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From: Timothy D. Kupferschmid, Chief of Laboratories

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RE: OCME DNA Report Language Relating to Mixtures of Two or Three Individuals

This memo serves to clarify new language in the NYC Office of Chief Medical Examiner Forensic DNA Reports regarding the suitability of minor contributors to be compared to the DNA of individuals. STRMix, a fully-continuous Probabilistic Genotyping Software, was implemented on January 1, 2017. This forensic software combines biological modeling with mathematical processes to (1) interpret and attempt to deconvolute DNA profiles in the presence or absence of conditioned samples, and (2) compare suspect(s) and/or informative reference sample(s) (comparison samples) to crime scene evidence samples and provide statistical weight in the form of a likelihood ratio.

With STRmix, all DNA results that are interpreted to be from one, two, or three contributors are suitable for comparison in their entirety. The OCME Department of Forensic Biology has the capability to compare a suspect and/or informative reference sample to an entire mixture and can provide statistical weight in the form of a likelihood ratio.

This contrasts with the approach previously used, which included a count of alleles attributed to the "minor component" and a threshold that had to be met for a minor component to be "suitable for comparison." There is no longer such a threshold. Accordingly, all minor contributors are suitable for comparison in all cases with major and minor contributors that are interpreted to be from two or three contributors.