



April 17, 2018

PM-602-0106.1

## Policy Memorandum

SUBJECT: *DNA Evidence of Sibling Relationships*

### Purpose

This policy memorandum (PM) amends U.S. Citizenship and Immigration Services' (USCIS) policy on DNA evidence of sibling relationships and revises the Adjudicator's Field Manual (AFM), Chapter 21.9(c).

### Scope

This PM applies to and shall be used by all USCIS employees. This guidance supersedes any existing guidance concerning DNA evidence in sibling relationships.

### Authorities

- Immigration and Nationality Act (INA) §§ 101(b)(1), 101(b)(2), and 203(a)(4).
- Title 8 United States Code (U.S.C.) §§ 1101(b)(1), 1101(b)(2), and 1153(a)(4).
- Title 8 Code of Federal Regulations (CFR) §§ 103.2(b)(2)(i), 204.2(d) and (g).

### Background

USCIS adjudicates petitions filed for siblings of U.S. citizens under INA § 203(a)(4) and 8 CFR § 204.2(g). USCIS also adjudicates certain nonimmigrant petitions and applications filed for derivative siblings.<sup>1</sup> A sibling relationship requires that the petitioner and beneficiary are, or once were, the children of at least one common parent, as defined in INA §§ 101(b)(1) and (2). Primary evidence to establish a sibling relationship may include birth and marriage certificates.<sup>2</sup> When an officer determines that primary evidence is unavailable or unreliable, the officer may consider secondary evidence that demonstrates the sibling relationship. Secondary evidence that officers may consider includes, but is not limited to, medical records, school records, and religious documents issued contemporaneously with the event they document.<sup>3</sup> Affidavits sworn to by persons who were living at the time of and who have personal knowledge of the event to which they attest may also be accepted if certain conditions are met.<sup>4</sup>

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<sup>1</sup> Siblings may qualify as family members outside of the Form I-130 petition. This PM applies to all immigration benefits that require a biological sibling relationship.

<sup>2</sup> See 8 CFR 204.2(g)(2).

<sup>3</sup> See 8 CFR 204.2(d)(2)(v).

<sup>4</sup> See *id.*

USCIS has the authority to require a Blood Group Antigen Test or a Human Leucocyte Antigen (HLA) test to establish a biological relationship when other forms of evidence have proven inconclusive.<sup>5</sup> Due to technological advances, however, the Blood Group Antigen Test and HLA test are no longer routinely performed, and many petitioners opt to submit DNA test results instead. Unlike the Blood Group Antigen Test or the HLA test, regulations do not currently require DNA testing to establish the claimed familial relationship. However, USCIS has a long-standing policy of accepting parent-child DNA test results to establish parentage when certain threshold requirements are met.<sup>6</sup> In addition to receiving parent-child DNA test results, USCIS receives direct sibling-to-sibling DNA test results from petitioners seeking to classify beneficiaries as siblings under INA § 203(a)(4).

In October 2014, based on reports from the scientific community that there was no universally accepted standard for relationship probability in sibling-to-sibling DNA testing, USCIS published guidance instructing officers not to suggest or consider direct sibling-to-sibling DNA test results. Subsequently, in March 2016, the Board of Immigration Appeals (BIA) issued a decision in *Matter of Ruzku* holding that direct sibling-to-sibling DNA test results reflecting a 99.5 percent degree of certainty or higher should be considered probative evidence of the claimed relationship.<sup>7</sup> The BIA held that it “would generally expect that other evidence of the sibling relationship would be submitted and that all the evidence, including DNA test results, would be considered in its totality.”<sup>8</sup>

Following the BIA’s ruling in *Matter of Ruzku*, USCIS initiated discussions with the AABB<sup>9</sup> Relationship Testing (RT) Subcommittee through the DHS Science and Technology (S&T) Directorate.<sup>10</sup> These discussions focused on direct sibling-to-sibling DNA testing for full siblings (who share two biological parents) and half siblings (who share one biological parent). The AABB RT Subcommittee provided USCIS with data<sup>11</sup> and revised standards<sup>12</sup> to assist the agency in interpreting and applying full- and half-sibling test results to adjudications. These

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<sup>5</sup> See 8 CFR 204.2(d)(2)(vi).

<sup>6</sup> Specifically, a 2008 USCIS policy memorandum provides that, “in situations where credible evidence is insufficient to prove the claimed biological relationship, officers may suggest and consider DNA testing results.” See Aytes, Michael, PM, *Genetic Relationship Testing; Suggesting DNA Tests, Revisions to the Adjudicators Field Manual (AFM) Chapter 21 (AFM Update AD07-25)*, March 19, 2008 ([http://www.uscis.gov/files/pressrelease/genetic\\_testing.pdf](http://www.uscis.gov/files/pressrelease/genetic_testing.pdf)). In such cases, a 99.5 percent statistical probability is required to establish parentage. See Cronin, Michael, Immigration and Naturalization Service PM, *Guidance on Parentage Testing for Family-Based Immigrant Visa Petitions*, July 14, 2000. ([http://connect.uscis.dhs.gov/workingresources/immigrationpolicy/Documents/Attach\\_OEFmemPlus\\_71400.pdf](http://connect.uscis.dhs.gov/workingresources/immigrationpolicy/Documents/Attach_OEFmemPlus_71400.pdf)).

<sup>7</sup> See *Matter of Ruzku*, 26 I&N Dec. 731 (BIA 2016).

<sup>8</sup> *Id.*

<sup>9</sup> The AABB was formerly the American Association of Blood Banks, but it is now known solely by its acronym.

<sup>10</sup> The AABB Relationship Testing Subcommittee includes representatives of labs accredited by the AABB.

<sup>11</sup> The AABB RT Subcommittee provided the results of a study comparing 100 groups of siblings and half siblings across relationships and loci (genetic markers indicating a specific location on the DNA strand). LabCorp, Maha et. al. 2017 unpublished. The 13<sup>th</sup> Edition of the AABB Relationship Testing Standard was supported by this study. The sibling standard is also supported by: Chang En Pu & Adrian Linacre. *Increasing the confidence in half-sibship determination based upon 15 STR loci. Journal of Forensic and Legal Medicine 15 (2008) 373–377*; and Chang En Pu & Adrian Linacre. *Systematic evaluation of sensitivity and specificity of sibship determination by using 15 STR loci. Journal of Forensic and Legal Medicine 15 (2008) 329–334.*

discussions have provided USCIS with guidance on how to supplement its sibling DNA policy, while remaining consistent with the ruling in *Matter of Ruzku*.

### **Policy**

Effective immediately, when USCIS determines that primary evidence is unavailable or unreliable, it may suggest and accept certain DNA test results as evidence of a full- or half-sibling relationship in any petition or application for an immigration benefit in which a sibling relationship is required to establish eligibility. Direct sibling-to-sibling DNA test results may serve as probative evidence of the claimed relationship, provided that certain threshold requirements, as described in this policy memorandum, are met.

### **Overview of Data Provided by the AABB**

Based on currently available scientific data, USCIS has set the standard for the probative value of full- and half-sibling DNA test results at 90 percent probability. Data indicates that setting the standard at 90 percent will capture most valid full- and half-sibling relationships, while minimizing or eliminating the potential of including any non-valid relationships. Setting the standard above 90 percent, on the other hand, would exclude many valid full- and half-sibling relationships.

A test result lower than 90 percent does not necessarily indicate the absence of the claimed sibling relationship. In fact, the scientific data suggests that a small percentage of results for full siblings may fall below a 90 percent probability of certainty, resulting in an inconclusive result, even where a valid biological relationship exists.

Data indicates that, when 20 loci<sup>13</sup> are tested, a test result below 9 percent probability conclusively excludes a valid full-sibling relationship between the parties tested. Conversely, half siblings have less DNA in common than full siblings. Setting the same standards for full and half siblings could result in false exclusions of half siblings, despite a valid biological relationship. Therefore, the agency will not consider test results for half siblings below 9 percent to exclude the claimed relationship.

### **Full- and Half-Sibling Relationship Results At or Above 90 Percent Probability**

USCIS will consider results of DNA testing conducted by an AABB-accredited lab that reflect a 90 percent probability or higher that a full- or half-sibling relationship exists as probative evidence of the claimed relationship. When an officer determines that primary evidence is unavailable or unreliable, a full- or half-sibling relationship may be considered to be independently established where a test result is 90 percent or higher, though, generally, USCIS would expect other secondary evidence or affidavit(s) to be submitted along with DNA test results.<sup>14</sup> DNA test results at or above 90 percent should always be considered with the totality of the evidence in the case record. USCIS will continue to evaluate a sibling petition under the

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<sup>12</sup> A proposed version of the AABB Relationship Testing Standards published for public comment on March 17, 2017. The 13<sup>th</sup> edition of the AABB Relationship Testing Standards became effective on January 1, 2018.

<sup>13</sup> A locus (or loci, in plural) is a genetic marker which indicates a specific location on the DNA strand.

<sup>14</sup> In some circumstances, this may include a requirement to demonstrate evidence of legitimation.

preponderance of the evidence standard, and the agency will require the petitioner to demonstrate that it is more likely than not that the claimed sibling relationship exists.

### **Full-Sibling Relationship Results Between 9 and 89 Percent Probability**

USCIS will consider a full-sibling test result to be inconclusive if it falls below 90 percent probability, but it is greater than or equal to 9 percent probability. Due to the considerable variations across inconclusive DNA test results, which can range between 9 and 89 percent, officers should not afford any evidentiary value to inconclusive results for full siblings, unless the results include an independent clarification from the AABB-accredited lab, and they demonstrate to the officer that the claimed relationship is more likely than not to exist. For example, comparisons of the test results of the petitioner and beneficiary against the test results of other relatives may lead the lab to indicate that the claimed relationship exists, even if the test results of the petitioner and beneficiary do not reach 90 percent.<sup>15</sup> Where a result is inconclusive, an officer must continue to evaluate the remaining evidence in the totality of the circumstances to determine whether the claimed relationship is more likely than not to exist.

### **Full-Sibling Relationship Results Below 9 Percent Probability**

A full-sibling test result of less than 9 percent probability is considered evidence that the claimed relationship does not exist. Where DNA test results do not support the existence of a full-sibling relationship, the officer must continue to review other evidence of the claimed relationship. In some rare cases, the remaining evidence may be sufficient to establish a half- or step-sibling relationship.

### **Half-Sibling Relationship Results Below 90 Percent Probability**

Based on the information provided by the AABB RT Subcommittee, USCIS has set a different standard for half siblings than for full siblings when test results fall below 9 percent. This distinction is intended to ensure that USCIS does not automatically exclude valid half-sibling relationships. Due to the variations within half-sibling relationship test results, any result for a half sibling below 90 percent will be deemed inconclusive. Officers should not afford any evidentiary value to an inconclusive result for a half sibling, unless the results include independent clarification from the AABB-accredited lab, and they demonstrate to the officer that the claimed relationship is more likely than not to exist.<sup>16</sup> Where a result is inconclusive, an officer must continue to evaluate the remaining evidence in the totality of the circumstances.

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<sup>15</sup> In one case, a lab was able to test the petitioner against the beneficiary and also test the petitioner and beneficiary separately against a third sibling. The test results indicated a 44.99 percent probability between the petitioner tested against the beneficiary, a 99.99 percent probability between the petitioner tested against the third sibling, and a 99.96 percent probability between the beneficiary tested against the third sibling. In evaluating these results, the lab director concluded the following: "Results such as those obtained when testing (the petitioner) against (the beneficiary) can occur even if they are truly full siblings because there is no obligate sharing of alleles in siblings like there is in a parent/child relationship...Using the basic rules of logic, there is a very strong indication that all three are full siblings. Additionally, there are no genetic loci at which four alleles would occur. If it were true that some loci displayed five or six alleles, there would have to be more than two total parents for the three tested alleged siblings. Since this is not true and the indicated Siblingship Indexes were obtained, I feel that the data indicate strongly that all three individuals share the same parents."

<sup>16</sup> For further discussion of the additional affirmation from an AABB-accredited lab, see *Full-Sibling Relationship Results Between 9 and 89 Percent Probability* and footnote 15, above.

Unlike full-sibling test results, a half-sibling test result below 9 percent does not rule out the possibility that a half-sibling relationship exists.

### **Testing Against Additional Relatives**

To the extent possible, DNA testing against the common parent(s) is encouraged, because it produces more reliable results than tests that do not include a common parent. Similarly, test results that include additional first-degree relatives, such as another sibling, will yield more conclusive results. Including additional blood relatives, such as aunts, uncles, and cousins, also produces more reliable results, particularly where a result is otherwise inconclusive. The AABB standards encourage accredited labs to recommend additional testing of relatives, where appropriate.

### **Significance of Type of Relationship Test Conducted**

The type of test conducted by the lab may also impact the ultimate result. For example, when half siblings explicitly request a half-sibling test rather than a full-sibling test, they will receive a stronger test result. Conversely, when half siblings incorrectly request a full-sibling test, they will receive skewed results. The lab may guide a customer as to which test may be appropriate after reviewing initial results. The AABB-accredited lab has sole discretion to set the parameters of the test conducted.

### **Testing Additional Locations on the DNA Strand**

USCIS guidance for test results that fall below 90 percent is based upon testing 20 loci. A locus (or loci, in plural) is a genetic marker which indicates a specific location on the DNA strand. The data provided by the AABB RT Subcommittee demonstrates that results that fall below 90 percent probability will have the strongest conclusions if they are tested to 20 loci.

Each lab report will list which loci were tested. This list can be used to obtain the number of loci tested.

In general, the officer must advise the petitioner, in writing, of the option to have the AABB-accredited lab test more loci and/or additional relatives to achieve a more accurate result when:

- The result falls below 90 percent probability and fewer than 20 loci were tested;
- The claimed relationship has not otherwise been established by a preponderance of the evidence; and
- The petitioner has not previously been advised that results will have the strongest probability if tested to 20 loci.

As USCIS does not currently have regulatory authority to require DNA testing, this notification may only suggest the option of additional testing to the petitioner. The applicant or petitioner bears the burden, however, to establish eligibility for the immigration benefit sought. INA § 291, 8 U.S.C. § 1361; *Matter of Otiende*, 26 I&N Dec. 127, 128 (BIA 2013).

The AABB RT Subcommittee has revised its standards to require accredited labs to test at least 20 loci for full- and half-sibling relationships when results appear lower than 90 percent (inconclusive or exclusionary). Results that measure at or above 90 percent will not be subject to

a minimum loci requirement. USCIS has not provided a minimum loci requirement for results that conclusively establish the existence of the claimed relationship at 90 percent or above.

### **Parent-Child Test Results**

USCIS policy on parentage testing remains unchanged. Parent-child DNA test results between one or both claimed siblings and the claimed common parent will be considered according to current policy relating to DNA testing for parent-child relationships.<sup>17</sup>

### **Step-Sibling Relationships**

Where DNA test results do not establish the validity of the claimed biological relationship, but other submitted evidence appears to support the validity of a step-sibling relationship, the officer may continue to review the relationship as a step-sibling relationship, if appropriate.

### **USCIS Guidance for Evaluating Sibling DNA Testing**

Effective immediately, when USCIS determines that primary evidence is unavailable or unreliable, it may suggest DNA testing and accept DNA test results as evidence of a full- or half-sibling relationship, provided that certain threshold requirements are met. Test results will be evaluated for probative value according to the guidance contained in the following chart.

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<sup>17</sup> The relationship between each sibling and the claimed common parent must be individually established. When one sibling's relationship to the common parent is established through primary and/or secondary evidence already contained in the record, the petitioner may only need to submit additional evidence of the claimed relationship between the other sibling and the common parent. See Aytes, Michael, PM, *Genetic Relationship Testing; Suggesting DNA Tests, Revisions to the Adjudicators Field Manual (AFM) Chapter 21 (AFM Update AD07-25)*, March 19, 2008 ([http://www.uscis.gov/files/pressrelease/genetic\\_testing.pdf](http://www.uscis.gov/files/pressrelease/genetic_testing.pdf)) for additional information on the use of DNA testing to establish a parent-child relationship.

<b>DNA Test Result</b>	<b>Full-Sibling Interpretation</b>	<b>Half-Sibling Interpretation</b>
<b>90% or higher</b> <sup>18</sup>	<b>Relationship Supported</b> – Probative evidence that the claimed relationship exists.	<b>Relationship Supported</b> – Probative evidence that the claimed relationship exists.
<b>9% to 89%</b> <sup>19</sup>	<b>Inconclusive Result</b> – By itself, the test result is not sufficient to establish the claimed relationship without additional affirmation from an AABB-accredited lab. <sup>20</sup>	<b>Inconclusive Result</b> – By itself, the test result is not sufficient to establish the claimed relationship without additional affirmation from an AABB-accredited lab. <sup>21</sup>
<b>Below 9%</b> <sup>22</sup>	<b>Relationship Not Supported</b> – Probative evidence that the claimed relationship does not exist.	<b>Inconclusive Result</b> – By itself, the test result is not sufficient to establish the claimed relationship without additional affirmation from an AABB-accredited lab. <sup>23</sup>  In contrast to full-sibling results, this result for half siblings does not necessarily mean the claimed relationship does not exist.

### Implementation

☞ 1. Chapter 21.9(c) of the AFM is revised as follows:

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#### (1) Evidence.

(A) The documentation required to establish a sibling relationship varies and depends entirely on the common parent(s) through whom the relationship occurs. Therefore, officers should carefully review the supporting documents to ensure that both the petitioner and beneficiary have a parent-child relationship with the claimed common

<sup>18</sup> This does not require testing to 20 loci.

<sup>19</sup> This assumes testing to 20 loci; this row includes results between 89 and 89.99 percent.

<sup>20</sup> For further discussion of the additional affirmation from an AABB-accredited lab, see *Full-Sibling Relationship Results Between 9 and 89 Percent Probability* and footnote 15, which was detailed on page 4.

<sup>21</sup> For further discussion of the additional affirmation from an AABB-accredited lab, see *Half-Sibling Relationship Results Below 90 Percent Probability* and footnote 15, which was detailed on page 4.

<sup>22</sup> This assumes testing to 20 loci.

<sup>23</sup> For further discussion of the additional affirmation from an AABB-accredited lab, see *Half-Sibling Relationship Results Below 90 Percent Probability* and footnote 15, which was detailed on page 4.

parent(s), as defined at INA § §101(b)(1-2). The following sections of the regulations discuss the primary or secondary evidence necessary to support a petition for a sibling, depending on the nature of the sibling relationship:

- **8 CFR 204.2(g)(2)(i)** – primary evidence, if the siblings share a common mother or are the legitimate children of a common father;
- **8 CFR 204.2(g)(2)(ii)** – primary evidence, if either or both siblings are legitimated;
- **8 CFR 204.2(g)(2)(iii)** – primary evidence, if either sibling is illegitimate;
- **8 CFR 204.2(g)(2)(iv)** – primary evidence for step-siblings; and
- **8 CFR 204.2(d)(2)(v) and (vi)** – secondary evidence of parent-child relationships.

(B) DNA Evidence. When USCIS determines that primary evidence is unavailable or unreliable, it may suggest and accept DNA test results as evidence of a full-sibling relationship (where siblings share two biological parents) or a half-sibling relationship (where siblings share one biological parent). Test results should be evaluated for probative value according to the guidance contained in the chart below. Please note that there are currently no regulations requiring a petitioner or beneficiary to submit DNA test results.

#### Overview of Guidance for Sibling DNA Test Results

DNA Test Result	Full-Sibling Interpretation	Half-Sibling Interpretation
90% or higher <sup>24</sup>	<b>Relationship Supported</b> – Probative evidence that the claimed relationship exists.	<b>Relationship Supported</b> – Probative evidence that the claimed relationship exists.
9% to 89% <sup>25</sup>	<b>Inconclusive Result</b> – By itself, the test result is not sufficient to establish the claimed relationship without additional affirmation from an AABB-accredited lab. <sup>26</sup>	<b>Inconclusive Result</b> – By itself, the test result is not sufficient to establish the claimed relationship without additional affirmation from an AABB-accredited lab. <sup>27</sup>
Below 9% <sup>28</sup>	<b>Relationship Not Supported</b> – Probative evidence that the claimed relationship does not exist.	<b>Inconclusive result</b> – By itself, the test result is not sufficient to establish the claimed relationship without

<sup>24</sup> This does not require testing to 20 loci.

<sup>25</sup> This assumes testing to 20 loci. This row includes results between 89 and 89.99 percent.

<sup>26</sup> For further discussion of the additional affirmation from an AABB-accredited lab, see *Full-Sibling Test Results Between 9 and 89 Percent Probability are Inconclusive Evidence of the Claimed Relationship*, as detailed below.

<sup>27</sup> For further discussion of the additional affirmation from an AABB-accredited lab, see *Half-Sibling Test Results Below 90 Percent Probability are Inconclusive Evidence of the Claimed Relationship*, as detailed below.

<sup>28</sup> This assumes testing to 20 loci.



		<p>additional affirmation from an AABB-accredited lab.<sup>29</sup></p> <p>In contrast to full- sibling results, this result for half siblings does not necessarily mean the claimed relationship does not exist.</p>
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**Full- and Half-Sibling Test Results Demonstrating 90 Percent Probability or Higher are Probative Evidence of the Claimed Relationship**

Adjudicators must consider DNA test results reflecting 90 percent probability or higher to be probative evidence of a full- or half-sibling relationship. When an officer determines that primary evidence is unavailable or unreliable, the officer may consider DNA test results reflecting 90 percent probability or higher as sufficient to establish the claimed relationship and forego securing additional evidence. However, petitioners are generally expected to submit other available evidence of the claimed sibling relationship (such as primary evidence, secondary evidence, affidavits, or an explanation as to why it is not possible to submit additional evidence) and evidence of legitimation or a bona fide father-child relationship, if necessary. Generally, a Request for Evidence (RFE) or Notice of Intent to Deny (NOID) will not be required for additional explanation or evidence of the relationship when the record contains a probative DNA test result. Where evidence is submitted in addition to DNA test results, adjudicators must consider all evidence in the totality of the circumstances. While a DNA test result may indicate that a relationship is supported, any other evidence to the contrary must also be considered.

**Full-Sibling Test Results Between 9 and 89 Percent Probability are Inconclusive Evidence of the Claimed Relationship**

USCIS considers DNA results reflecting less than 90 percent, but greater than or equal to 9 percent probability, to be inconclusive evidence of a full-sibling relationship. A valid full-sibling relationship may exist, even when a DNA test result reflects less than 90 percent probability. However, due to the significant variation between inconclusive results, officers should not consider inconclusive results to either support or weaken the case for the existence of the claimed relationship, unless the results include independent clarification from the AABB-accredited lab that demonstrates to the officer that the claimed relationship is more likely than not to exist. For example, comparisons of the test results of the petitioner and beneficiary against the test results of other relatives may lead the lab to indicate that the claimed relationship exists, even if the test results of the petitioner and beneficiary do not reach 90 percent.<sup>30</sup> Where a result is

<sup>29</sup> For further discussion of the additional affirmation from an AABB-accredited lab, see *Half-Sibling Test Results Below 90 Percent Probability are Inconclusive Evidence of the Claimed Relationship*, as detailed below.

<sup>30</sup> In one case, a lab was able to test the petitioner against the beneficiary and also test the petitioner and beneficiary separately against a third sibling. The test results indicated a 44.99 percent probability between the petitioner tested against the beneficiary, a 99.99 percent probability between the petitioner tested against the third sibling, and a

inconclusive, an officer must continue to evaluate the remaining evidence in the totality of the circumstances to determine whether the claimed relationship is more likely than not to exist.

### **Full-Sibling Test Results Below 9 Percent Probability Demonstrate that the Claimed Relationship Does Not Exist**

USCIS considers DNA results for full siblings reflecting less than 9 percent probability to be exclusionary, or as evidence that the claimed full-sibling relationship does not exist. Where DNA test results do not support the existence of a full-sibling relationship, the officer must continue to review other evidence of the claimed relationship. In some rare cases, the remaining evidence may be sufficient to establish a half-sibling or step-sibling relationship.

### **Half-Sibling Test Results Below 90 Percent Probability are Inconclusive Evidence of the Claimed Relationship**

Due to the considerable variations in DNA test results for valid half-sibling relationships, USCIS considers half-sibling test results reflecting less than 90 percent probability to be inconclusive for immigration purposes. While an inconclusive result does not necessarily indicate that the claimed relationship does not exist, officers should not consider inconclusive results for half siblings to either support or weaken the case for the existence of the claimed relationship, unless the results include independent clarification from the AABB-accredited lab, and they demonstrate to the officer that the claimed relationship is more likely than not to exist.<sup>31</sup> Where a result is inconclusive, an officer must continue to evaluate the remaining evidence in the totality of the circumstances. Unlike full-sibling test results, a half-sibling test result below 9 percent does not rule out the possibility that the claimed half-sibling relationship exists.

### **Encouraging Testing Against Additional Family Members**

Direct sibling-to-sibling testing is normally performed when it is not possible to test against the common parent(s). Some labs have reported that, when a DNA test is conducted for immigration purposes, the lab may incorrectly believe that it can only test the individuals named on the petition. However, where the claimed sibling relationship is valid, testing against additional family members improves the likelihood of test results, and thereby reduces the need to issue additional RFEs, NOIDs, or denials. The AABB standards encourage accredited labs to recommend testing against additional relatives, as appropriate.

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99.96 percent probability between the beneficiary tested against the third sibling. In evaluating these results, the lab director concluded the following: “Results such as those obtained when testing (the petitioner) against (the beneficiary) can occur even if they are truly full siblings because there is no obligate sharing of alleles in siblings like there is in a parent/child relationship...Using the basic rules of logic, there is a very strong indication that all three are full siblings. Additionally, there are no genetic loci at which four alleles would occur. If it were true that some loci displayed five or six alleles, there would have to be more than two total parents for the three tested alleged siblings. Since this is not true and the indicated Siblingship Indexes were obtained, I feel that the data indicate strongly that all three individuals share the same parents.”

<sup>31</sup> For further discussion of the additional affirmation from an AABB-accredited lab, see *Full-Sibling Test Results Between 9 and 89 Percent Probability are Inconclusive Evidence of the Claimed Relationship*, as detailed above.

Including additional family members, particularly first-degree relatives, such as parents and other siblings, or second-degree relatives, such as aunts, uncles, and cousins, in the testing may produce more conclusive results. Therefore, when an RFE or NOID includes a suggestion to undergo voluntary DNA testing, officers should suggest that the petitioner include additional relatives, particularly the shared parent(s), if possible.

### **Significance of Type of Relationship Test Conducted**

The type of test conducted by the lab may also impact the ultimate result. For example, when half siblings explicitly request a half-sibling test rather than a full-sibling test, they will receive a stronger test result. Conversely, when half siblings incorrectly request a full-sibling test, they will receive skewed results. The lab may guide a customer as to which test may be appropriate after reviewing initial results. The AABB-accredited lab has sole discretion to set the parameters of the test that will be conducted.

### **Loci Tested in Sibling Relationships**

USCIS guidance for test results that fall below 90 percent is based upon testing at 20 loci. A locus (or loci, in plural) is a genetic marker which indicates a specific location on the DNA strand. Test results that fall below 90 percent probability have the strongest conclusions if they show 20 loci were tested. Each lab report indicates by name which loci have been tested and, thereby, displays the number of loci tested.

In January 2018, the AABB Relationship Testing Subcommittee revised its standards to require accredited labs to test at least 20 loci for full- and half-sibling relationships where results appear lower than 90 percent (inconclusive or exclusionary). Results that measure at or above 90 percent will not be subject to a minimal loci requirement.

Where DNA testing was conducted after January 1, 2018, (the effective date of the 13<sup>th</sup> edition of the AABB standards) officers will not need to verify the number of loci tested. However, when evaluating a result that was conducted before January 1, 2018, officers will need to verify the number of loci tested, if a result falls below 90 percent probability. In general, the officer must advise the petitioner, in writing, of the option to request that the AABB-accredited lab test to 20 loci and/or test against additional relatives to improve the accuracy of results when:

- The result falls below 90% probability and fewer than 20 loci were tested;
- The claimed relationship has not otherwise been established by a preponderance of the evidence; and
- The petitioner was not previously advised that results will have the strongest probability if tested to 20 loci.

### **Parent-Child Test Results**

USCIS policy on parentage testing remains unchanged. Parent-child DNA test results between one or both claimed siblings and the claimed common parent will be

considered according to current policy relating to DNA testing for parent-child relationships.<sup>32</sup>

### Step-Sibling Relationships

When DNA test results do not establish the validity of the claimed relationship, but other evidence appears to support a step-sibling relationship, the officer may continue to review the relationship as a step-sibling relationship, if appropriate. For example, if a petitioner submits DNA test results that exclude the possibility of a biological relationship, but the file contains evidence, such as marriage certificates or birth certificates, that indicate the existence of a step-sibling relationship, the adjudicator may evaluate the relationship as a step-sibling relationship.

☞ 2. The AFM **Transmittal Memoranda** button is revised by adding a new entry, in numerical order, to read:

PM-602-0106.1 [April 17, 2018]	<b>Chapter 21.9(c)</b>	Articulates USCIS policy on acceptance of DNA evidence in support of sibling relationships.
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### Use

This PM is intended solely for the guidance of USCIS personnel in the performance of their official duties. It is not intended to, does not, and may not be relied upon to create any right or benefit, substantive or procedural, enforceable at law or by any individual or other party in removal proceedings, in litigation with the United States, or in any other form or manner.

### Contact Information

Questions or suggestions regarding this PM should be addressed through appropriate channels to the Office of Policy and Strategy.

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<sup>32</sup> The relationship between each sibling and the claimed common parent must be individually established. When one sibling's relationship to the common parent is established through primary and/or secondary evidence already contained in the record, the petitioner may only need to submit additional evidence of the claimed relationship between the other sibling and the common parent. See Aytes, Michael, PM, *Genetic Relationship Testing; Suggesting DNA Tests, Revisions to the Officers Field Manual (AFM) Chapter 21 (AFM Update AD07-25)*, March 19, 2008 ([http://www.uscis.gov/files/pressrelease/genetic\\_testing.pdf](http://www.uscis.gov/files/pressrelease/genetic_testing.pdf)) for additional information on the use of DNA testing to establish a parent-child relationship.