



E49 The Amanda Knox Case: Scientific Investigation and Criminal Trial in Italy

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After attending this presentation, attendees will understand the scientific and judicial issues that have characterized the criminal trial held in Italy against Amanda Knox, accused to be the murderer of Meredith Kercher. This presentation will explain the peculiarities of the Italian trial system, the differences with the U.S. trial system focusing on the admission and evaluation of scientific evidence, as well as the role of the so called "independent expert."

This presentation will impact the forensic science community by highlighting the need to improve forensic science performance using good science. This is particularly relevant, as in the case to be discussed, when the trial judge, as the gatekeeper of the judicial system, is facing controversial conclusions from the defendant and the prosecution side that may condition or affect his decision. Thus, the judge needs to appoint a board of highly qualified and independent experts in order to establish which hypothesis is correct and reliable.

This case refers to the murder of Meredith Kercher, a young British student, who was found dead in her apartment in Perugia on November 2, 2007. According to the prosecutor's investigation, the murder was committed by Amanda Knox, Raffaele Sollecito, and Rudy Guede. Knox and Sollecito were indicted on murder charges on October 28, 2008. Guede is found guilty of murder in his fast track trial and sentenced to 30 years. The evidence offered by the prosecution is of circumstantial value. No witnesses were present at the time of the crime. Among the evidence, the most damaging pieces of evidence found during the scientific investigation that pointed to the guilt of Knox and Sollecito, was a hook of the victim's bra and a knife found at Raffaele's house. The first of these two elements (the hook of the bra) is found during the first crime search made by the police the day after the murder, but inexplicably it gets lost and will be found and collected only 46 days after the crime, during new technical activities at the crime site.

According to the prosecution theory based on the DNA analyses made by the forensic science lab of the national police, the hook shows genetic material that matches Sollecito, hence his presence at the crime scene during the murder.

According to the defense theory, the DNA found on the hook is due to contamination occurring within the technical activities made at the scene of crime during those 46 days. The second element (the knife) shows DNA on the blade (that matches the victim) and on the handle (that matches Amanda). According to the prosecution theory, this is the "murder weapon" and Amanda is the person who stabbed Meredith. This item has clear circumstantial evidence weight. According to the defense theory, the DNA found on the blade is LCN-DNA, thus too low in quantity to support a reliable conclusion, especially if it has to be linked to Amanda's guilt.

The Court of first degree accepts the experts' assessments made by the prosecution about the collection, preservation, and analyses of scientific evidence. Contrary to normal practice within the Italian courts, which usually appoint an independent expert to settle disputes among the experts, the Court rejects the request made by the defense.

After eleven months of trial, the Court found Knox and Sollecito guilty on all counts in the stabbing death of Meredith Kercher. Sollecito received a 25-year sentence; Knox received 26 years. The Italian criminal trial system, unlike the U.S., provides two levels of judgment, with the same possibilities.

November 24, 2010 Knox and Sollecito's murder appeal process began. Due to expert disputes arising in the first trial, two forensic experts from Rome's University are sworn in by the appeal court and retested the two crucial pieces of forensic evidence used to convict Knox. They gave a second (neutral) opinion about the knife and the claps from Kercher's bra, which was cut from her body during her murder. The goal of the appeal court is to give the right value to those pieces of evidence, within the trial context, according to the most reliable science.

Forensic specialists told the court that DNA evidence linking Knox to the alleged murder weapon was unsound; that while they agree Knox's DNA was present on the knife handle, tests for Kercher's DNA were unreliable. The sample, however, was so small that forensic scientists were not able to double test it in accordance with international forensic science rules, which Knox's legal team says raises doubts about its validity. The Court appointed experts testified that police forensic scientists involved in the murder case made a series of glaring errors during their investigation.

In a point-by-point reconstruction, the experts say that because of the errors made by police during the original investigation, the evidence against Knox and Sollecito should be considered "inadmissible." On October 3, 2011, an Italian jury overturned the 2009 murder conviction of Amanda Knox and Raffaele Sollecito.

Amanda Knox Trial, Independent Expert, Evidence Submission