)
- 2011 "Biopsychosocial Outcome from Mild Traumatic Brain Injury." Grant Iverson, Ph.D. The American College of Professional Neuropsychology, March 12, 2011. Las Vegas, NV. (3 CE credits)
- 2011 "Reframing Nonverbal Learning Disorders: Identifying Clinical Subgroups." Gail M. Grodzinsky, Ph.D., ABPdN. The American College of Professional Neuropsychology, March 12, 2011. Las Vegas, NV. (3 CE credits)
- 2011 "From Movement to Thought: Subcortical Contributions to Psychiatric and Learning Disorders." Dana Chidekel, Ph.D., ABPdN & Deborah E. Budding, Ph.D., ABPdN, ABN. The American College of Professional Neuropsychology, March 11, 2011. Las Vegas, NV. (3 CE credits)
- 2011 "Neuropsychological Science and Forensic Competencies: Applications in Civil and Criminal Cases." Daniel A. Martell, Ph.D., A.B.P.P. The American College of Professional Neuropsychology, March 11, 2011. Las Vegas, NV. (3 CE credits)
- 2010 "Neuroanatomical Dissection: Human Brain and Spinal Cord." William E. Cullinan, Ph.D., David A. Baker, Ph.D., Subhash C. Bhatnagar, M.S.-CCC (SPL), Ph.D., James P. Herman, Ph.D., John R. Mantsch, Ph.D., & Robert C. Thompson, Ph.D. Marquette University, July 15 – 17, 2010. (21 hours)
- 2010 "Finding Balance: Legal & Ethical Issues of Boundaries & Privacy in Psychotherapeutic Services." Daniel Taube, J.D., Ph.D. John F. Kennedy University, March 12, 2010. Campbell, CA. (6 C.E. credits)
- 2010 "Neuropsychology and the Death Sentenced Inmate." Michael B. Charlton, J.D. Annual Conference of the American College of Professional Neuropsychology, February 27, 2010. Las Vegas, NV. (3 C.E. credits)
- 2010 "Introduction to Empirically Based Assessment: Developing an EBA Model for AD/HD." Steven J. Hughes, Ph.D., LP, ABPnN. Annual Conference of the American College of Professional Neuropsychology, February 27, 2010. Las Vegas, NV. (3 C.E. credits)
- 2010 "Central Auditory Processing in Children and Adolescents." Teresa Bailey, Ph.D., Ph.D. Annual Conference of the American College of Professional Neuropsychology, February 26, 2010. Las Vegas, NV. (3 C.E. credits)
- 2010 "What the Forensic Neuropsychologist Needs to Know about Death Penalty Litigation." Thomas J. Reidy, Ph.D., ABPP. Annual Conference of the American College of Professional Neuropsychology, February 26, 2010. Las Vegas, NV. (3 C.E. credits)
- 2010 "Reitan Society Meeting." Ralph Reitan, Ph.D., Deborah Wolfson, Ph.D., Jim Hom, Ph.D., & Janice Nice, Ph.D., February 24-25, 2010. Las Vegas, NV. (12 C.E. credits)
- 2009 "WAIS-IV/WMS-IV and the Advanced Clinical Solutions for WAIS-IV/WMS-IV: Clinical Application and Interpretation in Neurological and Psychiatric Disorders." James A. Holdnack, Ph.D. 29th Annual Conference of the National Academy of Neuropsychology, November 14, 2009. New Orleans, LA. (3 C.E. credits)
- 2009 "Neuroimaging Evidence in the Criminal Trial Process: Recent Developments, the Role of Attitudes, Some Unasked Questions, and Predictions for the Future." Michael L. Perlin, J.D. 29th Annual Conference of the National Academy of Neuropsychology, November 12, 2009. New Orleans, LA. (3 C.E. credits)
- 2009 "Psychometrics: Making Test Classification Decisions Practical." Richard Frederick, Ph.D. 29th Annual Conference of the National Academy of Neuropsychology, November 12, 2009. New Orleans, LA. (3 C.E. credits)

- 2009 "Functional Neuroanatomy of Memory: Three Amnesias or One?" Russell M. Bauer, Ph.D. 29th Annual Conference of the National Academy of Neuropsychology, November 11, 2009. New Orleans, LA. (3 C.E. credits).
- 2008 "Law and Ethics." Daniel O. Taube, J.D., Ph.D. John F. Kennedy University, March 10, 2006. Pleasant Hill, CA. (6 APA CE units).
- ²⁰⁰⁷ "Useful Clinical Ratings of CT and MRI in the Clinical Practice of Neuropsychology." Erin Bigler, Ph.D. 27th Annual Conference of the National Academy of Neuropsychology, November 14-17, 2007. Scottsdale, AZ (3 CE Credits).
- ²⁰⁰⁷ "The Amazing Halstead Finger Oscillation Test." George Prigatano, Ph.D. 27th Annual Conference of the National Academy of Neuropsychology, November 14-17, 2007. Scottsdale, AZ (3 CE Credits).
- ²⁰⁰⁷ "Introducing the MMPI-2-RF (Restructured Form)." Yossef Ben-Porath, Ph.D. 27th Annual Conference of the National Academy of Neuropsychology, November 14-17, 2007. Scottsdale, AZ (3 CE Credits).
- 2007 "Behavioral Teratology: Neuropsychological Effects of Prenatal Exposures. Sarah N. Mattson, Ph.D. 27th Annual Conference of the National Academy of Neuropsychology, November 14-17, 2007. Scottsdale, AZ (1.5 CE Credits).
- 2007 "Releasing Raw Data and Psychological Test Materials: Ethical Dilemmas, Legal Requirements, and Simple Solutions to Discovery Demands." Paul Kaufmann, J.D., Ph.D. 27th Annual Conference of the National Academy of Neuropsychology, November 14-17, 2007. Scottsdale, AZ (1.5 CE Credits).
- ²⁰⁰⁷ "The Neurobiology of Antisocial, Violent, and Psychopathic Behavior." Adrian Raine, Ph.D. 27th Annual Conference of the National Academy of Neuropsychology, November 14-17, 2007. Scottsdale, AZ (3 CE Credits).
- 2007 "Forensic Evaluation." Institute of Law, Psychiatry and Public Policy, School of Medicine & School of Law, University of Virginia under contract for the Virginia Department of Mental Health, Mental Retardation and Substance Abuse Services and the Office of the Attorney General, April 30 May 4, 2007, Charlottesville, VA (30 APA CE Units).
- 2006 "Deepening Legal and Ethical Understanding in Clinical Practice." Daniel O. Taube, J.D., Ph.D. John F. Kennedy University, March 10, 2006. Pleasant Hill, CA. (6 APA CE units).
- 2004 "Assessment of Response Bias: Beyond Malingering Tests." Scott R. Millis, 24th Annual Conference of the National Academy of Neuropsychology, November 17-20, 2004. Seattle, WA. (3 APA CE units).
- 2004 "Neurochemistry and Medication Management of Aggression in Children, Adolescents, and Adults." Daniel Matthews, M.D. 24th Annual Conference of the National Academy of Neuropsychology, November 17-20, 2004. Seattle, WA. (3 APA CE Units).
- 2004 "Constitutional/Judicial Foundations for Criminal Forensic Neuropsychology: Competency to Stand Trial and Confess." Robert L. Denny, Psy.D. & James Sullivan, Ph.D., 24th Annual Conference of the National Academy of Neuropsychology, November 17-20, 2004. Seattle, WA. (3 APA CE Units).
- 2004 "Professional Issues." Antonio Puente, Leslie Rosenstein, & Patricia Pimental, 24th Annual Conference of the National Academy of Neuropsychology, November 17-20, 2004. Seattle, WA. (1.0 APA CE Units).
- 2004 "Pediatric Brain Injury: Neuroimaging, Clinical Presentation, and Neuropsychological Status, Dr. Paul C. Lebby, 24th Annual Conference of the National Academy of Neuropsychology, November 17-20, 2004. Seattle, WA. (3 APA CE Units).
- 2004 "What neuropathology can teach us about the neurobiology of the self." Todd Feinberg, 24th Annual Conference of the National Academy of Neuropsychology, November 17-20, 2004. Seattle, WA. (1.5 APA CE Units).
- 2004 "Imaging brain circuitry in the clinical neuropsychology of memory: fMRI, morphometry & DTI. Andrew J. Saykin, 24th Annual Conference of the National Academy of Neuropsychology, November 17-20, 2004. Seattle, WA. (3 APA CE Units).

PROFESSIONAL TRAINING (CONTINUED):

- 2004 "Workshop in Clinical Neuropsychology: Significant Developments and Advanced Clinical Issues." Ralph Reitan, Deborah Wolfson, Jim Hom et al. Reitan Neuropsychology Laboratories, October 1-3, 2004. Phoenix, AZ (17 APA CE Units).
- 2004 "Spousal/Partner Abuse Assessment and Treatment: Domestic Violence Training." John F. Kennedy University, February 20, 2004. Pleasant Hill, CA. (7 APA CE unites).
- 2004 "6-Hour Ethics and the Law." Daniel O. Taube, J.D., Ph.D. John F. Kennedy University, February 6, 2004. Pleasant Hill, CA. (6 APA CE units).
- 2003 "A New Anatomical Framework for Neuropsychiatric Disorders: Systems Analysis and Hands-On Dissection of the Human Brain." Lennart Heimer, M.D. Saint Louis University School of Medicine Practical Anatomy Workshop, October 31-November 2, 2003. St. Louis, MO. (17 APA CE units).
- 2003 "Practical Issues and Clinical Methods of Practice with the Wechsler Scales." David Tulsky, Gordon Chelune & Josette Harris, 23rd Annual Conference of the National Academy of Neuropsychology, October 15-18, 2003. Dallas, TX. (3 APA CE units).
- 2003 "New Scores and Methods of Practice with the Wechsler Scales." Gordon Chelune, David Tulsky & Josette Harris, 23rd Annual Conference of the National Academy of Neuropsychology, October 15-18, 2003. Dallas, TX. (3 APA CE units).
- 2003 "Race and Education in Neuropsychological Testing." Jennifer Manly, 23rd Annual Conference of the National Academy of Neuropsychology, October 15-18, 2003. Dallas, TX. (3 APA CE units).
- 2003 "Neuropsychological Impairment and Environmental Risk Factors in Capital Murder Offenders." Robert A. Geffner, Elizabeth Lim, Barbara Hart & Robert Owen, 23rd Annual Conference of the National Academy of Neuropsychology, October 15-18, 2003. Dallas, TX.
- 2003 "Functional Neuroanatomy Primer: Clinical Presentation of Patients with Neuropsychological Conditions." Paul Lebby, Ph.D., 23rd Annual Conference of the National Academy of Neuropsychology, October 15-18, 2003. Dallas, TX.
- 2003 "The Atkins Decision and the Forensic Evaluation of Mental Retardation: Roles for the Neuropsychologist and Special Educator." J. Randall Price & Kay Stevens, 23rd Annual Conference of the National Academy of Neuropsychology, October 15-18, 2003. Dallas, TX. (3 APA CE units).
- ²⁰⁰³ "Increasing Diagnostic and Predictive Accuracy in Neuropsychology." David Faust, Ph.D., 2003 23rd Annual Conference of the National Academy of Neuropsychology, October 15-18, 2003. Dallas, TX. (3 APA CE units).

PUBLICATIONS:

- Watson, D. G. (2015). Intelligence Testing. In E. A. Polloway (Ed.), *The death penalty and intellectual disability* (pp. 113-140). Washington, DC: American Association on Intellectual and Developmental Disabilities (AAIDD).
- Blank, J., Evered, L., Watson, D., & Ruff, R. (2014). C-87Malingering Madness: Distress as a Diagnostic Alternative (Abstract). Archives of Clinical Neuropsychology, 29(6), 605.
- McGrew, K.S., & Watson, D.G. (2012). Applied Psychometrics 101 Brief #14. Demographically adjusted neuropsych (Heaton) norm-based scores inappropriate for MR/ID dx. *Intellectual competence and the death penalty*. Retrieved from http://www.atkinsmrdeathpenalty.com/2012/07/ap-101-brief-14-demographically.html
- Abueg, F., Woods, G.W., & Watson, D.G. (2000). Disaster Trauma. In Frank M. Dattillio & Arthur Freeman (Eds.) *Cognitive Behavioral Strategies in Crisis Intervention, Second Edition.* New York, N.Y.: Guilford Press.
- Bastien, S., Peterson, D. & Watson, D.G. (1996). IQ abnormalities associated with chronic fatigue syndrome in repeated WAIS-R testing (Abstract). *Journal of Chronic Fatigue Syndrome*, 2(2/3).

PRESENTATIONS:

- 2017 "Neuropsychological Development and Presenting Findings." Co-presented with Sean O'Brien. 2017 Capital Case Defense Seminar. California Attorneys for Criminal Justice/California Public Defender Association. February 18, 2017. San Diego, CA.
- 2017 "Neuropsychological Assessment: Overview of a Competent Assessment." Co-presented with Denise Gragg, Esq. 2017 Capital Case Defense Seminar. California Attorneys for Criminal Justice/California Public Defender Association. February 18, 2017. San Diego, CA.
- 2016 "New Issues in Atkins Cases." Co-presented with James Patton, Ed.D., & Sara Coebra. 13th National Seminar on the Development & Integration of Mitigation Evidence. Administrative Offices of the U.S. Courts. April 2, 2016. New Orleans, LA.
- 2016 "Traumatic Brain Injury." Co-presented with Jackie Walsh, Esq. CACJ/CPDA Capital Case Defense Seminar. California Attorneys for Criminal Justice/California Public Defender Association. February 14, 2016. San Diego, CA.
- 2016 "Emerging Issues in Neuropsychology." Co-presented with Michael Laurence, Esq. CACJ/CPDA Capital Case Defense Seminar. California Attorneys for Criminal Justice/California Public Defender Association. February 14, 2016. San Diego, CA.
- 2015 "Neuropsychological Assessment." National Association of Criminal Defense Lawyers' Seminar, "Making the Case for Life," August 22, 2015, Las Vegas, NV.
- 2015 "Working with Mental Health Experts." Co-presented with Mark Olive, Esq. National Association of Criminal Defense Lawyers' Seminar, "Making the Case for Life," August 22, 2015, Las Vegas, NV.
- 2015 "*Atkins, Hall, and Brumfield.*" Co-presented with Mark Olive, Esq. National Association of Criminal Defense Lawyers' Seminar, "Making the Case for Life," August 22, 2015, Las Vegas, NV.
- ²⁰¹⁵ "Litigating Intellectual Disability Post-Hall: *Atkins, Hall, and Brumfield.*" Co-presented with Stephen Harper, Esq. 36th Annual Death Penalty Training Conference, Airlie Conference Center, July 12, 2015, Warrenton, VA.
- 2015 "Understanding (and Avoiding the Pitfalls of) Neuroimaging." Twelfth National Seminar on the Development and Integration of Mitigation Evidence. Habeas Assistance and Training Counsel/Administrative Offices of the United States Courts. April 12, 2015, Baltimore, MD.
- 2015 "An Overview of IQ Scores and Testing." Twelfth National Seminar on the Development and Integration of Mitigation Evidence. Habeas Assistance and Training Counsel/Administrative Offices of the United States Courts. April 10, 2015, Baltimore, MD.
- 2015 "Litigating Atkins Claims at Trial and on Post-conviction Review." Co-presented with Mark Olive, Esq. CACJ/CPDA Capital Case Defense Seminar. California Attorneys for Criminal Justice/California Public Defender Association. February 14, 2015. Monterey, CA.
- 2015 "Advanced Issues in Neuropsychology, including Presenting Data." Co-presented with Michael Laurence, Esq. CACJ/CPDA Capital Case Defense Seminar. California Attorneys for Criminal Justice/California Public Defender Association. February 14, 2015. Monterey, CA.
- 2014 "Neuropsychological Assessment." Making the Case for Life conference. National Association of Criminal Defense Lawyers (NACDL). October 25, 2014. Charlotte, NC.
- 2014 "Intellectual Disability." CACJ/CPDA Capital Case Defense Seminar. California Attorneys for Criminal Justice/California Public Defender Association. February 15, 2014. Monterey, CA.
- 2014 "Emerging Trends in Neuropsychology." Co-presented with Michael Laurence, Esq. CACJ/CPDA Capital Case Defense Seminar. California Attorneys for Criminal Justice/California Public Defender Association. February 15, 2014. Monterey, CA.

DALE G. WATSON, PH.D. Curriculum Vitae

PRESENTATIONS (CONTINUED):

- 2013 "What is Mental Retardation/Intellectual Disability?" Co-presented with Michael Burt, Esq. CACJ/CPDA Capital Case Defense Seminar. California Attorneys for Criminal Justice/California Public Defender Association. February 16, 2013. Monterey, CA.
- 2013 "Neuropsychology 201: Neuropsychological Testing." Co-presented with Michael Laurence, Esq. CACJ/CPDA Capital Case Defense Seminar. California Attorneys for Criminal Justice/California Public Defender Association. February 16, 2013. Monterey, CA.
- 2013 "Neuropsychology 301: Presenting Neuropsychological Evidence." Co-presented with Michael Laurence, Esq. CACJ/CPDA Capital Case Defense Seminar. California Attorneys for Criminal Justice/California Public Defender Association. February 16, 2013. Monterey, CA.
- 2012 "Psychosis Risk and Attenuated Psychosis Syndromes: Current Understanding." Contra Costa Psychological Association. October 10, 2012 (2 CE units).
- 2011 "Atkins and Neuro-Psychological Testing." Co-presented with Mark Olive, Esq. Capital Case Litigation Training Conference, Office of the Public Defender of the State of Delaware. October 13, 2011, Dover, Delaware.
- 2011 "The Neuropsychology of Fetal Alcohol Spectrum Disorders." Capital Mitigation Beyond Atkins. Center for American and International Law. July 9, 2011. Houston, TX.
- 2011 "Uncovering Evidence of Brain Damage: Phineas Gage." Co-presented with Richard Burr, Esq. and Russell Stetler, National Mitigation Coordinator. National Capital Habeas Unit (CHU) Conference. Administrative Office of the United States Courts. April 8, 2011. Austin, TX.
- 2011 "Testing Issues in Intellectual Disability/*Atkins* Cases." Eighth National Seminar on the Development and Integration of Mitigation Evidence: Mitigation Narratives. Habeas Assistance and Training Counsel/Administrative Offices of the United States Courts. April 2, 2011, Chicago, IL.
- 2011 "Winning *Atkins* hearings: Case Studies." Co-presented with Michael Burt, Esq. Eighth National Seminar on the Development and Integration of Mitigation Evidence: Mitigation Narratives. Habeas Assistance and Training Counsel/Administrative Offices of the United States Courts. April 2, 2011, Chicago, IL.
- 2011 Plenary Presentation: "DSM-5 (Psychosis Risk Syndrome/Intellectual Disability)." CACJ/CPDA Capital Case Defense Seminar. California Attorneys for Criminal Justice/California Public Defender Association. February 20, 2011. Monterey, CA.
- 2011 "Cross Examination of a Defense Mental Retardation/Intellectual Disability Expert." Co-presented with Edward Souza, J.D. CACJ/CPDA Capital Case Defense Seminar. California Attorneys for Criminal Justice/California Public Defender Association. February 19, 2011. Monterey, CA.
- 2011 "Basic Neuropsychology (Brain Dysfunction)." CACJ/CPDA Capital Case Defense Seminar. California Attorneys for Criminal Justice/California Public Defender Association. February 19, 2011. Monterey, CA.
- 2011 "Current Issues in Neuropsychology." Fourth National Seminar on Mental Health and the Criminal Law. Habeas Assistance and Training Counsel/Administrative Office of the United States Courts. January 15, 2011. New Orleans, LA.
- 2010 "DSM-5: Proposed Changes." Habeas Corpus Resource Center Spring Conference. Habeas Corpus Resource Center. May 17, 2010. San Francisco, CA.
- 2010 "Neuropsychology of Mental Retardation." CACJ/CPDA Capital Case Defense Seminar. California Attorneys for Criminal Justice/California Public Defender Association. February 14, 2010. Monterey, CA.
- 2010 "Model Direct of a Mental Retardation Neuropsychologist." Co-presented with Edward Sousa, J.D. CACJ/CPDA Capital Case Defense Seminar. California Attorneys for Criminal Justice/California Public Defender Association. February 14, 2010. Monterey, CA.

DALE G. WATSON, PH.D. Curriculum Vitae

PRESENTATIONS (CONTINUED):

- 2009 "Presenting a Reason to Vote for Life via the Testimony of a Neuropsychologist." 2009 Death Penalty Defense Seminar. Oregon Criminal Defense Lawyers Association (OCDLA), October 23, 2009, Bend, Oregon.
- 2009 "The Neuropsychology of Intellectual Disabilities: Current Research on Intellectual Impairment." 14th Annual Federal Habeas Corpus Seminar. Administrative Offices of the U.S. Courts. August 22, 2009, Pittsburgh, PA.
- 2009 "The Neuropsychology of Schizophrenia." 14th Annual Federal Habeas Corpus Seminar. Administrative Offices of the U.S. Courts. August 22, 2009, Pittsburgh, PA.
- 2009 "Testing and Other Psychological Issues." Habeas Corpus Resource Center Spring Conference. Habeas Corpus Resource Center. June 19, 2009. San Francisco, CA.
- 2009 Plenary Presentation: "The Neuropsychology of Intellectual Disabilities: Current Research on Intellectual Impairment." Fifth National Seminar on the Development and Integration of Mitigation Evidence. Administrative Offices of the U.S. Courts. April 18, 2009, Philadelphia, PA.
- 2009 "Neuropsychological Assessment and Brain Impairment." Life in the Balance 2009. The National Legal Aid & Defender Association. March 7, 2009. New Orleans, LA.
- 2009 "Mental Health/Mental Retardation Testing." Life in the Balance 2009. The National Legal Aid & Defender Association. March 7, 2009. New Orleans, LA.
- 2009 Plenary Presentation: "The Neuropsychology of Psychiatric Disorders Schizophrenia." CACJ/CPDA Capital Case Defense Seminar. California Attorneys for Criminal Justice/California Public Defender Association. February 15, 2009. Monterey, CA.
- 2009 "New Developments in Psychological Testing." CACJ/CPDA Capital Case Defense Seminar. California Attorneys for Criminal Justice/California Public Defender Association. February 15, 2009. Monterey, CA.
- 2008 "Executive Functioning." 2008 Capital Case Seminar. Los Angeles County Public Defender. October 17, 2008. Los Angeles, CA.
- 2008 "Recent Developments in the Science of Brain Damage and Observations on Interviewing Experts." Mitigation Workshop. Virginia Capital Representation Resource Center (VCCRC). September 25, 2008. Charlottesville, VA.
- 2008 "Intellectual Disabilities: IQ and Adaptive Functioning Evaluation." Life in the Balance 2008: Defending Death Penalty Cases. The National Legal Aid & Defender Association. March 8, 2008. Atlanta, GA.
- 2008 "Neuropsychological Evaluation." Life in the Balance 2008: Defending Death Penalty Cases. The National Legal Aid & Defender Association. March 8, 2008. Atlanta, GA.
- 2007 "The Roles of Psychology and Neuropsychology in Forensic Evaluations." Second Annual Solano County Public Defender Felony Transition Seminar. Office of the Solano County Public Defender. September 28, 2007. Fairfield, CA.
- 2007 "Attacks on Neuropsychological Norms." National Seminar on the Development and Integration of Mitigation Evidence in Capital Cases. Administrative Office of the US Courts. March 30, 2007. Washington, D.C.
- 2007 "Intelligence Testing." National Seminar on the Development and Integration of Mitigation Evidence in Capital Cases. Administrative Office of the US Courts. March 30, 2007. Washington, D.C.
- 2007 "Neuropsychological Evaluation: The Impact of Norms." 2007 CACJ/CPDA Capital Case Defense Seminar. February 18, 2007. Monterey, CA.
- 2007 "Frontal and Temporal Brain Systems and Functions." Co-presented with Karen Froming, Ph.D. 2007 CACJ/CPDA Capital Case Defense Seminar. February 18, 2007. Monterey, CA.

DALE G. WATSON, PH.D. Curriculum Vitae

- 2006 "Neuropsychological Assessment." Making the Case for Life IX: Mitigation and Jury Selection in Capital Cases. National Association of Criminal Defense Lawyers and the Southern Center for Human Rights. September 30, 2006. Las Vegas, NV.
- 2006 "Foundations of Neuropsychology." First Annual Felony Transition College. Solano County Public Defender's Office. June 23, 2006. Fairfield, CA.
- 2006 "Psychological and Neuropsychological Testing." Motions, Evidence & Expert Witnesses. The Center for American and International Law. May 21, 2006. Plano, TX.
- ²⁰⁰⁶ "Brain, Behavior, and Cognition." Co-Presented with James R. Merikangas, M.D. National Seminar on the Development and Integration of Mitigation Evidence. Administrative Offices of the U.S. Courts. April 28, 2006. Washington, DC.
- 2005 "Executive Functions." Second National Seminar on Development and Integration of Mitigation Evidence. Administrative Office of the U.S. Courts. April 22, 2005. Salt Lake City, UT.
- 2005 "Law and the Brain The Neurobiology of Violence." Washington State Appellate Courts Spring Judicial Conference. April 6, 2005. Walla Walla, WA.
- 2005 "Mental Retardation." Texas Criminal Defense Lawyers Association. February 23 & 24, 2005. Dallas, TX.
- 2005 "Neuropsychological Evaluation." 2005 CACJ/CPDA Capital Case Defense Seminar. February 21, 2005. Monterey, CA.
- 2005 "Mental Retardation." CACJ/CPDA Capital Case Defense Seminar. February 21, 2005. Monterey, CA.
- 2004 "Developmental Aspects of Executive Functions." 2004 CACJ/CPDA Capital Case Defense Seminar. February 15, 2004. Monterey, CA.
- 2004 "Advanced Determination of Competency A Case Study (Workshop)." Co-presented with John Philipsborn and Judge Michael Ryan. 2004 CACJ/CPDA Capital Case Defense Seminar. February 15, 2004. Monterey, CA.
- ²⁰⁰³ "Update on IQ Testing: Neuropsychology for the 21st Century." Paper presented with George W. Woods, M.D. at the 2003 Annual Meeting of the American Academy of Psychiatry and the Law (AAPL), October 19, 2003, San Antonio, TX.
- 2003 "The Subtlety of IQ Testing." 8th Annual National Federal Habeas Corpus Seminar. Administrative Office of the United States Courts and Habeas Assistance and Training Counsel. Chicago, IL.
- 2003 "Mental Retardation." Investigating Capital Cases Seminar. Virginia Capital Representation Resource Center. Charlottesville, VA.

DISSERTATION:

"Screening for Neurotoxicity: A Comparison of the Neurobehavioral Evaluation System and the California Neuropsychological Screening Battery"

PROFESSIONAL AFFILIATIONS:

International:	Member, International Neuropsychological Society (2004-present) Member, International Society for Intelligence Research (2011-present)
National:	 Member, International Society for Intelligence Research (2011-present) Member, American Psychological Association (1988-present). Member, Division 12 (Society of Clinical Psychology), Section IX (Assessment) Member, Division 33 (Intellectual and Developmental Disabilities) Member, Division 40 (Clinical Neuropsychology) Member, Division 41 (American Psychology - Law Society) Member, National Academy of Neuropsychology (1995-present) Associate Member (1983-1994) Member, the Reitan Society (1998-2006) Member, American Association on Intellectual and Developmental Disabilities (2007-present) Member, Society for Personality Assessment (2009-present)

CURRICULUM VITAE

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HOSPITAL PRIVILEGES:

- 2000-2003 Doctors Medical Center - San Pablo Campus Doctors Medical Center – Pinole Campus East Bay Hospital, Richmond, CA. 1991-2003
- 1992-1997
- First Hospital of Vallejo 1993-1995

LICENSES, QUALIFICATIONS AND CERTIFICATES:

1990-Present	State of California Licensed Psychologist (PSY11899)
2017-2018	State of Oregon Limited Visitor's Permit 348
2016-2018	Association of State and Provincial Psychology Boards Interjurisdictional Practice Certificate (IPC)
	(Valid in Georgia, Idaho, Kentucky, Mississippi, Ohio, and South Carolina) #4462
2016-2017	State of Nevada Non-Resident Consultant Permit.
2016	State of Louisiana Temporary Registration
2016	State of Idaho Temporary License No PSYT - 202955
2016	State of Oregon Limited Visitor's Permit 309
2015-2016	State of Texas Temporary License NTLP-15-0002
2014-2016	State of Indiana Limited Scope License No. 99065119A
2014-2015	State of Alaska Courtesy License No 33
2014-2015	State of Mississippi Temporary Practice Certificate
2012	State of Texas Temporary License TLP-13-0008
2012	State of Texas Temporary License TLP-13-0003
2012-2014	State of Indiana Limited Scope License No. 99054133A
2012-2013	State of Oregon Psychology Visitor's Permit No. 218
2012	State of Louisiana Temporary Registration
2011-2012	State of Indiana Limited Scope License No. 99048551A
2011	State of Texas Psychology Temporary License No. TLP-11-0023
2010	State of Louisiana Temporary Registration
2010-2011	State of Washington Psychology Temporary Permit (Credential #: TE 60072389)
2010	State of Texas Psychology Temporary License No. TLP-10-0019
2009-2010	State of Washington Psychology Permit (Credential #: TE 60072389)
2007	State of Texas Psychology Temporary License No. TLP-07-0014; TLP-07-0015
2007	State of Texas Psychology Temporary License No. TLP-07-0009; TLP-07-0012
2003-2004	State of Washington Psychology Permit (030503)
2002-2004	State of Oregon Psychology Permit (LP 077)
2001-2002	State of Washington Psychology Permit (010903)
1992-1994	Qualified Medical Examiner / Psychology (State of California Industrial Medical Council # 009321)

References on request

APPENDIX 2 Ledell Lee, Jr. Neuropsychological Domain Scores Dale G. Watson, Ph.D. 4/13/2017

Ledell Lee, Jr. Neuropsychological Domain Scores Dale G. Watson, Ph.D. 4/13/2017

Performance Validity

Scale		Percentile	Range
Test of Memory Malingering (TOMM)			
TOMM Trial 1 (Cutoff >44 of 50)	47		wnl
<i>TOMM Trial 2 (Cutoff > 44 of 50)</i>	50		wnl
Advanced Clinical Solutions Effort Assessment			
Reliable Digit Span (Cutoff > 6)	10		wnl
Meyers Embedded Validity Scales (Failed of 10)	1		wnl

Halstead-Reitan Battery Summary Scores (HRBSUM)

Scale		Percentile	Range	
General Neuropsychological Deficit Scale (GNDS)	39		Mild Impairment	
Left Neuropsychological Deficit Scale (LNDS)	6		Elevated	
Right Neuropsychological Deficit Scale (RNDS)	8		Elevated	
Average Impairment Scale (AIR)	54	66	Average	
Global Deficit Scale (GDS)	56	73	Average	

Note: T scores have a mean of 50 and a standard deviation of 10.

Wechsler Adult Intelligence Scale, Fourth Edition (WAIS-IV)

Scale	Score	Percentile	Range
COMPOSITE INDICES			
Full Scale IQ (FSIQ)	82	12	Low Average
General Ability Index (GAI)	79	8	Borderline
Cognitive Proficiency Index (CPI)	91	27	Average
INDEX SCORES			
Verbal Comprehension Index (VCI)	87	19	Low Average
Similarities	5	5	Borderline
Vocabulary	10	50	Average
Information	8	25	Average
Working Memory Index (WMI)	92	30	Average
Arithmetic	9	37	Average
Digit Span	8	25	Average
Letter-Number Sequencing*	9	37	Average
Perceptual Reasoning Index (PRI)	75	5	Borderline
Block Design	6	9	Low Average
Visual Puzzles	6	9	Low Average
Matrix Reasoning	5	5	Borderline
Figure Weights*	4	2	Borderline
Picture Completion*	9	37	Average
Processing Speed Index (PSI)	92	30	Average
Symbol Search	8	25	Average
Coding	9	37	Average
	6	9	Low Average

Scale	Score	Percentile	Range
KEITH FACTORS			
Crystallized Intelligence (Gc)	95	37	Average
Short-Term Memory (Gsm)	92	30	Average
Fluid Reasoning (Gf)	69	2	Extremely Low
Visual Processing (Gv)	78	7	Borderline
Processing Speed (Gs)	92	30	Average

Note: Index scores have a mean of 100 and a standard deviation of 15. Scaled scores have a mean of 10 and a standard deviation of 3.

* These tests are conceptually related to the factor indexes under which they appear but are not used to compute the factor index.

Wide Range Achievement Test, Fourth Edition (WRAT-4)

Scale	Std. Score	Percentile	Range
Word Reading	83	13	Low Average
Sentence Comprehension	84	14	Low Average
Math Computation	84	14	Low Average
Reading Composite	81	10	Low Average

Note: Standard scores have a mean of 100 and a standard deviation of 15.

Attention (Registration/Encoding)

Scale	Score	Percentile	Range
Digits Forward (Raw)	7		wnl
CVLT-II Trial 1 (Raw))	4	7	Mildly Impaired
CVLT-II Trial B (Raw)	4	16	Below Average
Rey AVLT Trial 1 (Raw)	5	42	Average
Rey AVLT Trial B (Raw)	5	42	Average
Forced Choice (Free Recall) (raw score)	5	0.6	Moderate-Severe Impairment
WMS-IV LM 1 (Scaled Score)	8	25	Low Average
Sentence Repetition (Raw)	12	18	Below Average

Note: Scaled scores have a mean of 10 and a standard deviation of 3. z scores have a mean of 0 and a standard deviation of 1. T scores have a mean of 50 and a standard deviation of 10.

Attention (Focus/Execute)

Scale	Score	Percentile	Range
Trails A (t Score)	54	66	Average
Trails B (t Score)	61	86	High Average
WAIS-IV Coding (Scale Score)	9	37	Average
WAIS-IV Symbol Search (Scale Score)	8	25	Low Average

Note: T scores have a mean of 50 and a standard deviation of 10. Scaled scores have a mean of 10 and a standard deviation of 3.

Attention (Attentiveness/ Sustaining/ Vigilance) Conners Continuous Performance Test

Scale	Score	Percentile	Range
Inattentiveness			
Detectability (d')	41	18	Low
Omissions	45	31	Average
Commissions	44	27	Low
Hit Response Time (HRT)	43	24	Low
HRT SD	43	24	Low
Variability	40	16	Low
Distractibility			
HRT Block Change	45	31	Average
Inconsistency			
Inter-stimulus Intervals Change (HRT-ISI)	42	21	Low

Note: T scores have a mean of 50 and a standard deviation of 10. Low scores represent better performance.

Learning and Memory Domain

California Verbal Learning Test, Second Edition (CVLT-II)

Scale	Raw Score	z-Score	Percentile	Range
Trial 1 (z Score)	4	-2	2	Very Low
Trial 2 (z Score)	6	-1	16	Low Average
Trial 3 (z Score)	9	-1	16	Low Average
Trial 4 (z Score)	9	-1	16	Low Average
Trial 5 (z Score)	8	-1	16	Low Average
Trials 1-5 Total (t Score)	42	42	21	Low Average
Trial B (z Score)	4	-1	16	Low Average
Short Delay Free Recall (z Score)	8	-1	16	Low Average
Short Delay Cued Recall (z Score)	10	0	50	Average
Long Delay Free Recall (z Score)	8	-1	16	Low Average
Long Delay Cued Recall (z Score)	9	-1	16	Low Average
Total Repetitions (z Score)*	8	1	84	High Average
Total Intrusions (z Score)*	15	2	98	Very High
Total Hits (Recognition) (z Score)	13	-1	16	Low Average
Total False Positives (z Score)*	11	3	99.9	Extremely High

Note: z scores have a mean of 0 and a standard deviation of 1. T scores have a mean of 50 and a standard deviation of 10.

* Higher z Scores represent poorer performance on these scales.

Rey Auditory Verbal Learning Test (R-AVLT)

Scale	Raw Score	T- Score	Percentile	Range
Trial 1 (t Score)	5	48	42	Average
Trial 2 (t Score)	7	45	31	Average
Trial 3 (t Score)	6	32	4	Moderate Impairment
Trial 4 (t Score)	9	42	21	Below Average
Trial 5 (t Score)	7	28	1	Moderate Impairment
AVLT Total (t Score)	35	35	7	Mild Impairment
Trial B (Distracter) (t Score)	5	48	42	Average
AVLT Immediate (t Score)	5	32	4	Moderate Impairment
AVLT Delayed (t Score)	4	33	4	Moderate Impairment
AVLT Recognition (t Score)	8	20	0.1	Moderate to Severe Impairment
AVLT False Positives (t Score)	6	1	0.01	Severe Impairment
Long Term % Retention (LTPR) (t Score)	30	30	2	Moderate Impairment
AVLT (Learning) Efficiency Index (MAVLEI) (t Score)	29	29	2	Moderate Impairment

Note: T scores have a mean of 50 and a standard deviation of 10.

Rey Complex Figure Test (RCFT)

Scale	T-Score	Percentile	Range
RCFT Copy (t Score)	1	0.01	Severe Impairment
RCFT Immediate (t Score)	19	0.1	Severe Impairment
RCFT Delayed Recall (t Score)	17	0.05	Severe Impairment
RCFT Recognition (t Score)	29	2	Moderate Impairment
RCFT False Positives (t Score)	45	31	Average
RCFT False Negatives (t Score)	29	2	Moderate Impairment

Note: T scores have a mean of 50 and a standard deviation of 10.

Brown Location Test (BLT)

Scale	Z-Score	Percentile	Range
Trial 1 Free Recall (z Score)	-2	2	Very Low
Trial 2 Free Recall (z Score)	-2	2	Very Low
Trial 3 Free Recall (z Score)	-2	2	Very Low
Trial 4 Free Recall (z Score)	-2	2	Very Low
Trial 5 Free Recall (z Score)	-1	16	Low Average
Trials 1 - 5 Free Recall Total (z Score)	-2	2	Very Low
Interference Trial Correct (z Score)	-2	2	Very Low
Short Delay Free Recall Correct (z Score)	-3	0.1	Extremely Low
Long Delay Free Recall Correct (z Score)	-1	16	Low Average
Long Delay Rotated Free Recall Correct (z Score)	-1	16	Low Average
Recognition Total Correct (z Score)	-2	2	Very Low
Recognition True Positives "Hits" (z Score)	0	50	Average
Recognition False Positives (z Score)	2	98	Very High

Note: z scores have a mean of 0 and a standard deviation of 1.

Ruff-Light Trail Learning Test (RULIT)

Scale	Score	Percentile	Range
Learning			
Total Correct	33	4	Moderate Impairment
Total Step Errors	35	7	Mild Impairment
Immediate Memory			
Trial 2 Correct	29	2	Moderate Impairment
Trial 2 Errors	12		Deficient
Delayed Memory			
Delayed Correct	14		Intact/Average
Delayed Errors	1		Intact/Average

Note: T scores have a mean of 50 and a standard deviation of 10.

Wechsler Memory Scale - IV Flexible Approach (WMS-IV Flex)

Scale	Score	Percentile	Range
Immediate Memory (LMVR) (Standard Score)	88	21	Low Average
Delayed Memory (LMVR) (Standard Score)	88	21	Low Average
Auditory Memory (LM) (Standard Score)	88	21	Low Average
Visual Memory (VR) (Standard Score)	92	30	Average
Logical Memory I (Scaled Score)	8	25	Average
Logical Memory II (Scaled Score)	7	16	Low Average
Visual Reproduction I (Scaled Score)	8	25	Average
Visual Reproduction II (Scaled Score)	9	37	Average

Note: Index scores have a mean of 100 and a standard deviation of 15. Scaled scores have a mean of 10 and a standard deviation of 3.

Language Domain

Scale	Score	Percentile	Range
Language Functions			
Aphasia Screening Test (t Score)	62	88	High Average
Receptive Language / Comprehension			
Token Test (t Score)	41	18	Low Average
Repetition			
Sentence Repetition (t Score)	41	18	Low Average
Expressive Language			
WAIS-IV Vocabulary (Scaled Score)	10	50	Average
WAIS-IV Similarities (Scaled Score)	5	5	Low
Confrontational Naming			
Boston Naming Test (t Score)	46	34	Average
Verbal / Ideational Fluency			
D-KEFS Letter Fluency (Scaled Score)	9	37	Average
D-KEFS Category Fluency (Scaled Score)	13	84	High Average

Note: Scaled scores have a mean of 10 and a standard deviation of 3. T scores have a mean of 50 and a standard deviation of 10.

VISUAL-SPATIAL DOMAIN (VISUAL)

Scale	Score	Percentile	Range
Object Identification/Recognition Functions			
Boston Naming Test (BNT) (t Score)	46	34	Average
Object Location Functions			
Judgment of Line Orientation (JOLO) (t Score)	39	14	Low Average
Tactual Performance Test (TPT) Localization (t Score)	44	27	Average
Construction Functions			
RCFT- Copy (t Score)	1	0.01	Extremely Low
Block Design (Scaled Score)	6	9	Low
Visual Puzzles (Scaled Score)	6	9	Low

Note: T scores have a mean of 50 and a standard deviation of 10. Scaled scores have a mean of 10 and a standard deviation of 3.

SENSORY-MOTOR FUNCTIONS

Scale	Score	Percentile	Range
Motor Functions			
Finger Tapping Dominant (t Score)	50	50	Average
Finger Tapping NonDominant (t Score)	53	62	Average
Hand Dynamometer Dominant (t Score)	44	27	Below Average
Hand Dynamometer NonDominant (t Score)	49	46	Average
Grooved Pegboard Dominant (t Score)	54	66	Average
Grooved Pegboard NonDominant (t Score)	50	50	Average
Tactual Performance Test Dominant (t Score)	54	66	Average
Tactual Performance Test NonDominant (t Score)	47	38	Average
Tactual Performance Test Both (t Score)	45	31	Average
Sensory Functions			
Sensory-Perceptual Right (t Score)	62	88	Above Average
Tactile Stimulation Right (raw score)	0		wnl
Auditory Stimulation Right (raw score)	0		wnl
Visual Stimulation Right (raw score)	0		wnl
Tactile Finger Recognition Right (raw score)	1		wnl
Finger-tip Number Writing Right (raw score)	0		wnl
Sensory Perceptual Left (t Score)	67	96	Above Average
Tactile Stimulation Left (raw score)	0		wnl
Auditory Stimulation Left (raw score)	0		wnl
Visual Stimulation Left (raw score)	0		wnl
Tactile Finger Recognition Left (raw score)	0		wnl
Finger-tip Number Writing Left (raw score)	0		wnl
Tactile Form Recognition Right (t Score)	54	66	Average
Tactile Form Recognition Right Errors (raw score)	0		wnl
Tactile Form Recognition Left (t Score)	43	24	Below Average
Tactile Form Recognition Left Errors (raw score)	0		wnl

Note: T scores have a mean of 50 and a standard deviation of 10.

Executive Functions

Scale	Score	Percentile	Range
Working Memory			
WAIS-IV Working Memory Index			
Digits Backwards (Scale Score)	7	16	Low Average
Digit Sequencing (Scale Score)	7	16	Low Average
Arithmetic (Scale Score)	9	37	Average
Letter Number Sequencing (Scale Score)	9	37	Average
One Minute Estimation	38	12	Low Average
Auditory Consonant Trigrams			
9-s Delay (t Score)	50	50	Average
18-s Delay (t Score)	42	21	Low Average
36-s Delay (t Score)	49	46	Average
Planning			
D-KEFS Tower Test			
Total Achievement Score (Scale Score)	13	84	High Average
Total Rule Violations (Raw)	1		wnl
Mean First Move Time (Scale Score)*	14	91	High
Neuropsychological Assessment Battery (NAB)			
Mazes	39	14	Mildly Impaired
Inhibition			
Conners CPT Commission Errors (t Score)*	44	27	Average

Scale	Score	Percentile	Range
Shifting			
Wisconsin Card Sorting Test (WCST)			
Trials Administered (raw score)	128		
Total Correct (raw score)	40		
Total Errors (t Score)	20	0.1	Moderate to Severe Impairment
Perseverative Responses (t Score)	39	14	Mild Impairment
Perseverative Errors (t Score)	37	10	Mild Impairment
Nonperseverative Errors (t Score)	20	0.1	Moderate to Severe Impairment
% Conceptual Level Responses (t Scores)	20	0.1	Moderate to Severe Impairment
Categories Completed (of 6)	0	<u><</u> 1	Moderate Impairment
Trials to Complete 1st Category	129	2-5%	Mild to Moderate Impairment
Failure to Maintain Set	0	N/A	
Trail Making B			
Time (Scaled Score)	9	38	Average
Errors (raw score)	1		wnl
Concept Formation			
Halstead Category Test (raw score)	99	2	Mild to Moderate Impairment
WCST Conceptual Level Responses (t Scores)	20	0.1	Moderate to Severe Impairment
Vocabulary (Scale Score)	10	50	Average
Similarities (Scale Score)	5	5	Mild to Moderate Impairment
D-KEFS Twenty Questions Test			
Initial Abstraction Score (Scale Score)	10	50	Average
<i>Total Weighted Achievement Score (Scale Score)</i>	10	50	Average
Idea Generation			
WCST Categories Completed	0	<u><</u> 1	Moderately Impaired

Scale	Score	Percentile	Range
WCST Trials to Complete 1st Category	129	2-5	Mild to Moderately Impaired
D-KEFS Letter Fluency (Scale Score)	9	37	Average
D-KEFS Category Fluency (Scale Score)	13	84	High Average
D-KEFS Filled Dots (Scale Score)	12	75	High Average
D-KEFS Empty Dots Only (Scale Score)	9	37	Average
Reward Delay (Iowa Gambling Task)			
Net Total (t Score)	45	31	Average
Net 1 (t Score)	59	82	High Average
Net 2 (t Score)	49	46	Average
Net 3 (t Score)	42	21	Low Average
Net 4 (t Score)	42	21	Low Average
Net 5 (t Score)	45	31	Average

Note: T scores have a mean of 50 and a standard deviation of 10. Scaled scores have a mean of 10 and a standard deviation of 3.

Delis-Kaplan Executive Function System (DKEFS)

Scale	Score	Percentile	Range
Verbal Fluency Test			
Letter Fluency	9	37	Average
Category Fluency	13	84	High Average
Category Switching	11	63	Average
Design Fluency			
Filled Dots	12	75	High Average
Empty Dots	9	37	Average
Switching	6	9	Low Average
Twenty Questions Test Total Weighted Achievement	10	50	Average
Tower Test Total Achievement	13	84	High Average
Proverbs	8	25	Average

Note: Scaled scores have a mean of 10 and a standard deviation of 3.

Advanced Clinical Solutions for the WAIS-IV and WMS-IV Social Cognition Test (SCT)

Scale	Score	Percentile	Range
Social Cognition			
Social Perception	8	25	Low Average
Social Perception Affect Naming	12	75	High Average
Social Perception Prosody	6	9	Low
Social Perception Pairs	7	16	Low Average

Note: Scaled scores have a mean of 10 and a standard deviation of 3.

Behavior Rating Inventory of Executive Function Adult Version (BRIEF-A)

Scale	Score	Percentile	Range
Inhibit	70	98	Very High
Shift	67	96	High
Emotional Control	69	97	High
Self-Monitor	65	93	High
Behavioral Regulation Index (BRI)	72	<i>99</i>	Very High
Initiate	67	96	High
Working Memory	74	99.2	Very High
Plan/Organize	75	99.4	Very High
Task Monitor	72	99	Very High
Organization of Materials	57	76	High Average
Metacognition Index (MI)	72	<i>99</i>	Very High
Global Executive Composite (GEC)	74	99.2	Very High
Validity Scales			Acceptable

Note: T scores have a mean of 50 and a standard deviation of 10. On the BRIEF-A, elevations represent greater abnormality and impairment. Scores over 65t are considered clinically significant.