

## Ethical Dilemmas in Forensic Science

**Case Background:** John R. Epcot (“JR”) was convicted of murder and is now on death row for the deaths of his wife at their family home in Jasper, Texas. Fire occurred on July 4, 2004 in Jasper, Texas. JR was arrested and charged in the death on August 15, 2004. A jury convicted JR of capital murder on August 25, 2006. He was sentenced to die by lethal injection.

Texas Court of Appeal affirmed the conviction. A motion for rehearing was denied on March 25, 2006. The United States Supreme Court denied a petition for writ of certiorari. JR filed a petition for writ of habeas corpus in state court. The Texas Court of Criminal Appeals denied the petition for relief.

Two years later, JR filed a subsequent petition for writ of habeas corpus in state court, attaching a statement challenging both the medical testimony and the fire investigation. The State responded, attaching a statement from a snitch in the jail that JR had “confessed” that he set the fire to kill his wife in order to collect insurance. The Texas Court of Criminal Appeals denied the petition, finding that the application did not meet the legal requirements for a claim of newly discovered evidence of actual innocence.

Review of the trial documents indicates that the conviction was based on (a) eye witness testimony (b) “confession”, (c) medical testimony and (d) forensic arson investigation.

Eye witness testimony indicated that despite the neighbors’ pleas, JR refused to go into the house in any attempt to rescue his wife, demonstrated neither remorse for his actions nor grieved her loss and that furthermore he was more worried about the loss of property including the damage to his car than the loss of his loved one.

Medical doctors testified that the ‘well-established burns suffered by JR were so superficial as to suggest that the same were self-inflicted in an attempt to divert suspicion from himself and that furthermore blood-gas analysis at a local area hospital shortly after the fire revealed that JR had not inhaled any smoke, contrary to his statement.

The key testimony was provided by the fire investigator who testified that although he did not demonstrate detectable accelerants, the pattern at scene was consistent with the use of accelerants including the presence of “V-pattern”, “floor patterns”, “crazed glass”, “spalling”, and the “burn intensity”.

**Case Review:** On review of both medical and scientific evidence, as an expert for State you realize that the scientific understanding regarding fire science has changed with the advent of new technology and observations based on “controlled burns”. Forensic pathologist cannot anymore predict whether an injury is self-inflicted based on the degree of the burn. Also, negative blood gases cannot rule out that JR had in fact inhaled smoke. Additionally, based on current understanding, there is no scientific basis to conclude that the width of V-pattern, floor

patterns, crazed glass, spalling or the multiple origin of fire are “proof” that an accelerant was used.

### Questions:

1. As a scientist what responsibility do you have to alert the stakeholders when scientific understanding has changed or technology has advanced. When might such a responsibility apply?
2. What should be the scope of a laboratory’s duty to correct errors in an accredited crime laboratory?
3. How far back does this duty go? Should the lab or the scientist evaluate cases going back 5 years, 10 years, 20 years?
4. Is it possible to define the scope of corrective action in a way that maximizes potential impact and minimizes cost? Should cost be considered at all? How does a laboratory make that determination?
5. Can you relate examples of how such issues have been addressed in crime laboratories in Texas?
6. What are the major ethical dilemma facing forensic scientists today?
7. What is ethical behavior and as scientists how can we encourage ethical behavior among all stakeholders in Texas?