

EX PARTE ) No. 99-11-06435-CR-2  
 ) IN THE DISTRICT COURT  
LARRY RAY SWEARINGEN ) 9<sup>TH</sup> JUDICIAL DISTRICT  
(WR-53,613-04) ) MONTGOMERY COUNTY TEXAS,

REPORT OF DR. GLENN M. LARKIN

1. My name is Dr. Glenn Larkin. I am a physician licensed to practice medicine in the State of North Carolina. I am board certified in Forensic Medicine by the American Board of Forensic Medicine and a Fellow of the American College of Forensic Examiners. Among my publications is "Time of Death," In Wecht, C H, *The Forensic Sciences*, Matthew Bender, New York (1997). I have reviewed the autopsy protocol of the body of Melissa Trotter made by Dr. Joye M. Carter (autopsy report). I have reviewed some of the trial testimony and some of the photographs in *State v. Swearingen*, no. 00-11-06435-CR, in the 9<sup>th</sup> District Court, Montgomery County, Texas, including the testimony of Dr. Carter.
2. It is my professional opinion to a reasonable medical and scientific certainty that Melissa Trotter was dead for far less than the twenty-five (25) days opined by Dr Carter. The reasons for this opinion follow.
3. Decomposition can be divided into related two phases- liquefaction and shrinkage, although there is some overlap. Ms. Trotter's body was in the liquefaction phase, but not far into it, judging by the weights and descriptions of organs given by Dr Carter. In the abdomen and chest, liquefaction was progressing but was not yet completed. Dr Carter reported an "intact" pancreas. But this organ is quick to decompose, and should be entirely liquefied in a body exposed for twenty-five days unprotected in the forest.
4. Importantly, the liquefaction phase usually ends before, the start of the third week into the PMI under temperature conditions existing in the Courtoe, Texas area at the time of Ms. Trotter's disappearance. After death, the skin undergoes a programmed set of changes to eventually turns green or black. Organs drain and dehydrate, resulting in loss of mass. Organs such as the intestines distend and perforate, during this period resulting in organ shrinkage, so that organ weights are considerably less than the weight when the person was alive. Weights of spleen, liver, heart, and pancreas, as reported by autopsy were all in the reference range for a living person. The weight of the heart was within the reference range for a healthy female of Ms. Trotter's stature. The only organs that, by report, fall below the reference range were the kidneys. The kidneys, as reported by Dr. Carter, weigh 30% less than average. However, the reported figure is not unusual given Ms. Trotter's relatively small size. The absence of significant shrinkage due to dehydration, autolysis and subsequent drainage strongly indicates a date of death well after December 11, 1998.

5. Along with aforementioned gross anatomical changes, one would expect certain findings on examining the remains of a cadaver dead twenty-five days prior to discovery. The gastro-intestinal track, with many inter-cellular enzymes and a few hormones, first distends because of both autolysis (the auto-digestion by its own enzymes) and putrefaction by the intestinal flora resulting in an anal discharge called purge. In Ms. Trotter's case, there was no purge staining by feces urine, or other liquid reported on Trotter's bright red thong panties or blue jeans, which suggests that no purging took place, and therefore a PMI far less than 25 days.

6. Indeed, if Ms Trotter were to have been deposited in the woods more than three weeks prior to discovery, one would expect that to find her abdomen or distended with gas, or ruptured due to the increased gas pressure. The lack of perforation of the gut and the lack of significant bloating seriously refutes a 25 day post mortem interval, and strongly indicates a substantially shorter period of time after death.

7. The pancreas is reported intact which is unheard of in cases where bodies have decomposed over a period of 25 days under conditions present in the area from which Ms. Trotter's corpse was recovered in January of 1999. The pancreas starts to liquefy within hours under hospital conditions, yet Dr. Carter reported she was able to identify structural features. The description of the spleen also strongly indicates a far shorter post mortem interval than twenty-five days,

8. Therefore, it is my opinion as a forensic pathologist to a reasonable medical and scientific certainty that the post-mortem interval is less than twenty-five days.

Signed this 29<sup>th</sup> day of March, 2007.

Glenn M. Larkin MD  
Glenn M. Larkin MD

State of North Carolina  
Mecklenburg County/ss:

I swear under penalty of perjury that the statements  
and opinions above are true and correct to the best of  
my knowledge and belief.

Glenn M. Larkin MD 03/29/07

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