VOIR DIRE BY MR. IGNATIEV:

Q Good afternoon, Ms. Goodman.

A Good afternoon.

Q I don't think that Ms. Harlin asked you, but what is serology?

A Serology is the analysis of evidence submitted by law enforcement personnel for the presence or absence of bodily fluids. This could include blood, seminal fluid and preserving things like epithelial cells or skin cells or saliva for DNA.

Q And all my questions are going to relate to a period of time where you examined evidence in this case, so we're talking 2022, okay?

A Okay.

Q Just as a background. All right, in 2022 what division of the Mississippi Forensics Laboratory did you work in?

A In the bioscience section.

Q Was the bioscience section credited by any organization at that time?

A Yes, we were accredited by A-N-A-B; also called ANAB.

Q What other sections of the forensics

laboratory were accredited at that time?

A At that time, it should have been latent print examination, bioscience, toxicology, seized drug analysis, firearms and tool marks, trace analysis, evidence receiving or our technical assistance section. I hope I'm not forgetting any.

Q Sounds like pretty much everything but the medical examiner, right?

A I'm not sure about the medical examiner. That was a different position. At that point implied consent was not accredited, but they are now.

Q Okay. Thank you. Are there any standards for the laboratory science that you did daily in your serology department?

A Certainly. So in serology because my job was the precursor to DNA analysis the cleaning and the quality control of just keeping the lab clean and free from DNA was crucial. So any time before a case was opened, the lab would be sprayed with bleach. You know, my work station would be sprayed with bleach, diluted bleach. Every instrument that would be used would be cleaned with bleach. Butcher paper

would be placed down on the evidence sampling bench, just as another layer of protection, even after the bleach. Quality control samples would have been run and documented. If a weight or a balance was used, the weight would have been checked, all in accordance to these standards by the international standards organization or ANAB.

Q Okay, and you say precursor. Normally, when people talk about precursors, well, we think about something that's come before in time, but you're talking about as a precursor to DNA. This is the step before somebody who analyzes DNA looks at a sample?

A That's correct, yes.

Q So you're the person who takes whatever was collected at that crime scene and turns it into something that a DNA analyst could look at?

A So, correct. My job was to find a stain, if there was one. In the instance of blood, you know, I would look for the blood stains and examine for blood stains. In the case of seminal fluid, I would be looking at the sexual assault kit or the clothing that was submitted, and I would examine, find the stains and then my job was to preserve them, report out

my findings and then preserve those in case an officer or agents who wanted DNA analysis.

Q What specifically are you looking for, when you're preparing like semen for a DNA analysis?

A I'm sorry. Can you rephrase the question?

Q What specifically are you looking for in terms of -- inside the specimen, what are looking for in semen or DNA analysis, to prepare for DNA analysis?

A So DNA is potentially -- and this may be out of my scope, but DNA is going to be more interested in sperm cells that have some genetic material that would provide DNA. In serology, if it's a sexual assault kit, for instance, my first thing would be to look for the protein P30. This is a protein that is usually in seminal fluid also called the prostate specific antigen. So I would examine for the presence or absence of the protein P30. Regardless of those results, I would then take that test to a microscopic sperm search, and I would take the sample and extract from the sample, place it on a slide and then stain the slide and physically look at it under a

microscope for the presence of sperm cells. Now in the case of clothing, the first thing that I would do is a visual examination, and then I would use an alternate it light source; also called an ALS. This would help stains on the clothing fluoresce. This florescence may or may not want be seminal fluid, but it does give a visual, a visual just -- something for me to examine. So I would mark those, and then I would utilize the chemical acid phosphatase that is made in the laboratory. Utilizing that chemical with the fluorescing stain on the sample of it, if it had a color change reaction, this could indicated the presence of seminal fluids. This would be taken through further testing with, once again, the examination for the P30 protein, and then the microscopic examination, if all of those were subsequently positive.

Q And once you do all that, what happens to the specimen you prepared?

A So the specimen that I have prepared and the extract that I have used, it is departed or disposed of after my analysis. If I have a microscopic slide that actually has forensic evidence on the it in the form of sperm cells,

that slide would be preserved and kept with the evidence. The evidence -- the swabs that are taken, that I examine are popped off. They are like Q-tip swabs, so I take the ends of those and repackage those and preserve them for DNA analysis, if it's requested.

Q How does the quantity and quality of evidence collection at the scene of the crime affect your ability to analyze the serology?

A I think it's very important that the evidence is collected correctly at the scene, and it's stored correctly, so that the scientific results will be accurate.

Q Let me question a little more directly. You need to have a certain sample size in order to get a scientific and verifiable result and test, right?

A That's correct.

BY MR. IGNATIEV: No further questions on the voir dire, Your Honor.