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**UNITED STATES DISTRICT COURT  
EASTERN DISTRICT OF WASHINGTON**

UNITED STATES OF AMERICA  
Plaintiff,

vs.

KARL F. THOMPSON, JR.,  
Defendant.

No. CR-09-0088-FVS

Declaration of Courtney A. Garcea  
in Support of Defendant's Response  
to United States' Motion re: Expert  
and Discovery Disclosures

Courtney A. Garcea hereby declares, under penalty of perjury under the laws of the United States, that the following is true and correct to the best of her knowledge:

1. I am over the age of 18 and competent to testify herein.
2. I am the attorney for the Defendant Karl F. Thompson, Jr., and make this declaration in good faith and based upon my personal knowledge.

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2 3. Attached hereto as Exhibit 1 is a true and correct copy of Dr.  
3 Tencer's Report.

4 4. Attached hereto as Exhibit 2 is a true and correct copy of Dr. Davis'  
5 Report.  
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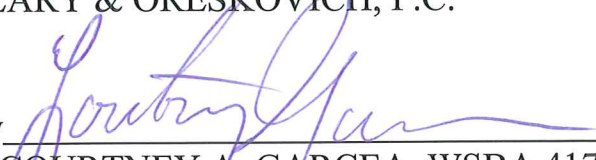
7 5. As an associate attorney, I attend witness interviews in preparation  
8 for trial. During these interviews, I take handwritten notes that contain a  
9 paraphrasing of what the witness communicates, using my own words. My  
10 handwritten notes taken during the interviews do not memorialize the exact  
11 words or verbatim content of a witness or interviewee's statements. I use direct  
12 quotation marks only for those phrases that reflect a witness's verbatim  
13 remarks.  
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15  
16 6. Days, or often weeks after a witness interview, I sometimes prepare  
17 a typed memorandum using my own words to describe the content of the  
18 interview. These memoranda do not contain exact wording or phrasing of the  
19 witnesses interviewed. The typed memoranda contain my own language and  
20 reflect my own narrative based on my paraphrased notes. When I include the  
21 exact words of a witness, I use quotation marks to distinguish those statements  
22 from my narrative. For accessibility and easy comprehension, I reduce my  
23 handwritten notes to complete sentences. These sentences are written in my  
24 own words and are not a verbatim account of what was said by the witness or  
25 interviewee.  
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DATED this 12<sup>th</sup> day of August, 2010.

ETTER, McMAHON, LAMBERSON,  
CLARY & ORESKOVICH, P.C.

By   
COURTNEY A. GARCEA, WSBA 41734  
Attorneys for Defendant Thompson

# **EXHIBIT 1**

**Allan F Tencer, Ph.D**  
**12700 Riviera Pl, NE**  
**Seattle, WA, 98125**  
**206-817-5595**  
**allantencer@gmail.com**

Mr. Stephen M. Lamberson,  
Bank of Whittman Bldg,  
Suite 210  
618 West Riverside Ave.,  
Spokane, WA, 99201

Feb. 22, 2010

**Re: USA v Karl F. Thompson**

Dear Mr. Lamberson,

Enclosed is a summary of my qualifications and opinions. Please note that these opinions address the biomechanical (not medical) issues related to this particular accident event. I have reviewed the materials provided which included a statement of Karl Thompson, and medical records of Mr. Zhem. In addition I performed impact testing using an exemplar bottle of Pepsi-Cola and a police baton. My opinions to a reasonable degree of Biomechanical Engineering certainty are:

1) A 2 liter exemplar bottle of Pepsi-Cola yielded approximately 275 pounds of force upon impact, when swung moderately from chest level, and therefore would generate enough force to strike a significant blow to the body.

2) The straight baton of the type used by Mr. Thompson, when swung moderately from hip level, yielded 7.5-8.2 lbs of impact force. However the front edge of the baton is extremely narrow. Therefore a linear contact over 1 inch of the skull would produce a contact stress of about 40 lbs/sq in, which is sufficient stress to inflict considerable damage to the skull and its overlying tissues.

3) There is no biomechanical evidence that Officer Thompson struck a direct blow to Mr. Zehm's head with a baton.

**Qualifications**

As noted in my CV which was provided separately, I hold the Ph.D. in Mechanical Engineering from McGill University, Montreal, Canada with my thesis topic being "Mechanical Properties of the Human Lumbar Spine". I am currently Professor of Orthopedics, and Adjunct Professor of Mechanical Engineering at the University of Washington. Please note however that I am acting in an individual capacity and not as a representative of the University in this case. In this capacity I both teach and perform research on topics related to the mechanisms

and surgical reconstruction of musculoskeletal trauma. I have written over 130 peer reviewed manuscripts as well as a book and numerous book chapters on these subjects. Many of these book chapters are for surgical textbooks or to provide summaries for other spine researchers. I have been the Principal Investigator in several federally funded research grants related to Biomechanics of musculoskeletal injury. In addition to performing and supervising research I also teach orthopedic residents (surgeons-in-training who already have M.D. degrees) and medical students about the basic concepts of biomechanics, have given a graduate level (to masters and Doctoral students in engineering) engineering course in Orthopedic Biomechanics, and have taught a course to practicing surgeons sponsored by the American Academy of Orthopedic Surgeons entitled "Biomechanics of Fractures" given on an annual basis for 9 years. Specific to the issues involved in this matter, I have published several peer-reviewed scientific articles related to the forces required to generate head trauma, as noted in my CV.

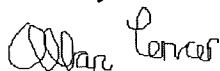
### **Basis for the opinions**

According to the materials I reviewed, Officer Thompson was pursuing a suspect, Mr. Zhem who ran into a store and was holding a 2 liter bottle of soda, as he was approached by Officer Thompson. Officer Thompson swung his baton at Mr. Zhem's right leg, then his left leg, and they went down. Several other officers approached the suspect, striking him with their batons and tasing him. The medical records indicate that Mr. Zhem had suffered cardiac arrest and had stopped breathing. The autopsy report indicated multiple bruises on the upper torso but no signs of trauma to Mr. Zhem's face, head, or neck. A CT scan indicated diffuse cerebral edema.

I performed impact studies using a 2 liter bottle of Pepsi-Cola as an exemplar, based on a photograph of the bottle that was provided to me. The load cell records the impact force as it occurs. The measurements showed impact strike forces ranging from about 200-275 lbs. Therefore, the soda bottle would produce considerable force if used to strike someone.

Further impact studies were performed using an exemplar of the police baton which was provided to me, with the understanding that it was identical to that used by officer Thompson. The force produced by the baton was 7.2-8.5 lbs. However, the front of the baton is narrow, so that the force is delivered over a small area. Considering a linear contact of 1 inch, against a skull, would yield a local stress of about 40 lbs/sq in, which is sufficient to cause considerable and obvious damage to the skull and its overlying tissues.

Sincerely



Allan F Tencer, Ph D

## **EXHIBIT 2**

**EXPERT DIGITAL SOLUTIONS, INC.**

Forensic Medical Consulting and Computer Animation

2210 Suntrek Drive, Eugene, OR 97403 Tel. 541-915-1090 Fax 541-844-1456 www.expertdigital.com

February 20, 2010

Mr. Carl Oreskovich  
Etter, McMahon, Lamberson, Clary & Oreskovich, P.C.  
Bank of Whitman Building, Suite 210  
618 West Riverside Avenue  
Spokane, WA 99201

Re: USA v. Karl Thompson in the death of Otto Zehm

Dear Mr. Oreskovich,

Thank you for allowing me to examine this most tragic but interesting case. I have reviewed the following materials and formed the opinions, below.

**Spokane Police Department Reports**

Statement of Officer Karl Thompson on 3/22/06:

In this statement, Thompson said that he was a patrol officer with 28 years of "commissioned" experience to include SWAT duty, crisis intervention, dealing with the mentally ill, and hostage negotiation. He had been certified in the use of the straight and side handle batons, and was proficient with both. Thompson was trained in the use of, and had used, the taser. Thompson commented that he had always been successful incapacitating people with probes, but the drive stun gun induces pain for compliance. He said that [this case] was only the second time that he had used the straight baton to strike an individual in the nine years that he had been with the Spokane Police Department.

On 3/18/06, Thompson heard a radio broadcast that Officer Steve Braun was dispatched to a call on the north side. He heard the radio broadcast say that the suspect was running or walking towards the New Harbor Restaurant, the location of which he recognized. Thompson was close by, so he responded as well. Thompson's understanding of the scenario was that a woman called to report that a male approached her in a threatening manner while she was at an ATM machine. She had already entered her PIN number into the machine and left before closing the transaction. There was concern that the male may have withdrawn cash under her PIN that was already punched in. When Thompson approached the area, he identified the suspect's car and a white male, 35-40, with long reddish hair, and clothing matching the suspect's description entering the Zip Trip [gas station and convenience store]. Thompson parked his squad car at the pumps, exited the car with his baton, and followed the suspect into the store. When Thompson approached the suspect, the suspect had his back to Thompson. The suspect turned around and was holding a 2-liter bottle with a dark liquid with both hands; one hand on the neck of the bottle and the other hand on the bottom. Thompson commented that "his muscles are now tensed". Thompson had his straight baton in his right hand. Thompson ordered the suspect to drop [the bottle]. The suspect said, "Why?" Thompson repeated the order. The suspect said no. Thompson said that he believed the suspect was preparing to assault him. Thompson used his baton to strike the suspect in the upper left leg [thigh]. The suspect pivoted to his right still holding the bottle, now by the bottle neck, with his right hand. Thompson grabbed the suspect from behind, probably by the collar of his jacket, and delivered another strike to his right leg. Thompson again yelled for him to drop the bottle. The suspect said no. (Because Thompson related some of the event details out of chronological sequence, the following is slightly unclear up to the point where Thompson said he used his taser.) They began thrashing off both shelves in the aisle. Items were falling off the shelves. When they got to the end of the aisle, the suspect dropped the bottle. Thomp-



son said that he was holding the suspect with one hand, and striking him [with the baton] with the other. The suspect went down and got back up again. The suspect started boxing Thompson. Thompson was hitting the suspect wherever he could, except the head. Thompson said that he avoided the suspect's head as that would be use of deadly force and the situation hadn't reached that level. Thompson knocked the suspect down onto his back, landing on top of the suspect. Thompson apparently got up off of the suspect and created some distance between himself and the suspect. He drew his taser with his left hand and fired it at the suspect [on the floor on his back] from about 3 feet. Although Thompson heard the taser activate, the suspect was still swinging his fists. The suspect rolled and got up to his feet, again swinging his fists. Thompson started striking him again in the legs, arms or torso with the baton. They ended up in the next [middle] aisle. Thompson knocked the suspect down onto his back. Thompson felt weakened from the struggle. He straddled the suspect and tried to grab the suspect's right wrist [with his left hand; baton in right hand], but the suspect's hands were clenched up against his own chest. Thompson called a "code 6" on his shoulder microphone, which was the first time he was able to get on his radio.

Shortly thereafter, Officer Braun (estimated to weigh about 250 lbs. by Thompson) arrived. Braun couldn't get control of the suspects right hand either. Thompson told Braun to "use your baton, start hitting him." Braun started making power jabs [with his baton] into the suspect's "shoulder area, uh back area, side area, on the left side" without effect. Thompson told Braun to use his taser. Braun stood up and fired his taser without effect. Braun performed a drive stun directly on the left side of the neck of the suspect, but the suspect continued to resist. Braun tried a carotid choke on the suspect, but couldn't. Thompson and Braun resorted to just holding the suspect down with their body weight until additional officers arrived.

*Thompson appears to have provided the events above slightly out of sequence. The store surveillance video, reviewed below, actually shows that Braun had already arrived while Thompson was still striking Zehm in the middle aisle. Both Thompson and Braun were struggling with Zehm when first Braun called on his radio and then Thompson called on his radio.*

Thompson said that when several more officers arrived, they started rolling the suspect so Thompson got off of him. Thompson put a handcuff on the suspect's right wrist and handed the other cuff to another officer. When Thompson knew that the other cuff was on, he pushed himself away from the suspect and "realized that the fight was over at this point and went outside to catch my breath." When Thompson came back into the store, the suspect had been leg-restrained, was still yelling and resisting forcefully. Medics were called to the scene and at some point, the suspect was found to be unresponsive.

Statement of Officer Steve Braun on 3/20/06:

When Ofc. Braun arrived at the Zip Trip, he got out of his car and grabbed his flashlight out of the charger and his side handle baton. When Braun first entered the store, he was pulling his baton out from his left side. He saw Thompson's taser on the floor with wiring coming out indicating to him that it had been fired. People in the store were oddly just carrying on as usual. Braun saw Thompson on the right side of Zehm in a bent over or kneeling position and Zehm was on his back on the floor. Braun told Zehm to stop fighting and he delivered 3 or 4 "power jabs" with his side handle baton to Zehm's left rib cage. Zehm didn't respond. Braun said that he is 6' 4" out of uniform and weighs approximately 305 to 310 pounds in uniform. Zehm rolled and Braun delivered 2 or 3 more "power jabs" to Zehm's left rib cage with no effect. Thompson said something like "get your taser out. Use your taser." Braun dropped his baton and stood up to fire his taser at Zehm. Braun aimed his taser at Zehm's center mass below his sternum and fired. He didn't know where the barbs hit Zehm. Zehm continued moving around. Braun was going to load another cartridge, but at the urging of Thompson, he performed a drive stun to the left side of Zehm's neck. Zehm made a groaning noise, but in Braun's opinion the stun had no effect. Then Braun delivered another drive stun to Zehm's left armpit area though his jacket and T-shirt. Again, that didn't work. Braun started to apply a neck restraint, but instead put both hands on Zehm's collar area and pushed Zehm onto his right side. Braun put his shin across Zehm's left jawline and said that they needed more units. Shortly after that, he could here Thompson call in a "code 6". Braun said that he momentarily lost control, but then had his left knee on Zehm's left forearm or left ribcage. Shortly thereafter, several more officers arrived and took over. Braun had no more contact with Zehm. He did not see anyone else use baton strikes or tasers on Zehm. Braun left the store and when he went back in, he heard Ofc. Uberuaga say, "This guy's not breathing. He's turning blue."

Report by Officer Erin Raleigh 3/21/06:

When Raleigh entered the Zip Trip store, he observed Ofc. Thompson sitting on Zehm's legs with Zehm on his back. Raleigh immediately took a position at Zehm's legs. Thompson appeared exhausted. Several other officers arrived and assisted Thompson with Zehm. Raleigh and other officers rolled Zehm onto his chest in order to place handcuffs on him. Zehm continued to resist. Raleigh apparently was able to handcuff Zehm. Ofc. Dahl placed a nylon strap leg restraint around Zehm's ankles and attached the buckle to the chain of Zehm's handcuffs. Raleigh stood up at Zehm's side and maintained visual contact of Zehm, below. Fearing that Zehm would slip out of his handcuffs, Raleigh applied a second set of handcuff's to Zehm's wrists. As Zehm appeared to be loosening his leg restraint, the clasp on the restraint was re-buckled to the handcuffs. Fire and medical personnel were requested to evaluate Zehm. Thompson told Raleigh that he had applied his taser to Zehm without effect. Raleigh noticed small gauge taser wires wrapped around Zehm. Raleigh saw one probe in the front of Zehm's jacket and another in Zehm's chest. A black plastic squirt gun was found in Zehm's pockets. At one point, Zehm seemed to calm down and uttered, "I just wanted a Snickers." Members of the Spokane City Fire Department arrived. One fire employee turned Zehm over onto his side, and Zehm began to resist. Raleigh moved back down to the floor to control Zehm's legs. One fire employee removed a dart from Zehm's chest and then he stepped away. Raleigh and other officers rolled Zehm back onto his chest and released control of him. Fire department personnel would not take Zehm's vitals with him handcuffed. Raleigh saw blood in and about Zehm's mouth and was concerned that Zehm would spit blood/saliva and/or bite officers, so he asked the medics for a mask. He placed it on Zehm's face/head when Zehm raised it. Zehm continued to scream and yell and appeared to be trying to remove the mask. Raleigh and several other officers moved down to the floor a third time "in an attempt to physically maintain control and stop his aggressive behavior." Raleigh placed his knee in the small of Zehm's back and held him to the floor. Ofc. Uberuaga gained control of Zehm's upper body around his neck area. Zehm continued to yell and scream. After a while, Zehm began to relax and calm himself on the floor. He still had the mask on his face. Zehm stopped screaming, so Raleigh released control of Zehm and stood up at his side. Raleigh said that he maintained visual observation of Zehm as he remained on the floor, and witnessed Zehm to continue to breathe and take normal breaths. Raleigh documented that he watched as Zehm's breathing began to fade and become more and more faint in his lower abdomen, to the point that Raleigh pulled Zehm's shirt up. Uberuaga and Raleigh rolled Zehm onto his left side to check if he was still breathing. Zehm's face had turned purple and he had stopped breathing. Raleigh did not clearly remember if the mask was in place when he rolled Zehm onto his side after noticing he was not breathing. The restraints were removed and fire personnel took over.

#### **Spokane Fire Department/American Medical Response Ambulance Records**

Firefighter medics were dispatched on 3/18/06 at 6:32 p.m. initially to remove a "taser" dart. Arrival at the scene was at 6:38 p.m. The patient was obviously very irate thrashing about, screaming and spitting. Firefighter Griffith removed a "taser" dart from Zehm's chest and then backed away. Zehm was still struggling. Police were then allowed to continue to subdue the patient. An ambulance was called "no code" to transport him to the hospital. (No mention of giving police a mask.) Moments later, it was noticed that Zehm was not breathing. He was immediately released from his cuffs and ankle restraints by SPD and CPR was initiated by SFD. The patient was observed to be unresponsive with no blood pressure or pulse and not breathing. He had unresponsive pupils, a purple face, and a small amount of blood from the lip area. Medics Cappellano and McMullen turned the patient over and started removing his clothing. Dispatch was notified to send the ambulance sooner. CPR was begun. Zehm was intubated and an IV was started. Red abrasions were noted on Zehm's chest.

The ambulance arrived at the scene on 3/18/06 at 6:51 p.m. Paramedics documented that the patient was a 36 year old male being restrained by police. Under "physical findings" from AM129's report, bruises were documented as involving his chest. What appears to be unaltered boiler plate descriptions for the rest of the physical findings indicate that no injuries were observed on the patient's head, face, neck, back, arms, abdomen, pelvis, and legs. Also, the "neuro exam" appears to be unaltered boiler plate indicating that the neuro exam was unremarkable.

From the notes, it would appear that Firefighter medics and the ambulance paramedics both provided ACLS efforts. Saline was infused through the IV. Atropine, epinephrine and naloxone were administered. A blood glucose was recorded as 81 mg/dL. CPR and ACLS efforts were continued to the hospital

by ambulance paramedics. At 7:04 p.m., the paramedics recorded a pulse of 178 and a blood pressure of 88/52. Arrival time at the hospital was variously recorded as 7:06 and 7:17 p.m.

#### **Deaconess Medical Center Records**

Otto Zehm was recorded as arriving in the emergency room on 3/18/06 at 7:05 p.m. He was attended by Dr. Edminster with his first vital signs recorded at 7:05 p.m. In the emergency room, Zehm's admission physical examination demonstrated no signs of acute cephalo (head) or facial trauma however his facial and neck skin were noted as very cyanotic. His pupils were fixed and dilated. His Glasgow coma score was 3 (the lowest possible). A "tazer" probe incision mark was diagramed as having been present over his lower central chest. His initial blood pH was 6.63. He required CPR on and off in the emergency room and it was mentioned in the record that Zehm had at least 30 minutes of continuous CPR during his resuscitation. Chest x-rays ruled out a tension pneumothorax or cardiac tamponade but did show what appeared to be a patchy infiltrate in the right perihilar lung region. During the resuscitation, atropine, bicarbonate, dopamine, vasopressin, calcium chloride, and 6 liters of balanced electrolyte solution were infused in an effort to obtain a palpable pulse, but did not result in an acceptable blood pressure. Another chest x-ray was obtained that showed non-cardiogenic pulmonary edema. When a sustained blood pressure and pulse were established, he was taken to the CT scanner (8:49 p.m.) for scans of the head, neck, chest and abdomen. The head CT showed diffuse cerebral anoxia but no intracranial hemorrhage or skull fracture. The cervical spine was free of fracture or misalignment. Scans of the chest and abdomen showed increasing lung consolidation and incidental cholelithiasis. Chemical cardioversion was attempted for atrial fibrillation/flutter, but ultimately, electrocardioversion was utilized.

Initial lab values were: Na 149; CO2 9; anion gap of 37; pH 6.3; lactate 17.8; Hct 46.9; WBC 12,100; "normal coagulation studies"; creat 1.7; BUN 11; gluc 367; Ca 9.6; total CPK 585, MB 8.8; troponin I of 0.30; and tox negative except for the presence of salicylate at 8. Two hours later his CPK was 2040 with an MB fraction of 44.6.

Zehm left the emergency room on a ventilator and dopamine drip. His neurological examination improved a bit in that his pupils were responsive, but he had no reflexes and did not withdraw to painful stimuli.

Zehm was examined by a consulting trauma surgeon, Dr. Bax, who could find no evidence of trauma as an etiology or explanation for Zehm's arrest or ongoing difficulties with hypotension. Dr. Lambert, another consultant, diagnosed Zehm as having probable anoxic brain injury with cerebral edema with the CT scan portending a poor prognosis, probably due to prolonged cardiopulmonary resuscitation.

An EEG was performed on 3/19/06 that showed no cerebral activity. A repeat CT scan revealed diffuse edema. Brain death was declared on 3/20/06 at 3:30 p.m. Solid organ donation was arranged.

#### **Lifecenter Northwest Records of Organ Donation**

Their records indicate that there was no evidence of trauma seen to the abdominal organs or structures. The pancreas did have a calcific nodule in the tail portion and the left kidney had a tubular adenoma.

#### **Community Health Association of Spokane Records**

Otto Zehm carried ongoing diagnoses of schizo-affective type of schizophrenia and tobacco dependence with this clinic. Records indicate that he had a history of marijuana use that stopped in 2002. His last contact with the clinic was for a behavioral health progress evaluation on 2/13/06. In the record from this visit, it is mentioned that Zehm had two previous suicide attempts by overdose. Zehm admitted that he was previously arrested for assaulting an officer. He had no significant medical issues with the exception of a cyst on his neck. The plan was to continue him on Zyprexa which he had been taking since 2000.

**Autopsy Report by Dr. Aiken, Autopsy Photos and Consultant Reports**

Dr. Sally Aiken performed a complete autopsy on Otto Zehm on 3/22/06, 2 days after Zehm was declared dead and provided a very detailed report. In addition to extensive evidence of medical intervention with associated ecchymoses and minor abrasions, Aiken noted that the corneas, liver, pancreas, spleen, kidneys and adrenal glands had been previously donated. Her report describes multiple "pattern injuries", but no significant internal injuries. She specifically ruled out internal trauma to the chest, abdomen, neck and brain. Aiken also identified several sets of pattern injuries attributable to the application of an electromuscular disruption device (referred to as a "taser" throughout the police reports).

Two hundred and twenty two autopsy photos are reviewed. A pair of scabbed, superficial parallel injuries involve Zehm's lower right forehead and eyebrow that Dr. Aiken opined might represent a healing pattern injury (figure 1). *To the reviewer, these injuries represent scabbed abrasions from some unknown object or surface dragging over Zehm's head.* She saw an oblique series of injuries over the right upper chest above the nipple (figure 2). *These linear parallel contusions could represent a baton strike.*

REDACTED

Over the right lower chest were patterned injuries consistent with the direct touch portion of a taser (figure 3). Two injuries over the left upper chest were consistent with "taser" direct contact injuries (figure 4).

REDACTED



Linear bands of contusion were documented over the left anterior shoulder (figure 5). *To the reviewer, these parallel linear contusions are consistent with baton strikes.* What Dr. Aiken opined as consistent with "taser" barb injuries were noted to the dorsal left forearm (figure 6).

REDACTED



A hematoma over the left flank demonstrated "finger-like projections...in a ladder pattern" (figure 7). *To the reviewer, this represents a broad area of bruising consistent with Braun's description of applying "power jabs" with his baton.* An injury above and medial to the right patella (on the thigh) revealed parallel lines (figure 8). *Again, this contusion could represent a baton strike.*

REDACTED

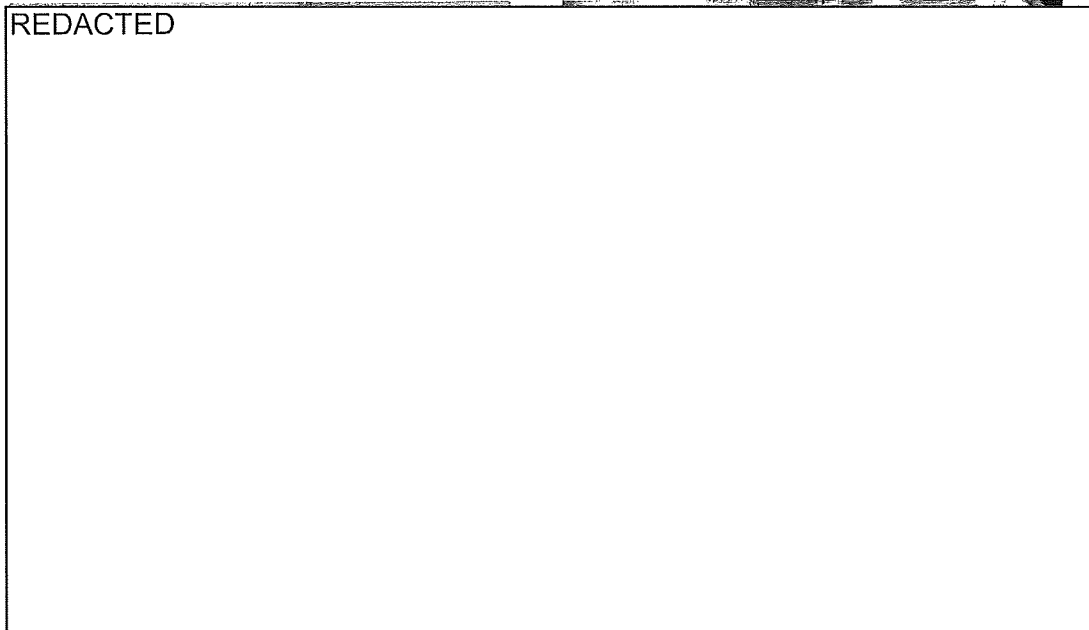


The right wrist demonstrated injuries consistent with being handcuffed (Figure 9). *Classic handcuff abrasions.* Several contusions were documented by Dr. Aiken on the lateral left thigh without an obvious injury source (figure 10). *To the reviewer, there are multiple overlapping bruises present, some of which are characteristic for baton strikes.*

REDACTED



Among the various artifacts of medical intervention, Dr. Aiken documented a jugular venous catheter in the right neck. She also described blotchy areas of ecchymosis in association with this catheter puncture (figure 11) and a right subclavian puncture as two groupings with a 3 inch area of sparing between them. *This reviewer agrees with Dr. Aiken that the ecchymoses superior and inferior to the right jugular venous catheter puncture are consistent with infiltrating blood in the subcutaneous tissue underneath this area. Soft tissue blood infiltration in continuity with the catheter insertion point in the right jugular vein that tracks superiorly is visible on the neck CT scan performed 3/18/06 at 8:49 p.m. (figure 12). The blanched areas in the superior ecchymosis are due to prolonged contact pressure from the catheter tubing taped down to the same area.*



Dr. Aiken identified two areas of subgaleal hemorrhage over the anterior half of Zehm's scalp. One area was present in the midline and measured 1-1/2 inches (figure 13, label 1). The other area of hemorrhage involved the left side of the head and covered a 3 inch area (figure 13, label 2). Hemorrhage was identified in the right temporalis muscle. She specifically mentioned in her report that she checked the scalp skin surfaces over these hematomas and found no evidence of corresponding visible injuries. *Without overlying patterned scalp skin injuries, these areas of deeper bleeding would be consistent with impacts with a flat surface.*

When Dr. Aiken exposed the brain, she observed marked brain swelling (figure 14). She weighed the brain at 1,700 grams, made a few additional external observations, and saved the brain for later consultant examination. *The brain is obviously edematous and congested, but no subdural or subarachnoid hemorrhage is visible that could suggest brain trauma.*

REDACTED

A neuropathology consultant, "DVC", examined the fixed brain on 4/11/06. The brain was described as diffusely swollen and edematous with specific mention that there was mild swelling of the uncinate processes and the cerebellar tonsils. No contusions were described. The final conclusions after gross and microscopic analysis were that there was evidence of diffuse acute anoxic ischemic changes (acute anoxic ischemic encephalopathy) but no gross or microscopic evidence of recent or remote traumatic injury.

There were fractures of lateral right rib 4 and lateral left ribs 2-6 that Dr. Aiken associated with cardiopulmonary resuscitation. Subcutaneous hemorrhage was identified over the upper back "without obvious skin lesions" that was particularly prominent between the scapulae. *No photo is available of this hemorrhage.*

The 400 gram heart was not previously removed for donation and was available for Dr. Aiken's examination. It showed mild to moderate atherosclerotic narrowing of the left anterior descending coronary artery, acute angle take offs at the ostia of the left and right coronary arteries, and left ventricle papillary muscle hemorrhage. Microscopically, Dr. Aiken identified papillary muscle myocyte necrosis and early inflammation she ascribed to <48 hours duration. *The reviewer has seen identical papillary muscle findings in many people who receive prolonged CPR with chest compressions.* She also observed small foci of myocyte necrosis in the myocardium she opined ranged from 7-10 days in duration. (A surgical pathology consult was apparently obtained for the interpretation of the heart microscopic slides from the University of Washington Medical Center). The right and left lungs weighed 470 and 450 grams, respectively and were described as normal in appearance on sectioning. The few remaining organs were likewise described as normal with the exception of the thyroid gland which showed Hashimoto's thyroiditis microscopically.

Toxicology performed on hospital blood, serum and urine specimens was positive for caffeine and nicotine/cotinine, but negative for other drugs.

On 7/14/06, Dr. Aiken was informed by Scott Stephens, SPD, that it had been discovered that a resuscitation mask (without the normally attached tubing) had been placed over Zehm's face during the altercation at the Zip Trip from a recorded statement made by Erin Raleigh, one of the officers who was in the store. On 7/17/06, Dr. Aiken examined a new Hudson RCI brand external ventilation mask identical to the mask reported to have been placed over Zehm's mouth and nose during the event with him at the Zip Trip store. On 7/26/06, Dr. Aiken submitted the mask to Dr. Pivarnick who performed ventilation tests with the mask using two volunteer subjects. Pivarnick concluded that his group found no evidence that wearing



a Hudson RCI non-rebreathing mask without attached tubing affected energy consumption or normal air exchange during treadmill running exercise performed by the two adult males.

Dr. Aiken ultimately signed out the final death certificate with the cause of death being "Hypoxic encephalopathy (due to) cardiopulmonary arrest while restrained in prone position for excited delirium" and the manner of death as "homicide."

### Zip Trip Video

The surveillance video from the Zip Trip store is thoroughly reviewed. The following timeline of events is generated from the review of the video (see also separate file "ZipTripVideo.ppt"):

Time	Event
18:25:59	Zehm enters store
18:26:06	Thompson enters store
18:26:22	Thompson struggles with Zehm in 1st aisle
18:26:27	Thompson continues to struggle with Zehm in 1st aisle
18:26:38	Thompson stands over Zehm, discharging taser (?)
18:26:50	Braun enters store and looks down at Thompson struggling with Zehm in middle aisle
18:27:21	Braun and Thompson struggle with Zehm in middle aisle
18:27:22	Thompson seen hitting Zehm with baton, first time
18:27:24	Thompson seen hitting Zehm with baton, second time
18:27:25	Thompson seen hitting Zehm with baton, third time
18:27:28	Thompson seen hitting Zehm with baton, fourth time
18:27:29	Thompson seen hitting Zehm with baton, fifth time
18:27:33	Thompson and Braun struggle with Zehm
18:27:41	Braun calls for more help on his radio
18:27:44	Thompson show signs of fatigue with left hand up at brow
18:27:47	Thompson puts his baton away
18:27:54	Thompson and Braun still struggle with Zehm
18:28:59	Thompson calls for a "code 6" over his radio
18:29:26	More officers arrive
18:29:35	Multiple officers struggle with Zehm
18:30:08	At least seven officers now present
18:30:57	Thompson stands up and has no more contact with Zehm (17 minutes before Zehm is determined to be unresponsive)
18:31:05	Thompson appears exhausted; other officers continue to struggle with Zehm
18:31:50	Thompson is seen leaving the store while other officers struggle with Zehm
18:32:16	Several officers still struggle with Zehm
18:34:09	Officers now have Zehm's hands and feet restrained with Zehm prone on floor
18:37:05	While Zehm is restrained prone, his hands can be seen moving
18:37:09	Zehm appears to be straining at his wrist and ankle restraints
18:38:10	Several officers struggle with Zehm to further secure his restraints
18:39:11	After strengthening Zehm's restraints, the officers are standing, observing him prone on the floor
18:40:01	Zehm is turned onto his left side and officers begin to go through his pockets
18:40:27	First appearance of Spokane Fire Department medics
18:40:52	SFD medics observe Zehm on floor
18:40:54	SFD medic bends over Zehm (and removes chest dart?) while other medic observes
18:44:09	Officers observe Zehm restrained prone on floor
18:45:28	One officer gets a resuscitation mask from the SFD medics to put over Zehm's head
18:45:34	The struggle begins to place the mask over Zehm's head (15 minutes after Thompson's last contact with Zehm)
18:45:43	Three officers are on top of Zehm to place the mask over his face, two on his abdomen and chest/neck area (figure 15, below)

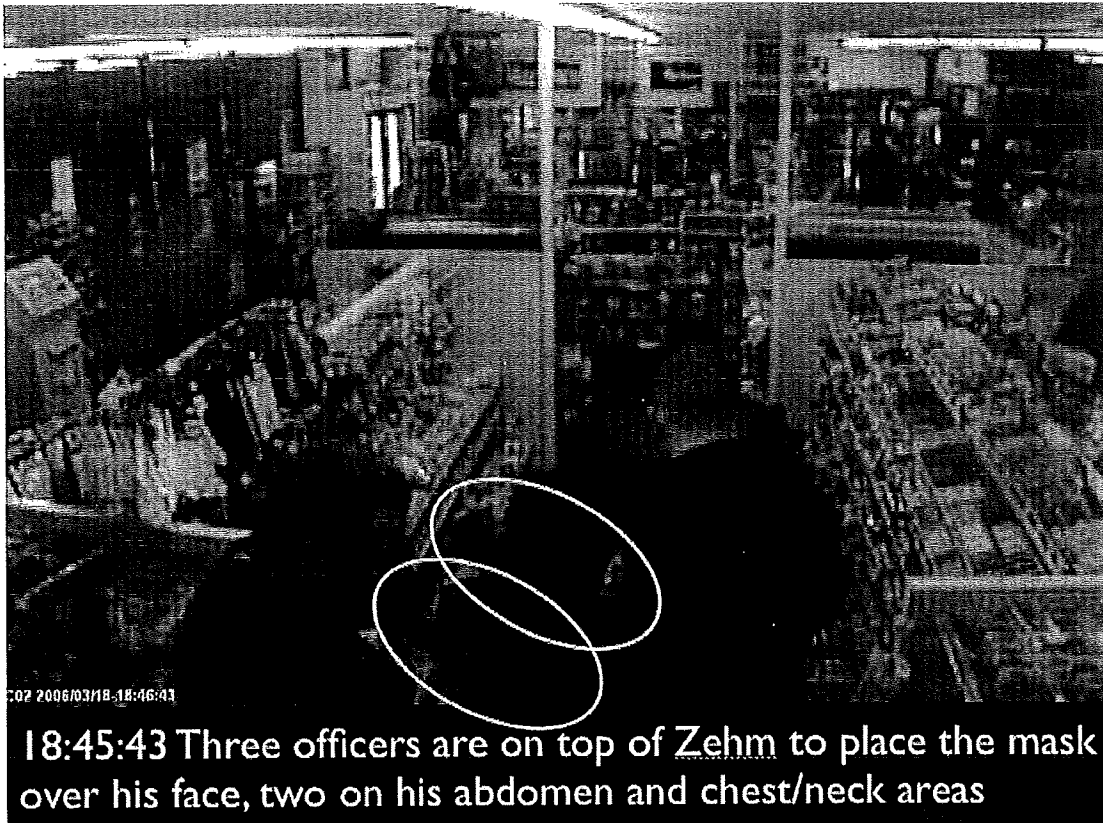


Figure 15. Frame from Zip Trip camera 2 at 18:45:43 showing two officers as they begin applying their weight on Zehm's abdomen (Raleigh, upper circle) and chest/neck area (Uberuaga, lower circle) during the struggle with him to place a resuscitation mask over his face. The officer at Zehm's chest/neck area (Uberuaga) subsequently maintained pressure on his chest/neck area for 2 minutes, 47 seconds.

Time	Event
18:47:08	Two officers remain on top of Zehm's abdomen and chest/neck area for 1 minute, 34 seconds
18:48:21	One officer remains on Zehm's chest/neck area for a total of 2 minutes, 47 seconds
18:48:25	The officers stand up after the mask is apparently put on Zehm's face successfully
18:48:26	One officer raises his hand indicating success
18:48:27	Everyone suddenly seems to be interested in Zehm's status only a few seconds after getting off of him (figure 16)

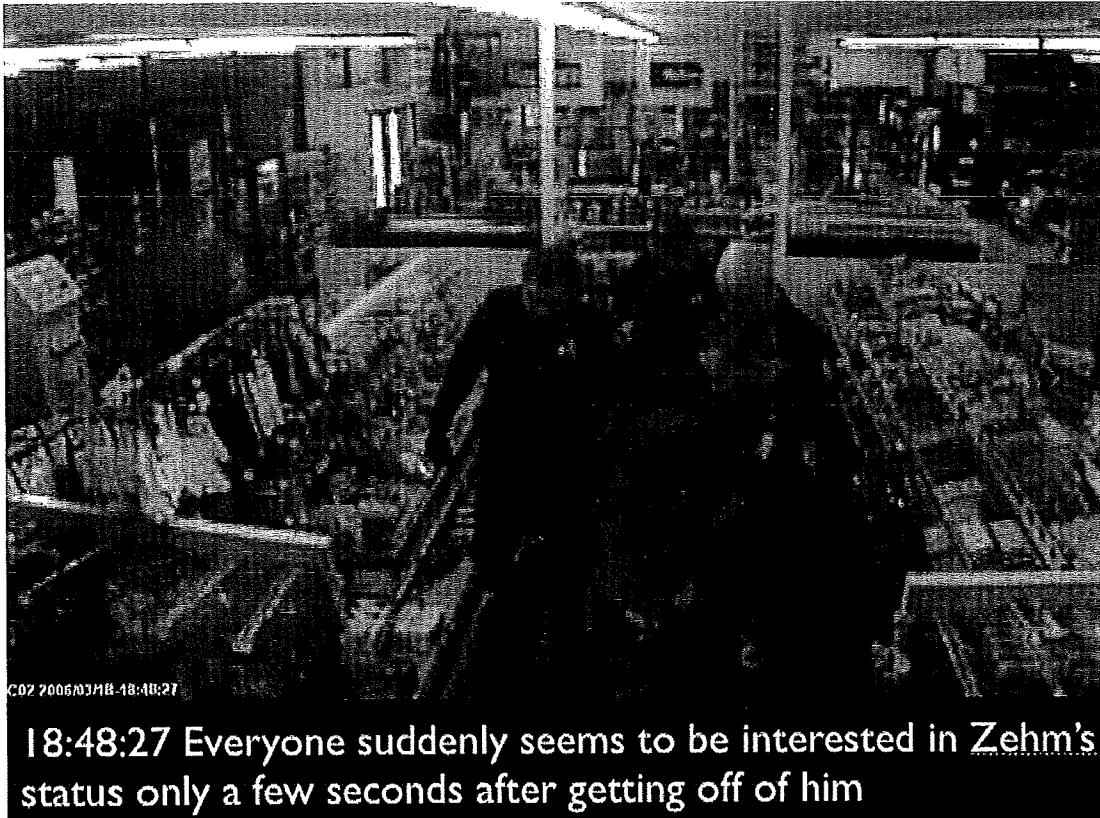


Figure 16. Only a few seconds after officers have gotten up off of Zehm, they realize that something is apparently wrong with him.

Time	Event
18:48:29	It seems that everyone thinks that something is wrong with Zehm (less than 10 seconds after getting off of him)
18:48:34	One officer bends over Zehm; there seems to be increasing concern about Zehm's status
18:48:37	The SFD medics enter the picture
18:48:38	One SFD medic bends over Zehm and assesses his status
18:49:05	Zehm is turned over onto his left side with his arms and legs still restrained
18:49:14	Officers remove Zehm's restraints
18:49:58	The SFD medics begin Zehm's resuscitation

## Opinions

1) Otto Zehm's immediate cause of death was anoxic encephalopathy. After his cardiopulmonary arrest was identified at about 6:48 p.m., he was without a pulse and blood pressure until 7:04 p.m., a further 16 minutes. On arrival in the emergency room, his pupils were fixed and dilated. His Glasgow coma score, reflecting several measures of brain function, was 3 (the lowest possible). These two indicators are consistent with already having sustained a severe anoxic brain insult. Zehm required at least another 30 minutes of continuous CPR during which time it is unlikely that his brain received adequate blood flow, further exacerbating the anoxic brain insult. When he was taken to the CT scanner at 8:49 p.m., the head CT showed classic features of anoxic brain injury, but no intracranial hemorrhage or skull fracture. The autopsy examination of Zehm's brain revealed diffuse swelling consistent with acute anoxic brain injury with no evidence of skull or brain injury that might be associated with blunt force in the form of skull fracture, bleeding over the brain, or bruises to the brain.

2) Otto Zehm's proximate cause of death was compression asphyxia resulting in a cardiopulmonary arrest. From the surveillance video, it is clear that he was still alive and conscious at 18:45:34 after which pressure was maintained over his abdomen (via pressure over the small of his back) for approximately 1 minute, 34 seconds, and over his chest/neck area for approximately 2 minutes, 47 seconds. After pressure was removed, it was noticed almost immediately that he was unresponsive.

3) While Thompson and Braun inflicted multiple non-fatal injuries on Zehm with the use of their batons and electromuscular disruption devices, their actions cannot be associated with his death. The autopsy photos clearly show multiple pattern injuries over Zehm's chest and extremities consistent with their use of batons and electromuscular disruption devices they described in their own statements and, to some extent, visible in the surveillance video. In any event, none of these injuries can be directly associated with Zehm's death by blood loss, organ disfunction, or interference with Zehm's breathing process.

4) There is no evidence that anyone struck Zehm in the head or neck. There were two areas of bruising under Zehm's scalp and right temporalis muscle hemorrhage identified at autopsy without associated overlying scalp injuries. It would be expected that impacts with a baton would cause linear scalp lacerations or at least leave parallel, linear scalp skin bruises. Dr. Aiken specifically looked for overlying scalp injuries and found none. The bruises identified under Zehm's scalp would be consistent with broad-based, flat surface impacts to Zehm's head on the floor or store shelving which likely occurred during the various struggles between Zehm and the multiple police officers who subdued him.

The abrasions over Zehm's right lower forehead would not be characteristic of a baton impact as such an impact would be expected to leave a laceration or contusion rather than an abrasion. This injury is more likely the result of his head scraping against store shelving during the struggle.

The bruising over Zehm's right neck is ecchymosis consistent with the presence of underlying soft tissue hemorrhage from infiltration of blood from the insertion of the right jugular venous catheter.

I hold the above opinions to a reasonable degree of medical certainty and would be willing to offer those opinions in a court of law if requested. If you have any questions or additional evidence that could affect my opinions, please contact me at your earliest convenience.

Sincerely,



Daniel W. Davis, MD

DWD:me

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