IN THE UNITED STATES DISTRICT COURT FOR THE WESTERN DISTRICT OF TENNESSEE WESTERN DIVISION

UNITED STATES OF AMERICA,)
Plaintiff))
v.)
EMMITT MARTIN III, et al.,	
Defendants.)

CR. No. 23-20191-MSN

UNITED STATES' NOTICE OF INTENT TO OFFER HYBRID OR EXPERT WITNESS TESTIMONY REGARDING AUTOPSY AND MEDICAL EVIDENCE

The United States provides notice to the defendants that it intends to offer testimony from medical examiner-pathologists Dr. Marco Ross and Dr. Rebecca Folkerth who conducted and consulted on the autopsy of Tyre Nichols. Herein we also provide the same notice for Dr. Mohammad Assaf and Dr. Peter Law, treating and consulting physicians for Mr. Nichols during the course of his hospitalization and Daniel Anderson, the toxicologist with NMS Labs who analyzed blood, urine and tissue samples of Mr. Nichols. These witnesses will testify from their personal observations and knowledge and are therefore primarily fact witnesses for whom no expert designation is necessary. Should they offer opinion testimony that would require notice pursuant to Rule 16(a)(1)(G), the United States provides this "hybrid" and/or expert designation because such witnesses, under limited circumstances, may be considered hybrid witnesses or, if necessary, qualified as expert witnesses.

As explained in the United States' Notice of Intent to Offer Hybrid or Expert Witness Testimony Regarding Use of Force Issues (RE 142), witnesses who testify about their personal knowledge and observations are fact or lay witnesses, for whom no expert designation is required. Medical examiners testifying about an autopsy in which they personally participated—as opposed to medical examiners offering a general expert opinion—are often considered fact witnesses, who are not subject to expert disclosure requirements. *Pettaway v. Barber*, No. 2:19-CV-8-ECM-JTA, 2022 WL 19983576, at *2 (M.D. Ala. Apr. 27, 2022); *Boyett v. Cnty. of Washington*, No. 2:04CV1173, 2006 WL 3422104, at *12 (D. Utah Nov. 28, 2006), *aff'd*, 282 F. App'x 667 (10th Cir. 2008).

Rule 16(a)(1)(G), as amended, requires the government to provide a disclosure for each expert witness the government seeks to use containing: "[1] a complete statement of all opinions that the government will elicit from the witness in its case-in-chief, or during its rebuttal to counter testimony that the defendant has timely disclosed under (b)(1)(C); [2] the bases and reasons for them; [3] the witness's qualifications, including a list of all publications authored in the previous 10 years; and [4] a list of all other cases in which, during the previous 4 years, the witness has testified as an expert at trial or by deposition." *Id*.

As detailed below, Dr. Marco Ross performed the autopsy on Mr. Nichols. His office subsequently asked noted neuropathologist Dr. Rebecca Folkerth to consult on the case. Dr. Peter Law was a treating physician for Mr. Nichols during his hospitalization at St. Francis. Dr. Mohammed Assaf consulted on the case during that time. Finally, Mr. Daniel Anderson analyzed the blood, urine and tissue samples of Mr. Nichols in a toxicology screening.

Dr. Ross

Dr. Marco Ross, currently the Chief Medical Examiner for the West Tennessee Regional Forensic Center will testify, consistent with his report previously provided in discovery as to the manner and cause of death of decedent Tyre Nichols. Dr. Ross is a Board-Certified Forensic Pathologist with over 20 years of experience in his field. He graduated from Tulane University as

2

a Doctor of Medicine in 1985. His educational background, professional and academic appointments, professional society memberships and list of publications are included in his curriculum vitae. As a forensic pathologist, Dr. Ross is an expert in investigating and evaluating cases of sudden, unexpected, suspicious and violent death as well as other specific classes of death defined by law. Dr. Ross has testified as an expert or person with specialized knowledge in the field of forensic pathology on numerous occasions over the course of his career and has performed several thousand autopsies.

His pathological diagnoses as set forth in his report were as follows:

- I. Blunt force injuries of the head and neck
 - A. Multiple cortical contusions
 - B. Rotational/torsional injury of the brain
 - 1. Hemorrhagic tears of the parenchyma
 - 2. Axonal injury
 - C. Cerebral edema and acute hypoxic-ischemic changes
 - D. Subscalpular and subgaleal hemorrhages
 - E. Intramuscular hemorrhages
 - F. Abrasions and contusions
- II. Blunt force injuries of the torso
 - A. Abrasions and contusions
 - B. Intramuscular hemorrhages of the chest and back
- III. Blunt force injuries of the extremities
 - A. Abrasions and contusions
 - B. Diffuse intramuscular hemorrhages of the extremities
- IV. Status post cardiopulmonary arrest and resuscitation
 - A. Hepatic necrosis
 - B. Pulmonary edema

Dr. Ross will offer testimony that the cause of death for Mr. Nichols was blunt force injuries of the head. In his testimony, Dr. Ross will be expected to discuss the evidence of injury to Mr. Nichols, the findings of the external exam of the body, the findings from the internal examination, and a summary and interpretation of those findings. Dr. Ross will use photographs taken during the autopsy as aids to his testimony. These have been previously disclosed. He will also use diagrams prepared during the course of his work on the case. These have also been disclosed. Dr. Ross can also be expected to testify that he requested a consult with Dr. Rebecca Folkerth, a forensic neuropathologist as part of his work in this case. Dr. Ross' CV is attached as Exhibit 1. A list of cases in which he has testified as an expert in the previous four years is attached as Exhibit 2. The signed written reports of autopsy examination, consultation report, and toxicology report can be found at Bates No. 5900-5954. These reports from Dr. Ross and Dr. Folkerth and Mr. Anderson contain their findings and conclusions.

Dr. Folkerth

The West Tennessee Regional Forensic Center sought a consultation with Dr. Rebecca Folkerth, MD. Dr. Folkerth subsequently conducted her own independent analysis and issued a report of her findings. Dr. Folkerth is a Neuropathologist and City Medical Examiner in the Office of Chief Medical Examiner, New York City. She is also an Associate Clinical Professor of Forensic Medicine, New York University Grossman School of Medicine. She has worked in the field of neuropathology since 1990. Dr. Folkerth holds a Bachelor of Science from Indiana University and a medical degree from the University of Louisville School of Medicine. She completed a residency in anatomic pathology at New England Medical Center and did fellowships in pathology and neuropathology at Harvard Medical School and Boston Children's Hospital, respectively.

Dr. Folkerth began working as a pathologist at Brigham and Women's Hospital in 1991, focusing on surgical pathology and neuropathology. In 2009, she became the director of the neuropathology division and began running the neuropathology training program for not only Brigham and Women's Hospital, but also Boston Children's Hospital and Beth Israel-Deaconess Medical Center. Dr. Folkerth has also served as an associate professor of pathology at Harvard Medical School, a consultant in pathology at Boston Children's Hospital, and a consultant in medical oncology at Dana-Farber Cancer Institute.

Dr. Folkerth currently focuses on forensic neuropathology. Her office performs about 5,000 autopsies a year. She autopsies the brain and nervous system for about 700 to 900 cases per year. She has been practicing for over 25 years, has performed hundreds of postmortem examinations of adults, infants, and children, and has written over 100 peer reviewed articles and over 15 chapters for medical textbooks dealing with neuropathology.

Given her specialized knowledge of the brain, Dr. Folkerth is often asked to work on complicated cases with abnormalities, cases involving in custody deaths, pediatric deaths, or sudden deaths without witnesses, and cases involving complicated disease-related deaths, such as dementia-related deaths. She has testified as an expert in the field of neuropathology on numerous occasions. She was asked to consult in the Nichols' case by the office of the West Tennessee Regional Forensic Center to help confirm a cause of death.

She will testify, consistent with her report, previously disclosed, regarding her work consulting with the Regional Forensic Center regarding the death of Tyre Nichols. Dr. Folkerth will testify, based upon her training, experience and independent work on the case, that Nichols died as the result of blunt impact injury to the head. His injuries were consistent with having occurred a few days before his death. She observed the presence of subarachnoid bleeding on the brain. Additionally, Nichols had focal hemorrhaging, contusions, and bruises on the front of the brain, including the frontal lobe, which is a common area for such injuries. More significant, however, was the presence of rotational or torsional injuries to the brain.

Dr. Folkerth will testify that torsion can affect consciousness. If repeated or severe enough, torsion can cause hemorrhaging. Nichols had both surface impact bruising and torsional injuries. Tears along Nichols' septum pellucidum were indicative of torsional injuries. Generally,

5

Case 2:23-cr-20191-MSN Document 144 Filed 01/31/24 Page 6 of 12 PageID 649

hemorrhagic tears of white matter tracts are troublesome, as they can cause loss of speech and other body function. The traumatic axonal injuries were confirmed microscopically. Injuries caused by inadequate blood flow and poorly oxygenated cells were secondary to the injuries on the brain. She will provide testimony as to both her microscopic and macroscopic findings.

Dr. Folkerth will testify that part of her job involves determining and differentiating between the primary injuries and the secondary injuries. For example, an injury to the brain may result in bruising and swelling. The brain, however, is in a confined compartment, which decreases blood flow by itself. Eventually, the heart cannot overcome the pressure gradient to push blood up to the swollen brain. If there is decreased blood flow, then there is decreased oxygen, which could result in brain death. The pressure on the brain stem ultimately stops the heart and breathing, resulting in death. The initial injury to the head resulting in brain swelling was the primary injury, whereas the issues associated with lack of blood flow and oxygen were secondary. She will also testify as to the information relied upon in making a determination as to the cause / manner of death. A listing of prior testimony for Dr. Folkerth is included as Exhibit 3. A publication list is attached as Exhibit 4.

<u>Dr. Assaf</u>

Dr. Mohammad Assaf was a consulting physician/neurologist for Mr. Nichols while Nichols was hospitalized at St. Francis from on or about January 7-10, 2023. He received his medical degree in 1982 and has been certified by the American Board of Psychology and Neurology since 1993. He has not testified as an expert or person with specialized knowledge previously. Dr. Assaf will offer testimony as to his observations of Mr. Nichols and as to his analysis of tests run on Mr. Nichols during his hospitalization. In particular, Dr. Assaf will testify that test results for Mr. Nichols indicated brain death on or about January 9, 2023. Dr. Assaf will also likely testify, based upon his training and experience as set forth in his CV, that an individual with a traumatic brain injury such as Nichols had must receive medical care as soon as possible. Medical care providers should monitor both oxygen and blood supply to the brain. The brain needs oxygen and glucose, which are carried by the blood. If either are taken away, then brain damage could occur. Medical care providers should also monitor swelling of the brain, which could reduce oxygen levels in the brain. Damage to the brain from a lack of oxygen is irreversible.

The consequences of delayed treatment might depend on the cause of the brain damage. Brain bleeding and oxygen deprivation, if not corrected, could result in death. Delayed treatment of a patient with a traumatic brain injury could result in death.

Dr. Assaf will testify that it is considered standard care to conduct a CAT scan or MRI on a patient with a suspected brain injury. Doctors should monitor blood pressure and pulse and make sure the airway is clear. Doctors should also monitor brain pressure. In some cases, brain pressure may be reduced with medicine, but doctors may have to lower pressure by draining fluid with a tube. Every single minute a patient with excessive brain pressure experiences inadequate blood flow and oxygen causes irreversible damage to the brain. Multi-system failure could occur as a result of brain damage. As few as three minutes of oxygen deprivation can cause brain damage.

Medical care providers should work on a patient's breathing right away. A delay in initial resuscitation could affect the mortality rate, especially if someone's heart has stopped. The heart needs to pump blood to provide oxygen to the brain. It is important for medical care providers to know the mechanism of injury. They need to understand the type of injury. For example, they must be able to differentiate between a contusion and a concussion, as treatment may differ. If a patient arrives to the hospital unconscious, it is standard procedure to conduct a CAT scan. However, doctors will often reach out to the family to ask what the patient was doing before, during, or after

the injury to find out what happened. From a physician's standpoint, understanding what caused the injury can be helpful for determining treatment.

After initial imaging, doctors should continue to monitor a patient. Bleeding in the brain that was not apparent in initial imaging may appear after a week. Doctors may not be able to see the bleed at first, but they can see it later, so it is important to conduct subsequent imaging. A patient with a suspected brain injury should be admitted to the hospital and observed. Treatment should not be delayed, as minutes are vital. The prevention of secondary injuries is crucial. EMT and first responders should focus on the airway and the heart. Additionally, they should work to stop bleeding as they move the patient to next care, whether by ambulance or flight to the emergency room.

Dr. Assaf will testify that knowing the mechanism of injury is important. For instance, if a CAT scan for an unconscious patient appears normal, doctors need to know why the patient is unconscious. When a patient such as Mr. Nichols has a traumatic brain injury, doctors should monitor the brain pressure, the breathing and airway, and check for seizures. Electrical seizures may not be seen externally, but can be detected by viewing brain activity. These things are best conducted at a hospital; therefore, it is important first responders get a patient to the hospital as quickly as possible. It is good for a physician to know how an injury occurred. Minutes without adequate care could cause irreversible damage. EMS meets the patient in those first few important minutes. Therefore, EMS needs to know how an injury occurred as well. Dr. Assaf's CV is included as Exhibit 5. A signed summary of his testimony is included as Exhibit 6.

Mr. Anderson

Daniel Anderson is currently employed as a toxicologist with NMS Labs. He received his Bachelor of Science degree in 1988 and his Master of Science degree in 1990. He has over 20 years of experience in the field and has been certified by the American Board of Forensic Toxicology since 2007. He has published and presented extensively on topics in his field. He is a Fellow with the American Academy of Forensic Sciences and a member of the Society of Forensic Toxicologists, among many other professional associations. His CV is attached as Exhibit 7.

In his capacity as a toxicologist with NMS Labs, Dr. Anderson analyzed the blood, urine and tissue samples of Tyre Nichols. He is expected to testify as to how the analysis process works from intake, to examination, to report writing. He will testify as to his findings from the testing performed in this case. His signed report has previously been provided in discovery.

Dr. Law

Dr. Peter Law was the attending physician for Tyre Nichols during his hospitalization at St. Francis in January 2023. Dr. Law received his medical degree from Georgetown University and completed his residency at the University of Tennessee. He is board certified by the American Board of Internal Medicine in the areas of critical care and pulmonary disease. He has published *"Calcium and Magnesium Homeostasis in Aldosteronism: Response to Diuretics."* P.H. Law, yd Sun, Syamal K Bhattacharya, Karl T Weber, Journal of Investigative Medicine 53(1_part_4):266-266. DOI:10.1177/1081558905053001568, May 2023.

Dr. Law will testify as to the treatment and diagnosis provided to Mr. Nichols during his hospitalization. The treatment records have been previously provided in discovery. They can be located beginning at Bates No. 7672. Upon the advice of counsel and despite reasonable efforts from the United States, Dr. Law has declined to sign a summary of testimony. He did electronically

sign the pertinent medical records of treatment from St. Francis.

Nichols was admitted to Saint Francis Hospital on or about January 7, but Dr. Law did not see him until the next morning. Before he arrived at work, nurse practitioner Rachel Love called and told him they received a patient who had been severely beaten, and the police told her she could not talk to the patient's family. Nichols had multiple abrasions over his body as well as bruising and swelling. He was nonresponsive to deep pain stimulation. There was evidence of multi system failure. Cardiopulmonary arrest appeared to have caused the biggest injury to Nichols' kidneys. Traumatic compartment syndrome and rhabdomyolysis were probably contributing factors. Nichols was in extremely bad condition and needed dialysis and a blood transfusion. He was showing signs of renal failure, liver failure, brain injury and shock, but on January 8, he was not clinically dead. Nichols was intubated and breathing over the ventilator, meaning he was breathing to some degree on his own, and he had reflexes. Nichols also had pupillary response, indicating Nichols was not brain dead at the time. Nichols' condition continued to worsen, however, during the course of his hospitalization. Further testing showed the presence of brain hematomas. Medical staff at the hospital ultimately determined Mr. Nichols to be brain dead. He was removed from the ventilator on January 10.

Finally, pursuant to Federal Rule of Criminal Procedure 16(b)(1)(C), the United States reiterates its request that the defendants provide the United States with a written summary of testimony that the defendants intend to use under Rules 702, 703, or 705 of the Federal Rules of Evidence during their case in chief, including the witness's opinions, the basis and reasons for opinions, and the witness's qualifications.

Respectfully submitted,

KEVIN G. RITZ United States Attorney

By: <u>s/David Pritchard</u> DAVID PRITCHARD ELIZABETH ROGERS Assistant United States Attorneys 167 N. Main Street, Ste. 800 Memphis, TN 38103 901/544-4231

> KRISTEN CLARKE Assistant Attorney General Civil Rights Division U.S. Department of Justice

FORREST CHRISTIAN KATHRYN E. GILBERT Trial Attorneys Civil Rights Division 950 Pennsylvania Ave., NW Washington, DC 20530 (202) 616-2430

CERTIFICATE OF SERVICE

I, David Pritchard, hereby certify that the on the date below, I electronically filed the foregoing with the Clerk of Court for the Western District of Tennessee via the Electronic File System which sent notification of said filing to defense counsel.

<u>s/David Pritchard</u> DAVID PRITCHARD January, 31, 2024

CURRICULUM VITAE

MARCO AURELIO ROSS, M.D.

ADDRESS	West Tennessee Regional Forensic Center University of Tennessee Health Science Center 637 Poplar Avenue Memphis, TN 38105 Phone: (901) 222-4600 Fax: (901) 222-4645
EDUCATION	
1977-1981	Bachelor of Science Purdue University West Lafayette, Indiana
1981-1985	Doctor of Medicine Tulane University New Orleans, Louisiana
1985-1991	General Surgery Residency University of South Carolina Columbia, South Carolina
1988-1989	Hyperbaric Medicine Research Fellowship University of South Carolina Columbia, South Carolina
1995-1999	Pathology Residency University of Vermont Burlington, Vermont
1999-2000	Forensic Pathology Fellowship North Carolina Office of the Chief Medical Examiner and University of North Carolina Chapel Hill, North Carolina

Curriculum Vitae Marco A. Ross, M.D.

MILITARY SERVICE

	Branch: United States Navy – Medical Corps
	Highest Rank: Lieutenant Commander
	Achievements and Awards: Surface Warfare Medical Department Officer Navy Achievement Medal with Gold Star Southwest Asia Service Medal with Bronze Star National Defense Service Medal
	Honorable Discharge: July 10, 1995
1981-1985	Armed Forces Health Profession Scholarship Program (Inactive Reserve)
1985-1991	PRIMUS (Physician Reservists in Medical Universities and Schools)
1991	Staff Surgeon Naval Regional Medical Center San Diego, California
1991-1992	Ship's Surgeon USS Ranger (CV-61)
1992-1995	Staff Surgeon Naval Hospital Lemoore, California

PROFESSIONAL AND ACADEMIC APPOINTMENTS

1985-1990	Resident Department of Surgery Richland Memorial Hospital Columbia, South Carolina
1985-1990	Resident Department of Surgery William Jennings Bryan Dorn VA Hospital Columbia, South Carolina
1990-1991	Chief Resident Department of Surgery Richland Memorial Hospital William Jennings Bryan Dorn VA Hospital Columbia, South Carolina
1991	Staff Surgeon Naval Regional Medical Center San Diego, California

Curriculum Vitae Marco A. Ross, M.D.

PROFESSIONAL AND ACADEMIC APPOINTMENTS (Continued)

1992-1995	Staff Surgeon Naval Hospital Lemoore, California
1993-1995	Chairman, Surgical Case Review/Surgical Tissue Review/ Blood Utilization Review Committee Naval Hospital Lemoore, California
1995-1998	Resident Department of Pathology University of Vermont/Fletcher Allen Health Care Burlington, Vermont
1996-1999	Clinical Instructor Department of Pathology University of Vermont Burlington, Vermont
1998-1999	Chief Resident Department of Pathology University of Vermont/Fletcher Allen Health Care Burlington, Vermont
1999-2000	Fellow Department of Pathology University of North Carolina Hospitals Chapel Hill, North Carolina
1999-2000	Assistant Chief Medical Examiner North Carolina Office of the Chief Medical Examiner Chapel Hill, North Carolina
1999-2000	Medical Examiner Orange and Durham Counties State of North Carolina
2000-2002	Medical Examiner Maricopa County Office of the Medical Examiner Phoenix, Arizona
2002-2007	Deputy Medical Examiner Spokane County Office of the Medical Examiner Spokane, Washington
2007-2017	Deputy Chief Medical Examiner Shelby County Medical Examiner's Office West Tennessee Regional Forensic Center Memphis, Tennessee

Case 2:23-cr-20191-MSN Document 144-1 Filed 01/31/24 Page 4 of 6 PageID 659

Curriculum Vitae Marco A. Ross, M.D.

PROFESSIONAL AND ACADEMIC APPOINTMENTS (Continued)

2017-2020		Interim Chief Medical Examiner Shelby County Medical Examiner's Office West Tennessee Regional Forensic Center Memphis, Tennessee
2020-Present		Chief Medical Examiner Shelby County Medical Examiner's Office West Tennessee Regional Forensic Center Memphis, Tennessee
2014-Present		Clinical Assistant Professor Department of Pathology and Laboratory Medicine University of Tennessee Health Science Center Memphis, Tennessee
CERTIFICAT	IONS	Diplomate, American Board of Pathology (Anatomic, Clinical, and Forensic Pathology)
LICENSURE		State of Tennessee
PROFESSION	AL SOCIETIES	American Academy of Forensic Science American Society of Clinical Pathologists College of American Pathologists National Association of Medical Examiners
RESEARCH A	CTIVITIES	
	1982-1983	Eosinophilic Responses in Gerbils Infected with <i>Brugia pahangi</i> Tulane University School of Medicine New Orleans, Louisiana
	1983	Topical Diethylcarbamazine Use in Onchocerciasis Armed Forces Institute of Pathology Washington, D.C.
	1988-1989	Effects of Hyperbaric Oxygen on Carcinogenesis in Rats University of South Carolina School of Medicine Columbia, South Carolina
	1988-1989	Ischemic Reperfusion Injury of the Liver University of South Carolina School of Medicine Columbia, South Carolina

Curriculum Vitae Marco A. Ross, M.D.

PUBLICATIONS

- Stingl P, Ross M, Gibson DW, Ribas J, Conner DH: A Diagnostic "Patch Test" for Onchocerciasis Using Topical Diethylcarbamazine. Trans R Soc Trop Med Hyg 78:254-258, 1984.
- Stingl P, Pierce PF, Connor DH, Gibson DW, Straesse T, Ross MA, Ribas JL: Does Dexamethasone Suppress the Mazzotti Reaction in Patients with Onchocerciasis? Acta Tropica 45:77-85, 1988.
- 3. Bynoe RP, Bell RM, Miles WS, Close TP, **Ross MA**, Fine FG: Complications of Nonoperative Management of Blunt Hepatic Injuries. J Trauma 32:308-315, 1992.

ABSTRACTS

1. Katz S, Gary B, **Ross M**, Lammie P: Immunologic Reactivity of Gerbils Acutely Infected with *Brugia pahangi*. Fed Proc 42:852, 1983.

PAPERS PRESENTED

- Ross MA, Moore WM, Smith C: Aorticopulmonary Paragangliomas Case Review of the Literature. Annual Meeting of the South Carolina Chapter of the American College of Surgeons, Greenville, South Carolina, September 12, 1987.
- Ross MA, Bynoe RP: Airway Injuries A Ten Year Review. Annual Meeting of the South Carolina Chapter of the American College of Surgeons, Spartanburg, South Carolina, January 18, 1991.
- 3. Harrell D, **Ross M**: A Fatal Case of Histoplasmosis with Colonic Perforation in a Patient with Acquired Immune Deficiency Syndrome (AIDS). Annual Meeting of the American Academy of Forensic Sciences, Anaheim, California, February 17-22, 2020.

SCIENTIFIC EXHIBITS

- 1. **Ross MA**, Howard ML, Greene FL: The Effect of Hyperbaric Oxygen on the Induction and Growth of Dimethylhdrazine Induced Colon Cancer in Rats. Annual Assembly of the Southeastern Surgical Congress, Naples, Florida, January 28-31, 1990.
- 2. Williams RB, Greene FL, Pettigrew FC, **Ross MA**: The Effect of Hyperbaric Oxygen on the Induction and Growth of Colon Cancer in Rats. Clinical Congress of the American College of Surgeons, Chicago, Illinois, October 20-25, 1991.
- 3. Miles WS, Bynoe RP, Bell RM, **Ross MA**: Traumatic Airway Injuries. Annual Assembly of the Southeastern Surgical Congress, Atlanta, Georgia, May 31-June 3, 1992.
- 4. Miles WS, Bynoe RP, Bell RM, **Ross MA**, Magee JB: Quantitative Evaluation of Hepatic Oxidative Metabolism in Ischemic Reperfusion Injury. Annual Assembly of the Southeastern Surgical Congress, Atlanta, Georgia, May 31-June 3, 1992.

Curriculum Vitae Marco A. Ross, M.D.

SCIENTIFIC EXHIBITS (Continued)

- 5. Mattia AR, **Ross MA**, Trainer TD: Eosinophils and Hepatitis C. Annual Meeting of the United States and Canadian Academy of Pathology, Orlando, Florida, March 1-7, 1997.
- 6. **Ross MA**, Burkes EJ, Butts JD: Dental Evidence in Unidentified Remains. Annual Meeting of the American Academy of Forensic Sciences, Reno, Nevada, February 21-26, 2000.
- Grisham LA, Ross MA: Cardiopulmonary Resuscitation (CPR)-Related Fractures and Their Differences From Fractures Due to Blunt Force Trauma. Annual Meeting of the American Academy of Forensic Sciences, New Orleans, Louisiana, February 13-18, 2017.
- Lyttle BD, Ross MA: A Growth Chart Review in Sudden Unexpected Infant Death. Annual Meeting of the American Academy of Forensic Sciences, Seattle, Washington, February 19-24, 2018.
- Quiz JYT, Ross MA, Curry E: A Case Report on the Death of a 20-Year-Old Female Due to Complications of Minimally Invasive Transcatheter Atrial Septal Defect (ASD) Closure. Annual Meeting of the American Academy of Forensic Sciences, Baltimore, Maryland, February 18-23, 2019.

INVITED LECTURES/SPEAKER

- 1. **Ross MA**, Miles WS: Pancreatic Injuries. Nursing Grand Rounds, Richland Memorial Hospital, Columbia, South Carolina, September 5, 1990.
- 2. **Ross MA**: Organ Procurement and Preservation. Surgical Grand Rounds, University of South Carolina School of Medicine, Columbia, South Carolina, April 13, 1991.
- 3. **Ross MA**: Surgical Interventions in Oncology. Oncology Nursing Symposium, Valley Medical Center, Fresno, California, February 9, 1994.
- 4. **Ross MA**: DNA Technology in Forensic Medicine. Pathology Grand Rounds, University of Vermont/Fletcher Allen Health Care, Burlington, Vermont, March 19, 1997.
- 5. **Ross MA**: Pathology of the Cardiac Conduction System. Pathology Grand Rounds, University of Vermont/Fletcher Allen Health Care, Burlington, Vermont, April 15, 1999.
- 6. **Ross MA**: Forensic Pathology. Pre-medical Internship class, Arizona State University, Tempe, Arizona, February 26, 2002.
- 7. **Ross MA**: Overview of Forensic Entomology. Quarterly Meeting of the California Association of Toxicologists, Phoenix, Arizona, May 17-18, 2002.
- 8. **Ross MA**: Forensic Entomology. Meeting of Idaho State Association of County Coroners, Coeur d'Alene, Idaho, September 23, 2004.
- 9. **Ross MA**: Forensic Pathology. Basic Homicide Investigation School, Washington State Criminal Justice Training Commission, Spokane, Washington, October, 2005.
- 10. Panel Speaker. Action for Hope and Healing: Responses to Community Violence, Le Bonheur Children's Hospital, Memphis, Tennessee, April 6, 2019.

Dr Marco Ross CASE LIST

Federal (Western District of Tennessee) – United States v. Tomarcus Baskerville, et al. – January/February 2024, Docket No. 2:22cr20068.

Federal (Western District of Tennessee) – United States v. Gregory Taylor – October 2022, Docket No. 2:18cr20280. Appealed to United States Court of Appeals, Sixth Circuit, No. 23-5473.

State v. Todd Allen Robbins, Chester County, Tennessee March 23, 2023, Docket No. 22-CR-45. Appealed to Court of Criminal Appeals of Tennessee, No. W2023-01102-CCA-R3-CD.

State of Tennessee vs. Bobby Richardson (Fayette County - Homicide) - December 14, 2022

State of Tennessee v William Flynn October 2022 - (Shelby County), Docket Nos. 18-05196,C1807579. Appealed to Court of Criminal Appeals of Tennessee, at Jackson, No. W2023-00184-CCA-R3-CD.

State of Tennessee v. Deshaun Tate (Shelby County) - October 2022, Docket No. 19-03579. Appealed to Court of Criminal Appeals of Tennessee, at Jackson, No. W2022-01671-CCA-R3-CD.

State of Tennessee vs. Caswvion Pirtle (Hardeman County – Homicide) – September 23, 2022

State of Tennessee v. Deonta Baskin (Shelby County)- June 2022, Docket No. No. 18-05058. Appealed to Court of Criminal Appeals of Tennessee, at Jackson, No. W2022-01796-CCA-R3-CD.

State (Gibson County) Uel Pearson- JUNE 2022

State (28th Judicial District) vs Benjamin Bradford 6-23-22

State of Tennessee vs Joshua Hunter Bargery (29th Judicial District) - April 2022

State of Tennessee v. Billy Ray Turner (Shelby County) – March 2022, Docket No. 17-05881. Appealed to Court of Criminal Appeals of Tennessee, at Jackson, No. W2022-01165-CCA-R3-CD.

State of Tennessee vs Demetrice Livingston - (29th Judicial District) - March 2022, Docket No. 19-CR-312. Appealed to Court of Criminal Appeals of Tennessee, at Jackson, No. W2022-01474-CCA-R3-CD.

State of Tennessee v. Marterrius Hite (Shelby County) – Trial – February 2022, Docket Nos. 16-00714. Appealed to Court of Criminal Appeals of Tennessee, at Jackson, No. W2022-00678-CCA-R3-CD.

State of Tennessee v. Shanynthia Gardner (Shelby County) – December 2021, Docket Nos.17-00369, C170112. Appealed to Court of Criminal Appeals of Tennessee, at Jackson, No. W2022-00820-CCA-R3-CD.

State of Tennessee v. Latosha Starks-Twilley (Shelby County) – November 2021, Docket No. C1705886. Appealed to Court of Criminal Appeals of Tennessee, at Jackson, No. W2022-00020-CCA-R3-CD.

State (Shelby County) Charles Harris- NOVEMBER 2021

State (Shelby County) Eric Williams- NOVEMBER 2021

State of Tennessee v. Cadarius Head (Shelby County)- September 2021, Docket No. 18-06981. Appealed to Court of Criminal Appeals of Tennessee, at Jackson, No. W2021-01500-CCA-R3-CD.

State of Tennessee v. Justine Welch (Shelby County)- August 2021, Docket Nos. C1800802, 18-00253. Appealed to Court of Criminal Appeals of Tennessee, at Jackson, No. W2021-01233-CCA-R3-CD.

State of Tennessee v. Lloyd Crawford (Shelby County) – July 2021, Docket No. 17-02526. Appealed to Court of Criminal Appeals of Tennessee, at Jackson, No. W2019-02056-CCA-R3-CD.

State of Tennessee v. Demerrick Porter (Shelby County) – July 2021, Docket Nos. C1810060/18-06890. Appealed to Court of Criminal Appeals of Tennessee, at Jackson, No. W2021-01216-CCA-R3-CD.

State of Tennessee v. Ryan Winston (Shelby County) – June 2021, Docket Nos. C1902454/19-61781. Appealed to Court of Criminal Appeals of Tennessee, at Jackson, No. W2021-01315-CCA-R3-CD.

State of Tennessee v. Damon Johnson (Shelby County) – 2021, Docket Nos. 17-04436, C1704748. Appealed to Court of Criminal Appeals of Tennessee, at Jackson, No. W2020-00260-CCA-R3-CD.

State of Tennessee v. Lavonte Douglas (25th Judicial District – Hardeman) – January 2020, Docket No. 19-CR-103. Appealed to Court of Criminal Appeals of Tennessee, at Jackson, No. W2020-01012-CCA-R3-CD.

State of Tennessee v. Kevvon Clark (Shelby County) -January 2020, Docket No. 18-00185. Appealed to Court of Criminal Appeals of Tennessee, at Jackson, No. W2020-01036-CCA-R3-CD.

State of Tennessee v. Antoine Hinton (Shelby County) - 2019, Docket No. 16-06788. Appealed to Court of Criminal Appeals of Tennessee, at Jackson, No. W2018-01931-CCA-R3-CD.

State of Tennessee v. Michael Wilson (Shelby County) – 2019, Docket No. 16-02201. Appealed to Court of Criminal Appeals of Tennessee, at Jackson, No. W2019-01455-CCA-R3-CD.

State of Tennessee v. Juvonta Carpenter (Shelby County) -- 2019, Docket Nos. C1701562, 17-01255. Appealed to Court of Criminal Appeals of Tennessee, at Jackson, No. W2019-01362-CCA-R3-CD.

State of Tennessee v. Termaine York (Shelby County) – November 2019, Docket Nos. 18-07034, C1810401. Appealed to Court of Criminal Appeals of Tennessee, at Jackson, No. W2020-00292-CCA-R3-CD.

State (Shelby County) Thomas Givand- SEPTEMBER 2019

State of Tennessee v. Torius Russell (29th Judicial District) - August 2019

State (Shelby County) Jamarcus Miller- JUNE 2019

State of Tennessee v. Ruben Walton (Shelby County) – May 2019, Docket No. 18-00920. Appealed to Court of Criminal Appeals of Tennessee, at Jackson, No. W2019-01762-CCA-R3-CD.

State of Tennessee v. Tony Thomas and Laronda Turner (Shelby County) – May 2019, Docket Nos. C17-00608, C17-00609, & 17-00382. Appealed to Court of Criminal Appeals of Tennessee, at Jackson, No. W2019-01202-CCA-R3-CD. Appealed to Supreme Court of Tennessee, No. W2019-01202-SC-R11-PC.

State of Tennessee v. Jocquez Parham- (Shelby County) March 2019, Docket No. 17-01986. Appealed to Court of Criminal Appeals of Tennessee, at Jackson, No. W2019-00868-CCA-R3-CD.

State of Tennessee v. Antonio Robinson (Shelby County) – March 2019, Docket No. 16-02201. Appealed to Court of Criminal Appeals of Tennessee, at Jackson, No. W2019-01313-CCA-R3-CD.

State of Tennessee v. Anthony Olivo and Andre Bowen (Shelby County) – January 2019, Docket No. 18-01853. Appealed to Court of Criminal Appeals of Tennessee, at Jackson, No. W2019-00530-CCA-R3-CD. Appealed to Court of Criminal Appeals of Tennessee, at Jackson, No. W2019-01210-CCA-R3-CD.

State of Tennessee v. Anthony Ellis (Shelby County) – 2018, Docket No. 17-02526. Appealed to Court of Criminal Appeals of Tennessee, at Jackson, No. W2019-02081-CCA-R3-CD.

State of Tennessee v. Zachary Thompson (Shelby County) - November 2018, Docket No. 17-01165. Appealed to Court of Criminal Appeals of Tennessee, at Jackson, No. W2019-00023-CCA-R3-CD.

State of Tennessee v. Tremaine Wilbourn (Shelby County) – November 2018, Docket No. 16-00515. Appealed to Court of Criminal Appeals of Tennessee, at Jackson, No. W2019-00305-CCA-R3-CD.

State of Tennessee v. Antwon Young (Shelby County) – July 2018, Docket No. 15-04917. Appealed to Court of Criminal Appeals of Tennessee, at Jackson, No. W2019-00090-CCA-R3-CD.

State of Tennessee v. Morrieo Allen (Shelby County) – May 2018, Docket No. 15-04011. Appealed to Court of Criminal Appeals of Tennessee, at Jackson, No. W2018-01339-CCA-R3-CD.

State of Tennessee v. Darius Mitchell and Darius Alston (Lauderdale) Trial - February 28, 2018, Docket No. 9775. Appealed to Court of Criminal Appeals of Tennessee, at Jackson, No. W2018-00550-CCA-R3-CD. Appealed to Court of Criminal Appeals of Tennessee, at Jackson, No. W2022-00099-CCA-R3-PC.

State (28th Judicial District) vs Dustin Cathey 2-16-18

State of Tennessee v. Marterius O'Neal (Shelby County) – August 2017, Docket No. 15-04917. Appealed to Court of Criminal Appeals of Tennessee, at Jackson, No. W2019-02157-CCA-R3-CD.

State (28th Judicial District) vs Daniel Parker 6-29-17

State of Tennessee v. Antonio Benson (Shelby County) – Trial – January 2017, Docket No. 13-04060. Appealed to Court of Criminal Appeals of Tennessee, at Jackson, No. W2017-01119-CCA-R3-CD. Appealed to Supreme Court of Tennessee, No. W2017-01119-SC-R11-CD. Appealed to US Supreme Court, No. 20-5299.

State (28th Judicial District) vs William Jeremy Cole 1-17-17

Cases not on list – possibly just a fact witness

Graham v. Shelby County, Tennessee, et al., United States District Court, WD Tennessee, Docket No. <u>2:21cv2357</u>.

Involvement with case: Issued autopsy report – unclear if fact witness Link to document:

https://advance.lexis.com/r/documentprovider/k2_bk/attachment/data?attachmentid=urn:contentI tem:698R-RDB3-RS98-104G-00000-

00&attachmenttype=PDF&attachmentname=Click%20to%20view%20PDF%20document&origi nation=BlobStore&sequencenumber=1&ishotdoc=false&docTitle=&pdmfid=1519217&#page=

Grove v. Carlin, United States District Court, Idaho, Docket No. <u>3:17cv306</u> Involvement with case: Gave testimony, issued autopsy report – unclear if fact witness Link to document:

https://www.westlaw.com/Document/I9089a2208a2a11ea90c4ecc2e1f3ae4a/View/FullText.html? transitionType=Default&contextData=(sc.Default)&VR=3.0&RS=cblt1.0

Hayes v. Lee, United States District Court, WD Tennessee, Docket No. 2:18cv2070. Involvement with case: Gave testimony, issued autopsy report – unclear if fact witness Link to document:

https://www.westlaw.com/Document/I9c1763e0ac8111ecb7ceee74f6b36648/View/FullText.htm 1?transitionType=Default&contextData=(sc.Default)&VR=3.0&RS=cblt1.0

Lawler v. Hardeman County, Tennessee, et al., United States District Court, WD Tennessee, Docket No. <u>1:19cv1174</u>.

Involvement with case: Issued autopsy report – unclear if fact witness Link to document:

https://advance.lexis.com/r/documentprovider/k2_bk/attachment/data?attachmentid=urn:contentI tem:68M8-TDN3-RRNR-W4V7-00000-

00&attachmenttype=PDF&attachmentname=Click%20to%20view%20PDF%20document&origi nation=BlobStore&sequencenumber=1&ishotdoc=false&docTitle=&pdmfid=1519217&#page=

McChristion v. AAA Cooper Transportation Accidental Death And Dismemberment Plan, et al., United States District Court, WD Tennessee, Docket No. <u>1:21cv332</u>.

Involvement with case: Issued autopsy report – unclear if fact witness Link to document:

https://advance.lexis.com/r/documentprovider/k2_bk/attachment/data?attachmentid=urn:contentI tem:62FH-RT01-DXDT-G4N1-00000-

00&attachmenttype=PDF&attachmentname=Click%20to%20view%20PDF%20document&origi nation=BlobStore&sequencenumber=1&ishotdoc=false&docTitle=&pdmfid=1519217&#page=

Smith, et al. v. Benihana National Corp., Circuit Court Of Tennessee, Shelby County, Docket No. CT-001573-14. Appealed to Court of Appeals of Tennessee, at Jackson, Docket No. W2018-00992-COA-R3-CV.

Involvement with case: Referred to as witness – unclear if fact witness Link to document: <u>https://plus.lexis.com/api/permalink/2b01c4dc-47db-4960-b80d-9548b7c6cb38/?context=1530671</u>

Spicer v. Perry, United States District Court, WD Tennessee, Docket No. <u>1:17cv1131</u>. Involvement with case: Gave testimony, issued autopsy report – unclear if fact witness Link to document:

https://www.westlaw.com/Document/I2efbf9e0d25511ea8fcf98c4a297e5e3/View/FullText.html ?transitionType=Default&contextData=(sc.Default)&VR=3.0&RS=cblt1.0

State of Tennessee v. Bobo, Criminal Court Of Tennessee, Shelby County, Docket No. 08-02588. Appealed to Court of Criminal Appeals of Tennessee, at Jackson, Docket No. W2021-00650-CCA-R3-CD.

Involvement with case: Gave testimony, classified as expert, issued autopsy report – may not be on case list because original case is so old.

Link to document:

https://www.westlaw.com/Document/Ic156d300a67511eca822e285f8d53e4b/View/FullText.htm l?transitionType=Default&contextData=(sc.Default)&VR=3.0&RS=cblt1.0

State of Tennessee v. Brooks, Criminal Court Of Tennessee, Shelby County, Docket No. 17-05802. Appealed to Court of Criminal Appeals of Tennessee, at Jackson, Docket No. W2019-01802-CCA-R3-CD.

Involvement with case: Issued autopsy report – unclear if fact witness Link to document:

https://www.westlaw.com/Document/I073f90403b2f11eb84f4f0b41657366a/View/FullText.html ?transitionType=Default&contextData=(sc.Default)&VR=3.0&RS=cblt1.0

State of Tennessee v. Dodd, Criminal Court Of Tennessee, Shelby County, Docket No. 16-06940. Appealed to Court of Criminal Appeals of Tennessee, at Jackson, Docket No. W2018-01961-CCA-R3-CD.

Involvement with case: Gave testimony, issued autopsy report – unclear if fact witness Link to document:

https://www.westlaw.com/Document/I3017fcd026a111ea9076f88ee0fd553a/View/FullText.html ?transitionType=Default&contextData=(sc.Default)&VR=3.0&RS=cblt1.0

State of Tennessee v. Fisher, Criminal Court Of Tennessee, Shelby County, Docket No. 17-02467. Appealed to Court of Criminal Appeals of Tennessee, at Jackson, Docket No. W2018-02173-CCA-R3-CD.

Involvement with case: Gave testimony, classified as expert Link to document:

https://www.westlaw.com/Document/I9838ea705aec11eaa7f2c2ee73128881/View/FullText.html ?transitionType=Default&contextData=(sc.Default)&VR=3.0&RS=cblt1.0

State of Tennessee v. Ghazali, Criminal Court Of Tennessee, Shelby County, Docket Nos. 18-03008,C1804328. Appealed to Court of Criminal Appeals of Tennessee, at Jackson, Docket No. W2019-02096-CCA-R3-CD.

Involvement with case: Gave testimony

Link to document: https://plus.lexis.com/api/permalink/7a5518a7-589c-4083-9ecb-30494232521a/?context=1530671

State of Tennessee v. Lanier, Criminal Court Of Tennessee, Shelby County, Docket No. 08-03059. (Another document listed No. 08–0359.) Appealed to Court of Criminal Appeals of Tennessee, at Jackson, Docket No. W2011–01626–CCA–R3–CD. Appealed to Court of Criminal Appeals of Tennessee, at Jackson, Docket No. W2018-01434-CCA-R3-PC. Involvement with case: Gave testimony, issued autopsy report – unclear if fact witness Link to document:

https://www.westlaw.com/Document/I8371a37074a511ea8a27c5f88245c3b8/View/FullText.htm l?transitionType=Default&contextData=(sc.Default)&VR=3.0&RS=cblt1.0

State of Tennessee v. Wicks, Criminal Court Of Tennessee, Shelby County, Docket No. 10–01779. Appealed to Court of Criminal Appeals of Tennessee, at Jackson, Docket No. W2011–00964–

CCA-R3-CD. Appealed to Court of Criminal Appeals of Tennessee, at Jackson, Docket No. W2019-02187-CCA-R3-PC. Involvement with case: Issued autopsy report – unclear if fact witness Link to document: https://www.westlaw.com/Document/Ic64253d02c5511eb951dc224771a31b0/View/FullText.htm

https://www.westlaw.com/Document/Ic64253d02c5511eb951dc224771a31b0/View/FullText.htm 1?transitionType=Default&contextData=(sc.Default)&VR=3.0&RS=cblt1.0

Winn v. Washburn, United States District Court, WD Tennessee, Docket No. 2:18cv2426. Involvement with case: Gave testimony, issued autopsy report – unclear if fact witness Link to document:

https://www.westlaw.com/Document/I7d87a9d0238811ec91fff72264cfd314/View/FullText.html ?transitionType=Default&contextData=(sc.Default)&VR=3.0&RS=cbl1.0 Dr. Rebecca Folkerth CASE LIST

Federal

Nunez v. Secretary of HHS - Court of Federal Claims - February 2018

Yates v. Secretary of HHS – Court of Federal Claims – July 2017

United States v. Brian Coll - Southern District of New York - December 2016

State

State of Ohio v. Joshua Mounts - Hamilton County - B-1801231 - October 2021

Rebecca D. Folkerth

Articles

<u>The neuropathology of intimate partner violence.</u> Dams-O'Connor K, Seifert AC, Crary JF, Delman BN, Del Bigio MR, Kovacs GG, Lee EB, Nolan AL, Pruyser A, Selmanovic E, Stewart W, Woodoff-Leith E, Folkerth RD. Acta Neuropathol. 2023 Dec;146(6):803-815. doi: 10.1007/s00401-023-02646-1. Epub 2023 Oct 28. PMID: 37897548

<u>A Transcriptomic Comparative Study of Cranial Vasculature.</u> Zhang J, Ryu JY, Tirado SR, Dickinson LD, Abosch A, Aziz-Sultan MA, Boulos AS, Barrow DL, Batjer HH, Binyamin TR, Blackburn SL, Chang EF, Chen PR, Colby GP, Cosgrove GR, David CA, Day AL, Folkerth RD, Frerichs KU, Howard BM, Jahromi BR, Niemela M, Ojemann SG, Patel NJ, Richardson RM, Shi X, Valle-Giler EP, Wang AC, Welch BG, Williams Z, Zusman EE, Weiss ST, Du R; GENIE Investigators. Transl Stroke Res. 2023 Aug 23. doi: 10.1007/s12975-023-01186-w. Online ahead of print. PMID: 37612482

Sustaining wakefulness: Brainstem connectivity in human consciousness. Edlow BL, Olchanyi M, Freeman HJ, Li J, Maffei C, Snider SB, Zöllei L, Iglesias JE, Augustinack J, Bodien YG, Haynes RL, Greve DN, Diamond BR, Stevens A, Giacino JT, Destrieux C, van der Kouwe A, Brown EN, Folkerth RD, Fischl B, Kinney HC. bioRxiv. 2023 Jul 15:2023.07.13.548265. doi: 10.1101/2023.07.13.548265. Preprint. PMID: 37502983

What Can We Still Learn from Brain Autopsies in COVID-19? Solomon IH, Singh A, Folkerth RD, Mukerji SS. Semin Neurol. 2023 Apr;43(2):195-204. doi: 10.1055/s-0043-1767716. Epub 2023 Apr 6. PMID: 37023787 Review.

<u>Neuropathologic findings in a young woman 4 years following declaration of brain death: case analysis</u> <u>and literature review.</u> Folkerth RD, Crary JF, Shewmon DA. J Neuropathol Exp Neurol. 2022 Dec 19;82(1):6-20. doi: 10.1093/jnen/nlac090. PMID: 36519406 Review.

<u>Mild respiratory COVID can cause multi-lineage neural cell and myelin dysregulation</u>. Fernández-Castañeda A, Lu P, Geraghty AC, et al. Cell. 2022;185(14):2452. doi:10.1016/j.cell.2022.06.008

Detection of astrocytic tau pathology facilitates recognition of chronic traumatic encephalopathy neuropathologic change. Kamar E. Ameen-Ali, Abigail Bretzin, Edward B. Lee, et al. Acta Neuropathologica Communications. 2022;10(1):1-11. doi:10.1186/s40478-022-01353-4

Reply: The spectrum of complement pathway activation is integral to the pathogenesis of severe <u>COVID-19.</u> Lee MH, Perl DP, Steiner J, Pasternack N, Li W, Maric D, Safavi F, Horkayne-Szakaly I, Jones R, Stram MN, Moncur JT, Hefti M, Folkerth RD, Nath A. Brain. 2022 Nov 21;145(11):e118. doi: 10.1093/brain/awac353. PMID: 36327115

<u>Neurovascular injury with complement activation and inflammation in COVID-19.</u> Lee MH, Perl DP, Steiner J, Pasternack N, Li W, Maric D, Safavi F, Horkayne-Szakaly I, Jones R, Stram MN, Moncur JT, Hefti

M, Folkerth RD, Nath A. Brain. 2022 Jul 29;145(7):2555-2568. doi: 10.1093/brain/awac151. PMID: 35788639

<u>PTSD - Seeking the Ghost in the Machine.</u> Folkerth RD. N Engl J Med. 2022 Jun 9;386(23):2233-2234. doi: 10.1056/NEJMe2204710. PMID: 35675181

<u>Neuropathology of Pediatric SARS-CoV-2 Infection in the Forensic Setting: Novel Application of Ex Vivo</u> <u>Imaging in Analysis of Brain Microvasculature.</u> Stram MN, Seifert AC, Cortes E, Akyatan A, Woodoff-Leith E, Borukhov V, Tetlow A, Alyemni D, Greenberg M, Gupta A, Krausert A, Mecca L, Rodriguez S, Stahl-Herz J, Guzman MA, Delman B, Crary JF, Dams-O'Connor K, Folkerth RD. Front Neurol. 2022 May 24;13:894565. doi: 10.3389/fneur.2022.894565. eCollection 2022. PMID: 35685741

Dementia in the Forensic Setting: Diagnoses Obtained Using a Condensed Protocol at the Office of Chief Medical Examiner, New York City. Priemer DS, Folkerth RD. J Neuropathol Exp Neurol. 2021 Sep 10;80(8):724-730. doi: 10.1093/jnen/nlab059. PMID: 34388235

<u>COllaborative Neuropathology NEtwork Characterizing ouTcomes of TBI (CONNECT-TBI)</u>. Smith DH, Dollé JP, Ameen-Ali KE, Bretzin A, Cortes E, Crary JF, Dams-O'Connor K, Diaz-Arrastia R, Edlow BL, Folkerth R, Hazrati LN, Hinds SR, Iacono D, Johnson VE, Keene CD, Kofler J, Kovacs GG, Lee EB, Manley G, Meaney D, Montine T, Okonkwo DO, Perl DP, Trojanowski JQ, Wiebe DJ, Yaffe K, McCabe T, Stewart W. Acta Neuropathol Commun. 2021 Mar 1;9(1):32. doi: 10.1186/s40478-021-01122-9. PMID: 33648593; PMCID: PMC7919306.

Association of Prenatal Exposure to Maternal Drinking and Smoking With the Risk of Stillbirth. Odendaal H, Dukes KA, Elliott AJ, Willinger M, Sullivan LM, Tripp T, Groenewald C, Myers MM, Fifer WP, Angal J, Boyd TK, Burd L, Cotton JB, Folkerth RD, Hankins G, Haynes RL, Hoffman HJ, Jacobs PK, Petersen J, Pini N, Randall BB, Roberts DJ, Robinson F, Sens MA, Van Eerden P, Wright C, Holm IA, Kinney HC; Prenatal Alcohol in SIDS and Stillbirth (PASS) Network. JAMA Netw Open. 2021 Aug 2;4(8):e2121726. doi: 10.1001/jamanetworkopen.2021.21726. PMID: 34424306

Nicotinic Receptors in the Brainstem Ascending Arousal System in SIDS With Analysis of Pre-natal Exposures to Maternal Smoking and Alcohol in High-Risk Populations of the Safe Passage Study. Vivekanandarajah A, Nelson ME, Kinney HC, Elliott AJ, Folkerth RD, Tran H, Cotton J, Jacobs P, Minter M, McMillan K, Duncan JR, Broadbelt KG, Schissler K, Odendaal HJ, Angal J, Brink L, Burger EH, Coldrey JA, Dempers J, Boyd TK, Fifer WP, Geldenhuys E, Groenewald C, Holm IA, Myers MM, Randall B, Schubert P, Sens MA, Wright CA, Roberts DJ, Nelsen L, Wadee S, Zaharie D, Haynes RL; PASS Network. Front Neurol. 2021 Mar 10;12:636668. doi: 10.3389/fneur.2021.636668. eCollection 2021. PMID: 33776893

<u>The Second NINDS/NIBIB Consensus Meeting to Define Neuropathological Criteria for the Diagnosis of</u> <u>Chronic Traumatic Encephalopathy.</u> Bieniek KF, Cairns NJ, Crary JF, Dickson DW, Folkerth RD, Keene CD, Litvan I, Perl DP, Stein TD, Vonsattel JP, Stewart W, Dams-O'Connor K, Gordon WA, Tripodis Y, Alvarez VE, Mez J, Alosco ML, McKee AC; TBI/CTE Research Group. J Neuropathol Exp Neurol. 2021 Feb 22;80(3):210-219. doi: 10.1093/jnen/nlab001. PMID: 33611507

<u>Microvascular Injury in the Brains of Patients with Covid-19.</u> Lee MH, Perl DP, Nair G, Li W, Maric D, Murray H, Dodd SJ, Koretsky AP, Watts JA, Cheung V, Masliah E, Horkayne-Szakaly I, Jones R, Stram MN,

Moncur J, Hefti M, Folkerth RD, Nath A. N Engl J Med. 2021 Feb 4;384(5):481-483. doi: 10.1056/NEJMc2033369. Epub 2020 Dec 30. PMID: 33378608

<u>COVID-19-Induced Neurovascular Injury: a Case Series with Emphasis on Pathophysiological</u> <u>Mechanisms</u>. Gutierrez Amezcua JM, Jain R, Kleinman G, Muh CR, Guzzetta M, Folkerth R, Snuderl M, Placantonakis DG, Galetta SL, Hochman S, Zagzag D. SN Compr Clin Med. 2020;2(11):2109-2125. doi: 10.1007/s42399-020-00598-1. Epub 2020 Oct 22. PMID: 33106782; PMCID: PMC7577845.

Concurrent prenatal drinking and smoking increases risk for SIDS: Safe Passage Study report. Elliott AJ, Kinney HC, Haynes RL, Dempers JD, Wright C, Fifer WP, Angal J, Boyd TK, Burd L, Burger E, Folkerth RD, Groenewald C, Hankins G, Hereld D, Hoffman HJ, Holm IA, Myers MM, Nelsen LL, Odendaal HJ, Petersen J, Randall BB, Roberts DJ, Robinson F, Schubert P, Sens MA, Sullivan LM, Tripp T, Van Eerden P, Wadee S, Willinger M, Zaharie D, Dukes KA. EClinicalMedicine. 2020 Jan 20;19:100247. doi: 10.1016/j.eclinm.2019.100247. eCollection 2020 Feb. PMID: 32140668

<u>7 Tesla MRI of the ex vivo human brain at 100 micron resolution.</u> Edlow BL, Mareyam A, Horn A, Polimeni JR, Witzel T, Tisdall MD, Augustinack JC, Stockmann JP, Diamond BR, Stevens A, Tirrell LS, Folkerth RD, Wald LL, Fischl B, van der Kouwe A. Sci Data. 2019 Oct 30;6(1):244. doi: 10.1038/s41597-019-0254-8. PMID: 31666530

Primum non nocere: a call for balance when reporting on CTE. Stewart W, Allinson K, Al-Sarraj S, Bachmeier C, Barlow K, Belli A, Burns MP, Carson A, Crawford F, Dams-O'Connor K, Diaz-Arrastia R, Dixon CE, Edlow BL, Ferguson S, Fischl B, Folkerth RD, Gentleman S, Giza CC, Grady MS, Helmy A, Herceg M, Holton JL, Howell D, Hutchinson PJ, Iacono D, Iglesias JE, Ikonomovic MD, Johnson VE, Keene CD, Kofler JK, Koliatsos VE, Lee EB, Levin H, Lifshitz J, Ling H, Loane DJ, Love S, Maas AI, Marklund N, Master CL, McElvenny DM, Meaney DF, Menon DK, Montine TJ, Mouzon B, Mufson EJ, Ojo JO, Prins M, Revesz T, Ritchie CW, Smith C, Sylvester R, Tang CY, Trojanowski JQ, Urankar K, Vink R, Wellington C, Wilde EA, Wilson L, Yeates K, Smith DH. Lancet Neurol. 2019 Mar;18(3):231-233. doi: 10.1016/S1474-4422(19)30020-1. Epub 2019 Feb 12. PMID: 30784550

Multimodal Characterization of the Late Effects of Traumatic Brain Injury: A Methodological Overview of the Late Effects of Traumatic Brain Injury Project. Edlow BL, Keene CD, Perl DP, Iacono D, Folkerth RD, Stewart W, Mac Donald CL, Augustinack J, Diaz-Arrastia R, Estrada C, Flannery E, Gordon WA, Grabowski TJ, Hansen K, Hoffman J, Kroenke C, Larson EB, Lee P, Mareyam A, McNab JA, McPhee J, Moreau AL, Renz A, Richmire K, Stevens A, Tang CY, Tirrell LS, Trittschuh EH, van der Kouwe A, Varjabedian A, Wald LL, Wu O, Yendiki A, Young L, Zöllei L, Fischl B, Crane PK, Dams-O'Connor K. J Neurotrauma. 2018 Jul 15;35(14):1604-1619. doi: 10.1089/neu.2017.5457. Epub 2018 May 3. PMID: 29421973

Integrated genome and transcriptome sequencing identifies a noncoding mutation in the genome replication factor *DONSON* as the cause of microcephaly-micromelia syndrome. Evrony GD, Cordero DR, Shen J, Partlow JN, Yu TW, Rodin RE, Hill RS, Coulter ME, Lam AN, Jayaraman D, Gerrelli D, Diaz DG, Santos C, Morrison V, Galli A, Tschulena U, Wiemann S, Martel MJ, Spooner B, Ryu SC, Elhosary PC, Richardson JM, Tierney D, Robinson CA, Chibbar R, Diudea D, Folkerth R, Wiebe S, Barkovich AJ, Mochida GH, Irvine J, Lemire EG, Blakley P, Walsh CA. Genome Res. 2017 Aug;27(8):1323-1335. doi: 10.1101/gr.219899.116. Epub 2017 Jun 19. PMID: 28630177; PMCID: PMC5538549. Drinking and smoking patterns during pregnancy: Development of group-based trajectories in the Safe Passage Study. Dukes K, Tripp T, Willinger M, Odendaal H, Elliott AJ, Kinney HC, Robinson F, Petersen JM, Raffo C, Hereld D, Groenewald C, Angal J, Hankins G, Burd L, Fifer WP, Myers MM, Hoffman HJ, Sullivan L; PASS Network. Alcohol. 2017 Aug;62:49-60. doi: 10.1016/j.alcohol.2017.03.001. Epub 2017 Jun 15. PMID: 28755751 [Listed as a Collaborator]

Embolic Foreign Material in the Central Nervous System of Pediatric Autopsy Patients With Instrumented Heart Disease. Torre M, Lechpammer M, Paulson V, Prabhu S, Marshall AC, Juraszek AL, Padera RF, Bundock EA, Vargas SO, Folkerth RD. J Neuropathol Exp Neurol. 2017 Jul 1;76(7):571-577. doi: 10.1093/jnen/nlx037. PMID: 28525615

Clinical targeted exome-based sequencing in combination with genome-wide copy number profiling: precision medicine analysis of 203 pediatric brain tumors. Ramkissoon SH, Bandopadhayay P, Hwang J, Ramkissoon LA, Greenwald NF, Schumacher SE, O'Rourke R, Pinches N, Ho P, Malkin H, Sinai C, Filbin M, Plant A, Bi WL, Chang MS, Yang E, Wright KD, Manley PE, Ducar M, Alexandrescu S, Lidov H, Delalle I, Goumnerova LC, Church AJ, Janeway KA, Harris MH, MacConaill LE, Folkerth RD, Lindeman NI, Stiles CD, Kieran MW, Ligon AH, Santagata S, Dubuc AM, Chi SN, Beroukhim R, Ligon KL. Neuro Oncol. 2017 Jul 1;19(7):986-996. doi: 10.1093/neuonc/now294. PMID: 28104717

Neuropathologic Examination in Sudden Unexpected Deaths in Infancy and Childhood: Recommendations for Highest Diagnostic Yield and Cost-Effectiveness in Forensic Settings. Folkerth RD, Nunez J, Georgievskaya Z, McGuone D. Acad Forensic Pathol. 2017 Jun;7(2):182-199. doi: 10.23907/2017.020. Epub 2017 Jun 1. PMID: 31239973

<u>The Stillbirth Classification System for the Safe Passage Study.</u> Boyd TK, Wright CA, Odendaal HJ, Elliott AJ, Sens MA, Folkerth RD, Roberts DJ, Kinney HC; PASS Network. Pediatr Dev Pathol. 2017 Mar-Apr;20(2):120-132. doi: 10.1177/1093526616686251. Epub 2017 Jan 26. PMID: 28326963

<u>Frontal dermoid cyst coexisting with suprasellar craniopharyngioma: a spectrum of ectodermally</u> <u>derived epithelial-lined cystic lesions?</u> Abou-Al-Shaar H, Abd-El-Barr MM, Zaidi HA, Russell-Goldman E, Folkerth RD, Laws ER Jr, Chiocca EA. Neurosurg Focus. 2016 Dec;41(6):E16. doi: 10.3171/2016.8.FOCUS16238. PMID: 27903118

<u>Q-space truncation and sampling in diffusion spectrum imaging.</u> Tian Q, Rokem A, Folkerth RD, Nummenmaa A, Fan Q, Edlow BL, McNab JA. Magn Reson Med. 2016 Dec;76(6):1750-1763. doi: 10.1002/mrm.26071. Epub 2016 Jan 13. PMID: 26762670

<u>Mutations in the substrate binding glycine-rich loop of the mitochondrial processing peptidase-α</u> protein (PMPCA) cause a severe mitochondrial disease. Joshi M, Anselm I, Shi J, Bale TA, Towne M, Schmitz-Abe K, Crowley L, Giani FC, Kazerounian S, Markianos K, Lidov HG, Folkerth R, Sankaran VG, Agrawal PB. Cold Spring Harb Mol Case Stud. 2016 May;2(3):a000786. doi: 10.1101/mcs.a000786. PMID: 27148589; PMCID: PMC4853520.

<u>The Practice of Neuropathology in Africa: Our Time Has Come.</u> Folkerth RD, Zaharie D, Adesina AM. J Neuropathol Exp Neurol. 2016 Nov 1;75(11):1005-1007. doi: 10.1093/jnen/nlw086. PMID: 31952373

<u>The Institution of a Standardized Investigation Protocol for Sudden Infant Death in the Eastern</u> <u>Metropole, Cape Town, South Africa</u>. Dempers JJ, Coldrey J, Burger EH, Thompson V, Wadee SA, Odendaal HJ, Sens MA, Randall BB, Folkerth RD, Kinney HC; PASS Network. J Forensic Sci. 2016 Nov;61(6):1508-1514. doi: 10.1111/1556-4029.13204. Epub 2016 Sep 27. PMID: 27677096

Serotonin Receptors in the Medulla Oblongata of the Human Fetus and Infant: The Analytic Approach of the International Safe Passage Study. Haynes RL, Folkerth RD, Paterson DS, Broadbelt KG, Dan Zaharie S, Hewlett RH, Dempers JJ, Burger E, Wadee S, Schubert P, Wright C, Sens MA, Nelsen L, Randall BB, Tran H, Geldenhuys E, Elliott AJ, Odendaal HJ, Kinney HC; PASS Network. J Neuropathol Exp Neurol. 2016 Nov 1;75(11):1048-1057. doi: 10.1093/jnen/nlw080. PMID: 27634962

<u>"All the soarings of my mind begin in my blood:" central nervous system complication of Waldenström</u> <u>macroglobulinemia.</u> Levin SN, de Gusmao CM, Etherton MR, Will Rondeau M, Meredith DM, Folkerth RD, Klein JP, Nadeem O, Castillo JJ. Am J Hematol. 2016 Oct;91(10):1057-60. doi: 10.1002/ajh.24476. Epub 2016 Jul 29. PMID: 27414991

<u>Neuropathology of Zika Virus Infection.</u> Solomon IH, Milner DA, Folkerth RD. J Neuroinfect Dis. 2016 Jun;7(2):220. doi: 10.4172/2314-7326.1000220. Epub 2016 Jun 23. PMID: 27525286

Oncogenic PI3K mutations are as common as AKT1 and SMO mutations in meningioma. Abedalthagafi M, Bi WL, Aizer AA, Merrill PH, Brewster R, Agarwalla PK, Listewnik ML, Dias-Santagata D, Thorner AR, Van Hummelen P, Brastianos PK, Reardon DA, Wen PY, Al-Mefty O, Ramkissoon SH, Folkerth RD, Ligon KL, Ligon AH, Alexander BM, Dunn IF, Beroukhim R, Santagata S. Neuro Oncol. 2016 May;18(5):649-55. doi: 10.1093/neuonc/nov316. Epub 2016 Jan 28. PMID: 26826201

<u>Case Report: Next generation sequencing identifies a NAB2-STAT6 fusion in Glioblastoma.</u> Diamandis P, Ferrer-Luna R, Huang RY, Folkerth RD, Ligon AH, Wen PY, Beroukhim R, Ligon KL, Ramkissoon SH. Diagn Pathol. 2016 Jan 27;11:13. doi: 10.1186/s13000-016-0455-9. PMID: 26817999

The first NINDS/NIBIB consensus meeting to define neuropathological criteria for the diagnosis of chronic traumatic encephalopathy. McKee AC, Cairns NJ, Dickson DW, Folkerth RD, Keene CD, Litvan I, Perl DP, Stein TD, Vonsattel JP, Stewart W, Tripodis Y, Crary JF, Bieniek KF, Dams-O'Connor K, Alvarez VE, Gordon WA; TBI/CTE group. Acta Neuropathol. 2016 Jan;131(1):75-86. doi: 10.1007/s00401-015-1515z. Epub 2015 Dec 14. PMID: 26667418

<u>Histopathology of the Inner Ear in a Case With Recent Onset of Cogan's Syndrome: Evidence for</u> <u>Vasculitis.</u> Jung DH, Nadol JB Jr, Folkerth RD, Merola JF. Ann Otol Rhinol Laryngol. 2016 Jan;125(1):20-4. doi: 10.1177/0003489415595426. Epub 2015 Jul 19. PMID: 26195577

A Cluster of CNS Infections Due to B. cereus in the Setting of Acute Myeloid Leukemia: Neuropathology in 5 Patients. Vodopivec I, Rinehart EM, Griffin GK, Johncilla ME, Pecora N, Yokoe DS, Feske SK, Milner DA Jr, Folkerth RD. J Neuropathol Exp Neurol. 2015 Oct;74(10):1000-11. doi: 10.1097/NEN.00000000000244. PMID: 26352989 Clinical implementation of integrated whole-genome copy number and mutation profiling for glioblastoma. Ramkissoon SH, Bi WL, Schumacher SE, Ramkissoon LA, Haidar S, Knoff D, Dubuc A, Brown L, Burns M, Cryan JB, Abedalthagafi M, Kang YJ, Schultz N, Reardon DA, Lee EQ, Rinne ML, Norden AD, Nayak L, Ruland S, Doherty LM, LaFrankie DC, Horvath M, Aizer AA, Russo A, Arvold ND, Claus EB, Al-Mefty O, Johnson MD, Golby AJ, Dunn IF, Chiocca EA, Trippa L, Santagata S, Folkerth RD, Kantoff P, Rollins BJ, Lindeman NI, Wen PY, Ligon AH, Beroukhim R, Alexander BM, Ligon KL. Neuro Oncol. 2015 Oct;17(10):1344-55. doi: 10.1093/neuonc/nov015. Epub 2015 Mar 9. PMID: 25754088

Epidemiologic Investigation of a Cluster of Neuroinvasive Bacillus cereus Infections in 5 Patients With Acute Myelogenous Leukemia. Rhee C, Klompas M, Tamburini FB, Fremin BJ, Chea N, Epstein L, Halpin AL, Guh A, Gallen R, Coulliette A, Gee J, Hsieh C, Desjardins CA, Pedamullu CS, DeAngelo DJ, Manzo VE, Folkerth RD, Milner DA Jr, Pecora N, Osborne M, Chalifoux-Judge D, Bhatt AS, Yokoe DS. Open Forum Infect Dis. 2015 Jul 1;2(3):ofv096. doi: 10.1093/ofid/ofv096. eCollection 2015 Sep. PMID: 26269794

Developmental expression of N-methyl-D-aspartate (NMDA) receptor subunits in human white and gray matter: potential mechanism of increased vulnerability in the immature brain. Jantzie LL, Talos DM, Jackson MC, Park HK, Graham DA, Lechpammer M, Folkerth RD, Volpe JJ, Jensen FE. Cereb Cortex. 2015 Feb;25(2):482-95. doi: 10.1093/cercor/bht246. Epub 2013 Sep 17. PMID: 24046081

Authors' reply. Edlow BL, Kinney HC, Folkerth R. J Neuropathol Exp Neurol. 2014 Mar;73(3):268-9. doi: 10.1097/01.jnen.0000444376.51734.30. PMID: 24525702.

Angiomatous meningiomas have a distinct genetic profile with multiple chromosomal polysomies including polysomy of chromosome 5. Abedalthagafi MS, Merrill PH, Bi WL, Jones RT, Listewnik ML, Ramkissoon SH, Thorner AR, Dunn IF, Beroukhim R, Alexander BM, Brastianos PK, Francis JM, Folkerth RD, Ligon KL, Van Hummelen P, Ligon AH, Santagata S. Oncotarget. 2014 Nov 15;5(21):10596-606. doi: 10.18632/oncotarget.2517. PMID: 25347344

Cytomegalovirus and glioblastoma: a review of evidence for their association and indications for testing and treatment. Solomon IH, Ramkissoon SH, Milner DA Jr, Folkerth RD. J Neuropathol Exp Neurol. 2014 Nov;73(11):994-8. doi: 10.1097/NEN.00000000000125. PMID: 25289896

<u>Clinical multiplexed exome sequencing distinguishes adult oligodendroglial neoplasms from astrocytic</u> <u>and mixed lineage gliomas.</u> Cryan JB, Haidar S, Ramkissoon LA, Bi WL, Knoff DS, Schultz N, Abedalthagafi M, Brown L, Wen PY, Reardon DA, Dunn IF, Folkerth RD, Santagata S, Lindeman NI, Ligon AH, Beroukhim R, Hornick JL, Alexander BM, Ligon KL, Ramkissoon SH. Oncotarget. 2014 Sep 30;5(18):8083-92. doi: 10.18632/oncotarget.2342. PMID: 25257301

<u>The safe passage study: design, methods, recruitment, and follow-up approach.</u> Dukes KA, Burd L, Elliott AJ, Fifer WP, Folkerth RD, Hankins GD, Hereld D, Hoffman HJ, Myers MM, Odendaal HJ, Signore C, Sullivan LM, Willinger M, Wright C, Kinney HC; PASS Research Network. Paediatr Perinat Epidemiol. 2014 Sep;28(5):455-65. doi: 10.1111/ppe.12136. Epub 2014 Aug 5. PMID: 25131605

Radial coherence of diffusion tractography in the cerebral white matter of the human fetus: neuroanatomic insights. Xu G, Takahashi E, Folkerth RD, Haynes RL, Volpe JJ, Grant PE, Kinney HC. Cereb Cortex. 2014 Mar;24(3):579-92. doi: 10.1093/cercor/bhs330. Epub 2012 Nov 6. PMID: 23131806

Atypical presentation of cerebral schistosomiasis four years after exposure to Schistosoma mansoni. Rose MF, Zimmerman EE, Hsu L, Golby AJ, Saleh E, Folkerth RD, Santagata SS, Milner DA Jr, Ramkissoon SH. Epilepsy Behav Case Rep. 2014 Feb 11;2:80-5. doi: 10.1016/j.ebcr.2014.01.006. eCollection 2014. PMID: 25667876

Focal cortical dysplasia IIb presenting as slowly progressive aphasia mimicking a brain tumor. Forgacs PB, Sarkis R, Folkerth R, Golby A, Hsu L, Bubrick EJ, Dworetzky BA. Seizure. 2014 Feb;23(2):161-3. doi: 10.1016/j.seizure.2013.09.013. Epub 2013 Oct 1. PMID: 24148976; PMCID: PMC4139489.

Curriculum Vitae Mohammad Theib Assaf, M.D.

Personal Information:

Address:

Telephone:

Birth Date:

Marital Status:

Current Position: Private Practice

Board Certification: Eligible 1993

Licenses:

Education:

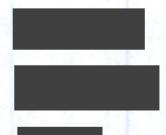
M.B.B.S. Degree in Medicine and Surgery 1974-1982

Basic Medical Science Course October 1986 through January 1987

ECFMG Certificate 1987

Intership 1982 - 1983

Surgical Resident July 1983 - September 1983



Married with three children

6005 Park Avenue Ste 722B Memphis, TN 38119

American Board of Psychiatry and Neurology, Inc.

Jordan Ohio Tennessee Mississippi

Jordan University Amman, Jordan

Stanley Kaplan Education Ctr

Augusta Victoria Hospital Jerusalem, Israel

Augusta Victoria Hospital Jerusalem, Israel

Case 2:23-cr-20191-MSN Document 144-5 Filed 01/31/24 Page 2 of 4 PageID 678

Meidcal Resident September 1983 - August 1985

Medical Resident August 1985 - September 1986

Private Practice June 1987 - August 1987

Senior Medical Resident August 1987 - July 1988

Intership- Internal Medicine August 1988 - July 1989

Neurology Resident July 1989 - June 1992

Stroke Fellowship July 1992 - June 1993

Neurophysiology Fellowship July 1993 - March 1994

Private Practice 1995 - Present

Medical Rehab Director: March 2011 - March 2012

Medical Stroke Director: March 2012 - present

Medical Stroke Director: March 2016 - Present

Professional Organization:

Jordanian Medical Association American Academy of Neurology Augusta Victoria Hospital Jerusalem, Israel

Makassed Hospital Jerusalem, Israel

Kalandia Clinic Jerusalem, Israel

Makassed Hospital Jerusalem, Israel

Cleveland Clinic Foundation 9500 Euclid Avenue Cleveland, OH 44195

Cleveland Clinic Foundation Cleveland, OH

University of TN 855 Monroe Ave, Room 415 Memphis, TN 38163

University of TN 855 Monroe Ave, Room 415 Memphis, TN 38163

6005 Park Avenue Ste 722B Memphis, TN 38119

Saint Francis Hospital 5959 Park Avenue Memphis, TN 38119

Saint Francis Hospital 5959 Park Avenue Memphis, TN 38119

Saint Francis Hospital - Bartlett 2986 Kate Bond Rd Bartlett TN 38133 American Heart Association Stroke Council National Stroke Association

Research & Presentation:

1) Free Radical Scavenging Enzymes(FRESA) and Parkinson's disease. Presented at Fifteen Annual Neuroscience Resident's Day, June 6 1990, Cleveland, OH.

2) Horner's Syndrome Secondary to AngiogramNegative, Subadventitial Carotid Artery Dissection. Presented at the Walsh Society Meeting, January, 1991, Utah.

3) Horner's Syndrome Secondary to AngiogramNegative, Subadventitial Carotid Artery Disssection. Presented at the Canadian Congress of Neuroscience, June 1991, Nova Scotia.

4) Horner's Syndrome Secondary to Angiogram Negative Subadventitial Carotid Artery Dissection. Presented at the Sixteen Annual Neuroscience Day, June 1991, Cleveland, OH

5) Subadventitial Extracranial Carotid Artery Dissection with normal Angiography. Presented at the American Neurological Assoication, October, 1991, Seattle.

6) Quantitative correlation of Muscle Biopsy and EMG findings in Polymyositis. Presented at the Seventeen Annual Neuroscience Resident Day, June 1992, Cleveland, OH.

7) Postoperative Stroke in Coronary Artery Bypass Graft (CABG) Surgery. Accepted to the American Neurological Association Meeting in Boston, October 1993.

8) Postoperative Stroke in Coronary Artery Bypass Graft (CABG) Surgery: Racial Differences. Submitted to the Stroke Journal for publication.

Co-investigator:

Warfarin Aspirin in recurrent Stroke Study(WARSS)
 Southestern Consortium on Racial Differences in Stroke (SECORDS) study.

Abstract:

 Horner's Syndrome Secondary to Angiogram Negative, Extracranial Carotid Artery Dissection.
 M. Assaf, PJ Sweeney, G. Kosmorksy, T. Masaryk, A. Wilbourn.
 The Canadian Journel of Neuroscience, 1991: 18(2); 258.

2) Subadventitial Extracranial Carotid Artery Dissection with normal Angiography.PJ Sweeney, M. Assaf, G. Kosmorsky, T. Marsaryhk.Ann of Neurology, 1991: 30(2); 247.

3) Postoperative Stroke in Coronary Artery Bypass Graft Operation.M.Assaf, K. Gaines, R. VanderZwaag.Ann of Neurology, 1993: 34(2); 254.

Publications:

M. Assaf, PJ Sweeney, G. Kosmorsky, T. Masaryk: Horner Syndrome Secondary to Angiogram Negative, Extracranial Carotid Artery Dissection. The Canadian Journal of Neuroscience, February 1993.

Revised: October 2021

Dr. Mohammed Assaf

Dr. Assaf was a consulting physician for Mr. Nichols while Nichols was hospitalized at St. Francis from on or about January 7-10, 2023. Dr. Assaf will offer testimony as to his observations of Mr. Nichols and as to his analysis of tests run on Mr. Nichols during his hospitalization. In particular, Dr. Assaf will testify that test results for Mr. Nichols indicated brain death on or about January 9, 2023. Dr. Assaf will also likely testify that an individual with a traumatic brain injury such as Nichols had must receive medical care as soon as possible. Medical care providers should monitor both oxygen and blood supply to the brain. The brain needs oxygen and glucose, which are carried by the blood. If either are taken away, then brain damage could occur. Medical care providers should also monitor swelling of the brain, which could reduce oxygen levels in the brain. Damage to the brain from a lack of oxygen is irreversible.

The consequences of delayed treatment might depend on the cause of the brain damage. Brain bleeding and oxygen deprivation, if not corrected, could result in death. Delayed treatment of a patient with a traumatic brain injury could result in death.

It is considered standard care to conduct a CAT scan or MRI on a patient with a suspected brain injury. Doctors should monitor blood pressure and pulse and make sure the airway is clear. Doctors should also monitor brain pressure. In some cases, brain pressure may be reduced with medicine, but doctors may have to lower pressure by draining fluid with a tube. Every single minute a patient with excessive brain pressure experiences inadequate blood flow and oxygen causes irreversible damage to the brain. Multi-system failure could occur as a result of brain damage. As few as three minutes of oxygen deprivation can cause brain damage.

Medical care providers should work on a patient's breathing right away. A delay in initial resuscitation could affect the mortality rate, especially if someone's heart has stopped. The heart needs to pump blood to provide oxygen to the brain. It is important for medical care providers to know the mechanism of injury. They need to understand the type of injury. For example, they must be able to differentiate between a contusion and a concussion, as treatment may differ. If a patient arrives to the hospital unconscious, it is standard procedure to conduct a CAT scan. However, doctors will often reach out to the family to ask what the patient was doing before, during, or after the injury to find out what happened. From a physician's standpoint, understanding what caused the injury can be helpful for determining treatment.

After initial imaging, doctors should continue to monitor a patient. Bleeding in the brain that was not apparent in initial imaging may appear after a week. Doctors may not be able to see the bleed at first, but they can see it later, so it is important to conduct subsequent imaging. A patient with a suspected brain injury should be admitted to the hospital and observed. Treatment should not be delayed, as minutes are vital. The prevention of secondary injuries is crucial. EMT and first responders should focus on the airway and the heart. Additionally, they should work to stop bleeding as they move the patient to next care, whether by ambulance or flight to the emergency room.

Knowing the mechanism of injury is important. For instance, if a CAT scan for an unconscious patient appears normal, doctors need to know why the patient is unconscious. When a patient such as Mr. Nichols has a traumatic brain injury, doctors should monitor the brain pressure, the breathing and airway, and check for seizures. Electrical seizures may not be seen externally, but can be detected by viewing

brain activity. These things are best conducted at a hospital; therefore, it is important first responders get a patient to the hospital as quickly as possible. It is good for a physician to know how an injury occurred. Minutes without adequate care could cause irreversible damage. EMS meets the patient in those first few important minutes. Therefore, EMS needs to know how an injury occurred as well.

M Apr Dr. Mohammed Assaf

Case 2:23-cr-20191-MSN Document 144-7 Filed 01/31/24 Page 1 of 12 PageID 683

Daniel T. Anderson, M.S., D-ABFT-FT, ABC-GKE Toxicologist IV

NMS Labs

EDUCATION	
University of New Haven, New Haven, CT Master of Science - Forensic Science	1988-1990
Colorado State University, Fort Collins, CO Bachelor of Science - Zoology, Forensic Biology Concentration	1984-1988
EXPERIENCE	
NMS Labs, Horsham, PA Toxicologist IV (Title change in September 2022)	January 2021-Present
Colorado Bureau of Investigation, Denver, COJanToxicology/Laboratory Manager - Toxicology (January 2015 - January 2021)Laboratory Manager-Drug Chemistry (June 2017-August 2019)	uary 2015-January 2021
Los Angeles County Department of Medical Examiner-Coroner, Los Angeles, Interim Chief-Forensic Science Laboratories (2014-2015) Supervising Criminalist II (1999-2014) - Toxicology Supervising Criminalist I (1995-1999) - Toxicology Criminalist & Senior Criminalist (1990-1994) - Toxicology	CA 1995-2015 1990-1994
Ventura County Sheriff's Department, Ventura, CA Criminalist III - Toxicology and Drug Chemistry	1994-1995
CERTIFICATION & LICENSURE	
American Board of Forensic Toxicology (ABFT) Diplomate Forensic Toxicology	2007-Present
American Board of Criminalistics (ABC) General Knowledge Examination	1998-Present
Ohio Department of Health Alcohol & Drug Testing #4376-LT Wyoming Department of Health #2021-232 North Carolina Department of Health and Human Services #657	ry 2023 - February 2025 since November 2022 since August 2022 since July 2022
PROFESSIONAL AFFILIATIONS American Academy of Forensic Sciences (AAFS)	1990-Present
 Fellow - Toxicology Board of Directors (Director (Toxicology) 2023-Present) Academy Standards Board (ASB) - Vice Chair (2023-present), Board of E Board of Trustees, Forensic Science Foundation (2015-2019) Toxicology Section Chair, Secretary, Scientific Program Co-Chair (2014 Toxicology Section Ray Abernathy Award Recipient (February 2011) 	
California Association of Toxicologists (CAT) Member - Toxicology	1992-Present

Case 2:23-cr-20191-MSN Document 144-7 Filed 01/31/24 Page 2 of 12 PageID 684

Daniel T. Anderson, M.S., D-ABFT-FT, ABC-GKE Toxicologist IV

NMS Labs

 Quality Control/Quality assurance Chairperson (2000-January 2007) New Drugs Associate Editor, CAT Newsletter (2002-December 2014) 	
 President (2005-2006) 	
• Vice President, Past President, Member-at-Large South (2007-November 2	2009)
Society of Forensic Toxicologists (SOFT) Member - Toxicology	1997-Present
Co-Host SOFT 2023 Annual Meeting, Denver, CO	
 Co-Host SOFT-TIAFT 2017 Annual Meeting, Boca Raton, FL (2018) President 2013 	
 Board of Directors (Director, Secretary, Vice President 2008-2012) ToxTalk Associate Editor (2001-July 2016) 	
 Workshop Coordinator Annual Meeting (Phoenix, AZ 2008) Journal of Analytical Toxicology Special Edition Editor (Phoenix, AZ 2008) 	
American Society of Crime Laboratory Directors (ASCLD) Member	2017-2019
California Association of Criminalists (CAC) Member	1991-2003
Co-Host of the Annual Meeting, Huntington Beach, CA (2003)	
American Board of Forensic Toxicologists (ABFT)	
Assessor Board of Directors	2009-2019 July 2018-June 2020
Treasurer	July 2020- July 2023
Vice President	July 2023-Present
ANAB and ASCLD-LAB (American Society of Crime Laboratory Directors / Laboratory Accreditation Board) Assessor	2016-Present
Journal of Analytical Toxicology (JAT) Editorial Advisory Board	2010-Present
Journal of Forensic Sciences (JoFS) Editorial Board	2015-Present
National Institute of Justice-General Forensics Research and Development Technology Working Group (NIJ-TWG) Invited Member	2010-2020
Scientific Working Group-Toxicology (SWGTOX) Invited Member	2011-2014
OSAC, Toxicology Committee Sub discipline	
Invited Member	2015-Sept 2020
Invited Member	Oct 2021-Present
National Safety Council-Alcohol, Drugs, and Impairment Division	2015-present

Case 2:23-cr-20191-MSN Document 144-7 Filed 01/31/24 Page 3 of 12 PageID 685

Daniel T. Anderson, M.S., D-ABFT-FT, ABC-GKE Toxicologist IV

NMS Labs

200 Welsh Road, Horsham, Pennsylvania 19044 Phone: 844-276-0768

Nominated member

PUBLICATIONS (Peer Reviewed)

- Anderson, Anderson, Harre, & Wade. *Two Fatal Case Reports of Acute Yohimbine Intoxication*. Journal of Analytical Toxicology-Special Issue, September 2013.
- Miller, Pleitez, Anderson, Mertens-Maxham, Wade. Asenapine (Saphris[®]): GC-MS Method Validation and the Postmortem Distribution of a New Atypical Antipsychotic Medication. Journal of Analytical Toxicology-Special Issue, September 2013.
- McIntyre and Anderson. *Postmortem Fentanyl Concentrations: A Review*. Journal of Forensic Research, July 2012, Volume 8, Issue 8: 1000157
- Anderson & Elbogen. Determination of Specific Absorbance (A+) for Zaleplon (Sonata®) by Spectrophotometry. Special Edition of the Journal of Analytical Toxicology, October 2009, Volume 33: 478-480.
- Anderson & Budd. Zaleplon (Sonata®) Analysis in Postmortem Specimens by Gas Chromatography-Electron Capture Detection. Special Edition of the Journal of Analytical Toxicology, October 2009, Volume 33: 481-485.
- Anderson, Special Editor, representing Society of Forensic Toxicologists Inc., for the Special Edition of Journal Analytical Toxicology, October 2008 Volume 32, No. 8 529-720.
- Anderson, Reed, Lintemoot, Kegler, DeQuintana, Sandberg, and Muto. A First Look at Duloxetine (Cymbalta®) in a Postmortem Laboratory. Journal of Analytical Toxicology, October 2006, Volume 30: 576-580.
- Anderson, Fritz, & Muto. Oxycontin[®]: The Concept of a 'Ghost Pill' and the Postmortem Tissue Distribution of Oxycodone in 36 Cases. Journal of Analytical Toxicology, October 2002, Volume 26: 448-459.
- Anderson & Muto. Duragesic Transdermal Patch: Postmortem Tissue Distribution of Fentanyl in 25 Cases. Journal of Analytical Toxicology, October 2000, Volume 24: 627-634.
- Anderson & Fritz. Case Report: Quetiapine (Seroquel ®) Concentrations in Seven Postmortem Cases. Journal of Analytical Toxicology, May/June 2000, Volume 24: 300-304.
- Anderson, Fritz & Muto. *Distribution of Mirtazapine in Thirteen Postmortem Cases*. Journal of Analytical Toxicology, October 1999, Volume 23: 544-8.
- Anderson, Chwa, Moriya, Muto, Noguchi, Ishizu. *Postmortem Cocaethylene Levels in the Blood of Cocaine Abusers Associated with Drinking*. Jpn Journal of Forensic Toxicology, Vol. 12, No. 3, 1994, 192-198.
- Rogers, Anderson, Ribe & Sathyavagiswaren. *Fatal Flecainide Intoxication*. Journal of Analytical Toxicology, Vol. 17, No. 7, Nov/Dec 1993, pp. 434-435.
- Lee, Pagliaro, Berka, Folk, Anderson, Ruano, Keith, Phipps, Herrin, Garner, et al. *Genetic Markers in Human Bone: I. Deoxyribonucleic Acid (DNA), Analysis.* Journal of Forensic Sciences, JFSCA, Vol. 36, No. 2, March 1991, pp. 320-330.

PUBLICATIONS (Non-Peer Reviewed)

- Anderson. *New Drug: Vilazodone (Viibyrd®)*. Society of Forensic Toxicologists, ToxTalk. Vol. 36, Issue 1, March 2012, pp 16.
- Anderson and Lyons. *TECH-IN Duloxetine (Cymbalta®)*. Society of Forensic Toxicologists ToxTalk. Vol. 36, Issue 1, March 2012, pp 14-15.
- Anderson and deQuintana. *New Drug: Asenapine (Saphris®)*. Society of Forensic Toxicologists ToxTalk. Vol. 35, Issue 1, March 2011, pp 23.
- Anderson, deQuintana, and Valencia. *New Drug: Tapentadol (Nucynta®)*. Society of Forensic Toxicologists ToxTalk. Vol. 34, Issue 3, September 2010, pp 22-23.

Case 2:23-cr-20191-MSN Document 144-7 Filed 01/31/24 Page 4 of 12 PageID 686

Daniel T. Anderson, M.S., D-ABFT-FT, ABC-GKE Toxicologist IV

NMS Labs

200 Welsh Road, Horsham, Pennsylvania 19044 Phone: 844-276-0768

- Anderson. *New Drug: Iloperidone (Fanapt*[®]). Society of Forensic Toxicologists ToxTalk. Vol. 33, Issue 3, September 2009, pp 11.
- Lintemoot and Anderson. *New Drug: Ambroxol.* Society of Forensic Toxicologists ToxTalk. Vol. 32, Issue 4, December 2008, pp 24.
- Anderson and Sandberg. *New Drug: Ropivicaine (Naropin®)*. Society of Forensic Toxicologists ToxTalk. Vol. 29, Issue 3, September 2005, pp 12.
- Anderson. *New Drug: Atomoxetine (Strattera®)*. Society of Forensic Toxicologists ToxTalk. Vol. 28, Issue 1, March 2004, pp 9.
- Anderson. *New Drug: Duloxetine (Cymbalta®)*. Society of Forensic Toxicologists ToxTalk. Vol. 28, Issue 3, September 2004, pp 14.
- Anderson. *New Drug: Aripiprazole (Abilify®)*. Society of Forensic Toxicologists ToxTalk. Vol. 27, Issue 2, June 2003, pp 8.
- Anderson. New Drug: Clobenzorex (Asenlix[®], Dinintel[®], Finedal[®]). Society of Forensic Toxicologists ToxTalk. Vol. 25, Issue 1, March 2001, pp 8.
- Anderson. *New Drug: Reboxetine (Vestra®)*. Society of Forensic Toxicologists ToxTalk. Vol. 25, Issue 1, March 2001, pp 9.

PRESENTATIONS

- "Toxicology: Testing and Trends". Minnesota Coroner/Medical Examiner Association (remote). September 22, 2022.
- "Medicines of the Mind: Antidepressants and Antipyschotics". CSFRE Pathology Fellows Training course (Remote). September 20, 2022.
- "Overview of Forensic Toxicology Practices". CFSRE/NAME/NNPHI Webinar Introduction to Drug Caused and Related Death Investigation. September 24, 2021 & March 09, 2022.
- "Toxicology: Instrumentation Methodology, and Workflows". ASCLD Train the Director Series Webinar-RTI International, Center of Forensic Sciences, Forensic Technology Center of Excellence, February 06. 2020.
- "Evaluating Current Practices for Conformance Nonconforming Work and Corrective Action" Society of Forensic Toxicologists Workshop ANAB ISO 17025: 2017 & ABFT Accreditation-Bridging the Gaps, San Antonio, TX. October 14, 2019.
- "Overview of the Lifecycle of a Toxicology Sample". National Highway Traffic Safety Administration (NHTSA) Prosecutor and Toxicologist Guide to Effective Communication in Impaired Driving Cases. Lakewood, CO. December 18, 2018.
- "Forensic Analysis in the Weeds: Catching the Rocky Mountain High in the Age of Legalized Marijuana" Invited Speaker-Medical College of Wisconsin, Milwaukee, WI June 8, 2018.
- "Los Angeles County Coroner-Medical Examiner: A Toxicologist's Experience with High-Profile Cases" Colorado Coroner's Association, Fort Collins, CO June 6, 2018.
- "Postmortem Forensic Toxicology: From Specimen collection to Result Interpretation and Everything In-between!" Colorado Coroner's Association, Grand Junction October 04, 2017.
- "Colorado Some Rocky Mountain High Wisdom for Testing and Prosecuting DUI/DUID Casework." International Association of Chiefs of Police Drug Recognition Expert (IACP-DRE) Annual conference, National Harbor, MD August 12-14, 2017.
- "A Toxicology Error: The Beginning of the End?" ASCLD Annual Meeting, Dallas, TX May 4, 2017.
- "Forensic Toxicology: Tale of Two Different Experiences Postmortem casework from Los Angeles and the Rocky Mountain Antemortem High", 27th Annual John R. Teggatz Science Seminar, Milwaukee, WI November 2, 2016.
- "Postmortem Case Investigation-The Forensic Toxicologist's Worldview" Wisconsin State Laboratory of Hygiene Medical Examiner Symposium, Madison, WI July 15, 2016

Case 2:23-cr-20191-MSN Document 144-7 Filed 01/31/24 Page 5 of 12 PageID 687

Daniel T. Anderson, M.S., D-ABFT-FT, ABC-GKE Toxicologist IV

NMS Labs

- "Postmortem Toxicology Testing: From Autopsy to Interpretation", Society of Forensic Toxicologists Annual Meeting, Atlanta, GA October 19, 2015.
- "The Challenges of Building a Quality Program in a New Laboratory" Quality in Laboratories Finding a Balance, Atlanta, GA October 19, 2015.
- "Medicines of the Mind" -The Psychological Autopsy: Toxicology and Psychiatry/ Behavioral Sciences in a Working Relationship. American Academy of Forensic Sciences, Orlando, FL, February 19, 2015.
- "A Toxicology Case Study of a High Profile Celebrity Death", International Association of Chemical Testing (IACT), April 7, 2014, Newport Beach, CA.
- "Where the Wild Things Are: Oleander Poisoning", West Coast Training Conference, April 24, 2014, North Hollywood, CA.
- "Summary of Drug Contamination of Case Specimens by a Blender Carafe", Root Cause Analysis - When Blaming the Analyst Completely Misses the Point Workshop. American Academy of Forensic Sciences Annual Meeting, February 17, 2014, Seattle, WA.
- "Michael Jackson: Role of the Toxicologist in the Lab and the Courtroom", Society of Forensic Toxicologists Annual Meeting, October 28, 2013, Orlando, FL.
- "Forensic Science Laboratories", Los Angeles Public Defenders Investigator Training, October 15, 2013, Los Angeles, CA.
- "Forensic Toxicology: The Ever So Fluid and Dynamic Discipline of Forensic Science" American Academy of Forensic Sciences-Young Forensic Scientists Forum, February 19, 2013, Washington DC.
- "Michael Jackson-The Importance of Toxicology."
 - American Society of Anesthesiology, October 13, 2012, Washington DC
 - West Cost Training Conference, October 26, 2012, North Hollywood, CA.
- "When Actors Don't follow the 'Script' The Physical and Social Dangers of Combining Prescription Medication High Profile Celebrity Deaths" National Institute of Justice (NIJ) Annual Conference, June 19, 2012. Washington, DC.
- "The LA Way of Analyzing THC/THC-COOH from Postmortem Specimens", California Association of Toxicologists, May 5, 2012, San Jose, CA.
- "Living in a Cloud of Volatiles", Northeastern Association of Forensic Scientists, November 3, 2011, Newport, RI.
- "Celebrity Deaths and the Duties of a Criminalist at the Los Angeles County Coroner",
 - Northeastern Association of Forensic Scientists, November 4, 2011. Newport, RI.
 - Alberta Society of Human Toxicology, March 3, 2012. Kananaskis, Alberta, Canada
- "Aspects of Postmortem Testimony, Mistakes Made, and Other Tidbits...", Society of Forensic Toxicologists Annual Meeting: Forensic Toxicology Expert Witness Testimony: What to Expect and How to Prepare Workshop. September 27, 2011 San Francisco, CA.
- "And Lets Not Forget about MDMA..." California Association of Toxicologists, May 6, 2011 Napa, CA.
- "Postmortem Toxicology: Interpretative Resources" Los Angeles County Department of Coroner Continuing Medical Education. March 9, 2011 Los Angeles, CA.
- "Postmortem Toxicology: Interpretative Resources" American Academy of Forensic Sciences-Tips and Tricks to Improve the Interpretative Value of Postmortem Toxicology. February 21, 2011 Chicago, IL.
- "Forensic Toxicology", USC RSCI-525: Introduction to Food & Drug Toxicology, February 12, 2011 & February 9, 2013 USC Health Science Campus, Los Angeles, CA
- "Cross Reactivity", Getting the Most from ELISA: Tips and Tricks for the Professional Toxicologist Workshop, October 18, 2010 Society of Forensic Toxicologists Richmond, VA

Case 2:23-cr-20191-MSN Document 144-7 Filed 01/31/24 Page 6 of 12 PageID 688

Daniel T. Anderson, M.S., D-ABFT-FT, ABC-GKE Toxicologist IV

NMS Labs

- "Using Pharmacology in the Interpretation of Postmortem Cases", SOFT Continuing Education Workshop/NYSD of CJS, June 8, 2010 - Albany, NY
- "Celebrity Deaths in LaLa Land-The Importance of Forensic Toxicology", Mid-Atlantic Society of Toxicologists, May 12, 2010 Iselin, NJ
- "Toxicology", Los Angeles County District Attorney Training, March 17, 2010, Los Angeles, CA.
- "Sedative-Hypnotics", "Newer" Prescription Drugs: Impairment Potential & Identified Polypharmacy Workshop. Society of Forensic Toxicologists, October 20, 2009-Oklahoma City, OK.
- "Using Pharmacology in the Interpretation of Postmortem Toxicology Cases", California Association of Toxicologists, January 17, 2009 San Francisco, CA
- "You're More Than a Toxicologist in the Field of Postmortem Toxicology" American College of Toxicology, November 12, 2008 Tucson, AZ
- "Postmortem Opiate Interpretation What a Pain in the Rear" Pain Management and Addiction Workshop, SOFT 2008 Phoenix, AZ
- "Sample Preparation, GC Instrumentation, and More"
 - "Spirit Lifting and Mind Clearing-Antidepressant and Antipsychotic Medications"
 - "Drug-Facilitated Sexual Assault: Challenges and Solutions for Toxicologists" Midwest Forensics Resource Center Toxicology Symposium, Ames, IA August 2008
- "Mis-Use, Abuse, and Suicide(?) with Ecstasy/MDMA", California Association of Toxicologists, Palm Springs, CA November 2006
- "The Reality! Validation or Shotgun Chemistry?" Method Validation and Measurement of Uncertainty for Dummies...and Smarties, Too Workshop, Austin, TX October 2006.
- "The LA Way" Society of Forensic Toxicologists The Postmortem Blood Drug Screen: Analytical and Managerial Approaches Workshop, Nashville, TN October 2005
- "New Drugs and Trends", California Association of Toxicologists-Round Table Discussion, Sacramento, CA March, 2005
- "Living in Cloud of Volatiles", West Coast Seminar-LA County Coroner, North Hollywood, CA November, 2004
- "It's Only Just Begun! A Postmortem Tissue Distribution of Strattera® or Atomoxetine in Two Fatalities", Society of Forensic Toxicologists, Washington D.C., August/Sept. 2004
- "Up, Up,... and Away! Living in Cloud of Volatiles", California Association of Toxicologists, Pasadena, CA June 2004
- "Where the Wild Things Are: Oleander and Other Weeds", California Association of Toxicologists, Oakland, CA March 2004, West Coast Seminar, North Hollywood, CA April 2014, & LA County ME-Coroner Forensic Science Seminar, Los Angeles, CA September 2014
- "Symbiotic Relationship between the Toxicologist and Numerology", Joint Meeting of the California Association of Toxicologists and Southwestern Association of Toxicologists, Albuquerque, NM, May 2003
- "Atypical Antipsychotics-Medicines for the Mind", American Academy of Forensic Sciences, Chicago, IL February 2003
- "Approaches to Analyzing for New Drugs," California Association of Toxicologists, San Jose, CA February 2002
- "Postmortem Cases Involving Oxycontin®," Society of Forensic Toxicologists Annual Seminar, New Orleans, LA October 2001
- "GHB-Roundtable Discussion", California Association of Toxicologists, Oakland, CA February 2001
- "Tissue Distribution of Paroxetine (Paxil) in Sixty-five Postmortem Cases," Society of Forensic Toxicologists Annual Seminar, Milwaukee, WI, October 2000

Case 2:23-cr-20191-MSN Document 144-7 Filed 01/31/24 Page 7 of 12 PageID 689

Daniel T. Anderson, M.S., D-ABFT-FT, ABC-GKE Toxicologist IV

NMS Labs

200 Welsh Road, Horsham, Pennsylvania 19044 Phone: 844-276-0768

- "Case Report: Postmortem Tissue Distribution of Gamma Hydroxybutyrate (GHB) and Gamma Butyrolactone (GBL) in a Single Fatality," Society of Forensic Toxicologists Annual Seminar, Milwaukee, WI, October 2000
- "Forensic Toxicology of Opiate Alkaloids and Synthetic Analgesics-Fentanyl" American Academy of Forensic Sciences Annual Meeting, Reno, NV February 2000
- "Pharmaceutical Medication (Basic Drugs): Extraction and Analytical Information," California Association of Toxicologists Quarterly Meeting, San Diego Nov. 1999
- "Zolpidem," Pharmacology Reviews I: Selected New Drugs Workshop, Society of Forensic Toxicologists Annual Seminar, San Juan, Puerto Rico, October 1999
- "Case Study: Duragesic Patch® Postmortem Tissue Distribution of Fentanyl in Twenty-five Fatalities," Society of Forensic Toxicologists Annual Seminar, San Juan, Puerto Rico, October 1999
- "Thirty-Five Case Studies Involving Postmortem Tissue Distributions of Olanzapine (Zyprexa[®])," Society of Forensic Toxicologists Annual Seminar, Albuquerque, NM October 1998
- "Postmortem Tissue Distribution of Mirtazapine (Remeron[®])," Society of Forensic Toxicologists Annual Seminar, Albuquerque, NM, October 1998
- "Gamma Hydroxybutyrate (GHB), Scientific and Analytical Aspects," California State Coroner's Association Advanced Training, Riverside, CA September 1998
- "Endogenous Gamma Hydroxybutyrate (GHB) Levels in Postmortem Specimens," CAT/NWAFS/SWAFS/SAT Combined Professional Meeting, Las Vegas, NV November 1997 (Recipient of the CAT Scholarship/Research Assistance Grant)
- "The Effects of Formalin Fixation on Postmortem Livers: Cocaine & Opiates," California Association of Toxicologists, San Pedro, CA May 1997
- "Postmortem Tissue Distribution of Venlafaxine: Six Case Studies," Society of Forensic Toxicologists Annual Seminar, Denver, CO October 1996
- "Two Overdose Fatalities Involving Health Care Professionals: Postmortem Tissue Distribution of Fentanyl," Society of Forensic Toxicologists Annual Seminar, Denver, CO October 1996
- "Jin Bu Huan; A Toxicological Analysis of Tetrahydropalmatine,"
 - California Association of Criminalists Annual Seminar, San Pedro, CA October, 1995
 Society of Forensic Toxicologists Annual Seminar, Denver, CO October 1996
- "Analysis of a Bupropion Overdose and the Tissue Distribution of its Metabolites," American Academy of Forensic Sciences Annual Seminar (Toxicology Section), Boston, MA February 1993.

CONTINUING EDUCATION

2023

- American Academy of Forensic Sciences Annual Meeting, Orlando, FL February 15-17, 2023
 - Workshop 10: Reefer Madness. The History of THC Psychosis and Modern Adverse Events (half-day) February 13, 2023.
 - Workshop 26: Taming the Wild West of Workflows for Opioids, Emerging and Controversial Drug Threats (half-day) February 14, 2023.
- Society of Forensic Toxicologists Annual Meeting, Denver, CO October 30-November 03, 2023.
 - Workshop 4: From Bottle to Backpack-Introduction to Pediatric Toxicology Part I.
 - Workshop 7: Cannabis Testimony in Today's Environment.
 - Workshop 12: Drug-Facilitated Crimes (DFC) Analytical Methods and Statistics Part I.

2022

• Society of Forensic Toxicologists Annual Meeting, Cleveland, OH October 31-November 04, 2022.

Case 2:23-cr-20191-MSN Document 144-7 Filed 01/31/24 Page 8 of 12 PageID 690

Daniel T. Anderson, M.S., D-ABFT-FT, ABC-GKE Toxicologist IV

NMS Labs

200 Welsh Road, Horsham, Pennsylvania 19044 Phone: 844-276-0768

- Workshop 4: Method of Standard Addition for Analyte Quantification for Application to Postmortem Matrices and Novel Psychoactive Substances (half-day).
- Workshop 6: Drugs and Behavior: The role of Forensic Toxicology (half-day).
- Organization of Scientific Area Committees (OSAC) Meeting, Orlando, FL June 14-17, 2022.
- ANAB Laboratory Assessment-Toxicology Technical Assessor, Lake Charles, LA May 16-17, 2022.
- American Academy of Forensic Sciences Annual Meeting, Seattle, WA February 21, 2022
 - Workshop 9: Forensic Science Standards Development and Implementation

2021

- Society of Forensic Toxicologists Annual Meeting, Nashville, TN September 27-October 1, 2021.
 - Workshop 5: Alcohol Calculations
 - Workshop 8: Poisons
- CFSRE/NAME/NNPHI Webinar Introduction to Drug Caused and Related Death Investigation.
 - Module 1: September 23-24, 2021.
 - Module 2: October 27-29, 2021.
- California Association of Toxicologists Semi-Annual Meeting -Virtual -7 content hours, August 4-5, 2021.
- Robert F. Borkenstein Course on Alcohol and Highway Safety: Testing, Research and Litigation - Virtual -30 content hours, May 18-27, 2021.

2020

- Society of Forensic Toxicologists Annual Meeting (Virtual) September 2020.
 Workshop 2: Cannabis Impaired Driving: Where are we in 2020? September 22, 2020.
- Organization of Scientific Area Committees (OSAC) Meeting, Oklahoma City, OK March 10-13, 2020.
- American Academy of Forensic Sciences Annual Meeting, Anaheim, CA February 19-21, 2020.
 Workshop 4: The Impact of the 2018 Farm Bill on the Forensic Analysis of Cannabis.
 - February 17, 2020.

2019

- Society of Forensic Toxicologists Annual Meeting, San Antonio, TX October 14-18, 2019.
 - Workshop: ANAB ISO 17025: 2017 & ABFT Accreditation-Bridging the Gaps
 - Workshop: National Safety Council/OSAC Recommendations for DUID Testing: Scope, Cutoffs, Specimens
- Organization of Scientific Area Committees (OSAC) Meeting, Orlando, FL July 09-12, 2019.
 - American Academy of Forensic Sciences Annual Meeting, Baltimore, MD February 20-22, 2019.
 Novel Psychoactive Substance (NPD) Surveillance, Detection, and Intelligence for Use by Forensic Laboratories, Public Health, and Public Safety Workshop February 21, 2019.

• ANAB Laboratory Assessment-Toxicology Assessor, Toronto, Canada January 28-31, 2019.

- National Highway Traffic Safety Administration (NHTSA) Prosecutor and Toxicologist Guide to Effective Communication in Impaired Driving Cases. Lakewood, CO December 18 & 19, 2018.
- ANAB Laboratory Assessment-Toxicology Assessor, Phoenix, AZ December 3-6, 2018.
- National Institute of Justice (NIJ) Technical Working Group (TWG) Toxicology & Drug Chemistry, Washington DC November 14-15, 2018.
- Organization of Scientific Area Committees (OSAC) Meeting, Houston, TX November 5-8, 2018.
- Society of Forensic Toxicologists Annual Meeting, Minneapolis, MN October 8-12, 2018.
 - Workshop: Risky Business: The dance between ISO/IEC 17025:2017's Risk Based Requirements and Forensic Toxicology Laboratories.

Case 2:23-cr-20191-MSN Document 144-7 Filed 01/31/24 Page 9 of 12 PageID 691

Daniel T. Anderson, M.S., D-ABFT-FT, ABC-GKE Toxicologist IV

NMS Labs

200 Welsh Road, Horsham, Pennsylvania 19044 Phone: 844-276-0768

- ANAB Laboratory Assessment-Toxicology Assessor, Little Rock, AR April 30-May 3, 2018.
- Organization of Scientific Area Committees (OSAC) Meeting, Chicago, IL March 13-16, 2018.
- Colorado Drug Recognition Expert (DRE) Conference, Pueblo, CO February 26-28, 2018.
- American Academy of Forensic Sciences Annual Meeting, Seattle, WA February 21-23, 2018.
- National Institute of Justice (NIJ) Technical Working Group (TWG) Toxicology & Drug Chemistry, Washington DC, February 7-8, 2018.
- Society of Forensic Toxicologists Annual Meeting, Boca Raton, FL January 7-11, 2018.
- 2017
 - Colorado Coroner's Association Annual Meeting, Grand Junction October 04, 2017.
 - Marijuana DUI Investigations with Green Lab. Grand Junction, CO Sept. 19-20, 2017.
 - International Association of Chiefs of Police Drug Recognition Expert (IACP-DRE) Annual conference, National Harbor, MD August 12-14, 2017.
 - CDOT Highway Safety Office Road Health Summit, Breckenridge, CO July 10-11, 2017.
 - Colorado Coroners Association Annual 3-Day Meeting, Colorado Springs, CO June 7-9, 2017.
 - California Association of Toxicologists Semi Annual meeting, San Diego, CA May 5-6, 2017.
 - ASCLD Leadership Academy (40 hours), ASCLD, Dallas, TX January 26-April 13, 2017 & April 30-May 1, 2017.
 - ASCLD-LAB Assessment Alaska Crime Detection Laboratory, January 30-February 2, 2017.
 - American Academy of Forensic Sciences annual meeting, New Orleans, LA (3 days).
 Workshop: The Opioid Epidemic: Trends, Challenges, and a Path Forward.
 - Participation in the 2017 OSAC Toxicology Sub-committee meeting, Leesburg, VA (April-3 days).
 - International Association for Chemical Testing (IACT) Annual Meeting, Colorado Springs, CO

(April-1 day).

2016

- Participation in the 2016 OSAC Toxicology Sub-committee meeting, Leesburg, VA (3 days).
- American Academy of Forensic Sciences annual meeting, Las Vegas, NV (5 days with workshops).
 - Workshop: Advanced MS Techniques for Forensic Analysis: What does the future hold.
 - Workshop: Vaping: What you don't know about Electronic Cigarettes And why you should care.
- CBI New Supervisor Training, Denver, CO.
- Wisconsin State Laboratory of Hygiene Medical Examiner Symposium (1 day).
- "Time Management 360 degrees", Denver, CO (1 day).
- Participation in the OSAC Toxicology Sub-committee meeting, Phoenix, AZ (3 days).
- Society of Forensic Toxicologists annual meeting, Dallas, TX (5 days with workshops).
 - Workshop: Alcohol Concentration Extrapolation.
 - Workshop: Toxicology of Designer Benzodiazepines and Opioids.
 - Workshop: Lean Six Sigma White Belt Training.
- Participation in Consensus Meeting of the National Safety Council (NSC) DUID Laboratory Survey Project, Philadelphia, PA (1.5 days).
- Participation in the National Institute of Justice (NIJ) sponsored Forensic Science Technology. Working Group (TWG) meeting, Washington D.C. (1.5 days).

- American Academy of Forensic Sciences annual meeting, Orlando, FL.
- ASCLD-LAB Assessors Training Course, Denver, CO.
- Postmortem Toxicology: From Autopsy to Interpretation, SOFT, Atlanta GA.
- Managing a Forensic Toxicology Laboratory: A New Mindset and Approach, SOFT, Atlanta, GA.
- Quality in Laboratories, Finding the Balance, SOFT, Atlanta, GA.
- Society of Forensic Toxicology annual meeting, Atlanta, GA.

Case 2:23-cr-20191-MSN Document 144-7 Filed 01/31/24 Page 10 of 12 PageID 692

Daniel T. Anderson, M.S., D-ABFT-FT, ABC-GKE Toxicologist IV

NMS Labs

200 Welsh Road, Horsham, Pennsylvania 19044 Phone: 844-276-0768

2014

- Root Cause Analysis When Blaming the Analyst Completely Misses the Point Workshop, AAFS, Seattle, WA.
- The Opioid Epidemic and the Medical Examiner Recommendations for the Investigation, Diagnosis, and Certification of Deaths Related to Opioid Drugs, NAME Interim Program, Seattle, WA.
- A Practical Approach to Calculating and Reducing Uncertainty of Measurement in the Laboratory, SOFT, Grand Rapids, MI.
- American Academy of Forensic Sciences annual meeting, Seattle, WA.
- Society of Forensic Toxicologists annual meeting, Grand Rapids, MI

2013

- Melendez-Diaz, Bullcoming, and Williams: Scientific Evidence and the Right to Confrontation, AAFS, Washington DC
- A National Forensic Sciences Enterprise and Transparency in Forensic Science: Legal and Practitioner Views on our Path Forward, AAFS, Washington DC
- High Profile Cases in Toxicology-Lessons Learned, SOFT, Orlando, FL
- SWGTOX Standard Practices for Method Validation in Forensic Toxicology, SOFT, Orlando, FL
- Marijuana: Old Drug, New Data, SOFT, Orlando, FL
- California Association of Toxicologists Bi-annual meeting, Las Vegas, NV
- American Academy of Forensic Sciences annual meeting, Washington DC
- Society of Forensic Toxicologists annual meeting, Orlando, FL

2012

- Using Pharmacokinetics to Analyze Forensic Toxicology Cases, AAFS, Atlanta, GA
- Robert F. Borkenstein Course of Effects of Drugs on Human Performance and Behavior, Indiana University Center for Studies of Law in Action, Philadelphia, PA.
- Drug Recognition Expert School (DRE)-Completion of Classroom Education portion only, Los Angeles Police Department, Los Angeles, CA
- Laboratory Management for Dummies...and Smarties, Too! It's a Generational Thing, SOFT, Boston, MA
- Uncertainty of Measurement-Reporting for the Forensic Community, SOFT, Boston, MA
- California Association of Toxicologists Bi-annual meeting, Glendale, CA & San Jose, CA
- American Academy of Forensic Sciences annual meeting, Atlanta, GA
- Society of Forensic Toxicologists annual meeting, Boston, MA

2011

- Tips and Tricks to Improve the Interpretative Value of Postmortem Toxicology, AAFS, Chicago, IL
- K2 and Beyond: A Synthetic Cannabinoid Primer, AAFS, Chicago, IL
- Scientific Writing for Dummies and Smarties Too!, SOFT, San Francisco, CA
- Forensic Toxicologist Expert Witness Testimony: What to Expect and how to Prepare" San Francisco, CA
- California Association of Toxicologists Bi-annual meeting, Napa, CA
- American Academy of Forensic Sciences annual meeting, Chicago, IL
- Society of Forensic Toxicologists annual meeting, San Francisco, CA

- Pharmacology for Forensic Toxicologists, SOFT Continuing Education, Albany, NY
- The Science and Art of Teaming, FBI sponsored Crime Laboratory Development Symposium, Cincinnati, OH
- Getting the Most from ELISA: Tips and Tricks for the Professional Toxicologist, SOFT, Richmond, VA

Case 2:23-cr-20191-MSN Document 144-7 Filed 01/31/24 Page 11 of 12 PageID 693

Daniel T. Anderson, M.S., D-ABFT-FT, ABC-GKE Toxicologist IV

NMS Labs

200 Welsh Road, Horsham, Pennsylvania 19044 Phone: 844-276-0768

- To Err is Human...to Identify it is Devine, SOFT, Richmond, VA
- American Academy of Forensic Sciences annual meeting, Seattle, WA
- California Association of Toxicologists Bi-annual meeting, Sacramento, CA
- American Academy of Forensic Sciences annual meeting, Seattle, WA
- Society of Forensic Toxicologists annual meeting, Richmond, VA

2009

- Emotionally Intelligent Manager, FBI sponsored Crime Laboratory Development Symposium, Madison, WI
- Scientific Presentation Best Practices and Use of PowerPoint, SOFT, Oklahoma City, OK
- Crawford Motions: The Right to Confrontation & How Recent Rulings May Affect Forensic Laboratory Management and Expert Testimony, Oklahoma City, OK
- Newer' Prescription Drugs: Impairment Potential & Identified Polypharmacy, Oklahoma City, OK
- California Association of Toxicologists Bi-annual meeting, Reno, NV & San Francisco, CA
- American Academy of Forensic Sciences annual meeting, Denver, CO
- Society of Forensic Toxicologists annual meeting, Oklahoma City, OK

2008

- Midwest Forensic Resource Center Toxicology Symposium, University of Iowa, Ames, IA
- ASCLD-LAB International Preparation Course, ASCLD-LAB, Portland, OR
- California Association of Toxicologists Bi-annual meeting, Redondo Beach, CA
- American Academy of Forensic Sciences annual meeting, Washington DC
- Society of Forensic Toxicologists annual meeting, Phoenix, AZ

2007

- Toxicology Jeopardy-A Practical Approach to DUID Testing, SOFT, Raleigh-Durham, NC
- California Association of Toxicologists Bi-annual meeting, Phoenix, AZ
- Society of Forensic Toxicologists annual meeting, Raleigh-Durham, NC

2006

- Organizational Communication, FBI sponsored Crime Laboratory Development Symposium, Atlanta, GA
- Method Validation and Measurement of Uncertainty for Dummies...and Smarties, Too, SOFT, Austin, TX
- Postmortem Pharmacokinetics-The Good, The Bad, and The Ugly, SOFT, Austin, TX
- How Does Your QA/QC Program Measure Up?, SOFT, Austin, TX
- California Association of Toxicologists Tri-annual meeting, Palm Springs, CA, San Francisco, CA & San Diego, CA
- Society of Forensic Toxicologists annual meeting, Austin, TX

2005

- Preparing Future Leaders, FBI sponsored Crime Laboratory Development Symposium, Ann Arbor, MI
- The Postmortem Blood Drug Screen: Analytical and Managerial Approaches, SOFT, Nashville, TN
- Postmortem Toxicology Interpretation, SOFT, Nashville, TN
- California Association of Toxicologists Tri-annual meeting, Las Vegas, NV, Anaheim, CA & Sacramento, CA
- Society of Forensic Toxicologists annual meeting, Nashville, TN

- FBI Symposium Workshop, Washington, DC
- Society of Forensic Toxicologists annual meeting, Washington DC

Case 2:23-cr-20191-MSN Document 144-7 Filed 01/31/24 Page 12 of 12 PageID 694

Daniel T. Anderson, M.S., D-ABFT-FT, ABC-GKE Toxicologist IV

NMS Labs

200 Welsh Road, Horsham, Pennsylvania 19044 Phone: 844-276-0768

• California Association of Toxicologists Tri-annual meeting, Tempe, AZ, Pasadena, CA & Oakland, CA

2003

- Forensic Toxicology of Methadone Workshop, SOFT, Portland, OR
- Feeling Blue? Antidepressant Workshop! SOFT, Portland, OR
- California Association of Toxicologists Tri-annual meeting, Culver City, CA & Albuquerque, NM
- American Academy of Forensic Sciences annual meeting, Chicago, IL

2002

- California Association of Toxicologists Tri-annual meeting, San Jose, CA
- California Association of Criminalists Bi-annual meeting, Huntington Beach, CA

2001

- Society of Forensic Toxicologists annual meeting, New Orleans, LA
- California Association of Toxicologists Tri-annual meeting, Oakland, CA & Santa Barbara, CA
- California Association of Criminalists Bi-annual meeting, Universal City, CA

2000

- Benzodiazepines: Pharmacology and Analytical Challenges Workshop, SOFT, Milwaukee, WI
- Pharmacology and Toxicology of Drugs Used in the Treatment of Infectious Disease Workshop, SOFT, Milwaukee, WI
- Pharmacology Reviews II: Selected Cardiovascular Drug Toxicology & Update on Pharmacogenetics Workshop, SOFT, Milwaukee, WI
- Society of Forensic Toxicologists annual meeting, Milwaukee, WI
- California Association of Toxicologists Tri-annual meeting, North Hollywood, CA & San Diego, CA

1999

- Pharmacology Reviews I: Selected New Drugs Workshop, SOFT, San Juan, Puerto Rico
- Pathology for Toxicologists Workshop, SOFT, San Juan, Puerto Rico
- Society of Forensic Toxicologists annual meeting, San Juan, Puerto Rico
- California Association of Toxicologists Tri-annual meeting, Culver City, CA & San Diego, CA

1998

- Analytical Challenges with Amphetamine Analogs Workshop, SOFT, Albuquerque, NM
- Rohypnol Detection Workshop, SOFT, Albuquerque, NM
- Society of Forensic Toxicologists annual meeting, Albuquerque, NM
- American Academy of Forensic Sciences annual meeting, San Francisco, CA

1997

- The Pharmacology of Herbal Preparations Workshop, SOFT, Salt Lake City, UT
- The Principles of Solid Phase Extraction, SOFT, Salt Lake City, UT
- Why Sample Mass Spectra and Library Spectra Don't Match, SOFT, Salt Lake City, UT
- Fetal and Pediatric Pharmacology, SOFT, Salt Lake City, UT
- Society of Forensic Toxicologists annual meeting, Salt Lake City, UT
- California Association of Toxicologists Tri-annual meeting, Oakland, CA & San Pedro, CA

- Toxicology of Inhalants Workshop, SOFT, Denver, CO
- Fundamentals of Medical Examiner Toxicology Workshop, SOFT, Denver, CO
- Isoenzyme Specific Metabolism of Drugs of Forensic Interest Workshop, SOFT, Denver, CO
- Society of Forensic Toxicologists annual meeting, SOFT, Denver, CO
- California Association of Toxicologists Tri-annual meeting, San Diego, CA
- California Association of Criminalists Bi-annual meeting, San Mateo, CA