$(1)^*$ John F. Kennedy was the fourth American President to be assassinated, the first in 60 years. In each case, pathologists performed an autopsy to determine the cause of death and the nature of the injuries. It is quite remarkable that despite major advances in medical technology, the autopsy of President Kennedy created more controversy than that of any of the others.

(2) In the case of the autopsy of Abraham Lincoln in 1865, physicians conducted the examination in the White House within several hours following the President's death. Those in attendance included several of the physicians who regularly treated the President. While a major dispute arose during the autopsy concerning the path of the missile through the President's head, the matter was finally settled. The pathologists forwarded an official autopsy report in a letter to the Surgeon General of the United States. The X-ray technology that could have assisted in resolving the dispute had not yet been invented. (3) The autopsy of James Garfield in 1881 did not trigger any controversies. The autopsy surgeons, who likewise included several of the President's regular physicians, preserved certain physical specimens for later examination and issued a report, which included sketches to document the location of the wounds.

(4) The autopsy of William McKinley in 1901 was controversial. The problems began when his wife successfully halted the autopsy after 4 hours, even though the surgeons had not located the missile. The autopsy report indicated that this intervention prevented the physicians from removing all the portions of tissue necessary for proper examination. Interestingly, although Thomas Edison made available his newly invented X-ray machine the physicians refused to use it. After the autopsy a dispute arose over the path of the missile and gained so much momentum that the pathologists had to issue a statement in an effort to quell rumors.

(5) The autopsy of President Kennedy has been the most controversial. For example, it is the only one in which the physicians who normally provided medical treatment to the President were not in attendance.

(6) The handling of the emergency medical treatment and the autopsy of President Kennedy by the various physicians, the Warren Commission, and the President's family not only has generated more controversy than any other Presidential autopsy, it has also raised many questions regarding the assassination overall, more so than any other factor.

^{*} Arabic numerals in parentheses at the beginning of paragraphs indicate the paragraph number for purposes of citation and referencing; italic numerals in parentheses in the middle or at the end of sentences indicate references which can be found at the end of each report or section.

(7) Confusion and speculation over the nature of the injuries to the President surfaced immediately in the wake of his emergency treatment on November 22, 1963, at Parkland Memorial Hospital, Dallas, Tex., and his autopsy later that evening at Bethesda Naval Hospital, Bethesda, Md. The following summaries of news accounts from the New York Times in the first days after the assassination demonstrate the confusion:

November 24, 1963—the President suffered an entrance wound in the Adam's apple and a massive head wound in the head.

December 17, 1963—the FBI concluded that one bullet had struck the President in the right temple and another had hit where the right shoulder joins the neck.

December 19, 1963—the pathologists had determined that a bullet had lodged in the back, a second had struck the right rear of the head.

(8) While the newspapers continued to chase rumors, the FBI compiled a report on the assassination, which Director of the FBI, J. Edgar Hoover submitted to the Warren Commission on December 19, 1963. A supplemental report was also sent to the Commission on January 13, 1964. This report reflected the observations made by the FBI agents who attended the autopsy.

(9) By early February 1964, the single bullet theory—the theory that one bullet traversed the upper back and neck of President Kennedy and then caused all the wounds to Governor Connally—began to emerge. During the next several months of 1964, the Warren Commission questioned most of the doctors associated with the medical evidence pertaining to President Kennedy and Governor Connally. There was no evidence that any members of the Warren Commission or its staff ever viewed any of the autopsy photographs or X-rays of President Kennedy. Nevertheless, in the fall of 1964, the Warren Commission concluded in its final report that President Kennedy had been struck by two missiles, as reflected in the autopsy report, and that the missile that exited the President's neck also caused all of Governor Connally's wounds. The Warren Commission also concluded that the missile that struck both the President and the Governor was the one discovered at Parkland Hospital.

(10) The next significant event regarding the autopsy occurred on April 22, 1965, when Robert F. Kennedy, then the Attorney General, authorized Dr. George Burkley, the White House physician, to transfer materials derived from the autopsy—autopsy photographs, autopsy X-rays, microscopic tissue slides and physical specimens such as the brain, which had been stored at the White House since the autopsy—to Mrs. Evelyn Lincoln, the former personal secretary to President Kennedy, who then had an office in the National Archives. On April 26, Robert I. Bouck, the head of the Protective Research Division of the U.S. Secret Service, where the autopsy materials were stored in the White House, and Dr. Burkley prepared an inventory list and transferred the materials. The photographs and X-rays from the autopsy, as well as the microscopic slides and other gross material. allegedly including the brain, were transferred at that time. (11) Although Mrs. Lincoln had an office in the Archives, she was not an employee. Consequently, when the materials were transferred, they were not technically given to the National Archives.

(12) Over the next few years various critics continued to question the autopsy conclusions. In 1966, Edward Jay Epstein, in his book inquest, related that, although the FBI had had access to the autopsy report of Dr. Humes, in its report of December 9, 1963, it had stated that the missile entering the President's upper back did not exist. Epstein concluded that this discrepancy cast serious doubts on the accuracy of the entire investigation of the Commission.

(13) In 1966, Mark Lane, an attorney from New York, also published a book, entitled "Rush to Judgement," which was critical of the Warren Commission. Lane questioned the theory that a lone assassin shot the President from the rear. He cited the initial comments of several Parkland Hospital doctors who characterized the throat wound as one of entrance. He theorized that if the President had been shot from the front, then more than one assassin had to have been involved. Lane also criticized vehemently the single-bullet theory, contending that the Warren Commission devised it in order to explain how one assassin could have inflicted all the wounds to the President and the Governor by firing three shots in the requisite time interval. Lane argued that the single-bullet theory was not possible and that consequently only one alternative existed: more than one assassin shot at the President.

(14) In November 1966, the autopsy pathologists reviewed the autopsy X-rays and photographs now in the custody of the National Archives. They did so at the request of the Department of Justice, which wanted to determine their consistency with the autopsy report. (15) The pathologists had never seen the photographs previously. They agreed that the photographs and X-rays corroborated their autopsy report.

(16) These photographs and X-rays had become the property of the U.S. Government as a result of a deed of gift from the Kennedy family to the National Archives on October 31, 1966. All materials listed in the 1965 transfer from the White House to Evelyn Lincoln were to be included in this transaction, but the microscopic slides and the gross material, including the brain, were found to be missing. The disposition of these "missing" materials was not documented at this or any other time.

(17) As more persons published books critical of the Warren Commission, more issues emerged concerning the autopsy. In 1967, Josiah Thompson published "Six Seconds in Dallas," in which he proposed the theory that President Kennedy was struck in the head simultaneously by two shots: One from the rear and one from the front. Thompson based this on the rear head motion visible in the Zapruder film, the reports from the Parkland and Bethesda surgeons, and eyewitness accounts. This theory necessarily involves two assassins. Sylvia Meagher also published a voluminous work in 1967, entitled "Accessories After the Fact"; she further criticized the Warren Commission findings and advanced alternative theories.

(18) By 1968, as a result of criticisms and allegations surrounding the Warren Commission's conclusions, then-Acting Attorney General Ramsey Clark convened a panel of medical experts, commonly referred to as the Clark panel, for the first independent review of the autopsy photographs and X-rays. Although the panel confirmed the autopsy pathologists' findings regarding the number of shots that struck the President and their general direction through the body, it stated that the entrance wound on the President's head was actually 10 centimeters (about 4 inches higher) than indicated in the autopsy report. This conclusion generated even more confusion and doubt concerning the validity of the autopsy.

(19) In 1975, in the midst of mounting criticism, the Rockefeller Commission convened a group of medical and firearms experts to review the evidence. They concurred with the opinions of the Clark panel. Both the Clark and Rockefeller panels, however, conclusions were presented without supporting material. Doubts and rumors persisted. (20) In 1976, the House passed a resolution establishing the committee and empowered it to conduct a full and complete investigation into the circumstances surrounding the death of President Kennedy. The committee determined that it should examine, among other things, the major issues that had arisen over the years in connection with the autopsy of the President and related medical evidence. These issues included:

- 1. How many missiles struck President Kennedy and Governor Connally, specifically, whether President Kennedy could have been struck in the head from behind and from the front simultaneously and whether the backward motion of the President's head, visible in the Zapruder film, is consistent with the conclusion that the President was struck only from behind;
- 2. The feasibility that one missile entered President Kennedy's back, exited his neck, and then caused all of Governor Connally's wounds, with little damage to the missile;
- 3. The origin and trajectories of the missiles;
- 4. The number of wounds President Kennedy and Governor Connally received, their respective locations, whether they were entrance or exit wounds, and the reasons for those characterizations;
- 5. Whether the nature of the wounds to President Kennedy and Governor Connally was consistent with the damage that would be caused by 6.5 millimeter caliber Mannlicher-Carcano ammunition and in particular a single bullet traversing two bodies;
- 6. The accuracy of the opinions of the Parkland Hospital doctors concerning the location of President Kennedy's wounds and reasons for those opinions;
- 7. The discrepancies in various reports about wound locations, especially those between the official autopsy report and the findings of the Clark panel and the Rockefeller Commission panel conconcerning the location of the rear head wound;
- 8. The thoroughness, competence, and accuracy of the autopsy with respect to both the medical aspects and those bearing on possible future litigation in court;
- 9. The location and fate of the microscopic tissue slides and gross materials, including the brain, which the pathologists retained for future study and which are now unaccounted for;

- 10. The possibility that at some time the autopsy photographs and X-rays were doctored or that they were false or incomplete;
- 11. Whether the autopsy was performed within the proper jurisdiction;
- 12. What chain of custody was followed for the various items of evidence; and
- 13. Whether other procedures should have been followed and what procedures should be followed in the event of other assassinations.

(21) In addressing these issues, the committee decided to analyze some issues itself and to retain experts to examine others. Specifically, the committee prepared a report on issues relating to the performance of the autopsy and thoroughly traced the chain of custody of the "missing" autopsy materials.

(22) The committee consulted experts in the fields of forensic odontology, radiology, chemical engineering, and photography in examining the authenticity of the autopsy photographs and X-rays.

(23) Finally, the committee convened a panel of forensic pathologists to address the medical issues relating to the death of President Kennedy and the wounding of Governor Connally and to recommend procedures to be followed in the event of future assassinations.

(24) The panel of forensic pathologists consisted of two subpanels: One of members who had not previously reviewed the autopsy photographs, X-rays, and related material, the other of those who had.

- Panel members who had not previously reviewed the evidence were: John I. Coe, M.D., chief medical examiner of Hennepin County, Minn.
 - Joseph H. Davis, M.D., chief medical examiner of Dade County, Miami, Fla.
 - George S. Loquvam, M.D., director of the Institute of Forensic Sciences, Oakland, Calif.
 - Charles S. Petty, M.D., chief medical examiner, Dallas County, Dallas, Tex.

Earl Rose, M.D., LL.B., professor of pathology, University of Iowa, Iowa City, Iowa.

Panel members who had previously reviewed the evidence were:

Werner V. Spitz, M.D., medical examiner of Detroit, Mich.

Cyril H. Wecht, M.D., J.D., coroner of Allegheny County, Pa. James T. Weston, M.D., chief medical investigator, University

of New Mexico School of Medicine, Albuquerque, N. Mex. The chairman of the panel was Michael M. Baden, M.D., chief medical examiner of New York City.

(25) The committee asked that the two subpanels present their views in a single report, with the stipulation that any member could submit a dissenting opinion that would be included with the report.

(26) The remainder of this volume contains the evidence developed by the committee and the findings and conclusions of the forensic pathology panel. It is divided into three sections: An analysis of the performance of the autopsy of President John F. Kennedy (sec. 2); a presentation of the efforts of the committee to trace the chain of custody of the materials acquired during the autopsy (sec. 3); and, finally, the report of the panel on forensic pathology (sec. 4). Each section includes a statement of the issues addressed, the evidence considered, and the conclusions reached.