

INSPIRED BY INNOCENCE PROJECT

Prof. Dr. Hisham E. Ragab

MBBCH, MFM, DFM (Doctor Degree in Forensic Medicine)

Member American Academy of Forensic Science,

Fellow University of New Haven, USA.

Consultant UNODC (United Nations Office of Drug and Crime)

Professor, DAL University

Halifax, Nova Scotia, Canada.

E-mail: drhisham@yahoo.com



**"Injustice anywhere is a threat
to justice everywhere."
Martin Luther King, Jr.**



INNOCENCE PROJECT

A non-profit legal organization that is committed to exonerating wrongly convicted people to reforming the criminal justice system to prevent future injustice.

The Innocence Project, founded in 1992 by Peter Neufeld and Barry Scheck at Cardozo School of Law.

The work of the Innocence Project has led to the freeing of more than 350 wrongfully convicted people based mainly on DNA, including 20 who spent time on death row, and the finding of 150 real perpetrators.



INNOCENCE PROJECT

- The Innocence Project focuses on cases in which DNA evidence is available
- As of July 2017, 351 people previously convicted had been exonerated
- The National Registry of Exonerations in a study assumed more than 4% of persons overall sentenced to death from 1973 to 2004 are probably innocent.



INNOCENCE PROJECT

All potential clients go through an extensive screening process to determine whether or not they are likely to be innocent. If they pass the process, the Innocence Project takes up their case.

- 43% of clients were proven innocent,
- 42% were confirmed guilty,
- Evidence was inconclusive and not probative in 15% of cases.
- In about 40% of all DNA exoneration cases, law enforcement officials identified the actual perpetrator based on the same DNA test results that led to an exoneration.



REASONS WHY WRONGFUL CONVICTIONS OCCUR

- False eyewitness identification, which played a role in more than 75% of wrongful convictions
- Unreliable or improper forensic science played a role in some 50% of Innocence Project cases
- In about 25% of DNA exoneration cases, innocent people were forced into making false confessions.
- Inadequate legal counsel, and the improper use of informants



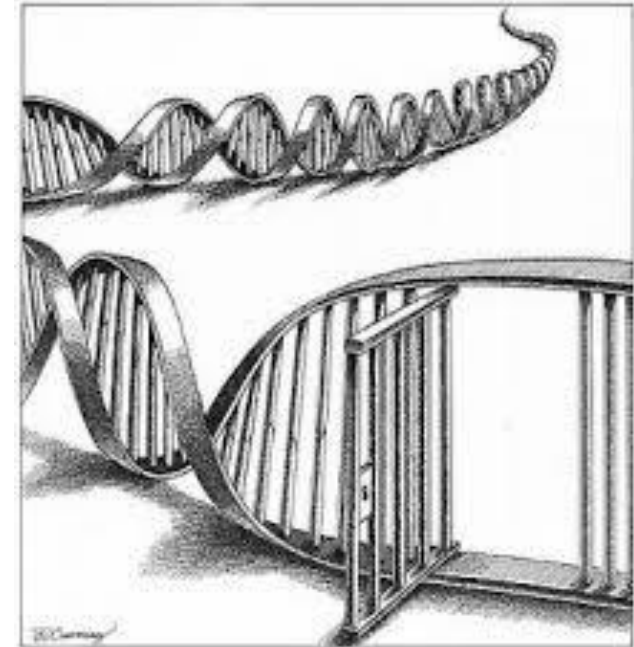
Racial Bias In The Criminal Justice System

- Black people are more likely to be wrongly convicted of murder when the victim was white.
- Only about 15% of people killed by black people were white,
- 31% of black exonerees were wrongly convicted of killing white people.
- More generally, black people convicted of murder are 50% more likely to be innocent than white people convicted of murder.”



DNA EXONERATIONS IN THE UNITED STATES

- **1989:** The first DNA exoneration took place
- **362** DNA exonerees to date
- **37:** States where exonerations have been won
- **14:** Average number of years served
- **5,014:** Total number of years served
- **26.5:** Average age at the time of wrongful conviction
- **43:** Average age at exoneration
- **20 of 362** people served time on death row
- **40 of 362** pled guilty to crimes they did not commit
- **70%:** involved eyewitness misidentification
- **41%** of these cases were a cross-racial misidentification
- **32%** of these cases involved multiple misidentifications of the same person



DNA EXONERATIONS IN THE UNITED STATES

- **27%** of these cases involved misidentification through the use of a composite sketch
- **45%:** Involved misapplication of forensic science
- **28%:** Involved false confessions
- **264:** DNA exonerees compensated
- **187:** DNA exonerations worked on by the Innocence Project
- **158:** Actual assailants identified. Those actual perpetrators went on to be convicted of 150 additional violent crimes, including 80 sexual assaults, 35 murders, and 35 other violent crimes while the innocent sat behind bars for their earlier offenses.



INNOCENCE CANADA

- Innocence Canada (formerly the Association in Defense of the Wrongly Convicted or AIDWYC) is a Canadian, non-profit organization that was founded in 1993 and incorporated in 2000.
- In the years since its inception, Innocence Canada's team of volunteers have reviewed hundreds of cases, leading to the successful exoneration of over 21 Innocent Individuals who together spent more than 190 years in prison for crimes they did not commit.



Innocence Canada

Innocence Canada Works To Support The Following Charitable Objectives:

- Providing legal services to low income persons in Canada
- Raising public awareness of the criminal law and the judicial process
- Providing financial assistance to low-income wrongly convicted clients
- Supporting educational initiatives that help to address the causes of wrongful convictions



A Number Of Volunteers Work Within The Project

- EXPERT WITNESSES
- ATTORNEY VOLUNTEERS
- INVESTIGATORS
- INTERNS



THE PATH TO A WRONGFUL CONVICTION

- The path to a wrongful conviction begins with an innocent person being charged for a crime he or she did not commit.
- After being charged, the innocent person can choose to either plead guilty or not guilty.
- Whether an innocent person pleads guilty or goes to trial and is found guilty, the result is that he or she is convicted of a crime that he or she did not commit.



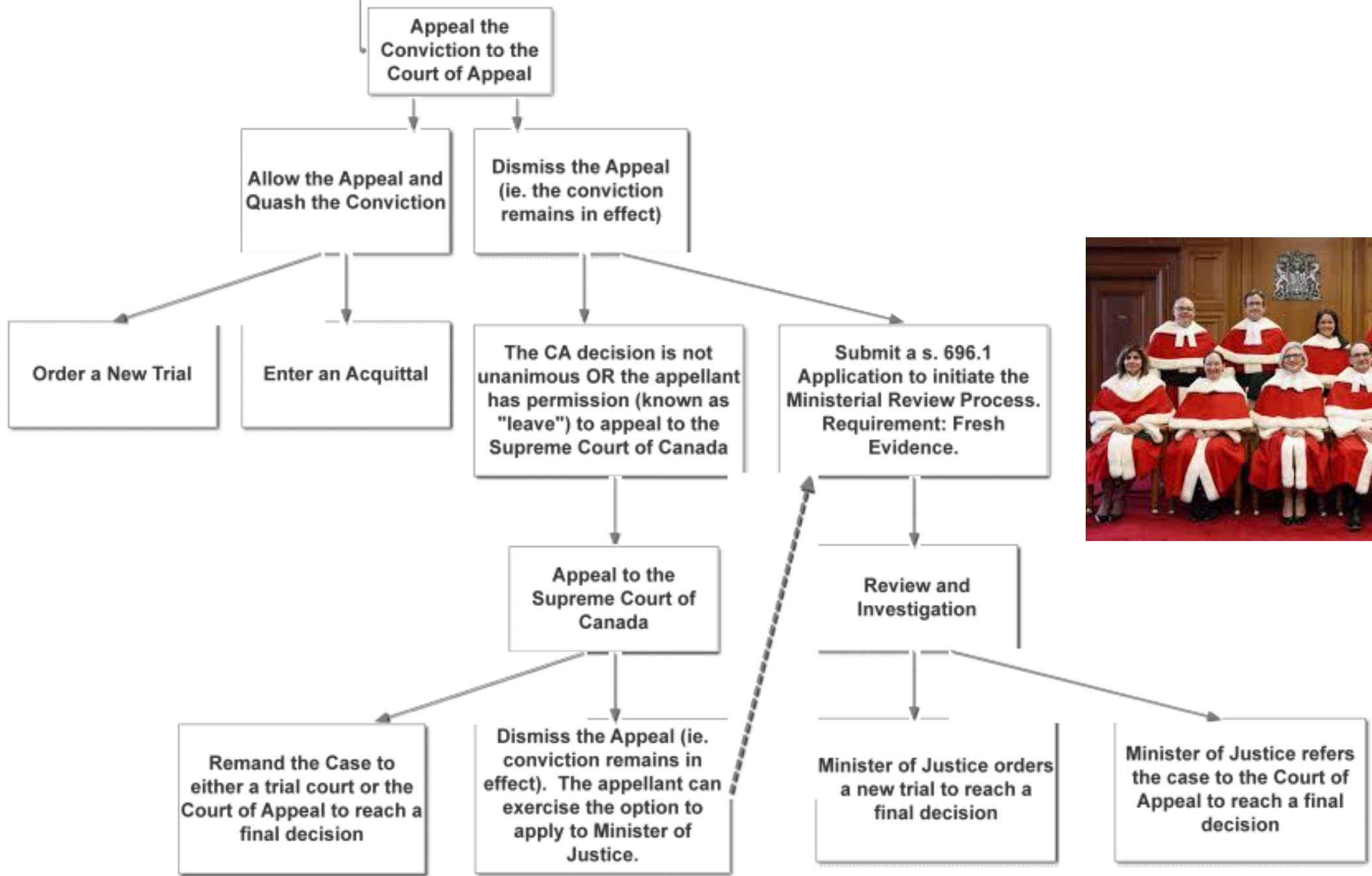
To correct the wrongful conviction, the convicted person may ask a higher court to review the decision of the trial court.

- The verdict was unreasonable;
- There was an error of law
- There was a miscarriage of justice.
- The Court of Appeal can make the following decisions:

Dismiss the appeal; or Allow the appeal and quash the conviction, in which case the Court of Appeal will either enter an acquittal or order a new trial.







MISAPPLICATION OF FORENSIC SCIENCE

- Unreliable or invalid forensic discipline.
- Insufficient validation of a method.
- Misleading testimony.
- Mistakes.
- Misconduct.



The first major scientific institution to investigate this problem was the National Academy of Sciences (NAS) in its report, ***Strengthening Forensic Science in the United States: A Path Forward***, released in 2009.

Strengthening Forensic Science in the US: A Path Forward

- Increasing funding for research
- Developing rigorous national standards
- Ensure that future decisions in admissibility consider the validity of a forensic test in general, and the validity of the test as applied in the specific case at hand.
- Reduce the influence of “cognitive biases” on an analysis,



FORENSIC SCIENCE & JUNK SCIENCE

- The application of scientific principles to the “art” of criminal investigation.
- Scientists are called as expert witnesses
- To be sure the science being used is accurate – and reliable – in order to help prevent wrongful convictions.
- There are many areas of science, now referred to as junk science.
- There are many cases where junk science was the driving force behind a wrongful convictions,



Examples Of Junk Science

Can be seen in cases dealing with:

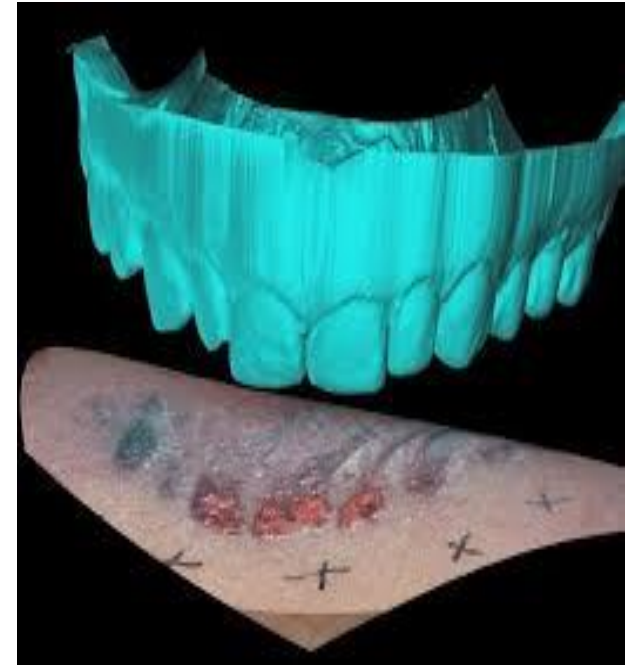
- Fire investigation,
- Bite mark evidence,
- Firearms analysis,
- Shaken baby syndrome.

Junk Science



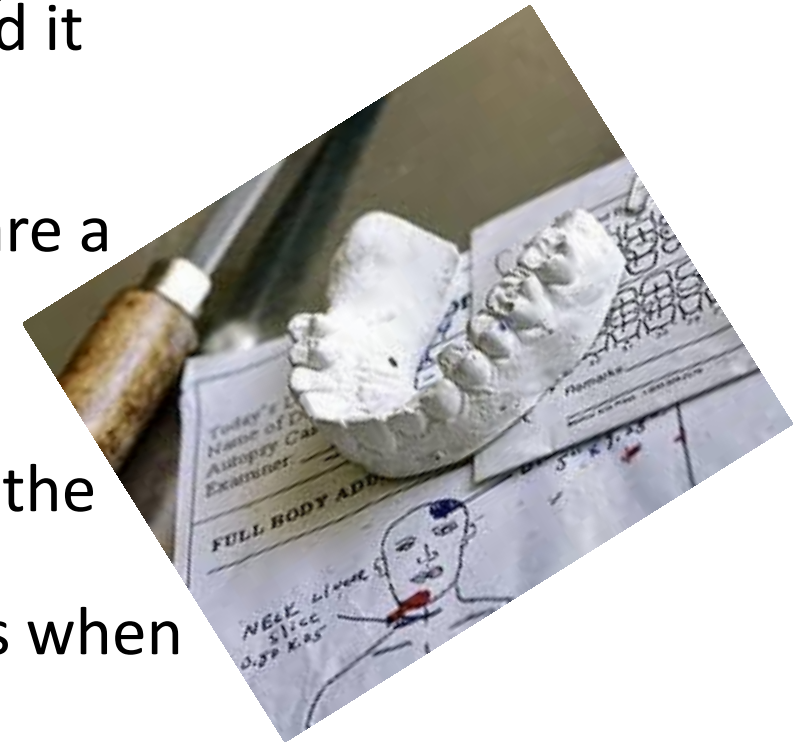
BITE MARK EVIDENCE

- Odontologists (dentists) attempt to match marks found at crime scenes with the dental impressions of suspects.
- There is no real scientific support or research into the accuracy or reliability of bite mark evidence.
- Introduced as being close to DNA in terms of accuracy.
- There has been no scientific validation for the notion that a person's dentition is unique to him or her in the same way that fingerprints or DNA are unique to each individual.



BITE MARK EVIDENCE

- What looks like a bite can actually be an unrelated injury.
- Bite marks are found on materials like skin, clothing, and soft tissue. Human skin is elastic; it swells, heals, and it can deform or warp a bite so that it does not align properly.
- Furthermore, “experts” often use pictures to compare a person’s dentition to the bite mark on the victim, increasing the unreliability of bite mark evidence.
- Its similarity to other “sciences” such as fingerprint analysis and firearm analysis: they are subjective to the person evaluating the evidence.
- Different experts have found widely different results when looking at the same bite mark evidence.
- Such subjectivity has no place being touted as science in the courtroom.



FORENSIC HAIR ANALYSIS

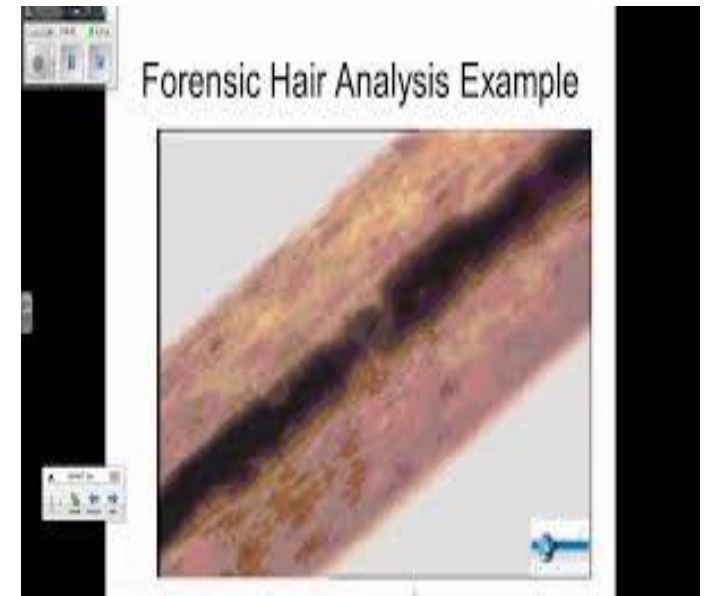
- Microscopic hair analysis was thought to be a way to match up two pieces of hair.
- The theory, was that an individual's hair contained distinguishable features that allowed for exclusions and matches of people.



FORENSIC HAIR ANALYSIS - THE OLD VIEW

In 2000, FBI Trace Evidence Unit published an article that contained three possible conclusions regarding hair comparisons:

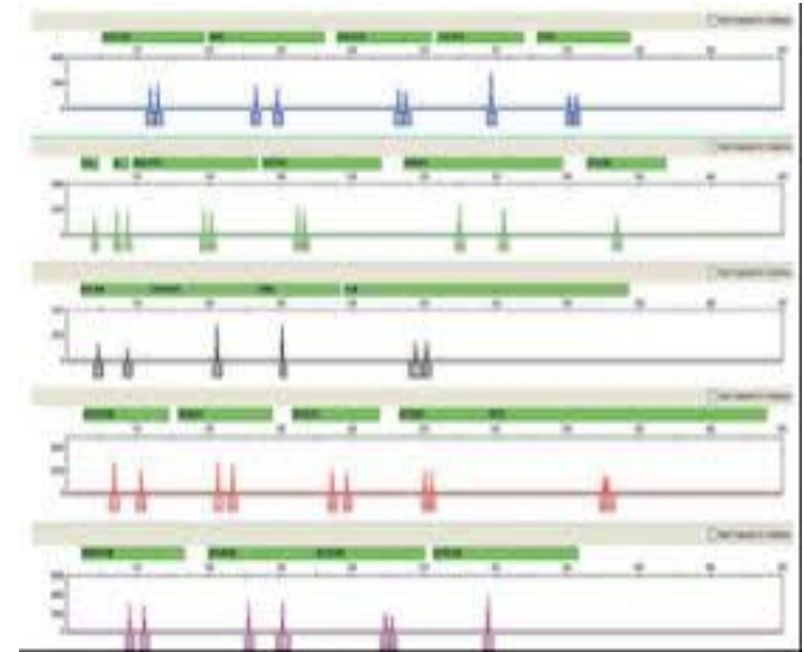
- (1) “Consistent With” – originating from the source of the known hairs.
- (2) “Exclusion” – cannot be associated to the source of the known hairs.
- (3) “Inconclusive” – no conclusion could be reached



FORENSIC HAIR ANALYSIS - THE NEW VIEW

- In 2009, the National Academy of Sciences report that noted using Mitochondrial DNA testing showed that (12.5%) of the associated comparisons were actually from different sources.
- The NAS Report concluded that, microscopic hair analysis can be useful in determining which hairs to test, but should not be used in identifying an individual suspect.
- **STR (ROOT) V. MITOCHONDRIAL (SHAFT)**

The use of DNA testing on hairs is far superior to the subjective guess work used by experts in microscopic hair comparisons.



FIREARM ANALYSIS

- Firearms analysis has become a controversial issue in the courtroom.
- Some firearm analysts believe that each individual firearm has its own individual characteristics – called “tool marks” – that could not be reproduced by any other firearm.
- However, since the 1990s, info shows the same make and model of a gun will have similar tool marks, meaning that bullets and casings cannot be traced to a specific gun.



FIREARM ANALYSIS

- In 2009, the NAS recognized that the process of analyzing tool marks on bullets is inherently subjective.
- There are no articulated standards or statistical foundations for the firearms examiner to base his or her opinion.
- A federal court, prevented a firearms expert from testifying that casings came from a specific gun, and ruled that an expert could not use the term “reasonable scientific certainty” in his testimony but had to use the term “more likely than not.”



SHAKEN BABY SYNDROME

- SBS, is a brain injury diagnosed in infants and toddlers who are injured or die as a result of forceful shaking.
- While SBS was previously considered to be based on concrete science and analysis, new research has shown SBS has been dramatically over diagnosed, leading to a large number of wrongful convictions.
- Prior to the shift in knowledge regarding shaken baby syndrome, many people were convicted of shaking a baby to death based on faulty forensic science.



FINGERPRINT ANALYSIS

- Has been used to identify criminals for more than one hundred years.
- The analyst then relies on his or her experience to identify a match or exclusion.
- There is no scientific basis for the belief that fingerprints are unique to each person.
- Instead of relying on tested scientific methods, the process is mostly based on the subjective beliefs of the analyst.
- Fingerprint analysts also typically testify in terms of absolute certainty.



FIRE INVESTIGATION

- Is the analysis of fire-related incidents to determine whether a fire was accidental or intentional.
- Early fire investigations were based on apprentice-based teaching passed down through generations of investigators experienced in fire analysis or firefighting.
- This knowledge was largely based on observation and intuition, not actual science.
- The problem with this approach is that it could lead a fire investigator to the wrong conclusion and wrongfully accuse a person.



FIRE INVESTIGATION

- Investigation are now based on laboratory science to determine whether the prior myths about the causes of fire are valid.
- Pushing for higher standards for arson investigators, such as having a chemistry or physics background.
- Innocence projects have reviewed numerous arson convictions and found many of these convictions to be based on the unscientific methods of fire investigators.



**THANK
YOU**

