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September 10, 2015

The August 21, 2015 notification to the Texas Criminal Justice Community from the Texas Forensic Science Commission (TFSC) is specific to the combined probability of inclusion (CPI) method of calculating statistics for DNA mixtures. The reported statistic provides a probability that an unrelated individual in a population is a contributor to a DNA mixture profile recovered from evidentiary items. In other words, a probability is calculated to assist the trier of fact in understanding the strength or weight of the inclusionary statement. This method was utilized by the Texas DPS Crime Laboratory when we started short tandem repeat (STR) testing in 1999 until we changed our standard operating procedure on August 10, 2015.

The Texas DPS Crime Laboratory Service is committed to keeping and remaining current with guidance published by the Scientific Working Group on DNA Analysis Methods (SWGDM). In 2010 when updated SWGDAM Interpretation Guidelines were published, the Crime Laboratory Service's DNA Advisory Board began evaluating and implementing the recommendations. From 2011 through 2014, in addition to implementing revised FBI Quality Assurance Standards and new instrument validations, the DPS DNA sections conducted implementation validation studies across eight laboratories, two amplification kits, three injection times, and two instrument models to further address the recommendations. Due to a lack of consensus in the forensic DNA testing community about the direction of the changes or clear instruction on the application of CPI, final changes to our interpretation guidelines were not implemented until that clear instruction was provided, in part, by Dr. John Butler. In October 2014, Dr. Butler published *Advanced Topics in Forensic DNA Typing: Interpretation*. In this book, Dr. Butler proposes some practices and guidelines for the application of CPI statistics. Colleague-to-colleague communications and training has given the DPS system the tools necessary to implement the data interpretation changes resulting in our protocol change on August 10, 2015.

The application of SWGDAM's DNA interpretation guidance will result in the data utilized for interpretation being more reliable. It is expected that with these new interpretation guidelines, a given sample will have lower "1 in" numbers that translate to more conservative statistics. The forensic community is moving in the direction of automating DNA data interpretation and a recommended software solution is being purchased by DPS. This move will also result in a conversion from CPI calculation to Likelihood Ratio (LR) calculation protocols. DPS anticipates that we will complete validation and implementation of this software solution and protocol conversion by the end of the calendar year.

While SWGDAM advises against retroactive re-analysis of past cases, DPS recognizes advances in forensic science and changes in scientific protocol may impact current and past criminal cases. In saying that, DPS also recognizes it may not be possible to re-evaluate data obtained prior to recent validation studies. While many questions remain, DPS believes it is important to provide as much information on potentially impacted criminal cases as soon as possible. A list of DNA cases potentially impacted by this protocol change, listed by county of offense, accompanies this letter.

The Texas DPS Crime Laboratory Service is working with the TFSC to develop a path forward. This path will need to cover three different types of cases: 1) cases with CPI interpretations that are currently pending trial; 2) cases that are completed and ready to report under our August 10, 2015 standard operating procedures; and 3) cases with CPI interpretations that have already been adjudicated. The third case type may also include post-conviction cases that were reexamined under a Chapter 64 motion for forensic DNA testing. Our first step is to engage a panel of national experts to assist the Texas crime laboratory community with this challenge. The TFSC has reached out and assembled this panel. The first meeting will be held September 18, 2015.

With the help of these experts, the Texas crime laboratory community will be able to develop a plan for each case type listed above. We are committed to considering requests for re-calculation on a case by case basis as suggested by the Texas Forensic Science Commission. We appreciate the support of the Commission in assisting all Texas laboratories in addressing this challenging area. Additional questions can be addressed by contacting my office.



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