UNITED STATES DISTRICT COURT EASTERN DISTRICT OF NORTH CAROLINA FAYETTEVILLE DIVISION

UNITED STATES OF AMERICA)	Nos.	75-26-CR-3
v.	j		90-104-CIV-3-D
JEFFREY R. MacDONALD)		
)		

AFFIDAVIT OF PHILIP G. CORMIER

NO. 2 -- REQUEST FOR ACCESS TO EVIDENCE

TO CONDUCT LABORATORY EXAMINATIONS -- IN

SUPPORT OF JEFFREY R. MacDONALD'S MOTION TO

REOPEN 28 U.S.C. § 2255 PROCEEDINGS AND FOR DISCOVERY

- I, PHILIP G. CORMIER, being first duly sworn, state as follows:
- 1. I am an attorney with the law firm of Silverglate & Good, 83 Atlantic Avenue, Boston, Massachusetts 02110, counsel for the petitioner Jeffrey R. MacDonald in the above styled and numbered action.
- 2. I make this affidavit in support of Jeffrey R.

 MacDonald's Motion to Reopen 28 U.S.C. § 2255 Proceedings and
 for Discovery. All statements made herein are based upon
 information and belief unless otherwise stated.
- 3. References to affidavits and briefs previously submitted in connection with the 1990 Petition or earlier proceedings are designated herein by the term "(Rec.)" to distinguish them from the affidavits that have been submitted in

support of the underlying motion to reopen. Exhibits in this affidavit are referenced by both Exhibit number and "Bates" stamp page numbers.

I. Introduction.

- As described in detail below, as part of his 1990 4. petition, MacDonald brought to light that, in addition to the blond Saran fibers, the Army's crime scene investigators found numerous "natural" hairs in critical locations at the crime scene (on or near the victims' bodies) which could not be matched to any known sources. MacDonald maintained that these unmatched hairs were direct evidence of intruders, and that they corroborated his account of events. In addition, MacDonald also asserted that various other unsourced fibers found at the crime scene, including fibers identified as "black wool," were further evidence of intruders in the MacDonald home. In connection with the government's response to the 1990 petition, FBI Agent Malone re-examined these unsourced "natural" hairs and fibers, and he concluded that none provided a forensic basis for MacDonald's claim of factual innocence. See ¶ 16-20, infra.
- 5. As further described below, the MacDonald case is not the only case in which there is credible evidence that Agent Malone has given false and misleading information to a court. There is reported evidence that he has done this on more than one occasion, including a situation in which he claimed to have found the victim's hairs on a blanket connected to the defendant, when such a finding was impossible because the blanket which Malone

had been given to test had never been anywhere near the crime scene. See ¶¶ 8-14, infra.

- As a result of Agent Malone's false and misleading Saran fiber presentation in this case, and what appears to be a pattern of deception in other cases, the accuracy and reliability of all examinations he conducted in the MacDonald case must be viewed as highly suspect. In addition, the truthfulness of any conclusions he drew from such examinations are also suspect. In light of this, the defense seeks access to all of the physical evidence that has been examined by Agent Malone for the purpose of ascertaining whether or not Malone's examinations were properly conducted and his conclusions were reliable, accurate, and truthful. The defense also seeks to examine other unsourced hairs, skin and blood (which has not been sourced or of which the government's identification is questionable) found in critical locations at the crime scene (including under the fingernails of the victims) which the defense believes will further demonstrate the presence of intruders in the MacDonald home, and, a fortiori, Dr. MacDonald's factual innocence. See ¶ 21-62, infra.
- 7. Finally, as explained below in ¶¶ 23-29, infra, the defense is aware that there is a new form of DNA testing, called "mitochondrial DNA testing," which can be used to identify hairs which do not have any follicle or root attached to them. Such testing is done by extracting DNA directly from the mitochondria in the hair shaft. To the extent that this new DNA technology can appropriately be utilized in this case, the defense proposes

that it be used to determine whether or not any of the unsourced hairs, skin or blood found in these critical locations came from someone outside the MacDonald family.

- II. Evidence That Agent Malone Has Engaged
 In a Pattern of Questionable Conduct Present
 In, But Not Limited To, the MacDonald Case.
- 8. In addition to the evidence which demonstrates that Agent Malone's Saran fiber presentation in the MacDonald case was false and misleading, the defense has learned of other cases in which it has been reported that Agent Malone gave testimony in which he (1) posed as an "expert" without having the necessary qualifications, (2) made statements and conclusions which were not supported by the underlying facts, (3) overstated the accuracy of a given examination, or (4) simply testified falsely about what the evidence showed.
- 9. Attached hereto as Exhibit 1 is a copy of an article from The Wall Street Journal, dated April 16, 1997, which describes these other cases.
- article concerns the impeachment of former U.S. District Court
 Judge Alcee S. Hastings, in which Agent Malone gave false and
 misleading testimony before the Court of Appeals for the Eleventh
 Circuit, concerning whether the strap on a leather purse had been
 "cut," or whether it had broken on its own as Judge Hastings
 maintained. Attached hereto as Exhibit 2, is a copy of a
 memorandum (with attached exhibits) written by FBI Special Agent
 William A. Tobin to FBI Section Chief Kenneth Nimmich concerning

Agent Malone's testimony in the <u>Hastings</u> matter. According to Agent Tobin, Agent Malone's testimony in that judicial inquiry was false or misleading in the following respects:

- (a) Agent Malone testified that it was he who conducted the tensile testing on the leather handbag strap.
 According to Tobin, this was an outright lie. Agent Malone did not conduct this testing. Rather, Tobin himself conducted the testing. Tobin also states that Malone had no "apparent academic or empirical training to provide the testimony " (Ex 2, p. 7)
- (b) Agent Malone made numerous false statements concerning the apparatus and testing procedures that were used to conduct the testing. <u>Id</u>. pp. 4-7.
- (c) According to Agent Tobin, it was his practice to place white identification tape on the evidence to identify laboratory-induced failures, and he did so in this case to identify laboratory-induced failures on the leather strap. Tobin recalls that when he looked at the purse later, he saw that Agent Malone had tampered with the evidence by removing Tobin's markings and replacing them with his own to make it appear as if Malone had conducted the tests himself. Id. p. 4.

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(d) Agent Tobin also asserts that Agent Malone misstated the results of the test tears in a way that accentuated the difference between the questioned tear and the test tears, thereby skewing the test results in favor of the

prosecution. Id. p. 5.

- (e) According to Tobin, Agent Malone made numerous statements during the course of his testimony which were <u>directly contradicted</u> by the laboratory data. Two blatant examples of this are as follows:
 - (I) The lab test conducted by Tobin revealed that the strap would not be capable of supporting a hanging weight of 30 pounds. Malone told the Court that the strap would support a 30 pound weight. When questioned by the Court about what amount of force it would take to break the strap, he testified that the "29.9" pound force necessary to break the strap was not the equivalent of hanging a 29.9 pound weight from the strap, and that the figure was "meaningless." Id. p. 5.
 - (ii) After telling the Court that the breaking force was not equivalent to hanging a 30 pound weight from the strap, Malone further told the Court that he, a 200 lb. weight-lifter, could not break the strap. He made this statement notwithstanding the fact that the FBI Laboratory Report on the strap testing stated:

It was concluded that a force of approximately 7 pounds had been exerted to break the strap after it had been partially cut. The previously reported undamaged strap breaking strength of approximately 29 % pounds is not difficult to achieve by "pulling"; a force of 7 pounds is very easily exerted. In fact, a force up to the actual weight of the individual can readily be exerted.

See the FBI Report attached to Tobin materials; emphasis

added. Id. p. 9.

- The final report of DOJ Inspector General Michael Bromwich's "Investigation into Laboratory Practices and Alleged Misconduct in Explosives-Related and Other Cases, " released on April 15, 1997, concludes that "Malone, in his 1985 testimony before the Investigating Committee in the Hastings matter, falsely testified that he had himself performed a tensile test on a purse strap and also testified inaccurately and outside his expertise concerning the test results [footnote omitted]. See Excerpts of the Inspector General's Report, attached hereto as Exhibit 3, at p. 73. The report further states that "Malone's testimony that he conducted the test is particularly egregious, because he proceeded to inaccurately describe how the test was performed and the significance of its results." Id. at 73. final report does not find "that Malone knowingly or deliberately testified in contradiction to Tobin's conclusions as described in the November 7, 1985, report." Id at 74. However, the draft report from the Inspector General originally took the position that Malone had deliberately offered false testimony, and retreated from this position only after strong protest by the FBI. Id. at 73 fn. 238.
- 12. In addition to the <u>Hastings</u> matter, <u>The Wall Street</u>

 <u>Journal</u> article discusses a 1991 murder case from Warren County,

 Pennsylvania (involving a defendant named Buckley) in which Agent

 Malone testified for the prosecution. The information concerning

 this case indicates either that Agent Malone is completely and

utterly incompetent at identifying "natural" hairs, or he intentionally lied in an attempt to obtain a conviction.

According to the Journal article, Malone was tasked with the job of determining whether certain hairs found on a blanket taken from the crime scene were from the victim. The story reveals that Pennsylvania authorities accidently gave Agent Malone a different blanket (belonging to the defendant) which "had never been anywhere near the crime scene," and that Agent Malone, not realizing their error, nonetheless testified that he had found the hairs of the victim on this blanket. When Malone was confronted with this fact on cross-examination, he continued to insist that he had found the victim's hairs on the blanket.

13. In addition to the <u>Hastings</u> matter and the <u>Buckley</u> case, the <u>Journal</u> article mentions a number of cases from the State of Florida in which Mr. Malone was apparently criticized because he overstated the accuracy of hair examinations. One these cases is <u>Horstman v. State of Florida</u>, 530 So.2d 368 (Fla.Dist.Ct.App., 1988), in which the defendant was convicted of murder based on circumstantial evidence. The Florida appellate court ordered the defendant's acquittal, stating:

As noted, the evidence against Horstman was circumstantial. The blood analysis was inconclusive due to the similarity in Horstman's and [the victim's] blood types. The fact that a fingerprint not matching Horstman's was found on a cigarette lighter near the victim and the victim's pubic hair had been singed suggests that someone else may have committed the crime.

The strongest evidence implicating Horstman in Peterson's murder is the hair that was found on her body. Although hair comparison analysis may be

persuasive, it is not 100% reliable. Unlike fingerprints, certainty is not possible . . . The state emphasizes that its expert, Agent Malone, testified that the chances were almost nonexistent that the hairs found on the body originated from anyone other than Horstman. We do not share Mr. Malone's conviction in the infallibility of hair comparison evidence. Thus, we cannot uphold a conviction dependent upon such evidence.

530 So.2d at 370.

- 14. Having read the <u>Journal</u> article for the first time on April 16, 1997, I am presently in the process of seeking to obtain the underlying documentation concerning Agent Malone's testimony in the <u>Hastings</u>, <u>Buckley</u>, and <u>Horstman</u> cases, and I will provide these materials, or relevant excerpts therefrom, to the Court as part of a supplemental filing as soon as I have obtained them.
- 15. In addition to agent Malone, I also note that Robert Webb, the FBI agent who analyzed the long blond synthetic fibers found in the clear-handled hairbrush using Fourier Transform Infrared Spectroscopy (FTIR), and thereby concluded that these long blond synthetic hairs are "Saran," has also been the subject of criticism by the Inspector General for stating conclusions "more strongly than was justified . . . by the results of his examinations and background data" in connection with a case in which he stated conclusions about the common origin of certain tape, paint, sealant and glue.

(See Ex. 3, p. 82.)

III. Agent Malone's Examinations of "Natural" Hairs and Other Fibers
Found at the MacDonald Crime Scene.

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- On October 19, 1990, the defense, in support of Dr. MacDonald's 28 U.S.C. § 2255 Petition Seeking Relief From Conviction Obtained by the Suppression of Exculpatory Evidence (hereinafter "1990 Petition"), filed the Affidavit of John J. Murphy (hereinafter "Murphy Aff. (Rec.)"). In addition to explaining the handwritten laboratory benchnotes concerning the blond synthetic hair-like fibers found in the clear-handled brush at the crime scene and the black wool fibers found on the body of Colette MacDonald and on the wooden club murder weapon, Murphy's affidavit documented the existence of handwritten benchnotes which revealed the presence of hairs and skin that could not be sourced to any member of the MacDonald family found at the crime scene by Army CID investigators. Neither the existence of these notes nor the information in these notes had been disclosed to the defense prior to or during the trial. See Murphy Aff. (Rec.) at ¶¶ 51-64.
- "numerous unmatched human hairs, as well as a piece of human skin, found in the bedding of the victims and in other locations within the MacDonald home." Murphy Aff. (Rec.) at ¶ 65. In support of this assertion, Murphy referred first to handwritten benchnotes on Exhibit E-211/Q-125 (debris removed from the blue top sheet found on the floor of the master bedroom), which confirmed the presence of one unmatched medium brown pubic or

body hair, possibly bloodstained, as well as one piece of skin tissue. Murphy Aff. (Rec.) at ¶¶ 52-56. He then referred to several sets of CID handwritten laboratory notes concerning unmatched hairs found in the bedding of the victims. See Murphy Aff. (Rec.) at ¶¶ 58-64. The laboratory notes on Exhibit E-124, debris from the bedding of Kimberly MacDonald, indicated the presence of an unidentified medium brown pubic or body hair. Murphy Aff. (Rec.) at ¶¶ 58-59. The notes on Exhibit E-52NB/Q-87, the debris removed from the bedding of Kristen MacDonald, likewise indicated the presence of a medium brown pubic or body hair that did not originate from any known sources. Murphy Aff. (Rec.) at ¶¶ 60-64. Thus, Murphy identified at least three hairs and a piece of skin found in the immediate vicinity of the victims' bodies which could not be matched to the known hair samples of MacDonald family members.

- 18. FBI Agent Michael P. Malone conducted a laboratory reexamination of the unsourced hairs and fibers described in the
 Murphy Affidavit. See Affidavit of Michael P. Malone, 2/14/91,
 (hereinafter "Malone Aff. (Rec.)", attached as Exhibit 1 to the
 Cormier Aff. No. 1, filed herewith). In his affidavit, Malone
 concluded, among other things, that none of the unsourced hairs
 noted in Murphy's affidavit provided a forensic basis for
 MacDonald's claim of factual innocence. Malone supported this
 conclusion in the following manner:
 - (a) He acknowledged the presence of an unidentified "brown body hair of Caucasian origin" which appears to have

been "forcibly removed" and which "appears to have a piece of skin tissue attached to the basal area of the hair" in Exhibit Q-125 (E-211), but concluded that "this body (trunk) hair does not possess sufficient characteristics to be [sic.] value for significant comparison purposes." Malone Aff. (Rec.) at ¶ 23. FOIA materials released by the Department of Justice to MacDonald on November 21, 1996 include notes written by an unidentified government investigator or attorney concerning information which Malone imparted to them with respect to this particular hair and piece of skin. This note, which is attached hereto as Exhibit 4, reads:

Malone: It's a brown caucasian body hair. (It's not limb, head, pubic, or beard, or eyebrow)
I think it's fringe hair, where groin meets abdomen. It's been ripped out. It appears to have piece of skin tissue attached.
(MacDonald did have a wound on lower torso.)
Not enough for DNA. Way too old now.

(Exhibit 4, p. 84)

(b) Malone acknowledged the presence of an unmatched "brown hair of Caucasian origin" in Exhibit Q-87 (E-52NB) and an unmatched "brown limb hair" of "Caucasian origin" in Exhibit Q-93 (E-124), but concluded that neither hair possessed "sufficient characteristics to be of value for significant comparison purposes." Malone Aff. (Rec.) at ¶¶

15 and 21.

- (c) Malone also identified two additional exhibits, Q-79/E-303, debris from the rug underneath the trunk and body of Colette, and Q-119/E-5, debris removed from Colette MacDonald's left hand, containing one or more pubic or limb hairs of potential significance to MacDonald's defense. With respect to Exhibit Q-79/E-303, Malone found a "brown pubic hair of Caucasian origin" which "does not appear to have been forcibly removed." He concluded that this hair "exhibits the same individual microscopic characteristics as the specimen K-22 pubic hair sample of Jeffrey MacDonald," and that it is therefore "consitent [sic.] with having originated from Jeffrey MacDonald." Malone Aff. (Rec.) at ¶ 14. With respect to Exhibit Q-119/E-5, Malone also found "four brown limb hairs of Caucasian origin" but concluded that these hairs "did not possess sufficient characteristics to be of value for significant comparison purposes." Malone Aff. (Rec.) at ¶ 22.
- 19. In addition to the unsourced hairs, Murphy also asserted in his affidavit that the government had found black wool fibers on Colette MacDonald's body and the wooden club murder weapons. These fibers were designated: Q-88 (right biceps area of Colette MacDonald), Q-100 (mouth area of Colette MacDonald), and Q-89 (he wooden club murder weapon that was found outside the MacDonald home). Murphy Aff. at ¶¶ 28-45. Agent Malone conducted a re-examination and confirmed that the

government had in fact found these black wool fibers, which he described as one "bluish-black" wool fiber in Q-88, one "bluish-black" wool fiber in Q-89, and two "dark purple" wool fibers in Q-100. Malone Aff. (Rec.) at ¶¶ 16-18.

- 20. With respect to these "bluish-black" and "dark purple" wool fibers, agent Malone stated that "the source of [these] . . . fiber[s] is not known due to the absence, at this time, of known standards for comparison." Malone Aff. (Rec.) at ¶¶ 16-18. FOIA materials received by the defense in May 1996 indicate that agent Malone did have available for comparison purposes a number of black or navy blue items that had been taken from the home which apparently turned out not to be the source of these bluish-black and dark purple fibers. (Ex. 5 at 89).
 - IV. Other Unsourced Items Found at the Crime Scene.
- 21. I also have reviewed numerous handwritten laboratory benchnotes and other government laboratory materials acquired by Dr. MacDonald post-trial under the Freedom of Information Act ("FOIA"). Based on my review of these materials, in addition to those cited in the Murphy and Malone Affidavits, there are numerous other unsourced items such as hairs and blood debris (and also some hairs of which the government's identification is questionable) which were found on or near the victims and in other critical locations at the crime scene. The following are brief summaries of these items, the detailed histories of which are set forth at ¶¶ 30-62, infra.:
 - (a) Exhibit D-237, the fingernail scrapings from the

left hand of Kristen MacDonald, contains an unsourced light brown, narrow, bloodstained hair with an intact root. See 1 33-35, infra.

- (b) Exhibit D-238, scrapings from the right hand of Kristen MacDonald, may likewise contain one or more unsourced hairs. See ¶¶ 33-35, infra.
- (c) Exhibit D-236, the fingernail scrapings from the left hand of Kimberly MacDonald, contains an unsourced light brown, narrow, bloodstained hair. See ¶¶ 36-39, infra.
- (d) Exhibit D-235, the fingernail scrapings from Kimberly's right hand, contains un-typed and unsourced blood debris. See ¶ 39, infra.
- (e) Exhibit D-233 and D-234, the fingernail scrapings from Colette MacDonald, may contain unsourced hairs, blood debris or skin. See ¶ 40, infra.
- (f) Exhibit E-4/Q-118, debris removed from the right hand of Colette MacDonald, contains one bloodstained hair which in 1974, the FBI, using microscopic examination techniques, concluded was from Colette MacDonald's head.

 See ¶¶ 41-42, infra.
- (g) Exhibit D-256, red crusts removed from the hands of Colette MacDonald, contains un-typed blood debris. See ¶¶ 43-44, infra.
- (h) Exhibit E-301/Q-78, debris removed from the vicinity of Colette MacDonald's left hand and arm, contains two (or more) unsourced human hairs from the pubic or body

region. See ¶¶ 45-52, infra.

- (I) Exhibit D-229/Q-96, the debris from the bedspread found on the floor of the master bedroom, contains one unsourced human hair from the pubic or body region which may or may not be bloodstained. See ¶¶ 53-62, infra.
- IV. THE DEFENSE SEEKS COURT-ORDERED ACCESS
 TO THE PHYSICAL EVIDENCE FOR THE PURPOSE OF
 CONDUCTING FORENSIC EXAMINATIONS AND DNA TESTING.
- 22. As noted supra, in light of the pattern of deceptive conduct on the part of Agent Malone in this and other cases, the defense seeks access to all items of physical evidence which Malone or any other FBI agent examined in connection with MacDonald's 1990 Petition, including, but not limited to, natural hairs, fibers and blood debris. In addition, as noted above, based on my review of the FOIA materials, there are other unsourced hairs and blood debris found in critical locations (not necessarily examined by Agent Malone) to which the defense seeks access for the purpose of conducting its own laboratory examinations of these items, including, if appropriate, DNA testing. Based on my review of the FOIA materials, there is no indication that any of the unsourced hairs, skin and blood debris taken from the crime scene in this case has ever been subjected to any form of DNA testing. It is my understanding, and indeed the Court may take judicial notice of the fact, that DNA testing was either not available, or was in its infancy, when the Army CID laboratory and the FBI Laboratory examined the forensic

evidence during the pre-trial investigatory stages of this case.

- 23. In addition, I have learned that there is a new form of DNA testing, called mitochondrial DNA testing, which the FBI Laboratory has recently begun to utilize in connection with hair examinations. Based on my review of the literature concerning mitochondrial DNA testing and discussions with individuals who are familiar with this type of testing, either this new form of DNA testing or the more commonly used "nuclear DNA testing" might appropriately be used in this case to examine the unsourced hairs and blood debris, as well as conduction re-examinations on certain items found in critical locations which have been identified through more primitive forensic techniques. (Attached hereto as Exhibit 6 are some of the articles I have reviewed which describe the new mitochondrial DNA testing.)
- 24. As the name suggests, mitochondrial DNA testing obtains its DNA from the mitochondria of the cell, unlike the more conventional form of DNA testing ("nuclear DNA testing"), which obtains its DNA from the nucleus of the cell. While each cell has only one nucleus, it has numerous mitochondria. It is further my understanding that conventional nuclear DNA testing can be used to identify hairs only when there is a follicle or a piece of skin attached to the root of the hair shaft, because only skin/hair follicles contain cell nuclei from which DNA can be extracted. By contrast, mitochondrial DNA testing does not require the presence of a follicle or piece of skin, because the DNA can be extracted from the mitochondria, which are contained

in the hair shaft itself. As reported in some of the attached articles, mitochondrial DNA is much "hardier" than nuclear DNA, meaning that it breaks down much less easily. See Ex. 6.

- 25. Mitochondrial DNA testing analyzes the DNA sequence of individuals along their maternal line. All maternally-related individuals will have the same mitochondrial DNA sequence unless a mutation has occurred. Hence, a mitochondrial DNA analysis of hair taken from a mother and her children should result in the same DNA sequence for all of them.
- 26. I also note an article from the November 1996 issue of the American Bar Association Journal describes a rape/murder case in Chattanooga, Tennessee in which the FBI used mitochondrial DNA testing to identify a single hair, found in the throat of the victim, as belonging to the defendant. Exhibit 6 at p. 92. Other articles describe the use of mitochondrial DNA testing in other crime investigations.
- 27. It is my understanding that hair examinations such as those which I understand to have been conducted pre- and post-trial in the MacDonald case by Agent Malone and others typically consist of a visual examination of the hair under a microscope, in which the examiner compares the questioned hair with known hair samples. Based on such visual examinations under the microscope, the most that can be said about a suspect hair is that it is either "similar" or "dissimilar" in its visible physical characteristics to the known exemplar hair.

- 28. Based on my understanding of mitochondrial DNA testing, and my review of the FOIA materials which demonstrate the existence of numerous unsourced items of hair, blood and skin debris in this case, I believe that mitochondrial DNA testing could be conducted on hair, blood and skin items to determine with far greater authority and accuracy than previous microscopic examinations the provenance of various items. At the very least, such testing could be conducted to determine whether the source of hitherto unmatched items, such as the unsourced hairs found on the victims and in their bedding, was Jeffrey MacDonald or a member of his family. In addition, such testing could be utilized to confirm the accuracy of prior positive microscopic identifications of certain items, such as hairs found in the victims' hands. For example, E-4/Q118, a hair found in the right hand of Colette MacDonald which was microscopically identified as her own (see ¶41-42, infra) might appropriately be analyzed using the new mitochondrial DNA technology. It is obvious in this and other similar instances that this would be a critical determination, since the identification of hairs and fibers unmatched to any person or item in the MacDonald home at strategic locations at the crime scene would be supportive of MacDonald's account that strangers invaded his home and murdered his family.
- 29. Our own Attorney General has publicly recognized the utility of DNA technology to assure greater accuracy in the search for truth, and has advocated the re-examination of old

crime scene evidence using new forensic technology to correct miscarriages of justice. In June 1996, the National Institute of Justice ("NIJ") published a report entitled Convicted by Juries. Exonerated by Science, Case Studies in the use of DNA Evidence to Establish Innocence After Trial, in which it documented 28 case studies where the defendants were exonerated by DNA testing, after they had been convicted by juries. (An excerpt from the NIJ report is attached hereto as Ex. 7.) Attorney General Reno, in her opening message at the beginning of this report, stated:

Our system of criminal justice is best described as a search for truth. Increasingly, the forensic use of DNA technology is an important ally in that search. The development of DNA technology furthers the search for truth by helping police and prosecutors in the fight against violent crime. . . At the same time, DNA aids in the search for truth by exonerating the innocent. The criminal justice system is not infallible

In addition, Attorney General Reno also gave a keynote address last year before the American Academy of Forensic Sciences, in which she stated:

Laboratories must also be in a position in cases where evidentiary samples have been appropriately preserved and maintained to re-examine, using modern technology, evidence used years ago to convict someone. Properly conducted scientific tests are accurate and impartial and in the right cases, as I've indicated, can correct a miscarriage of justice. Forensic science can play no more important role than that.

Keynote Address By Janet Reno. Attorney General of the United States of America Before the American Academy of Forensic Sciences, February 21, 1996 at Nashville, TN, Alderson Reporting Co., at 15. (A copy of this transcript is attached hereto as Exhibit 8).

- V. Detailed Histories of Items of Physical Evidence, in Addition to Those Examined by FBI Special Agent Malone, to Which the Defense Seeks Access.
 - A. Government Laboratory Findings Indicating the
 Presence of Unmatched Hairs and Untyped
 Bloodstains in the Fingernail Scrapings and Hands
 of Colette, Kristen and Kimberly MacDonald
- 30. I have reviewed many handwritten laboratory notes (previously withheld and disclosed to the defense only post-trial under the FOIA), created and compiled by the Army CID Laboratory and the FBI Laboratory, which document that the government's laboratory technicians discovered hairs in the fingernail scrapings of the victims which the Army CID and the FBI were unable to source to known persons, or in the case of certain blood debris, were unable to determine the blood type. The defense seeks access to these exhibits to determine exactly what is contained in these exhibits, and to conduct appropriate laboratory examinations.
- 31. Sometime during July 20-29, 1970, Army CID laboratory examiner Janice Glisson conducted an examination of certain items, designated "R-11" [attached hereto as Exhibit 9], in which she examined hairs found in the hands and underneath the fingernails of Colette, Kimberly and Kristen MacDonald. The purpose of Glisson's R-11 examination was to determine whether known exemplar hairs taken from Jeffrey MacDonald matched hairs found in the victims' hands and in the fingernail debris taken from the victims. The known exemplar hairs taken from MacDonald

were designated as Exhibits E-305 through E-313. (Ex. 9 at pp. 135-141.)

32. Glisson's notes on the "R-11 examination" reveal that she received an evidence box which contained, among other items:

13 plastic vials cont. fingernail scrapings, hair samples, fibers and vag. smears taken from victims at Womack Army Hospital. marked on bottom of vials 17 Feb 70 BSH.

(Exhibit 9, Page 135)

- 1. Unmatched hairs and un-typed blood debris found in the fingernail scrapings of Kristen MacDonald.

 Exhibits D-237 and D-238
- 33. Glisson proceeded to designate these vials as Nos. 113, as opposed to using the "D-#" designations. With respect to
 Kristen MacDonald, Glisson catalogued the exhibits and wrote:
- #7 fingernail scrapings, left hand smaller female MacDonald (not labeled by Browning)
 - 1 hair? 2 fragments
- - 3 fragments

Exhibit 9, pp. 135-6

34. Next, Glisson conducted a microscopic examination, comparing the hair taken from Kristen's left hand fingernail scrapings with the known exemplar hairs from Jeffrey MacDonald. She wrote:

Later, on the last page of these notes, Glisson wrote:

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#'s 7&8 not similar to 300 thru 308...

did not label all the other vials cont. fibers &
hairs (#1, #7, #8) but gave #'3 & slides correspond
to these #'3., since they are not going to
be reported by me.

(Exhibit 9, p. 159)
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The final typed Army CID reports on examination R-11, dated July 29, 1970 [Exhibit 9, p. 139] and September 2, 1970 [Id., p. 141], gave no indication that Glisson found a hair in the fingernail scrapings from Kristen's left hand which did not match MacDonald's exemplar hairs. Thus, there appears to be at least one unsourced hair from the fingernail scrapings of Kristen's left hand.

35. The Army typed CID laboratory reports also reveal the discovery of blood debris found in Kristen's fingernail scrapings from her left hand (D-237) which apparently could not be bloodtyped. An undated CID typed summary states:

EXHIBIT D-237	DESCRIPTION Fingernail scrapings from left hand of Kristen MacDonald	RESULTS indicated blood.		
D-238	Fingernail scrapings from right hand of Kristen MacDonald	indicated O		
(Exhibit 10, page 159)				

The "Consolidated" typed CID report of March 29, 1972 confirms in ¶ 27 the earlier findings of un-typed blood debris in Exhibit D-237, indicating that "further examinations were precluded due to the paucity of the stain." [Exhibit 11, p. 196] This un-typed blood debris may be appropriate for DNA testing.

- 2. Unsourced hairs and blood debris found in the fingernail scrapings of Kimberly MacDonald. Exhibits D-235 and D-236
- 36. As indicated previously, sometime during July 20-29, 1970, Janice Glisson conducted examination "R-11," in which she attempted to match hairs found on the victims with known hairs taken from Jeff MacDonald. See ¶ 31 supra.
- 37. With respect to <u>Kimberly MacDonald</u>, Glisson catalogued the exhibits in "R-11" and wrote:
- #4 fingernail scrapings right hand larger MacDonald female child (not labeled by Browning)

 2 sm. frag. + debris

 * *

 #8 fingernail scrapings left hand larger MacDonald female child (not labeled by Browning)

 questionable hair fragment

 (Exhibit 9, page 135)

Glisson then proceeded to examine the debris found in Exhibits D-235 and D-236 microscopically. She determined that one hair in the fingernail scrapings from Kimberly's left hand did not match the known exemplar hairs from Jeffrey MacDonald.

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#4 fibers only

* * * *

not ~ with { #8 one light brown narrow hair, but not as

300 thru 308 narrow as #7, no medulla, intact root, worn

305 thru 313 end, not as pointed tapered as #7.

collection

Exhibit 9, page 136
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On the last page of her notes on the "R-11" examination, Glisson wrote:

Exhibit 9, page 138

38. As previously noted, neither of the final typed Army CID reports on the "R-11" examination, which are dated July 19, 1970 (Exhibit 9, p. 139) and September 2, 1970 (Exhibit 9, p. 141), apprised the defense that Glisson had found a hair in the fingernail scrapings from Kimberly's left hand which was dissimilar to the known exemplar hairs from Jeffrey MacDonald. Rather, these two typed "R-11" reports simply indicate that a comparison had been made between the hairs found in Colette's

hands (E-4 and E-5) and the hairs taken from Jeffrey MacDonald (E-305 - E-313). They did not mention the existence of an unsourced hair in Kimberly's fingernail scrapings. Further, the "Consolidated" typed Army CID laboratory report, which was issued on March 29, 1972 (Ex. 11), also made no mention that Glisson had found this unsourced hair in the fingernail scrapings from Kimberly's left hand.

39. The typed Army CID laboratory reports also reveal the presence of blood debris in the fingernail scrapings from Kimberly's right and left hands (D-235 and D-236) which apparently could not be typed due to the small size of the specimen. An undated CID typed summary states:

EXHIBIT D-235	DESCRIPTION Fingernail scrapings from right hand of Kimberly MacDonald	RESULTS indicated blood	
D-236	Fingernail scrapings from left hand of Kimberly MacDonald	indicated blood	
(Exhibit 10, page 159)			

The "Consolidated" report, which was issued on March 29, 1972, concluded in ¶ 27 that "examinations of the red-brown stains of Exhibits...D-235, D-236...indicated the presence of blood.

Further examinations were precluded due to the paucity of the stain." (Exhibit 11, page 196). This un-typed blood debris may be appropriate for DNA testing.

3. Unmatched hairs and un-typed blood debris found in the fingernail scrapings of Colette MacDonald. Exhibits D-233 and D-234

40. The documents concerning examinations on D-233 and D-234 are very sparse. An undated Army CID typewritten chart states that blood debris was found in the fingernail scrapings from D-233 and D-234 (Exhibit 10, p. 158-9). This blood debris was apparently not blood-typed. The "Preliminary" typed Army CID report, issued on April 6, 1970, references fingernail scrapings taken from Colette MacDonald, but does not indicate that anything was found in these scrapings (Exhibit 12, p. 213).

4. Hair from the right hand of Colette MacDonald, Exhibits E-4/0118

- 41. My review of the handwritten labnotes and typed reports from the Army CID Laboratory indicates that the Army-CID laboratory examiners found a hair (designated by the Army as E-4) in the right hand of Colette MacDonald. The Army was unable to source this hair to any known person, although it attempted to do so on repeated occasions. See Ex. 13. Finally, on November 5, 1974, FBI Laboratory examiner Paul Stombaugh concluded that the hair in E-4 (renumbered by the FBI as "Q-118") microscopically matched the head hairs of Colette MacDonald. (Ex. 14).
- 42. On August 8, 1979, Agent Stombaugh testified at trial that E-4 was a "short hair fragment, Caucasian origin," that "matched in all microscopic characteristics the head hairs of Colette MacDonald." Tr. 4156-4160.

5. <u>Un-typed blood crusts on Colette's hands.</u> Exhibit D-256

- 43. As reported in the Army CID typed reports, blood typing tests conducted by the Army CID lab on the "red crusts" taken from Colette MacDonald's hands revealed the presence of either type A (Colette's blood type) or type O (Kristen's blood type) blood. See "Preliminary Report," Exhibit 12, page 218 and undated Army CID Chart, Exhibit 10, page 160. I have found no documents which indicate that this finding was narrowed down any further than this. A typed CID Addendum to the Preliminary Report, issued on September 4, 1970, adds that:
 - 2. The term "red crusts" of Exhibit D-256 referred to suspected dried blood. These were not analyzed for anything other than blood type as indicated in paragraph 10 of the Preliminary Report.

Exhibit 15, p. 252)

The red crusts found on Colette's hands may be appropriate for DNA testing.

44. On September 20, 1971, the CID conducted an examination entitled "R-29" (Exhibit 16). The labnotes from the "R-29" examination indicate that Exhibit D-256 was reexamined for skin particles, but that no such particles were discovered (Ex. 16, pp. 255-6).

- B. Government Laboratory Findings Indicating the Presence of Unmatched Hairs Near the Victims' Bodies
 - 1. Unmatched hairs found near Colette MacDonald's left hand and arm, Exhibit E-301/078
- 45. In a set of handwritten notes dated March 20, 1970, Dillard Browning, as indicated by the initials "DOB" in the top right-hand corner, conducted an examination of "hairs & fibers --woods" which he designated as "P-C-FP-82-70-R2 and R3." Browning states the following with respect to Exhibit E-301 (hairs and fibers from the vicinity of Colette MacDonald's left hand and arm) he found two human pubic or body hairs which he did not attempt to identify due to the lack of known hairs to compare them with.

Exhibit E-301 - Hair and fibers, recovered from the vicinity of Colette MacDonald's left hand and arm, MBR.

Vial contains numerous pieces of purple multi-strand cotton fibers identical to the multistrand cotton thread used to sew the seams of the pajama jacket. Exhibit D-210.*

- Two human pubic or body hair. No comparison was made due to the lack of a known or control. (*Some bloodstained)

- Two small pieces of wood, identical to the wood of Exhibit A1.

(Exhibit 17, p. 300)

- 46. An undated typed Army CID chart confirms that Exhibit E-301 contains "hairs and fibers from near left hand and arm of body in east bedroom" (Exhibit 10, p. 175)
- 47. On April 17, 1970, Browning issued a typed report of his "R2 and R3" examination entitled "FA-F-P-C-FP-82-70-R thru R-4" (Exhibit 18). Page 3 of this report repeats Browning's hair

findings, describing Exhibit E-301 as "hairs and fibers from near left hand and arm of body in east bedroom (15)" (Ex. 18, p. 305). However, this typed report does not state that the hairs in E-301 had been sourced to any known hair samples.

- 48. On March 29, 1972, the CID issued its typewritten "Consolidated Report," in which there was no mention of the existence of any hairs in E-301 (Ex. 11).
- 49. In 1974, Exhibit E-301 was among the exhibits submitted for re-examination by the FBI Laboratory. On September 24, 1974, the FBI Lab received evidence specimens that Capt. Brian Murtagh personally delivered to lab, as demonstrated by an FBI laboratory sheet from this date with the notation "Specimens Personally delivered by Capt. Brian M. Murtagh on 9/24/74" (Exhibit 19, p. 310). In approximately October of 1974, Shirley Green catalogued the evidence received by the FBI lab in preparation for Agent Stombaugh's re-examination. Green's notes for Stombaugh all bear labels such as "L2082," "L1913" or "L2318" in the upper right-hand corner. For Exhibit E-301/Q-78, Green confirmed the existence of the two hairs that Browning found, and she wrote the following:

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Q78 [Vial in sm. plast bag]

2 HAIRS -- 1 slide
1 thick white yn - poss fr. a rug -- in vial
sev. PCS. 2 ply Z sew. Thr.
-1 short blue cotton
-1 blood-soaked purple - appears [illeg.]
-sev. purple cotton
2 sm. PCs. wood
[see sep.notes]

(Exhibit 20, p. 313)
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Stombaugh's own handwritten notes of his microscopic reexamination of E-301/Q-78 (labeled "PC-L2082 in upper right-hand corner), which was conducted on or about October, 1974, confirmed the existence of the two hairs:

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Q-78 - br. pub hair, Cauc. nat. rem.
- " " , " port. follicle attached - [illegible]

(Exhibit 21, p. 333)
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50. During the 1990 habeas proceedings, another set of handwritten FBI laboratory notes labeled "01022018 SRQ," probably written by Shirley Green, catalogued the receipt of items from Exhibit Q78 for re-examination. (Exhibit 22). These notes state that Exhibit Q78 contains "3 glass micro. Sl. In single mailers, 2 small cardboard pillboxes, plastic vial (in small zip-lock) all inside heat sealed plastic envelope" (Ex. 22, p. 339). An airtel transmission dated October 19, 1990 reveals at p. 3, Para. 24, that "Q-78 - Vial containing debris from near left hand; Government Exhibit 325" had been sent to Michael Malone at the FBI Hair and Fiber Unit. (Exhibit 23, p. 347).

51. An FBI typed laboratory worksheet on various items resubmitted from "FBI Laboratory Number PC-L2082 JV 1Z" (dated October 22, 1990) indicates that the following pieces of evidence were received by Malone on October 22, 1990:

2 small cardboard pillboxes containing debris from Q78 (E-301)

3 glass microscope slides containing debris from Q78 (E-301)

(Exhibit 23, p. 352)

Shortly thereafter, on October 24, 1990, another FBI airtel transmission indicates that additional items were being sent to Malone at the FBI laboratory (Exhibit 23, p. 355). This second airtel indicates that the vial from Exhibit Q78 was being sent, but someone had written "(NOT REC'D) next to Q78. Based on Shirley Green's notes cataloguing exhibits submitted for reexamination by Malone, however, it appears that the FBI did in fact receive the vial in Q78. (Exhibit 20).

52. On December 31, 1990, the FBI issued a final typed report on Malone's reexaminations (Exhibit 24). This typed report was not given to the defense in connection with the litigation involving MacDonald's 1990 petition, but was obtained via the FOIA after the proceedings ended. While Q78 is listed on page five of this 12/31/90 report as an exhibit that was received, the report does not reflect the existence of the pubic hairs which are referred to in the above-referenced notes, nor

does it indicate that it was examined by agent Malone. Q78 is not mentioned in Malone's Feb. 14, 1991 affidavit.

- 2. Debris from the bedspread found on the floor in the master bedroom, Exhibit D-229/O-96
- 53. On March 5, 1970, in a set of handwritten laboratory reports entitled "P-C-FP-82-70," Army CID laboratory examiner Dillard Browning entered the following notation with respect to his examination of debris found on the bedspread on the floor of the master bedroom next to Colette MacDonald's body:

Exhibit D-229 - Debris from bedspread on floor of masterbedroom. - Vial contains several long bloodstained purple cotton multistrand fibers identical to the purple thread used to sew the pajama top - one blue polyester/cotton fiber. bloodstained identical to the material of the pajama top. - Several long medium blonde human head hair - one pubic or body hair - one small piece of tinfoil - one piece of hay or grass like vegetation. (Exhibit 17, p. 272)

On March 10, 1970, in a second set of handwritten laboratory notes on Exhibit D-229, Browning identified one unsourced pubic or body hair in the debris from the bedspread on the floor of the master bedroom (D-229), noting as follows:

Exhibit D-229 - Debris from bedspread on floor of masterbedroom - Vial contained one human head hair grossly similar to the hair of Mrs. MacDonald. also one human head hair grossly similar to the hair of Kimberly. This last hair was bloodstained. The pubic or body hair was not studied due to the lack of a known or control.

(Exhibit 17, p. 286)

- 54. A set of printed handwritten notes from roughly the same time period (which may or may not have been written by Browning) omit any reference to the unmatched pubic/body hair in Exhibit D-229 (Exhibit 25, p. 369). These notes merely state that Exhibit D-229 contains "Several cotton, one Blue polyester. (Also hair from Collete (sic)/ and hair from Kimberly, [bloodstained])".
- 55. On April 6, 1970, the CID issued a "Preliminary" typewritten laboratory report, which lists the following hair findings in Exhibit D-229. No mention was made in this report of Browning's finding of an unsourced pubic hair:

Exhibit D-229 - Multicolored bedspread bearing red-brown stains from east bedroom.

- 28. Examination of...D-229...revealed the presence of human head hairs, grossly similar in all physical characteristics to the head hair of Collete [sic] MacDonald.
- 29. It is the opinion of the examiner that one or more of the human head hairs present in the Exhibits of paragraph 28 could have originated from the head of Collete [sic] MacDonald.
- 30. Examination of...D-229...revealed the presence of human head hairs, grossly similar in all physical characteristics to the head hair of Kimberly MacDonald.
- 31. It is the opinion of the examiner that one or more of the human head hairs present in the Exhibits of paragraph 30 could have originated from the head of Kimberly MacDonald. (Exhibit 12, page 219)
- 56. In late August and early September of 1970, Browning conducted a re-examination of evidence which he titled "R-14".

 His handwritten notes on the "R-14" examination of Exhibit D-229,

dated September 8, 1970. He again confirmed the existence of an unsourced pubic hair in D-229:

Exhibit D-229 (Debris from) Vial contains hair, fiber, grass and tinfoil. Microscopic examination showed that the unidentified pubic or body hair was grossly different from the known hairs in this case. This vial also contained short human head hair that could not be identified with any of the knowns. (Exhibit 26, pp. 385-6)

57. At the conclusion of Browning's handwritten notes on "R-14", in a note dated September 9, 1970, Browning wrote, inter alia:

Conclusion

Examination of Exhibit...D-229 did not reveal the presence of hair grossly similar to the known hair of Exhibits E-305 through E-313.

(Exhibit 26, p. 386)

58. On March 29, 1972, the CID issued a "Consolidated"
Laboratory Report, in which it repeated the conclusions issued in its previous "Preliminary" Report, namely that examination of Exhibit D-229 revealed the presence of human head hairs "grossly similar in all physical characteristics to the head hair of Colette MacDonald" and "grossly similar in all physical characteristics to the head hair of Kimberly MacDonald" (Exhibit 11, p. 197) The Consolidated Report did not mention Browning's finding of one or more unmatched human pubic or body hairs.

59. As mentioned above, on September 24, 1974, a typewritten FBI letter indicated the receipt of evidence that was personally delivered to the FBI laboratory by Captain Brian Murtagh. (Exhibit 19, p. 310) The FBI then issued a report on its findings in the re-examination of evidence presented by Murtagh on November 5, 1974 (Ex. 14). With regard to Exhibit D-229 (re-labeled Q-96 by the FBI examiners), the report stated as follows:

Light brown to blond head hairs that microscopically match the K1 head hairs of COLETTE MAC DONALD were found in ...Q96...The Q96 hair was found entangled around a purple cotton sewing thread like that used in the construction of the Q12 pajama top. Further, this hair had bloodlike deposits along its shaft.

(Exhibit 14, p. 248)

The above referenced report of November 5, 1974, was accompanied by an FBI crime scene interpretation cover letter, which made the following notation:

(4) COLETTE'S body also rested on the multi-colored bedspread found in the east bedroom with the sheet. The large group "A" bloodstains and a head hair of Colette's entangled around a sewing thread like the thread used in the construction of the torn blue pajama top found on the bedspread indicate this.

(Exhibit 14, page 246)

60. On August 8, 1979, Stombaugh testified at trial that, in the debris taken from the bedspread, he found one head hair of Colette MacDonald entangled with one of the two sewing threads

also present in this debris. Tr. 4109-4110. Stombaugh testified that the hair entangled with the fiber had blood-like deposits along its shaft. Tr. 4156.

- 61. A set of handwritten FBI Laboratory notes, which appear to be from the FBI's re-examination of the evidence in 1990, indicate the receipt of evidence for re-examination. With regard to exhibit Q-96, the notes state the following:
- Q-96 4 glass micro sl. in single mailer,
 1 small cardboard pillbox, plastic vial
 all inside small zip-lock bag inside
 large plastic envelope sealed with
 staples and evid. tape, small plastic
 vial labeled "D-229" inside small
 plastic envelope stapled to large
 envelope.

62. The final typed FBI report, dated December 31, 1990, lists the following items as submitted for re-examination on March 19, 1990, some seven months prior to the filing of MacDonald's 1990 petition:

RESUBMITTED FROM FBI LABORATORY NUMBER PC-L2082 JV 1Z:

- 1 plastic vial containing piece of fabric from item Q96 (D-229)
- 1 plastic vial containing debris from Q96 (D-229)
- 1 small cardboard pillbox containing debris from Q96 (D-229)
- 4 glass microscopic slides containing debris from Q96 (D-229)

(Exhibit 24, p. 361)

(Exhibit 22, p. 342)

The defense does not know whether D-229/Q96 was re-examined by

agent Malone in connection with the government's response to MacDonald's 1990 petition, but, as indicated above, this exhibit appears to contain an unsourced pubic hair.

Philip G. Cormier

Signed and sworn to before me this 19th day of April, 1997.

Notary Public, Commonwealth of Massachusetts

Hervyll Silvelat

My commission expires: June 1, 2001