Superglue might stick criminals

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The latest weapon in the fight against crime is — Superglue.

A fingerprint expert at the state crime lab in Anchorage believes he can develop a Superglue substance that will one day enable crime scene investigators to find fingerprints that today go unnoticed.

"I think this could be big," said David Weaver, a latent fingerprint examiner, working out of the state crime lab.

The National Institute of Justice is so impressed with Weaver's idea, the agency awarded the technician an $88,000 grant in October to research the method.

Weaver hopes he and Everett J. Clary, a controlled substance supervisor at the crime lab, can come up with a dye that will adhere to fingerprints and allow law enforcement officers to see prints through a black light.

The use of Superglue to enhance fingerprints is not new, Weaver said. Forensic experts have been using the substance in this country since 1980 to more accurately bring out prints from rough surfaces, he said.

Within the confines of the crime laboratory, Weaver displays a white plastic grocery sack that appears to be free of fingerprints. He places it in a glass chamber where Superglue is heated and evaporates.

The molecules in the glue adhere to the water and oil that make up the print, he said. The prints remain invisible to the naked eye but can be seen after a chemical is sprayed on the bag and it is illuminated under a laser.

The drawback to the Superglue method is that it can only be used in a laboratory where technicians test items for prints given to them by officers.

After working with the Superglue technology, Weaver realized it would be more useful if they could bring the laboratory to the crime scene when an entire house could be searched for prints.

"The sensitivity is so much greater with this type of detection as opposed to using black powder," Weaver said.

In order to bring the laboratory technology into the field, researchers need to develop a dye that can be combined with the Superglue. Weaver thinks researchers will be able to find either a colored dye that is visible to the naked eye or a substance that will become illuminated under a black light.

The Superglue-dye substance would be boiled on a stove and the vapors would fill a house, Weaver explained. Ideally the Superglue molecules would carry the dye to fingerprints, making them visible to officers.

"So many fingerprints go unnoticed," Weaver said. "It just breaks your heart. We hope to develop this product so an officer can walk in with a black light and find 10 times as many fingerprints."