# Andrew Jeremiah Levine, Ph.D., ABPP-CN

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#### **EDUCATION**

- Ph.D.California School of Professional Psychology, FresnoSept., 2002Clinical Neuropsychology Track<br/>APA Accredited Clinical Psychology Program
- B.S. Binghamton University
- May, 1995 B.S. *Cum Laude* Major: Psychobiology

## LICENSING AND CERTIFICATIONS

Clinical Psychologist License (California) - PSY20320 American Board of Professional Psychology - Clinical Neuropsychology – 6805 Qualified Medical Evaluator - California Department of Workers' Compensation Human Intervention Motivation Study (HIMS) - Aerospace Neuropsychology

#### PROFESSIONAL EMPLOYMENT AND TRAINING

9/11-present	<b>Clinical Professor,</b> UCLA – Department of Neurology: Lead a multidisciplinary research program focused on identifying genetic and epigenetic risk factors and biomarkers for HIV-associated neurocognitive disorders, medication development, and other research. Supervised externs and postdocs on clinical neuropsychological evaluations
8/17-present	<b>North Coast Neuropsychology,</b> Independent Neuropsychology Practice: Includes clinical diagnostic evaluations of patients age 14+, medico-legal evaluations, AME/QME evaluations, and expert testimony
5/07-present	<b>Clinical Neuropsychology Consultant,</b> Health Psychology Associates, Long Beach, CA: Conduct med-legal psychological, neuropsychological, and psychoeducational evaluations of individuals aged 14-years and older

7/05-8/11	Assistant Researcher, UCLA – Department of Neurology - National Neurological AIDS Bank, Los Angeles, CA: Responsible for overseeing and initiating research projects, manuscript and grant writing. Supervised psychometrists and research assistants. Mentored graduate students
8/05-5/07	<b>Clinical Neuropsychologist,</b> Pacific Neuroscience Medical Group, Oxnard, CA: Performed neuropsychological evaluations of patients with a variety of neurodegenerative diseases. Provided feedback for patients and families. Conducted neurocognitive assessment with clinical trial participants.
9/02-6/05	<b>Neuropsychology Postdoctoral Fellowship,</b> UCLA School of Medicine, CA: NIMH-funded fellowship focusing on the study of neuropsychological aspects of HIV-1 infection. Training included clinical assessment of outpatients and didactic curriculum at the UCLA Neuropsychiatric Institute.
9/01-8/02	<b>Predoctoral Internship,</b> MCP Hahnemann University Hospital, Philadelphia, PA: APA (Division 40) accredited internship in clinical psychology with major emphasis on clinical neuropsychology.
7/00-6/01	<b>Senior Research Associate II,</b> Veterans Affairs Medical Center-San Francisco, CA: Performed neuropsychological evaluations and structured psychiatric interviews with participants in a NIH-funded study examining effects of alcohol use and HIV-infection on the brain.
6/00-6/01	<b>Senior Research Associate II,</b> UCSF-Langley Porter Psychiatric Institute, San Francisco, CA: Performed psychometric evaluations and was responsible for managing a study examining the effects of exogenous hormones on cognitive and behavioral functioning.
7/00-12/00	<b>Neuropsychology Pre-Internship</b> , UCSF/Northern California Comprehensive Epilepsy Center, San Francisco, CA: Pre and post-operative neuropsychological assessment of seizure patients.
2/97-7/99	<b>Research Assistant</b> , UCSF-Alzheimer's Disease Center, Fresno, CA: Conducted neuropsychological assessment and post-mortem neuropathological examination of patients with neurodegenerative diseases.
8/98-5/99	<b>Neuropsychology Trainee</b> – Central Coast Neurobehavioral Center, Atascadero, CA. Neuropsychological assessment. Provided individual and group therapy to individuals with developmental disorders.
6/97-6/98	<b>Psychology Trainee</b> - Veteran's Administration Medical Center, Fresno, CA. Provided individual and group therapy to individuals dually diagnosed with substance use and other psychiatric illnesses.

#### **TEACHING EXPERIENCE**

Winter, 2018	<b>Neurophilosophy</b> (Course – undergraduate) California State University – Dominguez Hills Los Angeles, CA
Winters, 2015-2017	<b>Neurophilosophy</b> (Course – undergraduate) University of California, Los Angeles Los Angeles, CA
Fall, 2010	<b>Psychodiagnostic Assessment</b> (Course – graduate) Alliant International University Los Angeles, CA
Spring, 2006	<b>Psychological Assessment</b> (Course - undergraduate) Loyola Marymount University Los Angeles, CA
Spring, 2004	<b>Introduction to Psychological Testing</b> (Course - grad and undergraduate) California State University, Northridge Northridge, CA
Fall, 2003	<b>Physiological Psychology</b> (Classes - graduate) Fuller Theological Seminary Pasadena, CA
Summer, 2003	<b>General Psychology</b> (Course - undergraduate) El Camino College Torrance, CA
September, 2002- Present	Various Neuropsychology-related seminars (Classes - post-graduate) UCLA - David Geffen School and Medicine Los Angeles, CA

## PROFESSIONAL MEMBERSHIP

American Academy of Clinical Neuropsychology National Academy of Neuropsychology International Neuropsychological Society International Society of Neurovirology American Psychological Society – Division 40 Association for the Scientific Study of Consciousness

# FELLOWSHIPS, AWARDS AND HONORS

1994: Recipient - Undergraduate Research Fellowship in Neuropharmacology–SUNY Stony Brook
2003: Recipient - Tennenbaum Interdisciplinary Center – Creativity Research Initiative Award
2015: Participant - NINDS Clinical Trials Methodology Course – Foundations Track
2019: Student - Psychedelic Therapy & Research Program – California Institute of Integral Studies

## JOURNAL REVIEWER

AIDS & Behavior, AIDS Care, Annals of Neurology, Archives of Clinical Neuropsychology, BioMed Research International, BMC Neurology, BMC Neuroscience, Clinical Infectious Disease, Current HIV Research, Database, European Journal of Neurology, Expert Opinion on Drug Discovery, Frontiers in CNS Drug Discovery, International Journal of Molecular Sciences, JAIDS, Journal of AIDS & Clinical Research, Journal of Clinical & Experimental Neuropsychiatry , Journal of Clinical Neuroscience, Journal of the International Neuropsychological Society, Metabolic Brain Disease, Neurobehavioral HIV Medicine, Neurology Research International, Neuropsychopharmacology, Neuroscience & Biobehavioral Reviews, PLOS-One, Psychology Health & Medicine

#### 2004 Panel reviewer Alzheimer's Disease Res. Award-CA Dept. Health Services 2011-Present Invited reviewer **UCSD HNRC Developmental Grants** UCSD-Translational Methamphetamine AIDS Research Ctr 2011 Invited reviewer Johns Hopkins NIMH Center for Novel Therapeutics 2011 Invited reviewer NIH: AIDS and AIDS Related Research 2012 **Study Section** 2013 **Study Section** NIMH Clinical Neuroscience and Entertainment Software **SEP** reviewer 2014 NIH NeuroAIDS and other End Organ Disease 2014 Invited reviewer HIV & Drug Use Research Fellowship Program-IAS/NIDA 2016 SEP reviewer NIDA Avant-Garde Award Program for HIV/AIDS Research American Academy of Clinical Neuropsychology Foundation 2017 Grant reviewer

## **GRANT REVIEWER/STUDY SECTION MEMBER**

# **OTHER PROFESSIONAL ACTIVITIES**

2008-2013	Member - National NeuroAIDS Tissue Consortium Neuropsychiatry Working Group
2008-2019	Member - Multi-Center AIDS Cohort Study - Neuropsychology Working Group
2019-Present	Member – Combined Cohort Study - Neuropsychology Working Group
2010-Present	Work sample reviewer – ABBP/Clinical Neuropsychology
2012-Present	Primary Faculty on Neuropsychology of AIDS Fellowship - T32 (MH19535)
2019	Reviewer - FAA HIV Neuropsychological Specifications

#### JOURNAL PUBLICATIONS

- 1. Levine, A. & Hewett, L. (2003). Estrogen replacement therapy and Frontotemporal Dementia. *Maturitas*, *45*, 83-88.
- 2. Levine, A., & Battista, M. (2004). Estrogen replacement therapy: Effects on the cognitive functioning and clinical course of women with Alzheimer's disease. *Archives of Clinical Neuropsychology*, *19*, 769-78.
- 3. Levine, A., Miller, E., Becker, J., Selnes, O., & Cohen, B. (2004). Normative data for determining significance of test-retest differences on eight common neuropsychological instruments. *The Clinical Neuropsychologist*, *18*(*3*), 373-384.
- 4. Levine, A., & Miller, K. (2005). Hormone Replacement Therapy and the Risk of Developing Dementia. In Expertos Invitados (Invited Experts), *Sociedad Iberoamericana de Información Cientifica*, Oct. 11, 2005.
- 5. Levine, A., Hinkin, C, Castellon, S., Mason, K., Lam, M., Perkins, A., Robinet, M., Longshore, D., Newton, T., Myers, H., Durvasula, R., & Hardy, D. (2005). Variations in patterns of highly active antiretroviral therapy (HAART) Adherence. *AIDS & Behavior*, *9*(*3*), 355-62.
- 6. Levine, A., Hardy, D., Miller, E., Castellon, S., Longshore, D., and Hinkin, C. (2006). The effect of recent stimulant use on sustained attention in HIV-infected adults. *Journal of Clinical and Experimental Neuropsychology*, 28, 29-42.
- Levine, A., Hinkin, C, Marion, S., Keuning, A., Castellon, S., Lam, M., Robinet, M., Longshore, D., Newton, T., Myers, H., & Durvasula, R. (2006). Adherence to antiretroviral medications in HIV: differences in data collected via self-report and electronic monitoring. *Health Psychology*, 25(3), 329-35.
- 8. Hardy, D., Hinkin, C., **Levine, A.**, Castellon, S., Lam, M., & Mason, K. (2006). Risky Decision Making Assessed with the Gambling Task in Adults with HIV. *Neuropsychology*, *20*, 355-360.
- 9. Hinkin, C.H., Barclay, T.R., Castellon, S.A., Levine, A.J., Durvasula, R.S., Marion, S.D., Myers, H. & Longshore, D. (2007). Drug use and medication adherence among HIV-1 infected individuals. *AIDS & Behavior*, *11*, 185-194.
- 10. Barclay, T.R., Hinkin, C.H., Mason, K.I., Reinhard, M.J., Marion, S.D., Levine, A.J., & Castellon, S.A. (2007). Age-associated predictors of medication adherence in HIV+ adults: Health beliefs, self-efficacy, and neurocognitive status. *Health Psychology*, *26*(1), 40-9
- Levine, A.J., Hardy, D.J., Barclay, T.R., Cole, M.A., Reinhard, M.J., & Hinkin, C.H. (2007). Elements of Attention in HIV-infected adults: evaluation of an existing model. *Journal of Clinical and Experimental Neuropsychology*, 12, 1-10.

- Rohit, M., Levine, A.J., Hinkin, C.H., Abramyan, S., Saxton, E., Valdes-Sueiras, M., & Singer, E. (2007). Education correction using years in school or reading grade-level equivalent?: Comparing the accuracy of two methods in diagnosing HIV-associated neurocognitive impairment. *Journal of the International Neuropsychological Society*, 14, 1-9.
- Reinhard, M.J., Hinkin, C.H., Barclay, T.R., Levine, A.J., Marion, S., Castellon, S.A., Longshore, D., Newton, T., Durvasula, R.S., Lam, M.N., & Myers, H. (2007). Discrepancies between self-report and objective measures for stimulant drug use in HIV: Cognitive, medication adherence and psychological correlates. *Addictive Behaviors*, 32(12), 2727-2736.
- 14. Levine, A.J., Hinkin, C.H., Miller, E., Becker, J., Selnes, O.A., & Cohen, B.A. for the Multicenter AIDS Cohort Study. (2007). The generalizability of test/retest data derived from a non-clinical sample for detecting change among two HIV+ cohorts. *Journal of Clinical and Experimental Neuropsychology 29(6)*, 669-678.
- 15. Levine, A., Miller, K., Singer, E., & Sutton, J. (2008). Hormone Replacement Therapy and Risk for Neurodegenerative Diseases. *Sociedad Iberoamericana de Información Científica*
- Hinkin, C.H., Castellon, S.A., Levine, A.J., & Barclay, T.R. (2008). Neurocognitive Performance in Individuals Co-Infected with HIV & Hepatitis C. *Journal of Addictive Diseases*, 27(2), 11-17.
- Levine, A.J., Hinkin, C.H., Ando, K., Santangelo, G., Martinez, M., Valdes-Sueiras, M., Saxton, E., Mathisen, G., Commins, D., Wiley, D., Moe, A., Farthing, C., & Singer, E. (2008). An exploratory study of long-term neurocognitive outcomes following recovery from opportunistic brain infections in HIV+ adults. *Journal of Clinical and Experimental Neuropsychology*, *30* (7), 836-843
- Shapshak, P., Rodriguez, H.E., Kayathri, R., Levine, A., Chiappelli, F., & Minagar, A. (2008). Alzheimer's disease and HIV-associated dementia related genes. I. Location and Function. *Bioinformation*, 2(8), 348-57.
- 19. Hardy, D., Castellon, S., Hinkin, C., Levine, A., Lam, M. (2008). Sensation seeking and visual selective attention in adults with HIV/AIDS. *AIDS & Behavior*, *12* (6), 930-934.
- Shapshak, P., Chiappelli, F., Commins, D., Singer, E., Levine, A.J., Kangueane, P., Somboonwit, C., Minagar, A., & Pellionisz, A.J. (2008). Molecular Epigenetics, Chromatin, and NeuroAIDS/HIV. II. Translational Implications, *Bioinformation*, 3(1), 53-57.
- 21. Levine, A.J., Singer, E.J., & Shapshak, P. (2009). The role of host genetics in the susceptibility to HIV-associated neurocognitive disorders. *AIDS & Behavior*, *13*, 118–132.

- 22. Levine, A.J., Singer, E.J., Sinsheimer, J.S., Hinkin, C.H., Papp, J., Dandekar, S., Giovanelli, A., & Shapshak, P. (2009). CCL3 genotype and current depression increase risk for HIV-associated dementia. *Neurobehavioral HIV Medicine*, 1: 1-7
- 23. Shapshak, P., Somboonwit, C., Drumright, N., Frost, S., Tellinghuisen, T., Scott, W., Duncan, R., McCoy, C., Page, J.B., Giunta, B., Fernandez, F., Commins, D., Singer, E., Levine, A., Minagar, A., Oluwadara, O., Kotila, T., Chiappelli, F., & Sinnott, J.T. (2009). Molecular and contextual markers of HCV and drug abuse. *Molecular Diagnosis and Therapy*, *13*(3). 153-179.
- 24. Singer, E.J., Valdes Sueiras, M., Commins, D., & Levine, A. (2010). Neurologic Presentations of AIDS. *Neurologic Clinics of North America*, 28(1):253-75.
- 25. Ettenhofer, M., Foley, J., Behdin, N., **Levine, A.**, Catellon, S., and Hinkin, C. (2010). Reaction Time Variability in HIV+ Individuals. *Archives of Clinical Neuropsychology*. 25(8):791-8
- 26. Shapshak, P., Kangueane, P., Fujimura, R.K., Commins, D., Chiappelli, F., Singer, E.J., Levine, A.J., Minagar, A., Novembre, F.J., Somboonwit, C., Nath, A., & Sinnott, J. (2011). Editorial NeuroAIDS Review. *AIDS*. 25(2):123-41
- Sowmya, G., Shamini, G., Anita, S., Sakharkar, M., Mathura, V., Rodriguez, H., Levine, A., Singer, E., Commins, D., Somboonwit, C., Sinnott, J., Sidhu, H., Rajaseger, G., Pushparaj, P., Kangueane, P., & Shapshak, P. (2011). HIV-1 envelope accessible surface and polarity: clade, blood, and brain. *Bioinformation* 6(2): 48-57
- Shapshak, P., Duncan, R., Duran, E.M., Farinetti, F., Minagar A., Commins, D., Rodriguez H., Chiappelli, F., Kangueane, P., Levine, A.J., Singer E., Somboonwit, C., & Sinnott, J.T. (2011). HIV-associated dementia and HIV encephalitis gene expression in microdissected neurons. *Neurobehavioral HIV Medicine* 3, 53–78
- Shapshak, P., Duncan, R., Kangueane, P., Somboonwit, C., Sinnott, J., Commins, D., Singer, E., & Levine, A. (2011). HIV associated dementia and HIV encephalitis II: Genes on chromosome 22 expressed in individually microdissected *Globus pallidus* neurons (Preliminary analysis). Bioinformation 6(5), 183-186
- Levine, A.J., Palomo, M., Hinkin, C.H., Valdes-Sueiras, M., Lopez, E., Mathisen, G., Donovan, S. & Singer, E.J. (2011). A comparison of screening batteries in the detection of neurocognitive impairment in HIV-infected monolingual Spanish Speakers. *Neurobehavioral HIV Medicine*, 3, 79-86
- 31. Shapshak. P., Somboonwit, C., Sinnott, J.T., Commins, D., Singer, E., & Levine, A. (2011). Gene-chromosome locations of neuropsychiatric diseases. *Bioinformation* 7(7), 366-8
- 32. Levine, A.J., Sinsheimer, J.S., Bilder, R., Shapshak, P., & Singer, E.J. (2012). Functional polymorphisms in dopamine-related genes: Effect on neurocognitive functioning in HIV+ adults. *Journal of Clinical and Experimental Neuropsychology*. 34(1):78-91

- Dye, R., Miller, K., Singer, E., & Levine, A.J. Hormone replacement therapy and risk for neurodegenerative disease. (2012). *International Journal of Alzheimer's disease*. Volume 2012, doi:10.1155/2012/258454.
- 34. Levine, A.J., Service, S., Miller, E.N., Reynolds, S.M., Singer, E.J., Shapshak, P., Martin E.M., Sacktor, N., Becker, J.T., Jacobson, L.P., Thompson, P., & Freimer, N. (2012). Genome-wide association study of neurocognitive impairment and dementia in HIV-infected adults. *American Journal of Medical Genetics- Part B: Neuropsychiatric Genetics.* 159B(6): 669-83
- 35. Gelman, B.B., Chen, T., Lisinicchia, J.G., Soukup, V.M., Carmical, R.S., Starkey, J.M., Masliah, E., Commins, D.L., Brandt, D., Grant, I., Singer, E.J., Levine, A.J., Miller, J., Luxon, B.A., & Morgello, S. The National NeuroAIDS Tissue Consortium. (2012). Brain Gene Array: Two types of HIV-associated neurocognitive impairment. *PLoS ONE*. 7(9)
- 36. Soontornniyomkij, V., Moore, D.J., Gouaux, B., Soontornniyomkij, B., Tatro, E.T., Umlauf, A., Masliah, E., Levine, A.J., Singer, E.J., Vinters, H.V., Gelman, B.B., Morgello, S., Cherner, M., Grant, I., & Achim, C.L. (2012). Cerebral β-amyloid deposition predicts HIV-associated neurocognitive disorders in APOE ε4 carriers. *AIDS*. 26(18):2327-35
- 37. Panos, S.E., Hinkin, C.H., Singer, E.J., Thames, A.D., Patel, S., Sinsheimer, J.S., Del Re, A.C., Valdes- Sueiras, M., & Levine, A.J. (2013). Apolipoprotein-E genotype and human immunodeficiency virus-associated neurocognitive disorder: the modulating effects of older age and disease severity. *Neurobehavioral HIV Medicine*, *5*, 11-22
- 38. Levine, A.J., Miller, J.A., Shapshak, P., Gelman, B., Singer, E.J., Hinkin, C.H., Commins, D., Morgello, S., Grant, I., & Horvath, S. (2013). Systems analysis of human brain gene expression: mechanisms for HIV-associated neurocognitive impairment and common pathways with Alzheimer's disease. *BMC Medical Genomics*, 6 (4). DOI: 10.1186/1755-8794-6-4
- 39. Levine, A.J., Horvath, S., Miller, E.N., Singer, E.J., Shapshak, P., Baldwin, G.C., Martinez-Maza, O., Witt, M.D., & Langfelder, P. (2013). Transcriptome analysis of HIV-infected peripheral blood monocytes: gene transcripts and networks associated with neurocognitive functioning. *Journal of Neuroimmunology*. 265, 96–105
- 40. Levine, A.J., Horvath, S., & Panos, E.S. (2014). Genetic, transcriptomic, and epigenetic studies of HIV-associated neurocognitive disorder. *Journal of Acquired Immune Deficiency Syndromes.* 65, 481–503

- 41. Levine, A.J., Reynolds, S., Cox, C., Miller, E.N., Sinsheimer, J.S., Becker, J.T., Martin, E., & Sacktor, N., for the Neuropsychology Working Group of the Multicenter AIDS Cohort Study. (2014). The longitudinal and interactive effects of HIV status, stimulant use, and host genotype on neurocognitive functioning. *Journal of NeuroVirology*. 20(3), 243-257
- 42. Kallianpur, A.R. & Levine, A.J. (2014). Host Genetic Factors Predisposing to HIV-Associated Neurocognitive Disorder. *Current HIV/AIDS Reports*, 11(3), 336-52
- Becker, J.T., Kingsley, L., Molsberry, S., Reynolds, S., Aranow, A., Levine, A.J., Martin, E., Miller, E., Munro, C.A., Ragin, A., Sacktor, N., & Selnes, O. (2015). Cohort Profile: Recruitment cohorts in the neuropsychological substudy of the Multicenter AIDS Cohort Study. *International Journal of Epidemiology*, 44(5): 1506–1516.
- 44. Becker, J.T., Martinson, J.J., Penugonda, S., Kingsley, L., Molsberry, S., Wolinsky, S., Reynolds, S., Aronow, A., Levine, A., Martin, E., Miller, E.N., Munro, C.A., Ragin, A., and Sacktor, N. (2015). No association between ApoE alleles, HIV infection, age, neuropsychological outcome or death. *Journal of NeuroVirology*, 21 (1), 24-31
- 45. Fogel, G.B., Lamers, S.L., **Levine, A.J.**, Valdes-Sueiras, M., Hinkin, C., McGrath, M.S., Shapshak, P., & Singer, E.J. (2015). Factors Related to HIV-Associated Neurocognitive Impairment Differ With Age. *Journal of NeuroVirology*, 21(1), 56-65
- 46. Molsberry, S.A., Lecci, F., Kingsley, L., Junker, B., Reynolds, S., Goodkin, K., Levine, A.J., Martin, E., Miller, E.n., Munro, C.A., Ragin, A., Sacktor, N., & Becker, J.T. (2015). Mixed Membership Models Identify Risk Factors to Trajectories for Cognitive Impairment in the Multicenter AIDS Cohort Study. *AIDS*, 29(6), 713-21
- 47. Thames, A.D., Briones, M.S., Magpantay, L.I., Martinez-Maza, O., Singer, E.J., Hinkin, C.H., Morgello, S., Gelman, B., Moore, D.J., Heizerling, K., & Levine, A.J. (2015). The role of CCL2 genotype and cerebrospinal fluid CCL2 in neurocognition among HIV-infected patients. *AIDS*, 29 (12), 1483-1491
- 48. Horvath, S., & Levine, A.J. (2015). HIV-1 viremia accelerates age according to the epigenetic clock. *Journal of Infectious Disease*, 212(10), 1563-73
- 49. Levine, A.J., Quach, A., Moore, D.J., Achim, C.L., Soontornniyomkij, V., Masliah, E., Singer, E.J., Gelman, B., Nemanim, N., & Horvath, S. (2016). Accelerated epigenetic aging in brain is associated with pre-mortem HAND. *Journal of NeuroVirology*. 22(3), 366-375
- 50. Rossi, F., Li, X., Silver, B., Jacobson, L., Margolick, J., Levine, A.J., & Viscidi, R. (2015). BK virus capsid antibodies are associated with protection against subsequent development of PML in HIV-infected patients. *Virology*, 485, 467-72

- 51. Levine, A.J., Soontornniyomkij, V., Achim, C.L., Masliah, E., Gelman, B., Sinsheimer, J.S., Singer, E.J., & Moore, D.J. (2016). Multilevel analysis of neuropathogenesis of neurocognitive impairment in HIV. *Journal of NeuroVirology*. 22(4), 431-441
- Sacktor, N., Reynolds, S., Skolasky, R., Munro, C., Becker, J.T., Martin, E., Ragin, A., Levine, A., & Miller, E. (2016) Prevalence of HIV-associated neurocognitive disorders in the Multicenter AIDS Cohort Study. *Neurology*. 86(4), 334-40
- 53. López, E., Steiner, A. J., Smith, K., Thaler, N. S., Hardy, D. J., Levine, A., Al-Kharafi, H. T., Yamakawa, C., & Goodkin, K. (2017). The diagnostic utility of the HIV Dementia Scale and the International HIV Dementia Scale in screening for HIV-associated neurocognitive disorders among Spanish-speaking adults. *Applied Neuropsychology: Adult.* 24(6):512-521
- 54. Narasimhan, V.J., Jain, S., Walker, L., Bilavaker, S., Chattopadhyay, A., Becker, J.T., Bar-Joseph, Z., Rinaldo, C., Levine, A.J., & Ayyavoo, V. (2017). Transcriptome analysis identifies key cellular factors associated with HIV-1 neuropathogenesis in infected individuals" *AIDS*. 13;31(5):623-633
- 55. Levine, A.J., Martin, E., Sacktor, N., Munro, C., & Becker, J.T. (2017) Predictors and impact of self-reported suboptimal effort on estimates of prevalence of HIV-associated neurocognitive disorders. *JAIDS*, *75*(2), 203–210
- 56. Armstrong, N.M., Surkan, P.J., Treisman, G.J., Sacktor, N.C., Irwin, M.R., Teplin, L.A., Stall, R., Martin, E.M., Becker, J.T., Munro, C., Levine, A.J., Jacobson, L.P., & Abraham, A.G. (2017). Association of Long-term Patterns of Depressive Symptoms and Attention/Executive Function among Older Men with and without Human Immunodeficiency Virus. *Journal of NeuroVirology*, 23(4):558-567
- 57. Bryant, A.K., Moore, D.J., Burdo, T., Lakritz, J., Gouaux, B., Soontornniyomkij, V., Achim, C., Masliah, E., Grant, I, Levine, A.J., & Ellis, R.J. (2017). Plasma soluble CD163 is associated with postmortem brain pathology in human immunodeficiency virus infection. *AIDS*. 31(7):973-979
- 58. Monroe, A.K., Zhang, L., Jacobson, L.P., Plankey, M.W., Brown, T.T., Miller, E.N., Martin, E., Becker, J.T., Levine, A.J., Ragin, A., Sacktor, N.C. (2017). The association between physical activity and cognition in men with and without HIV infection. *HIV Med*, 18(8), 555-563
- 59. Quach, A., Horvath, S., Nemanim, N., Vatakis, D., Witt, M., Miller, E., Detels, R., Langfelder, P., Shapshak, P., Singer, E., & Levine, A. (2018). No reliable gene expression biomarkers of current or impending neurocognitive impairment in peripheral blood monocytes of persons living with HIV. *Journal of NeuroVirology*. 24(3), 350-361

- 60. Levine, A.J., Martin, E., Munro, C., Sacktor, N., Horvath, S., Becker, J. for the Multicenter AIDS Cohort Study Neuropsychology Working Group. (2018) Intra-individual variability in neurocognitive performance among HIV-infected men is not due to suboptimal effort. *Journal of Clinical and Experimental Neuropsychology*, 40(10), 1044 1049
- 61. Horvath, S., Phillips, N, Heany, S.J., Kobor, M.S., Lin, D.T.S., Myer, L.,. Zar, H.J., Stein, D.J., Hoare, J., & Levine, A.J. (2018). Perinatally acquired HIV infection accelerates epigenetic aging in South African adolescents. *AIDS*. *32*, *1465–1474*
- 62. Molsberry, S.A., Cheng, Y., Kingsley, L., Jacobson, L., Levine, A.J., Martin, E., Miller, E., Munro, C.A., Ragin, A., Sacktor, N., & Becker, J.T. (2018). Neuropsychological Phenotypes Among Men with and Without HIV Disease in the Multicenter AIDS Cohort Study. *AIDS*. 32(12):1679-1688
- 63. Soontornniyomkij, V., Umlauf, A., Soontornniyomkij, B., Gouaux, B., Ellis, R.J., Levine, A.J., Moore, D.J., & Letendre, S.L. (2018). Association of antiretroviral therapy with brain aging changes in HIV-infected adults. *AIDS*, *32(14):2005-2015*
- 64. Yang, J., Jacobson, L.P., Becker, J.T., Levine, A.J., Martin, E.M., Munro, C., Palella, F.J., Lake, J.E., Sacktor, N., & Brown, T.T. (2018). Impact of glycemic status on longitudinal cognitive performance in men with and without HIV: The Multicenter AIDS Cohort Study (MACS). *AIDS*. 32(13):1849-1860
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- 58. Molsberry, S.A., Cheng, Y., Kingsley, L., Becker, J.T., Jacobsen, L. Levine, A., Martin, E., Munro, C.A., Ragin, A., & Sacktor, N. for the Neuropsychology Working Group of the MACS. Cluster Analysis of Neuropsychological Test Performance at the Time of First Cognitive Classification in the Multicenter AIDS Cohort Study. *Presented at the 14th meeting of the International Society on NeuroVirology, Toronto, Canada, October 25-28, 2016*
- 59. Quash, A., Horvath, S., Vatakis, D., Martinez-Maza, O., Shapshak, P., Witt, M., Singer, E., **Levine, A**. Peripheral blood monocyte transcriptome at baseline implicates Wnt-signaling pathway in later neurocognitive change. *Presented at the 14th meeting of the International Society on NeuroVirology, Toronto, Canada, October 25-28, 2016*
- 60. Levine, A., Martin, E., Sacktor, N., Munro, C., & Becker, J. Suboptimal effort in HIV neuropsychological research studies: does it influence estimated prevalence rates of HIV-associated neurocognitive disorders (HAND)? *Presented at the 45<sup>st</sup> annual conference of the International Neuropsychological Society, New Orleans, USA, February 1-4, 2017*
- Erlandson, K.M., Zhang, L., Jacobson, L., Becker, J., Munro, C., Lake, J., Martin, E., Levine, A., Brown, T., & Sacktor, N. Effects of age and obesity on neurocognitive performance in the macs cohort. *Presented at the 22<sup>nd</sup> Conference on Retroviruses and Opportunistic Infections, Seattle, WA, February 13-16, 2017*

- 62. Kaur, H., Hulgan, T., Fennema-Notestine., C, Smieszek., S, Letendre, S, Ellis, R., Bush, W., Soontornniyomkij, V., Moore, D., Masliah, E., Sinsheimer, J., Barnholtz-Sloan, J., Samuels, D., Levine, A., Kallianpur, A. Common SNPs in the HFE (Hemochromatosis) Gene are Associated with Neurocognitive Impairment and Aging-Related Neurodegenerative Processes in HIV+ Adults. *Presented at the 8th International Workshop on HIV & Aging, New York, NY, October* 2-3, 2017
- 63. Wu, M., Fatukasi, O., Yang, S., Alger, J., Barker, P., Kim, T., Levine, A., Martin, E., Munro, C., Parrish, T.B., Ragin, A.B., Sacktor, N., Seaberg, E., & Becker, J.T. Brain white matter hyperintensities, HIV disease, cognition and diabetes. *Presented at the 23<sup>rd</sup> Conference on Retroviruses and Opportunistic Infections, Boston, Massachusetts, MA, March 4-7, 2018*
- 64. Molsberry, S.A., Cheng, Y., Kingsley, L., Jacobson, L., **Levine, A.**, Martin, E., Miller, E., Munro, C., Ragin, A.B., Sacktor, N., & Becker, J.T. Neuropsychological phenotypes in the MACS. *Presented at the 23<sup>rd</sup> Conference on Retroviruses and Opportunistic Infections, Boston, Massachusetts, MA, March 4-7, 2018*
- 65. Wang, Z., Cheng, Y., Molsberry, S.A., Kingsley, L., Levine, A., Martin, E., Miller, E., Munro, C., Ragin, A.B., Sacktor, N., Seaberg, E., Becker, J.T. Classifying cognitive status in HIV-infected men by multivariate normative comparison. *Presented at the 23<sup>rd</sup> Conference on Retroviruses and Opportunistic Infections, Boston, Massachusetts, MA, March 4-7, 2018*
- 66. Sundermann, E.E., Levine, A., Horvath, S., Moore, D.J., and the HNRP Group. Inflammation-Related Genes are Associated with Accelerated Aging in HIV. *Presented at the Annual Meeting of the American Association of Geriatric Psychiatry, Honolulu, Hawaii. March 2018*
- 67. Sinsheimer, J., Horvath, S., Moore, M., Soontornniyomkij, V., Achim, C., Gouaux, B., & Levine, A. NFE2L2 haplotypes are associated with HIV-associated neurocognitive impairment and intermediate phenotypes. *Presented at the 15th meeting of the International Society on NeuroVirology, Chicago, Illinois, April 10-14, 2018*
- 68. Soontornniyomkij, V., Moore, D.J., Gouaux, B., Soontornniyomkij, B., Sinsheimer, J.S., Ellis, R.J., Letendre, S.L., Jeste, D.V., & Levine, A.J. Cerebral amyloid-β plaques link host genotypes to neurocognitive impairment among HIV-infected adults. *Presented at the 15th meeting of the International Society on NeuroVirology, Chicago, Illinois, April 10-14, 2018*
- 69. Levine, A., Phillips, N., Heany, S., Stein, D., Zar, H., Kobor, M., Lin, D., Hoare, J., & Horvath, S. Perinatally acquired HIV infection and epigenetic age acceleration in South African adolescents. *Presented at the 15th meeting of the International Society on NeuroVirology, Chicago, Illinois, April 10-14, 2018*

- 70. Levine, A., Munro, C., Sacktor, N., Horvath, S., Becker, J., & Martin, E. Intra-individual variability in neurocognitive performance: no influence due to HIV status or self-reported effort. *Presented at the 15th meeting of the International Society on NeuroVirology, Chicago, Illinois, April 10-14, 2018*
- 71. Sundermann, E.E., Bondi, M.W., Soontornniyomkij, V., **Levine, A.**, & Moore, D.J. Detecting amnestic MCI (aMCI) among HIV+ individuals with high rates of HIV-associated neurocognitive disorder (HAND). *Presented at the 15th meeting of the International Society on NeuroVirology, Chicago, Illinois, April 10-14, 2018*
- 72. Sundermann, E.E., Levine, A.J., Paolillo, E.W., Masliah, E., Adame A., Gouaux, B, Soontornniyomkij, V., Letendre, S., Moore, D.J., and the HNRP Group. The relationship between synaptodendritic neuropathology and HIV-associated neurocognitive disorders is moderated by age. *Presented at the 9th International Workshop on HIV & Aging 2018, New York, NY, September 13-14, 2018*
- 73. Rubin, L.H., Springer, G., Martin, E., Seaberg, E.C., Sacktor, N., Levine, A., Valcour, V., Young, M., Becker, J.T., & Maki, P.M. Depression is a stronger predictor of executive dysfunction in HIV+ women than men. *Presented at the 24<sup>th</sup> Conference on Retroviruses and Opportunistic Infections, Seattle, WA, March 4-7, 2019*
- 74. Li, Y., Wang, Z., Cheng, Y., Becker, J.T., Martin, E., Levine, A., Rubin, L.H., Ragin, A.B., & Sacktor, N. Neuropsychological changes in Efavirenz switch regimens in MACS. *Presented at the 24<sup>th</sup> Conference on Retroviruses and Opportunistic Infections, Seattle, WA, March 4-7, 2019*
- 75. Sundermann<sup>•</sup> E., Hussain, M., Moore, D.J., Horvath, S., & **Levine, A.** Inflammation-related genes are associated with accelerated aging in HIV. *Presented at the 24<sup>th</sup> Conference on Retroviruses and Opportunistic Infections, Seattle, WA, March 4-7, 2019*
- 76. Wu' M., Yang, S., Hetherington, H., Kim, T., Alger, J., Barker, P.B., Parrish, T.B., Levine, A., Martin, E., Munro, C., Ragin, A.B., Sacktor, N.W., Seaberg, E.C., & Becker, J.T. White matter hyperintensities increase as a function of CVD risk and HIV disease. *Presented at the 24<sup>th</sup> Conference on Retroviruses and Opportunistic Infections, Seattle, WA, March 4-7, 2019*
- 77. Qu, Y., Wang, Z., Cheng, Y., Kingsley, L., Levine, A., Martin, E., Munro, C., Ragin, A.B., Rubin, L.H., Sacktor, N.W., Seaberg, E.C., & Becker, J.T. Legacy effects on cognitive functions among HIV-infected men. Presented at the 24<sup>th</sup> Conference on Retroviruses and Opportunistic Infections, Seattle, WA, March 4-7, 2019
- 78. Rubin, L.H., Gustafson, D., Hawkins, K.L., Zhang, L., Jacobson, L., Becker, J.T., Munro, C., Lake, J.E., Martin, E., Levine, A., Brown, T.T., Sacktor, N.W., & Erlandson, K.M. Total and central obesity predict cognitive decline: Multicenter AIDS Cohort Study. *Presented at the 24<sup>th</sup> Conference on Retroviruses and Opportunistic Infections, Seattle, WA, March 4-7, 2019*

- 79. Hoare, J., Phillips, N., Heany, S., Stein, D., Zar, H, Horvath, S, & Levine, A. Accelerated epigenetic aging in perinatally acquired HIV infected South African adolescents is related to altered development of brain structures. *Presented at the 10th International Workshop on HIV Paediatrics, Amsterdam July 2018*
- 80. Hwang, Y.J., Nouraie, S.M., Becker, J.T., Chang, D., French, A., Kunisaki, K.M., Levine, A., Martin, E., McCormack, M.C., Sactor, N., Weinstein, A.M., & Morris, A. Association between lung and cognitive dysfunction in men with hiv infection. *Presented at the 25<sup>th</sup> Conference on Retroviruses and Opportunistic Infections, Boston, MA, March 8-11, 2020*

#### **INVITED TALKS & PRESENTATIONS**

- 1. Levine, A.J. Frontotemporal Lobar Degeneration and Related Syndromes. *Presented at NIBBL seminar, Department of Neuropsychology, UCLA-Semel Institute for Neuroscience and Human Behavior. April 9, 2009*
- 2. Levine, A.J. HIV-Associated Neurocognitive Disorders. *Presented at Neurologic and Neuropsychiatric Syndromes Course, Department of Neuropsychology, UCLA-Semel Institute for Neuroscience and Human Behavior. June 11, 2009*
- 3. Levine, A.J. The Genetics of HIV-Associated Neurocognitive Disorder. *Presented at NIBBL* seminar, Department of Neuropsychology, UCLA-Semel Institute for Neuroscience and Human Behavior. March 25, 2010
- 4. Levine, A.J. The Neuropsychology of Infectious Diseases. *Presented at Neurologic and Neuropsychiatric Syndromes Course, Department of Neuropsychology, UCLA-Semel Institute for Neuroscience and Human Behavior. May 7, 2010*
- 5. Levine, A.J. Genetic studies of HIV-associated neurocognitive disorders. *Presented at the Multicenter AIDS Cohort Study Working Group Meeting, October 19, 2010*
- 6. Levine, A.J. Genetic studies of NeuroAIDS in the NNTC. *Presented at the National NeuroAIDS Tissue Consortium Scientific Leadership Group Meeting, October 28, 2010*
- 7. Levine, A.J., Genetic risk factors for HIV-associated neurocognitive disorders. *Presented at the* 91<sup>st</sup> annual convention of the Western Psychological Association, April 28<sup>th</sup>, 2011
- 8. Levine, A.J. HIV-Related Neurobehavioral Aberrations. *Invited talk for the Northern California Neuropsychological Forum, October* 26<sup>th</sup>, 2011
- 9. Levine, A.J. Case presentation of HIV-associated neurocognitive disorder. *Invited talk for the Northern California Neuropsychological Forum, March* 21<sup>st</sup>, 2012

- Levine, A.J. Longitudinal analysis of interactive effects of host genotype, stimulant use, and HIV status upon neurocognitive functioning. *Presented at the 11<sup>th</sup> Symposium of the International Society on NeuroVirology, May 31, 2012*
- 11. Levine, A.J. Genomic, Transcriptomic, and Epigenomic Studies in the Multicenter AIDS Cohort Study. *Presented at the Annual MACS/WIHS Meeting, November 7, 2014*
- 12. Levine, A.J. Neuropsychological manifestations of HIV-1 infection. *Presented for the UCLA School of Epidemiology, May 27, 2016*
- 13. Levine, A. Peripheral blood monocyte transcriptome at baseline implicates Wnt-signaling pathway in later neurocognitive change. *Presented at the 14th meeting of the International Society on NeuroVirology, Toronto, Canada, October 25-28, 2016*
- 14. Levine, A.J. HIV-associated neurocognitive disorders: fact or fiction? *Presented for the UCLA School of Epidemiology, May 10, 2017*
- 15. Levine, A.J., Suboptimal effort during neuropsychological testing in the MACS: causes, consequences, and solutions. *Presented for the MACS Scientific Works In Progress series*, November 1, 2017
- 16. Levine, A.J. HIV-associated neurocognitive disorders: fact or fiction? *Presented for the UCLA School of Epidemiology, May 18, 2018*
- 17. Levine, A.J. Bridging molecular genetics and neuropsychology in the study of NeuroHIV. *Presented for the Veterans Administration Medical Center, Long Beach, April 17, 2019*
- Levine, A.J. HIV-associated neurocognitive disorders: fact from fiction. Presented for the UCLA School of Epidemiology, Epidemiology 227 - AIDS: A Major Public Health Challenge. April 19, 2019
- 19. Levine, A.J. HIV-associated neurocognitive disorders: fact from fiction. *Presented for the UCLA School of Epidemiology, Epidemiology 227 AIDS: A Major Public Health Challenge. May 8, 2020*

**RESEARCH SUPPORT** Current:

R03-NS110476 (Levine) National Institute of Neurological Disorders and Stroke *Causes and consequences of suboptimal cognitive effort in the MACS* Role: Principal Investigator Award Dates/Total Award

9/30/18-1/31/21 (NCTE)

R21-MH115825-01 (Levine) 9/1/18 - 1/30/21 (NCTE) National Institute of Mental Health Bardoxolone: a novel treatment for HIV-associated neurocognitive disorders **Role: Principal Investigator** 2R01-AG034852 (Becker) 9/30/10 - 3/31/21 National Institute on Aging Cardiovascular and HIV/AIDS Effects on Brain Structure/Function and Cognition Role: Site Principal Investigator U01-HL146333-01 (Detels and Martinez-Maza) 4/15/19 - 3/31/26 National Heart, Lung, and Blood Institute Los Angeles CRS for the MACS/WIHS Combined Cohort Study Role: Co-Investigator **Previous:** R03AG056189 (Kelesidis) 12/1/17 - 11/31/19 National Institute on Aging Humanized mice as a model to study novel therapies for HIV-Associated Neurocognitive Disorders (HAND) in elderly HIV-1 infected individuals Role: Co-Investigator (PI) R01MD010680 (Stall) 9/25/15 - 6/30/19 Understanding Patterns of Healthy Aging among Men Who Have Sex with Men Role: Co-investigator R21MH107327-01 (Levine and Hoare) 6/1/16 - 5/31/19 National Institute of Mental Health Epigenetic and Psychosocial Drivers of NeuroHIV in HIV+ South African Adolescents Role: Co-Principal Investigator 9/6/12 - 5/31/18 R01MH096648 (Levine and Moore) National Institute of Mental Health A multisystems study of HIV neuropathogenesis: genetics-neuropathology-behavior Role: Co-Principal Investigator

R21AG046954 (Horvath and Levine) National Institute on Aging Cross-tissue study of an accelerated epigenetic aging mechanism caused by HIV Role: Co-Principal Investigator	9/15/15 - 4/30/17
R01DA030913 (Levine and Horvath) National Institute on Drug Abuse Pathways to HIV-associated neurocognitive disorders: A systems biology approach Role: Co-Principal Investigator	8/1/10 - 7/31/16
U24MH100929 (Singer) National Institute of Neurological Disorders and Stroke <i>National Neurological AIDS Bank</i> Role: Co-Investigator	6/1/13 - 5/31/16
R25 (Thames) Program in Translational NeuroAIDS and Mental Health Pro-inflammatory genotypes and susceptibility to HAND in African Americans Role: Co-Investigator/Mentor	7/1/12 - 6/30/13
UCLA CFAR/AIDS Institute Fellowship Award (Panos) Relationship between Apolipoprotein Genotype and Cognition in HIV Role: Co-Investigator	7/10/12 - 7/9/13
AI28697 (Freimer & Levine) UCLA-AIDS Institute and the UCLA Center for AIDS Research A Genome-Wide Association Study of HIV-Associated Neurocognitive Deficits Role: Co-Principal Investigator	6/1/08 - 12/31/13
UL1TR000124 UCLA CTSI/CFAR Multidisciplinary Study of HIV/AIDS (Horvath) <i>Diagnostic and prognostic biomarkers for HIV-Associated</i> <i>Non-AIDS (HANA) conditions</i> Role: Co-Investigator	7/1/12 - 6/30/13
R03DA026099 (Levine) National Institute of Drug Abuse The Impact of Host Genetics and Stimulant Use on Neurocognition in HIV+ Adults Role: Principal Investigator Levine, Andrew	9/1/08 - 8/31/11

ID06-LA-187 (Levine)9/1/06 - 3/01/09California HIV/AIDS Research Program (CHRP)Genetic Polymorphisms and Neurocognitive Vulnerability in HIVRole: Principal Investigator

7/1/07 - 6/30/09

AI28697 (Levine) UCLA-AIDS Institute and the UCLA Center For AIDS Research Determining HIV-related Neurocognitive Impairment in Monolingual Spanish Speakers Role: Principal Investigator

#### PATENTS

Compositions and methods for treating HIV-associated cognitive dysfunction US20170333450A1 Application pending