

EXHIBIT K

Knight Forensics, PLLC

Forensic Pathology Consulting Services

PO BOX 1516, VERDI, NV, USA

KNIGHTFORENSICSPLLC@GMAIL.COM

CONSULTATIVE REPORT

CASE IDENTIFIERS: *BAUER VS. CITY OF PLEASANTON ET AL*

DECEDENT: JACOB BAUER

PARTY REQUESTING
CONSULTATION REPORT: GWILLIAM, IVARY, CHIOSSO, CAVALLI &
BREWER (Plaintiff's Attorneys)

CONSULTANT: LAURA D. KNIGHT, MD

INTRODUCTION:

- 1) I was first contacted on or about June 20, 2020 by Brittany Smith of Gwilliam, Ivory, Chiosso, Cavalli & Brewer regarding this case. I was subsequently asked to review a number of materials relevant to the death of Jacob Bauer, and to provide an opinion regarding cause of death. In late September of 2020, I was asked to provide a preliminary report regarding my impressions of the case by October 20, 2020 for a mandatory settlement conference. I reviewed additional items as they were provided and met with attorneys on the case when requested over the next several months. I provided this final report upon request on February 19, 2021.

QUALIFICATIONS:

- 2) I am a Forensic Pathologist, practicing as Chief Medical Examiner and Coroner at the Washoe County Regional Medical Examiner's Office in Reno, Nevada, an office providing autopsy services to 20 counties in northern Nevada and northern California. I perform autopsies, render medical diagnoses, determine and certify cause and manner of death, supervise three full-time and additional part-time board-certified forensic pathologists, and oversee the daily function and administration of the Medical Examiner's Office. I have held this position since January 2017. Prior to January 2017, I held the position of Deputy Chief Medical Examiner in the same office since July 2015.
- 3) I have held other positions as a forensic pathologist/Medical Examiner prior to my current employment with Washoe County, including leadership and supervisory positions, at the Onondaga County Medical Examiner's Office (Syracuse, NY, 2009-2015) and Jackson County Medical Examiner's Office (Kansas City, MO, 2007-2009). See my attached *Curriculum Vitae* (Attachment 1) for further details.
- 4) I hold academic appointments at the level of Associate Professor in the Department of Pathology and the Department of Pediatrics, respectively, at the University of Nevada-Reno School of Medicine in Reno, Nevada.
- 5) Prior academic appointments I have held consist of Assistant Professor at State University of New York Upstate Medical University (Syracuse NY) in Pathology; Clinical Assistant Professor at University of Missouri-Kansas City School of Medicine (Kansas City, MO) in Pathology; and Part-time Instructor at the Syracuse University Institute for Forensic and National Security Sciences (Syracuse, NY).
- 6) I have broad and extensive experience in the field of forensic pathology through my full-time work as a Medical Examiner for over 13 years. I personally have completed more than 3,000 postmortem examinations, signed thousands of death certificates, and have provided expert witness testimony in courts of law more than 100 times. My experience includes having personally performed numerous

autopsies of individuals dying in police custody and during subdual and restraint, and supervising and reviewing the performance of additional such autopsies by Assistant Medical Examiners for quality assurance purposes.

- 7) I have provided expert consultation services in forensic pathology since 2009. I have provided expert consultation services through my corporation, Knight Forensics, PLLC, since 2016.
- 8) I hold active and unrestricted licenses to practice Medicine in the states of Nevada and New York.
- 9) My educational background is as follows:
 - a. I earned a Bachelor of Science degree in Chemistry at Murray State University (Murray, KY) in 1997.
 - b. I earned a Doctor of Medicine degree (M.D.) at the University of Louisville School of Medicine (Louisville, KY) in 2001.
 - c. I completed an accredited 5-year residency program in Anatomic and Clinical Pathology at the Medical University of South Carolina (Charleston, SC) from 2001-2006.
 - d. I completed an accredited fellowship program in forensic pathology at the Office of the Medical Investigator at the University of New Mexico (Albuquerque, NM) from 2006-2007.
- 10) I received numerous scholarships, honors, and awards during my undergraduate, medical school, and residency training; see my attached *Curriculum Vitae* (Attachment 1) for further details.
- 11) I am board-certified by the American Board of Pathology in Anatomic Pathology, Clinical Pathology, and Forensic Pathology, since 2007. I am in compliance with the American Board of Pathology's program of Continuous Certification, and successfully passed the 10-year Maintenance of Certification exam in 2017.
- 12) I have extensive experience in teaching forensic pathology to undergraduate students, graduate students, medical students, residents, fellows, peer colleagues, and law enforcement/coroners. I have presented many abstracts at national professional society meetings, and have published extensively in medical journals and textbooks on various topics in forensic pathology. A list of my abstracts, publications, and select lectures/presentations is provided within my *Curriculum Vitae* (Attachment 1).
- 13) I am a Fellow of the forensic pathology professional organization, the National Association of Medical Examiners (NAME); a current Director on the Board of Directors of NAME; and a past member of the Executive Committee of NAME. I have served on numerous other committees within NAME and the American

Academy of Forensic Sciences Pathology/Biology Section of which I am also a member.

- 14) I have been a member of the Editorial Board of the peer-reviewed medical journal *Academic Forensic Pathology*, and an official Guest Editor for an issue of the same journal. I have served as an invited reviewer for various journals, including most recently the *American Journal of Forensic Medicine and Pathology*.
- 15) I have reviewed materials (itemized below) provided to me by plaintiff's attorneys. I have formed expert medical opinions based upon my review of these materials; my knowledge, training, and experience; and review of relevant medical literature. The information contained in this preliminary report is true, accurate, and complete, to the best of my knowledge. My opinions are based on the information in the materials reviewed; should other information/materials be made available, my opinions may change.

CONSULTATIVE REVIEW

16) ITEMS REVIEWED:

- a. Coroner's Report (including Autopsy Report of Dr. Ferenc and Toxicology Report from Central Valley Toxicology) and Death Certificate
- b. Medical Records (EMS/Paramedics Logistics Alameda; Livermore Pleasanton Fire Department; Valley Care – Stanford; Allergy and Asthma Associates; and Dr. Gonda, psychiatrist)
- c. Police Reports (Pleasanton Police Department) – 500 pages
- d. Seven videos of body camera footage and/or bystander video
- e. Photographs taken by Pleasanton Police Department (457)
- f. Preliminary report of consultant Dr. Wecht
- g. Lab Report (NMS Laboratories, specimens from second autopsy)
- h. Supplemental Investigation Report
- i. Autopsy and video notes by Dr. Ferenc
- j. Transcript of Deposition of Dr. Ferenc
- k. Twenty microscopic slides from Bauer first autopsy (H&E recuts)
- l. Autopsy photographs (first autopsy)
- m. Consultation report of Dr. Michael Freeman (27 pgs)
- n. Transcripts of Police Interviews and Depositions of Paramedics (Engineer Patrick Thompson and Capt. Jorge Diaz) of Livermore-Pleasanton Fire Department

SUMMARY OF FINDINGS AND OPINIONS:

- 17) Jacob Bauer was a 38-year-old man with a history of mental health issues (delusions and paranoia), per review of medical records.

- 18) Mr. Bauer was reportedly behaving erratically in a grocery store in the city of Pleasanton, CA on 8/1/2018 in the afternoon. Specifically, witnesses from the grocery reported he was talking loudly to himself, talking nonsensically, opening/spilling beverages, banging on shelves, and lifted and slammed down a shopping cart.
- 19) Mr. Bauer was asked to leave the store and staff called the police.
- 20) Police officers made contact with Mr. Bauer a short distance from the store, on foot. He appeared calm and cooperated initially with their questions, then stared blankly upon further questioning.
- 21) Police officers decided to detain Mr. Bauer, and a struggle ensued in which officers attempted to subdue and handcuff Mr. Bauer who physically resisted.
- 22) Multiple officers were involved. They initially restrained Mr. Bauer in a prone (face down) position while attempting to handcuff him. Blows were applied to his back, and he was restrained with pressure on his back. A baton was used as a lever to attempt to gain access to his wrist for handcuffing.
- 23) Taser was applied multiple times, once in Taser mode and the rest of the applications in stun drive mode.
- 24) His legs were restrained in the "Wrap" restraint device.
- 25) He was turned supine (face up) and the "Wrap" restraint device was applied to his torso, and he was moved to a position seated with the torso at 90 degrees or less to the legs. The Wrap restraint can be seen in bodycam videos to be tight over Mr. Bauer's obese abdomen, and his position in the device is with torso hunched forward and head/neck bent forward. Officers apply pressure to his back, pressing him forward.
- 26) A spit hood was applied over his head.
- 27) Mr. Bauer had vocalizations or screaming throughout the early altercation and subdual, up until some time after he was in a seated position with officers restraining his legs (one officer) and pushing him forward at his back (two officers) with the officers' knee/leg on his back and hands at his shoulders. In this seated position, his vocalizations slowed and became weaker; he was visibly fatigued and slumping/pushed forward.
- 28) Mr. Bauer becomes quiet and no further vocalizations can be heard.
- 29) Mr. Bauer is still and quiet aside from slight bobbing of his head. This bobbing can be observed and then seen to stop in Officer Sansura's bodycam video; it is unclear at what point Mr. Bauer's breathing ceases. Voluntary movements by Mr.

Bauer are not detectable at this point, after a total time of struggle and restraint of 15 minutes plus.

- 30) Versed is administered in the right arm (via intramuscular injection) by a paramedic; no particular effect is observed as Mr. Bauer is already quiet and still before the injection and remains so after the injection.
- 31) A paramedic assesses Mr. Bauer as he is being strapped to the gurney, and notes Bauer's pupils are "huge". According to police reports, LPFD personnel assessed for pulse around the same time and found one to be present.
- 32) Mr. Bauer's face appears light purple/cyanotic in bodycam video footage once he is on the gurney.
- 33) Mr. Bauer is rolled to the ambulance on the gurney. Once in the ambulance, paramedic/EMT personnel remove the spit hood and note Mr. Bauer to appear "bluish" and then find that he is apneic and pulseless.
- 34) Resuscitative efforts are initiated, including intubation and application of an automated chest compression device, and he is transported to the hospital.
- 35) At the emergency room, esophageal intubation was noted (improper placement of the endotracheal tube into the esophagus rather than trachea during pre-hospital care, resulting in ineffective ventilation of the patient). The tube was removed and a physician re-intubated the patient endotracheally.
- 36) Resuscitative efforts at the hospital are unsuccessful, and Mr. Bauer is pronounced dead.
- 37) Asystole and pulseless electrical activity were recorded on cardiac monitoring during resuscitative efforts.
- 38) It is my opinion that Mr. Bauer suffered cardiorespiratory arrest prior to entering the ambulance.
- 39) An autopsy was performed by Dr. Michael Ferenc on 8/2/2018, with the following reported findings (quoted exactly):
 - 1) INJURIES
 - A. HEAD AND NECK
 1. EXTERNAL ABRASIONS TO HEAD
 2. CONJUNCTIVAL PETECHIAE
 3. NO INTERNAL HEAD OR NECK INJURIES
 - B. TORSO
 1. MINOR EXTERNAL INJURIES
 2. CONTUSIONS TO ANTERIOR FATTY TISSUES
 3. CONTUSIONS TO FAT AND MUSCLE OF BACK

4. TASER-TYPE BARBS EMBEDDED IN LEFT ABDOMEN
 5. NO INJURIES TO THORACO-ABDOMINAL ORGANS
 - C. LIMBS
 1. ABRASIONS AND CONTUSIONS TO WRISTS
 2. OTHER ABRASIONS AND CONTUSIONS TO ARMS.
 - 2) OBESITY (BMI 40.5).
 - 3) CARDIAC HYPERTROPHY AND DILATION.
 - 4) FOAM IN BRONCHI.
 - 5) PULMONARY CONGESTION, SLIGHT.
 - 6) ENLARGED LIVER AND SPLEEN.
 - 7) TOXICOLOGY (CVT-18-10193)
 - A. TOXICOLOGY ON FEMORAL BLOOD
 1. METHAMPHETAMINE, 0.42 MG/L
 2. AMPHETAMINE 0.04 MG/L
 3. NO OTHER SUBSTANCES OR ALCOHOL DETECTED
 - B. VITREOUS HUMOR CHEMISTRY PANEL IS NON-CONTRIBUTORY.
 - 8) HISTOLOGY
 - A. PULMONARY CONGESTION
 - B. FOCAL SLIGHT INTRA-ALVEOLAR HEMORRHAGE
 - C. SLIGHT HEPATIC STEATOSIS
 - D. HEPATIC FIBROSIS.
- 40) Dr. Ferenc stated the CAUSE OF DEATH to be: ACUTE METHAMPHETAMINE TOXICITY. Other conditions: PROBABLE MECHANICAL ASPHYXIA WHILE BEING PLACED IN RESTRAINT DEVICE BY POLICE; CARDIAC HYPERTROPHY; MORBID OBESITY.
- 41) Dr. Ferenc stated in a "Note" his opinion that the absence of midazolam in postmortem toxicology results indicated that Mr. Bauer's "circulatory system already had collapsed or was in the process of collapsing when the dose was administered." I am in agreement that it appears the midazolam did not have time to circulate and that Mr. Bauer was already in physiologic distress at a minimum, and likely cardiorespiratory arrest, around to shortly after the time the injection was administered.
- 42) Mr. Bauer was measured at 69 inches tall, weighing 274 pounds, with a body mass index of 40.5, which meets the definition of morbid obesity. He had an abdominal pannus with abdominal fat thickness of 3 ½ inches.
- 43) In my review of 20 hematoxylin-and-eosin-stained recut glass slides from the autopsy tissues by light microscopy, I found evidence of myocardial hypertrophy in the cardiac left ventricle, with frequent elongate fusiform myocyte nuclei, binucleate myocytes, and mild perivascular fibrosis surrounding thick intramyocardial arterial vessels. There was no evidence of myocardial infarction or myocarditis. Other significant findings in microscopy of the organs included

mild scattered macrovesicular steatosis in the liver and erythrocytic congestion in the lungs.

44) It is my opinion that Mr. Bauer's CAUSE OF DEATH is: **Combined physiologic effects of violent struggle against subdual and restraint by police, including physical restraint, electromechanical device (Taser) deployment, and application of restraint devices (The Wrap and a spit hood).** Other significant conditions contributing to his death are: **methamphetamine toxicity, obesity, and cardiac hypertrophy.**

45) The physiologic effects of violent struggle include lactic acidosis, increased oxygen demand, catecholamine hyperstimulation, hyperthermia, and generalized exhaustion. Methamphetamine toxicity may exacerbate these effects as it may also cause catecholaminergic stimulation, hyperthermia, elevated blood pressure and elevated heart rate. By these physiologic effects, methamphetamine increases the risk of cardiac arrhythmia.

46) Application of the Wrap device on an obese individual may impair respiration; there have been other deaths associated with the device, though a causative role has not been established and there are no medical studies to my knowledge on the Wrap device. The majority of published medical literature related to "restraint asphyxia" or "positional asphyxia" in police custody focuses on prone restraint and/or hog-tying/hobbling.

47) Mr. Bauer appears somewhat hunched forward in the device, which is tight over his obese abdomen, in my review of police bodycam videos. Officers additionally applied pressure to his back/shoulders that enhanced this hunched forward position and increased the pressure of the device straps on his obese abdomen. His hands were cuffed behind his back, creating further strain and restriction. This position likely impaired effective inhalation/exhalation, preventing effective diaphragmatic movement (due to abdominal compression by the device) and chest wall excursion (due to the hunched-forward position). This would have a negative physiologic effect, especially given Mr. Bauer's exertion and need for rapid/deeper breathing for post-exercise recovery after violent struggle. It is of note that in police bodycam videos, Mr. Bauer is screaming or yelling initially, and once he is sitting up fully restrained in the Wrap device, his vocalizations are strained, quieter, and short, and then subsequently cease.

48) A significant autopsy finding was large petechial hemorrhages of the eyes (conjunctivae), a finding consistent with mechanical/compressional asphyxia.

49) Mr. Bauer was standing outdoors immediately prior to being confronted by police, and appears in videos to be in no acute physiologic distress at that time. His speech may be slightly pressured/rapid, and some of his statements do not make sense; these effects may be related to mental health issues (delusions) and/or being under the influence of methamphetamine.

50) **But for** the interaction with police (and subsequent restraints and violent struggle), Mr. Bauer would not have died when he did. He did not die primarily of methamphetamine toxicity as Dr. Ferenc opines. His death has an exact temporal relationship with the violent events immediately prior to it; the physiologic effects of violent struggle and restraint were additive upon the underlying substrate of Mr. Bauer's pre-existing morbid obesity, cardiac hypertrophy, and methamphetamine use. Mechanical asphyxia likely played the most significant role in his death, but the other physiologic effects (including acidosis, catecholamine surge, hyperthermia) should not be ignored.

51) It is my opinion that the MANNER OF DEATH in this case would be best certified as homicide. While police officers had no intent to end Mr. Bauer's life, "homicide" is classically defined as "death at the hands of another" in forensic pathology. **But for** the actions of police in subduing, restraining, and continuing to restrain Mr. Bauer even beyond the point when he became unresponsive, he would not have died at this time.

52) Knowledge of multiple medical literature articles was utilized in the formulation of these opinions; some articles were reviewed, but none cited in specific.

53) All of my opinions in this matter are based on the information in the materials reviewed; should other information/materials be made available, my opinions are subject to change. I reserve the right to amend my opinion, should additional investigative evidence or relevant information become available that I have not had the opportunity to review in forming this opinion.



LAURA D. KNIGHT, MD
Knight Forensics, PLLC

2/19/2021
DATE

ATTACHMENT 1:
CURRICULUM VITAE OF LAURA D. KNIGHT, MD