06/21/23

Curriculum Vitae

David E. Ross, M.D.

Narrative summary

Dr. Ross is the Director of the Virginia Institute of Neuropsychiatry and CEO of NeuroGage LLC. He is board certified in:

- General psychiatry
- Neuropsychiatry
- Brain injury medicine

He completed medical school and residency in psychiatry at VCU. After that, he finished a fellowship in neuropsychiatry at the Maryland Psychiatric Research Center, University of Maryland, where he stayed on the faculty for several years.

In 1997, he returned to VCU where he served on the full-time faculty for several years.

In 2001, he founded the Virginia Institute of Neuropsychiatry, an organization dedicated to the understanding and treatment of patients with neuropsychiatric disorders, including brain injury.

He specializes in the treatment and research of patients with traumatic brain injury and other types of brain injury. He has published over 50 peer-reviewed scientific articles. He serves as a reviewer for many scientific journals. He has taught hundreds of residents and medical students at VCU over many years. He is a member of Advisory Board of VCU Traumatic Brain Injury Model Systems Program. He serves as a member of the Brain Injury Medicine Examination Committee.

He and his colleagues pioneered the application of NeuroQuant®, FDA-cleared MRI brain volumetry software, in patients with traumatic brain injury. Also they developed NeuroGage®, software which extends the utility of NeuroQuant®. In 2017, NeuroGage® was spun off into a separate company.

Contact information

Mailing address:
364 Browns Hill Court
Midlothian, VA 23114

Telephone: (804) 594-7046 (office), (866) 586-8977 (fax)
E-Mail: DRoss@VaNeuropsychiatry.org
Website: www.VaNeuropsychiatry.org

Current positions

September 2001-present:

Director
Virginia Institute of Neuropsychiatry
Midlothian, VA

2014-present: Member, The Brain Injury Medicine Examination Committee, The American Board of Physical Medicine and Rehabilitation and The American Board of Psychiatry and Neurology (writing and reviewing questions for the Brain Injury Medicine board exam).

2017-present: CEO, NeuroGage LLC, Midlothian, VA

2020-present: Member of Scientific Advisory Board, Resolys Bio corporation.

2021-present: Member of Scientific Advisory Board, Institute for Chronic Traumatic Brain Injury.

2023-present: Scientific Adivsor, Environmental Brain Health Clinics of America.

Past positions

2004-2020:
Assistant Clinical Professor
Department of Psychiatry
Virginia Commonwealth University
Richmond, VA

2017: Consultant, CorTechs Labs, Inc.

October 2012-October 2017: Member of the Advisory Board of VCU Traumatic Brain Injury Model Systems Program, Department of Rehabilitation Medicine, VCU

2012-2015
Consultant to the Virginia Board of Medicine, Richmond, VA, performing case review.

2002
Consultant to Lega F. D'Oro Research Center, Osimo, Italy. LDRC treated children and adults with multiple disabilities, including deafness, blindness, physical disabilities, cognitive disabilities and behavioral disabilities.

2001-2002
Consultant to Hiram Davis Medical Center, Petersburg, VA. HDMC treated patients who were dually diagnosed with neuropsychiatric disorders and somatic medical disorders requiring skilled, inpatient nursing care.

November 1997 to September 2001
Assistant Professor of Psychiatry
Medical College of Virginia-Virginia Commonwealth University
Richmond, VA

1993:
Part-time psychiatric consultant to the Emergency Department and Inpatient Medical Units
Howard County General Hospital
Columbia, Maryland

July 1992 to October 1997:
Assistant Professor of Psychiatry
Maryland Psychiatric Research Center
University of Maryland at Baltimore

Education

Fellowship in neuropsychiatry, with focus on schizophrenia research (July 1990 to June 1992)
Maryland Psychiatric Research Center
Department of Psychiatry
University of Maryland at Baltimore

Internship and residency in psychiatry (July 1986 to June 1990)
Medical College of Virginia
Virginia Commonwealth University
Richmond, Virginia

Medical school (1982-86): M.D.
Medical College of Virginia
Virginia Commonwealth University
Richmond, Virginia

Undergraduate (1978-82): B.S. in chemistry, magna cum laude
Hampden-Sydney College
Hampden-Sydney, Virginia

Medical licenses and board certifications

1987-current: Medical licensure in Virginia; License # 0101-044407
1994 - current: Certified in Psychiatry, American Board of Psychiatry and Neurology
11/30/10 – current: Certified in the subspecialty of Behavioral Neurology &

Neuropsychiatry by the United Council for Neurologic Subspecialties

10/06/14 - current: Certified in Brain Injury Medicine, American Board of Psychiatry and Neurology

09/28/22 - current: Medical licensure in Florida; License # ME159235.

Major career interests

Traumatic brain injury, MRI brain volume measurement, acquired brain injury, mold-related illness, and other neuropsychiatric disorders.

Major career activities

Clinical: treated and consulted on hundreds of patients in both public and private sectors.

Teaching: Have given hundreds of oral and poster presentations on clinical and research topics to audiences including patients, family members, students, clinicians and researchers. Venues have included clinics, hospitals, international conferences and university Grand Rounds, in the United States and Europe. Supervised the research and clinical work of hundreds of research fellows, graduate students, psychiatry residents, medical students and college undergraduate students.

Research: published several dozen manuscripts, most of which were peer-reviewed; awarded total of $425,000 for grants as principal investigator, and involved as sub-investigator on grants totalling several million dollars; reviewed manuscripts for multiple journals; reviewed grants for NIH.

Expert consultation: extensive experience in forensic, disability and other arenas.

Professional memberships

American Neuropsychiatric Association

North American Brain Injury Society/International Brain Injury Association

Virginia Neuroscience Initiative

Richmond Association of Phi Beta Kappa

Honors, awards

2019 Midlothian Community Member of the Month, given by Midlothian High School in March, 2019.

1994 Young Scientist Award, given by the Biennial Winter Workshop on Schizophrenia

1993 McKee Jarboe Award, given to a young faculty member who has

	contributed to the understanding or treatment of chronic mental illness
1992	Stanley Award, given for showing promise as young psychiatric researcher
1989	Young Investigator Award, given by the International Congress on Schizophrenia Research
1983	Summer fellowship in psychiatry as medical student
1982	Phi Beta Kappa
1982	Graduated Magna cum laude
1981	Chi Beta Phi honorary scientific fraternity (president)
1978	Most Outstanding Freshman Chemistry Student
1978-82	Allan Scholarship (full scholarship given to the best students based on academic and overall achievement)

Teaching

Dr. Ross has performed extensive teaching duties for many years. In particular, since 2009, he has taught students as part of 1-month or summer-long internships at the Virginia Institute of Neuropsychiatry. These have included college students, medical students, and medical residents from the following institutions:

- Eastern Virginia Medical School, Norfolk, VA
- Christopher Newport University, Newport News, VA
- Hampden-Sydney College, Hampden-Sydney, VA
- James Madison University, Harrisonburg, VA
- Randolph-Macon College, Ashland, VA
- University of North Carolina at Wilmington, Wilmington, NC
- University of Virginia, Charlottesville, VA
- Virginia Commonwealth University, Richmond, VA
- Virginia State University, Petersburg, VA
- Virginia Tech, Blacksburg, VA

Editorial tasks

Reviewed manuscripts for the following journals:

- American Journal of Neuroradiology
- American Journal of Psychiatry
- Biological Psychiatry
- Brain
- Brain Imaging and Behavior
- Brain Injury
- Concussion
- Journal of Neuropsychiatry and Clinical Neurosciences

- Journal of Neurotrauma
- Neuroradiology
- Neurotoxicology and Teratology
- Psychiatry Research
- Psychophysiology
- Schizophrenia Bulletin

Grant support

Neuroleptics in Schizophrenia Outpatient Smokers: The Effects of Olanzapine and Risperidone on Smoking Behavior, Co-PI's - A.K. Pandurangi, D.E. Ross, Lilly 4/15/99-10/14/00, $248,000.

Eye Tracking Disorder and Genetics in Schizophrenia, PI - D.E. Ross, NARSAD 7/1/98-6/30/99, $30,000.

Eye Tracking Disorder in Relatives of Patients with Schizophrenia, PI - D.E. Ross, A.D. Williams Program, Medical College of Virginia, Virginia Commonwealth University, 7/1/98-6/30/99, $10,000.

Functional Neuroanatomy of Eye Tracking Disorder in Normal Controls, PI- D.E. Ross, NIH (Seed money grant from a CRC grant, PI-W.T. Carpenter) 8/1/97-7/31/98 $5,800.

Optokinetic eye movements in schizophrenia, PI - D.E. Ross, NIH 3/1/97-2/28/98 $24,968.

Functional Neuroanatomy of Eye Tracking Disorder in Schizophrenia, PI- D.E. Ross, University of Maryland at Baltimore, 7/1/96-6/30/97 $14,928.

Prevalence of Schizophrenia Spectrum Disorders in Relatives of Schizophrenic Patients with and without the Deficit Syndrome, PI - D.E. Ross, NIH (Seed money grant from a CRC grant, PI-W.T. Carpenter) 6/1/96-5/31/97 $4,992.

PET Study of Eye Tracking Disorder in Schizophrenia, PI - D.E. Ross, NIH (Seed money grant from a CRC grant, PI-W.T. Carpenter) 7/1/95-6/30/96 $9,942.

Eye Tracking Disorder and the Deficit Syndrome of Schizophrenia, PI - D.E. Ross, NIH (Seed money grant from a CRC grant, PI- W.T. Carpenter) 5/1/94-4/30/95 $4,988.

Classification and Course of the Schizophrenias, PI - W.T. Carpenter, NIH 8/1/93-7/31/98 $5,234,144 Young Investigator salary support.

Familial Schizophrenia Spectrum Personality Disorders, PI - G.K. Thaker, NIH 5/1/93-4/30/97 $383,347, 10% Salary support.

Specification of Abnormal Eye Movements in Schizophrenic Patients, PI - D.E. Ross, Scottish Rite, 8/1/92-7/31/94 $69,000, 30% Salary support.

Grant review work

1997-98: Ad hoc reviewer for National Institute of Mental Health, Clinical Psychopathology Committee.

Pharmaceutical company relationships

2000, 2006 - 2008: Company: AstraZeneca. Product: quetiapine (Seroquel®). Relationship: Speaker's bureau.

2004 - 2007: Company: Forest Pharmaceuticals. Products: memantine (Namenda®) and escitalopram (Lexapro®). Relationships: Speaker's bureau; consultant.

2005: Company: Cephalon. Products: modafinil (Provigil®). Relationships: Speaker's bureau.

2000 - 2004: Company: Eli Lilly and Company. Product: olanzapine (Zyprexa®). Relationships: Speaker's bureau; consultant; educational grants.

Publications: 66 total; all were independently edited; 52 were peer-reviewed.

- Statistics per Google Scholar (http://scholar.google.com/citations?user=Q6UYdIYAAAAJ)
  - Citations: 3041
  - Citations per peer-reviewed publication: 57.4
  - h index: 26
    - The h index is a measure of academic productivity, combining number of publications and number of citations per publication. An h index of 26 indicates that 26 of the below cited publications have been cited at least 26 times each. Wikipedia reported that "…a value for *h* of about 12 might be typical for advancement to tenure (associate professor) at major research universities. A value of about 18 could mean a full professorship…." Comparative values for physicians working in private practice settings are unavailable but would be expected to be less than those of full-time academicians.

Ross, D. E., J. D. Seabaugh, J. M. Seabaugh, C. Alvarez, L. P. Ellis, C. Powell, C. Reese, L. Cooper and K. Shepherd & for the Alzheimer's Disease Neuroimaging Initiative (2023). "Journey to the other side of the brain: Asymmetry in patients with chronic mild or moderate traumatic brain injury." Concussion. CNC101: 1-18. https://doi.org/10.2217/cnc-2022-0003

Barcelona, J., D. E. Ross, J. D. Seabaugh and J. M. Seabaugh (2022). "Abnormal asymmetry correlates with abnormal enlargement in a patient with

chronic moderate traumatic brain injury." Concussion: 10.2217/cnc-2021-0006.

Ross, D. E., J. Seabaugh, J. M. Seabaugh, J. Barcelona, D. Seabaugh, K. Wright, L. Norwind, Z. King, T. J. Graham, J. Baker and T. Lewis (2022). "Updated review of the evidence supporting the medical and legal use of NeuroQuant® and NeuroGage® in patients with traumatic brain injury." Frontiers in Human Neuroscience. doi: 10.3389/fnhum.2022.715807.

Ross, D., J. Seabaugh, J. Seabaugh, J. Plumley, J. Ha, J. Burton, A. Vandervaart, R. Mischel, A. Blount, D. Seabaugh, K. Shepherd, J. Barcelona and A. Ochs (2021). "Patients with chronic mild or moderate traumatic brain injury have abnormal longitudinal brain volume enlargement more than atrophy." Journal of Concussion 5: 1-21.

Ross, DE (April 13, 2020). Medical practice finds way to bridge COVID-19 gap (Letter to the Editor). Richmond Times Dispatch.

Ross, D., Seabaugh, J., Seabaugh, J., Alvarez, C., Ellis, L., Powell, C., Hall, C., Reese, C., Cooper, L. and Ochs, A.L. 2020. Patients with chronic mild or moderate traumatic brain injury have abnormal brain enlargement. Brain Injury, 34:11-19.

Ross, D.E., Seabaugh, J., Cooper, L., Seabaugh, J.M. (2018). NeuroQuant® and NeuroGage® Reveal Effects of Traumatic Brain Injury on Brain Volume. Brain Injury 32:1437-1441.

Ross, D.E., Ochs, A.L., Tate, D.F., Tokac, U., Seabaugh, J., Abildskov, T.J., Bigler, E.D, for the Alzheimer's Disease Neuroimaging Initiative (2018): High Correlations between MRI Brain Volume Measurements based on NeuroQuant® and FreeSurfer. Psychiatry Research Neuroimaging 278:69-76.

Ross DE (Winter 2017-2018): NeuroQuant® and NeuroGage®: Breakthroughs in Objectively Measuring Effects of Mild Traumatic Brain Injury. The Lawyers Log Book 6:34-36.

Ross, D E, Ochs, A L, Zannoni, M D, & Seabaugh, J M. (2016). Corrigendum to "Back to the Future: Estimating Pre-Injury Brain Volume in Patients with Traumatic Brain Injury." NeuroImage 127:510-511.

Ross, DE (April 13, 2015). For teens, "early to bed" might not help (Letter to the Editor). Richmond Times Dispatch.

AL Ochs, Ross, DE, ME Zannoni, TJ Abildskov, ED Bigler (2015). Comparison

of Automated Brain Segment Volume Measures obtained with NeuroQuant and FreeSurfer. Journal of Neuroimaging: 25:721-727.

Ross, DE, AL Ochs, ME DeSmit, JM Seabaugh, MD Havranek (2015). Man vs. Machine Part 2: Comparison of radiologists' interpretations and NeuroQuant® measures of brain asymmetry and progressive atrophy in patients with traumatic brain injury. Journal of Neuropsychiatry and Clinical Neurosciences 27:147-152.

Ross, DE, AL Ochs, MD Zannoni and JM Seabaugh (2014). "Back to the Future: Estimating Pre-Injury Brain Volume in Patients with Traumatic Brain Injury." NeuroImage 102:565-578.

Ross, DE (September 3, 2014). Teens, Like Adults, Function Better With Enough Sleep (Letter to the Editor). Wall Street Journal.

Ross, DE (August 31, 2014). Nothing new about sleep cycles (Correspondent of the Day -- Letter to the Editor). Richmond Times Dispatch.

Seabaugh, JM, DE Ross (2014). Brain injuries are treatable (Letter to the Editor). Chesterfield Monthly March:12.

Ross, DE, C Castelvecchi, AL Ochs (2013). Brain MRI volumetry in a single patient with mild traumatic brain injury. Brain Injury 27:634-636.

Ross, DE, AL Ochs, JM Seabaugh, CR Shrader (2013). Man vs. machine: Comparison of radiologists' interpretations and NeuroQuant® volumetric analyses of brain MRIs in patients with traumatic brain injury. Journal of Neuropsychiatry and Clinical Neurosciences 25:1-8.

Ross, DE, TJ Graham, AL Ochs (2013). Review of the evidence supporting the medical and forensic use of NeuroQuant® in patients with traumatic brain injury. Psychological Injury and the Law 6:75-80.

Ross, DE (September 29, 2012). New advances help detect brain injuries (Correspondent of the Day -- Letter to the Editor). Richmond Times Dispatch.

Ross, DE, AL Ochs, JM Seabaugh, MF DeMark, C. R. Shrader, J. H. Marwitz, M. D. Havranek (2012). Progressive brain atrophy in patients with chronic neuropsychiatric symptoms after mild traumatic brain injury: A preliminary study. Brain Injury 26:1500-9.

Ross DE, Ochs AL, Seabaugh J, Henshaw T (2012): NeuroQuant® revealed hippocampal atrophy in a patient with traumatic brain injury. Journal of Neuropsychiatry and Clinical Neurosciences 24: E33.

Ross DE (2011): Review of longitudinal studies of MRI brain volumetry in patients with traumatic brain injury. Brain Injury 25:1271-8.

Ross DE (2009): High tech does not mean high quality. Richmond Times Dispatch 03/08/09, section A, p. 9.

Ross DE, Clevinger LE (2008): Managing more than medications. Brain Injury Professional 5:22-25.

Hettema JM, Ross DE (2007): A case of aripiprazole-related tardive akathisia and its treatment with ropinirole (letter). J Clin Psychiatry 68:1814-1815.

Ross, DE (2005): Methodological concerns in a trial of ziprasidone and olanzapine (letter). Am J Psychiatry 262:1391.

Ross, DE (2005): Tardive dyskinesia and second-generation antipsychotics (letter). Am J Psychiatry 162:405.

Ross DE, Thomas M, Booth M, Weinborn M (2005): Rate of tardive dyskinesia in hospitalized patients (letter). Am J Psychiatry 162:816.

Messias E, Kirkpatrick B, Bromet E, Ross D, Buchanan RW, Carpenter WT Jr, Tek C, Kendler KS, Walsh D (2004): Summer birth and deficit schizophrenia: A pooled analysis from six countries. Arch Gen Psychiatry 61:985-989.

Ross, DE (2004): Clozapine and typical antipsychotics (letter). Am J Psychiatry 161:1925-1926.

Ross DE (2004): Ziprasidone and mania (letter). Am J Psychiatry 161:1503.

Ross DE (2003): Improving the DSM Axis System (letter). Psychiatric News 38:29.

Thaker GK, Avila MT, Hong EL, Medoff DR, Ross DE, Adami HM (2003): A model of smooth pursuit eye movement deficit associated with the schizophrenia phenotype. Psychophysiology 40:277-84.

Ross DE (2003): Psychiatry and neurology. Am J Psychiatry 160:596.

Ross DE, Hasnain M, Pandurangi AK (2001): Subspecialty training in schizophrenia may lead to improved treatment for treatment-resistant patients. Psychiatric Services 52:240.

Kirkpatrick B, Buchanan RW, Ross DE, Carpenter Jr WT (2001): A separate

disease within the syndrome of schizophrenia. Arch Gen Psychiatry 58:165-171.

Ross DE, Kirkpatrick B, Karkowski LM, Straub RE, MacLean CJ, O'Neill A, Compton AD, Murphy B, Walsh D, Kendler KS (2000): Sibling correlation of deficit syndrome in the Irish study of high-density schizophrenia families. Am J Psychiatry 157:1071-6.

Ross DE (2000): The deficit syndrome and eye tracking disorder may reflect a distinct subtype within the syndrome of schizophrenia. Schizophr Bull 26:855-66.

Ross DE (2000): Update on movement disorders caused by antipsychotic medications. Psychiatric Society of Virginia News Summer:3,8.

Kirkpatrick B, Ross DE, Walsh D, Karkowski L, Kendler KS (2000): Family characteristics of deficit and nondeficit schizophrenia in the Roscommon Family Study. Schizophr Res 45:57-64.

Ross DE (2000): New hope for consumers with movement disorders caused by antipsychotic medications. The Network 16:6.

Ross DE (2000): A method for developing a biopsychosocial formulation. Journal of Child and Family Studies 9:1-6.

Thaker GK, Ross DE, Cassady SL, Adami HM, Medoff DR, Sherr J (2000): Saccadic eye movement abnormalities in relatives of patients with schizophrenia. Schizophr Res 45:235-44.

Thaker GK, Ross DE, Buchanan RW, Adami HM, Medoff DR (1999): Smooth pursuit eye movements to extraretinal motion signals: deficits in patients with schizophrenia. Psychiatry Res 88:209-19.

Kunkel R, Adami H, Zetlmeisl M, Ross D, Thaker G (1998): Recruitment of non-patient volunteers with schizophrenia spectrum personality symptoms. Schizophr Res 34:181-186.

Ross DE, Buchanan RW, Thaker GK, Medoff DR, Lahti AC (1998): Association between eye tracking disorder in schizophrenia and poor sensory integration. Am J Psychiatry 155:1352-1357.

Thaker GK, Ross DE, Cassady SL, Adami HM, LaPorte D, Medoff DR, Lahti A (1998): Smooth pursuit eye movements to extraretinal motion signals: deficits in relatives of patients with schizophrenia. Arch Gen Psychiatry 55:830-836.

Ross DE, Buchanan RW, Lahti AC, Medoff D, Bartko JJ, Compton AD, Thaker GK (1998): The relationship between smooth pursuit eye movements and tardive dyskinesia in schizophrenia. Schizophr Res 31:141-150.

Hashimoto T, Ross DE, Gao X, Medoff DR, Tamminga CA (1998): Mixture in the distribution of haloperidol-induced oral dyskinesias in the rat supports an animal model of tardive dyskinesia. Psychopharmacology 137:107-112.

Ross DE, Thaker GK, Buchanan RW, Lahti AC, Conley R, Medoff D (1998): Specific measures account for most of the variance in qualitative ratings of smooth pursuit eye movements in schizophrenia. Arch Gen Psychiatry 55:184-185.

Kirkpatrick B, Ross DE (1997): The trap of protopathic bias in neuropsychiatric research. Biol Psychiatry 41:257-8.

Ross DE (1997): Grey matter correlates of syndromes in schizophrenia. Br J Psychiatry 171:484.

Ross DE, Carpenter Jr WT (1997): Negative symptoms in schizophrenia. *The* Journal of the California Alliance for the Mentally Ill 8:81-83.

Ross DE, Thaker GK, Buchanan RW, Kirkpatrick B, Lahti AC, Medoff D, Bartko JJ, Goodman J, Tien AY (1997): Eye tracking disorder in schizophrenia is characterized by specific ocular motor defects and is associated with the deficit syndrome. Biol Psychiatry 42:781-796.

Kim CE, Thaker GK, Ross DE, Moran MJ (1997): Accuracies of saccades to moving targets: During pursuit initiation and maintenance. Experimental Brain Research 113:371-377.

Moran MJ, Thaker GK, LaPorte DJ, Cassady SL, Ross DE (1996): Covert visual attention in schizophrenia spectrum personality disordered subjects: Visuospatial cuing and alerting effects. J Psychiatr Res 4:261-275.

Ross DE, Thaker GK, Buchanan RW, Lahti AC, Medoff D, Bartko JJ, Moran M, Hartley J (1996): Association of abnormal smooth pursuit eye movements with the deficit syndrome in schizophrenic patients. Am J Psychiatry 153:1158-1165.

Thaker GK, Ross DE, Moran MJ, Lahti A, Buchanan R, Ellsberry RL (1996): Does pursuit abnormality in schizophrenia represent a deficit in the predictive mechanism? Psychiatry Res 59:221-237.

Tien AY, Ross DE, Pearlson G, Strauss ME (1996): Eye movements and

psychopathology in schizophrenia and bipolar disorder. Journal of Nervous and Mental Diseases 184:331-338.

Ross DE, Ochs AL, Pandurangi AK, Thacker LR, Kendler KS (1996): Mixture analysis of smooth pursuit eye movements in schizophrenia. Psychophysiology 33:390-397.

Thaker G, Cassady S, Adami H, Moran M, Ross D (1996): Eye movements in spectrum personality disorders: comparison of community subjects and relatives of schizophrenic patients. Am J Psychiatry 153:362-368.

Ross DE, Thaker GK, Holcomb HH, Cascella NG, Medoff DR, Tamminga CA (1995): Abnormal smooth pursuit eye movements in schizophrenic patients are associated with cerebral glucose metabolism in oculomotor regions. Psychiatry Res 58:53-67.

Dixon L, Thaker GK, Conley R, Ross DE, Cascella N, Tamminga CA (1993): Changes in psychopathology and dyskinesia after neuroleptic withdrawal in a double-blind design. Schizophr Res 10:267-271.

Kendler K, Ochs A, Gorman A, Hewitt J, Ross D, Mirsky A (1991): The structure of schizotypy: a pilot multitrait twin study. Psychiatry Res 36:19-36.

Ross DE, Ochs AL, Hill MP, Goldberg SC, Pandurangi AK, Winfrey J (1988): The erratic nature of eye movements in schizophrenic patients as revealed by high resolution techniques. Biol Psychiatry 24:675-688.

Presentations

Ross DE (December 1, 2022): (invited speaker) Update on NeuroQuant® and NeuroGage® : MRI Brain Volumetric Methods for Detecting Objective Signs of Brain Injury. *American Association for Justice annual meeting* in New Orleans, LA.

Ross DE (September 22, 2022): (invited speaker) Update on NeuroQuant® and NeuroGage® : MRI Brain Volumetric Methods for Detecting Objective Signs of Brain Injury. *North American Brain Injury Association annual meeting* in New York, NY.

Ross DE (February 27, 2020): (selected speaker) Patients with Mild or Moderate TBI have Abnormal Longitudinal Brain Enlargement. *North American Brain Injury Association annual meeting* in New Orleans, LA.

Ross DE (March 28, 2019): (invited speaker) Neuropsychiatry and Traumatic Brain Injury. *Clover Hill High School,* Midlothian, VA.

Ross DE (March 15, 2019): (selected speaker) Journey to the Other Side of the Brain: Patient with Chronic Mild or Moderate Traumatic Brain Injury have Abnormal Brain Enlargement and Asymmetry. *International Brain Injury Assocation annual meeting* in Toronto, Canada.

Ross DE (March 8, 2019): (invited speaker) Neuropsychiatry and Traumatic Brain Injury. *Randolph Macon College,* Ashland, VA.

Ross DE (March 7, 2019): (invited speaker) Neuropsychiatry and Traumatic Brain Injury, Part 2. *Midlothian High School,* Midlothian, VA.

Ross DE (February 25, 2019): (selected speaker) Journey to the Other Side of the Brain: Patient with Chronic Mild or Moderate Traumatic Brain Injury have Abnormal Brain Enlargement and Asymmetry. *Virginia Neuroscience Initiative*, Richmond, VA. Link to video of presentation: https://vcu.mediaspace.kaltura.com/media/David+Ross+Webinar+2_25_19/1_zgpjhxrq

Ross DE (November 28, 2018): (invited speaker) Neuropsychiatry and Traumatic Brain Injury. *Midlothian High School,* Midlothian, VA.

Ross DE and Norwind L (May 8, 2018): (invited speaker) Proving Brain Injury Objectively: NeuroQuant® and NeuroGage®. *Frontiers in Advocacy: Traumatic Brain Injury*, Nashville, TN.

Ross DE (March 14, 2018): (invited speaker) Breakthroughs in MRI Brain Volumetry: NeuroQuant® and NeuroGage®. *Annual Conference of the North American Brain Injury Society*, Houston, TX.

Ross DE and Smith SM (September 12, 2017): (invited speaker) Trial from Start to Finish. *Virginia Trial Lawyers Association*, Richmond, VA.

Ross DE (July-September 2017): (invited speaker) Tardive Dyskinesia: Overcoming Challenges in Identification and Ongoing Treatment in the Psychiatric Population in the Department of Veteran's Affairs. *Series of presentations (3 total) to Veteran's Administration Medical Centers throughout the United States*.

Ross DE and Norwind L (May 20, 2017): (invited speaker) Proving TBI objectively with MRI brain volume measurement. *Annual Conference of the Association of Plaintiff Interstate Trucking Lawyers of America*, Tampa, FL.

Ross DE (March 29, 2017): (invited speaker) NeuroQuant® and NeuroGage®: Proving Brain Injury by Measuring Brain Volume. *Annual Conference of the North American Brain Injury Society*, New Orleans, LA.

Ross DE (October 28, 2016): (invited speaker) Update on NeuroQuant® and NeuroGage® in Patients with Traumatic Brain Injury. *American Conference Institute*, New York, New York.

Ross DE (April 30, 2015): (invited speaker) Update on NeuroQuant® in Patients with Traumatic Brain Injury. *Annual Conference of the North American Brain Injury Society*, San Antonio, Texas.

Ross DE (March 9, 2015): (selected speaker) Back to the Future: Estimating Pre-Injury Brain Volume in Patients with Traumatic Brain Injury. *National Capital Area TBI Research Symposium, National Institute of Health*, Bethesda, Maryland.

Ochs AL, Ross DE, Bigler E (March 9, 2015): (poster presentation) Comparison of Automated Brain Volume Measures in Patients with Mild Traumatic Brain Injury. *National Capital Area TBI Research Symposium, National Institute of Health*, Bethesda, Maryland.

Ross DE (May 3, 2013): (invited speaker) Update on Neuropsychiatry and Traumatic Brain Injury. *Williamsburg Annual Conference on Traumatic Brain Injury*, Williamsburg, Virginia.

Ross DE (March 15, 2013): (invited speaker) Using Neuroimaging Tests on the Brain to Detect Areas of Damage and Determining Admissibility Under Daubert/Frye. *Brain Injury Claims & Litigation, American Conference Institute's 2nd Annual Summit for Med Mal and Other Personal Injury Leaders,* Philadelphia, Pennsylvania.

Ross DE (September 28, 2012): (invited speaker) Update on MRI and Mild Traumatic Brain Injury. *Grand Rounds, Department of Physical Medicine and Rehabilitation, Virginia Commonwealth University*, Richmond, Virginia.

Ross DE (April 18, 2012): (invited speaker) Update on NeuroQuant®: A Breakthrough Method for Detecting MRI Brain Atrophy in Patients with Traumatic Brain Injury. *Neuropsychology and Rehabilitation Psychology Rounds*, Richmond, Virginia.

Ross DE (March 30, 2012): (invited speaker) An update on NeuroQuant® in traumatic brain injury. *American Conference Institute Brain Injury Litigation Conference*, Philadelphia, Pennsylvania.

Ross DE, Jones RT (March 10, 2012): (invited speaker) Traumatic Brain Injury and Posttraumatic Stress Disorder. *Brain Injury Association of Virginia*, Richmond, Virginia.

Ross DE, Ochs AL, Havranek M (September 2011): (selected speaker) Update on NeuroQuant®. *Annual Conference of the North American Brain Injury Society*, New Orleans, Louisiana.

Ochs AL, Ross DE (2011): (poster presentation) Artefacts affecting NeuroQuant automated measures of brain MRI volumes. *Journal of Head Trauma Rehabilitation* 26: 414-415.

Ross DE, Ochs AL, Seabaugh JS, Henshaw T (June 2011): (poster presentation) MRI Brain Volumetry Reveals Atrophy and Asymmetry in Patients with Traumatic Brain Injury. *Federal Interagency Conference on TBI*, Washington, D.C.

Ross DE, Ochs AL, Seabaugh JS, Henshaw T (May 2011): (invited speaker) Brain MRI Volume in Traumatic Brain Injury: Clinical and Forensic Applications. *Williamsburg Annual Conference on Traumatic Brain Injury*, Williamsburg, Virginia.

Ross DE, Ochs AL, Seabaugh JS, Henshaw T (March 2011): (poster presentation) A Case Report of Small Hippocampi in a Patient with Mild Traumatic Brain Injury. *Annual Meeting of the American Neuropsychiatric Association*, Denver, CO.

Ross DE (June 4, 2009): (invited speaker) Neuropsychiatry of traumatic brain injury in 2009. *Williamsburg Annual Conference on Traumatic Brain Injury*, Williamsburg, Virginia.

Ross DE (April 21, 2008): Neuropsychiatric Medications and Traumatic Brain Injury. (invited speaker) *Meeting of the Brain Injury Association of Virginia*, Richmond, Virginia.

Ross DE (December 14, 2007): Neuropsychiatric Medications and Traumatic Brain Injury. (invited speaker) *Lecture to the physiatry residents at Virginia Commonwealth University*, Richmond, Virginia.

Ross DE (March 2006): Neuropsychiatry and Traumatic Brain Injury. (invited speaker) *Lecture to the Neuropsychology division of the Department of Rehabilitation Medicine at Virginia Commonwealth University*, Richmond, Virginia.

Ross DE (2008 to 2014): Neuropsychiatry and Traumatic Brain Injury. *Annual lecture to the psychiatry residents at Virginia Commonwealth University*, Richmond, Virginia.

Ross DE (1998 to 2014): Tardive Dyskinesia and Other Movement Disorders in Neuropsychiatry. *Annual lecture to the psychiatry residents at Virginia Commonwealth University*, Richmond, Virginia.