FBI forensics hits Hollywood speed, researcher says

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Credit: Florida International University

If you believe everything you see on TV, forensic scientists can wrap up

a case in an hour.

That doesn't happen in real life. Until it does, said professor Steven Lee of Florida International University's International Forensic Research Institute.

When federal officials recently announced the arrest of Aventura resident Cesar Sayoc as the person suspected of sending 14 pipe bombs to current and former government officials and to CNN after only a few days, even FBI Director Christopher Wray couldn't help but make the Hollywood comparison.

"This is phenomenal work with the greatest pressure under an incredibly tight time frame," he said at a news conference.

That the FBI laboratory was able to identify a suspect so quickly was a tribute to advances in technology and the resources the government brought to the table, according to Lee, who was formerly director of research and development of the California Department of Justice DNA Lab.

"You do get the Hollywood aspect with this case," Lee said. "In a real case, the quality of the evidence usually is not as good as what they show in Hollywood."

Fingerprints, for example, may be incomplete or overlaid so that multiple prints from different people might obscure a suspect's prints. TV shows also show only one step in a long process where, following automated searches on the Automated Fingerprint Identification System, more than one analyst compares those prints to a list of candidate matches. Technical leads and supervisors will then review the data, make conclusions, before writing reports that need to be approved and evaluated against additional information from other evidence and case

information. Routine casework is not usually processed and resolved so quickly, Lee said.

Extracting a DNA sample from a package or a metallic pipe bomb might be equally challenging. South Florida's humidity might destroy DNA left behind on an object or it could be so low in quantity that the ability to produce a DNA profile may be limited. Even the metal used on the bomb itself might interfere with the DNA analysis methods used in the lab.

International Forensic Research Institute Director De Etta Mills is leading research funded by the National Institutes of Justice to develop non-destructive techniques to collect forensic evidence in low quantities. The forensic institute is part of FIU's broader Global Forensic and Justice Center.

Provided by Florida International University