Genetic Analysis to Identify Human Remains Case Study

When the twin towersof the World Trade Center fell on the morning of September 11, 2001, every family affected by the attack asked the same question: “Did my loved one survive?” Weeks later, when the relative had not returned home, the answer should have been obvious. But it was only natural to hope that he or she might still walk in the door, especially since the devastation had left little concrete evidence. Starting in 2002, the New York City medical examiner’s office began attempting to identify the human remains using tried-and-true methods of genetic analysis. However, these methods depend on relatively long pieces of

undamaged human DNA, and little DNA of that description survived the catastrophic collapse and burn of the Trade Center. Frustrated with the slow pace of identification, officials decided to try two promising, but relatively unproven, experimental techniques.

* What methods of genetic analysis require only very small pieces of DNA rather than the longer pieces traditionally used?
* Where could investigators obtain—for purposes of comparison—DNA known to belong to a suspected victim of the World Trade Center disaster?