

Senate Judiciary Hearing on Senate Bill 169-1

Written Testimony of Janis C. Puracal, Executive Director, Forensic Justice Project

April 1, 2025

Chair Prozanski, Vice-Chair Thatcher, and members of the Committee,

Thank you for the opportunity to present testimony on Senate Bill 169-1, which establishes a procedure by which a petitioner can file for post-conviction relief based on changes in relevant forensic science. I offer the following testimony in support of the bill based on my work with incarcerated individuals who are fighting wrongful conviction based on faulty and/or misleading forensic evidence.

A. Background of the Forensic Justice Project.

The use of faulty and misleading forensic evidence is one of the leading causes of wrongful conviction. The Forensic Justice Project (“FJP”) is a nonprofit organization that was created in Oregon to challenge the use of faulty and misleading forensic evidence and to find helpful forensic evidence. We work at all stages of the criminal process from pre-trial through post-conviction. Our mission is to prevent wrongful convictions before they happen and correct them after they happen. To that end, we focus on getting good science into the courtroom and bad science out of the courtroom.

B. Faulty and misleading forensics are a leading cause of wrongful conviction.

As of April 1, 2025, there have been at least 3,659 exonerations around the country, which accounts for more than 32,750 years lost in our prison system.¹ More than a quarter of the exonerees nationwide were wrongly convicted in cases that involved faulty or misleading forensic evidence.² Forty percent of the 40 exonerations in Oregon involved faulty or misleading forensic evidence.³

Finality in the justice system is a valid goal only if we have the right person. Exonerations across the country teach us that finality cannot override accuracy.

C. Experts agree that certain forensic methods are not scientifically valid.

The National Academy of Sciences has recognized that the advent of DNA testing has led to the exoneration of hundreds of innocent people and continues to uncover a “disturbing

¹ The National Registry of Exonerations,
<http://www.law.umich.edu/special/exoneration/Pages/detailist.aspx>.

² *Id.*

³ *Id.*



number of wrongful convictions—some for capital crimes—and expos[e] serious limitations in some of the forensic science approaches commonly used in the United States.”⁴

Independent scientists agree that certain forensic methods, like microscopic hair comparison and bite mark comparison, for example, should no longer be used.⁵ Research proves that these methods are not scientifically valid to connect a suspect to a crime scene, although an untold number of suspects were convicted on those bases. Subjective methods like these are highly susceptible to error and bias because of unfounded assumptions.⁶

The federal government has also recognized the limitations of some forensic methods. For example, on July 18, 2013, the FBI—the agency responsible for developing the method of microscopic hair comparison (*i.e.*, using a high-powered microscope to view hair from a crime scene and compare it to a known hair sample from a suspect)—publicly conceded that testimony offered for decades by its hair examiners, and those it trained, had been exaggerated and is scientifically invalid to “individualize” crime scene hairs to a particular suspect.⁷

According to the FBI, “there aren’t studies that show how many people have identical-looking hair fibers” and thus, incorrect or inflated testimony on microscopic hair analysis can mislead a judge or a jury.⁸ As one commentator put it, microscopic hair analysis “is virtually worthless as a method of identifying someone. It can only safely be used to **rule out** a suspect as the source of crime-scene materials or in combination with the vastly more accurate technique of DNA testing.”⁹

Independent scientists agree. In 2009, the National Academy of Sciences released a ground-breaking report (the “NAS Report”) on the state of forensics in the United

⁴ NAT’L RESEARCH COUNCIL, STRENGTHENING FORENSIC SCIENCE IN THE UNITED STATES: A PATH FORWARD 42 (2009), <https://www.ncjrs.gov/pdffiles1/nij/grants/228091.pdf> [hereinafter NAS Report].

⁵ *Id.* at 156, 174.

⁶ *See, e.g.*, PRESIDENT’S COUNCIL OF ADVISORS ON SCI. AND TECH., FORENSIC SCIENCE IN CRIMINAL COURTS: ENSURING SCIENTIFIC VALIDITY OF FEATURE-COMPARISON METHODS 47 (2016), https://obamawhitehouse.archives.gov/sites/default/files/microsites/ostp/PCAST/pcast_forensic_science_report_final.pdf [hereinafter PCAST Report].

⁷ The FBI wrote that the only possible probative value of hair microscopy is that it may indicate, at the broad class level, that a contributor of a known sample **could** be included in a pool of people of unknown size, as a **possible** source of the hair evidence at the scene or that the contributor of a known sample could be excluded as a possible source of the hair evidence based on the known sample provided.

⁸ Letter from James Comey to Governors, dated February 26, 2016, <https://www.fbi.gov/file-repository/comey-letter-to-governors.pdf/view>.

⁹ Ed Pilkington, *Thirty years in jail for a single hair: the FBI’s ‘mass disaster’ of false conviction*, THE GUARDIAN (Apr. 21, 2015) (emphasis added), <https://www.theguardian.com/us-news/2015/apr/21/fbi-jail-hair-mass-disaster-false-conviction>.

States.¹⁰ On hair microscopy, the NAS Report “found no scientific support for the use of hair comparisons for individualization in the absence of nuclear DNA.”¹¹ In 2016, the President’s Council of Advisors on Science and Technology under President Obama issued its own landmark report (the “PCAST Report”) in which it reviewed documents on hair microscopy from the Department of Justice and concluded that the documents “do not provide a scientific basis for concluding that microscopic hair examination is a valid and reliable process.”¹² The PCAST Report recognized that errors in pattern-matching methods, like hair microscopy, arise, in part, because “in certain settings, humans (1) may tend naturally to focus on similarities between samples and discount differences and (2) may also be influenced by extraneous information and external pressures about a case.”¹³

Since 2015, the FBI has been working to audit more than 3,000 cases in federal and state courts in which FBI agents provided microscopic hair analysis of crime scene evidence.¹⁴ Problems have been found in more than 90 percent of the cases reviewed.¹⁵ The U.S. Department of Justice has agreed not to raise procedural objections, such as statutes of limitations and procedural default claims, in response to motions for a new, fair trial in light of faulty evidence.¹⁶

The FBI also retained an independent company to conduct a full root cause analysis.¹⁷

The FBI has further written to the governors of each state to encourage the states to audit cases in which state-level examiners who were trained by the FBI offered the same scientifically invalid testimony resulting in criminal convictions.¹⁸ As of this date, FJP is unaware of any formal review of hair microscopy cases in Oregon, despite the FBI’s urging.

The Oregon State Police lab has represented that it conducted its own review, but that review did not include cases going back to the 1980s and 1990s when hair microscopy was widely used. Notably, the lab’s review also did not include notice to the affected individual or their attorney, or any level of transparency to stakeholders in the criminal

¹⁰ NAS Report, *supra* note 4.

¹¹ *Id.* at 161.

¹² PCAST Report, *supra* note 6, at 120.

¹³ *Id.* at 49.

¹⁴ FBI Press Release, *FBI Testimony on Microscopic Hair Analysis Contained Errors in at Least 90 Percent of Cases in Ongoing Review* (April 20, 2015), <https://www.fbi.gov/news/pressrel/press-releases/fbi-testimony-on-microscopic-hair-analysis-contained-errors-in-at-least-90-percent-of-cases-in-ongoing-review>.

¹⁵ *Id.*

¹⁶ *Id.*

¹⁷ ABS Group, *Root and Cultural Cause Analysis of Report and Testimony Errors by FBI MHCA Examiners* (August 2018), <https://vault.fbi.gov/root-cause-analysis-of-microscopic-hair-comparison-analysis/root-cause-analysis-of-microscopic-hair-comparison-analysis-part-01-of-01/view>.

¹⁸ Letter from James Comey to Governors, dated February 26, 2016, <https://assets.documentcloud.org/documents/3617804/Comey-Letter-to-Governors.pdf>.

justice system. Indeed, to this day, FJP has never seen a single report or document related to the lab's review of cases.

Others forensic methods, like bite mark comparison and fire cause and origin investigation, suffer from similar problems and were the basis for an unknown number of potentially wrongful convictions in Oregon.

D. SB 169-1 is critical to give courts the ability to review cases in which the science has changed.

We at FJP are reviewing multiple cases that involve these now-discredited forensic methods, such as hair microscopy and bite mark comparison, among others. Some of our clients have been incarcerated in Oregon's prisons since the 1980s.

These are the very types of cases where SB 169-1 is critical. As it stands, a person convicted in Oregon on the basis of unreliable forensic evidence may have few opportunities to get back into court to obtain relief. In many of these cases, procedural rules establish strict time bars that may have expired before state actors recognized flaws in the forensic methodology.

In addition, although Oregon has a post-conviction DNA testing statute that may open the door to a new trial,¹⁹ evidence in some cases may no longer be available for testing. Indeed, many of the hair microscopy and bitemark cases originated before 2009 when Oregon first enacted a law to preserve biological evidence for DNA testing.²⁰

In other cases, DNA is simply not relevant to establish innocence. For example, in arson cases in which the alleged crime occurs at the accused's own home, the presence of the accused's DNA is expected and may not tell the court anything about guilt or innocence.

Under SB 169-1, a petitioner can file a claim as part of the existing post-conviction process to prove (1) that forensic scientific knowledge has sufficiently changed since the time of the criminal trial and (2) had the currently available science been presented at the criminal trial, there is a reasonable probability of a different outcome.

We support SB 169-1, and we remain available to assist the Committee. Thank you.

Sincerely,



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¹⁹ ORS 138.688, *et seq.*

²⁰ ORS 133.707.