How did they catch the Golden State Killer?

Forensic Genetics, Privacy and Ethics, Dr. Thomas J. White

On April 24, 2018, police in Sacramento, CA arrested Joseph DeAngelo, 72, in the Golden State Killer case. DeAngelo, a retired policeman, was charged with a series of horrific crimes including 12 murders and more than 50 rapes that terrorized California from 1976 to 1986. Investigators found DeAngelo’s DNA profile could not be excluded from multiple forensic evidence samples stored for decades. The big break came when the genetic profile of the assailant was tested against an online genealogy database, GEDmatch, and a partial match was observed. DeAngelo’s profile, obtained from “abandoned” samples, identified him via the crime-scene evidence at all loci tested.

What are the ethical issues in this case?
- informed consent
- privacy
- storage of forensic evidence and genetic profiles
- government misuse of potentially sensitive data
- familial sensitivity to unknown parental, sibling or criminal relationships

Do the victims’ and public’s interest in solving serious crimes justify government efforts to match an assailant’s profile to genealogical and other databases?

Dr. Thomas J. White received his B.A. in Chemistry from Johns Hopkins University and his Ph.D. in Biochemistry from the University of California at Berkeley. White served as VP of Research and Assoc. Dir. of Research and Development at Cetus Corporation. He worked on the discovery, research and development of human proteins and monoclonal antibodies as therapeutics and on diagnostic tests using polymerase chain reaction (PCR) technology. He was Sr. Vice President of Research and Development at Roche Molecular Systems, working on the AMPLICOR line of PCR- based tests and the COBAS instruments for the medical diagnosis of infectious disease, genetic disease and cancer, and in developing new applications of PCR for basic research, forensics and the human genome project. White was Chief Scientific Officer at Celera, working with new genotyping, expression and proteomic biomarkers and the development of molecular diagnostic products for complex common diseases.