CASIE BANYI and MARK FLOOD, Forensic Science Program, Fairmont State University, Fairmont, WV, 26554. The analyzation of DNA and cross contamination inside the cyanoacrylate (superglue) fuming chamber.

The objectives of this experiment looked at were that the DNA, both skin cells and saliva, have the potential of binding with the superglue as it coats each object being fumed. If DNA has the potential of binding with the superglue, then it is very possible for DNA to be carried in the air by the humidifier, thus contaminating other objects. For the first experiment, two saliva covered microscope slides, one female and one male, were fumed along with 25 other sterile slides. Each sterile slide was swabbed and analyzed for DNA in an electrophoresis gel chamber. The second experiment fumed ten microscope slides presented with fingerprints. Each sterile slide was swabbed and analyzed for DNA in an electrophoresis gel chamber. The results showed that there was minimal cross contamination present on the slides fumed with the saliva based slides. The touch DNA experiment showed that there are potentially identifiable DNA markers present in fingerprints after fuming. The results concluded that it is possible to have DNA cross contamination between items that carry no DNA prior to the fumigation, and potential DNA can be found on fingerprints after fumigation.