DNA Identifies a Father for Rachel, Wife of James Lee of Huntingdon County, Pennsylvania

By Patricia Lee Hobbs, CG

Autosomal DNA testing may corroborate or refute lines suggested by mutual surnames. There is more to it than just matching names, however. What if there are no names to match?

ot all thorough genealogical research generates productive clues. Autosomal DNA testing results help establish biological relationships within five generations. As genetic genealogy databases grow, unsuspected and welcome statistical matches may point to possible connections.

When DNA tests produce overlapping DNA segments, researchers typically search the test-takers' lineages for surnames in common. But what if no surnames and no indirect evidence are available? Valid identifications require careful attention to geographical locations and associations, especially when we attempt to name the nameless.

NO TRADITIONAL CLUES

Traditional genealogical research failed to identify the parents of James Lee's wife, Rachel. Four records name her. Rachel's gravestone, standing next to James's in Huntingdon County, Pennsylvania, says she died on 10 February 1843.¹ Two deeds and a marriage record identify Rachel as James's wife:

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^{1.} McConnellstown Cemetery (Huntingdon Co., Pa.), Route 26, Walker Twp., James Lee and Rachel Lee gravestones; read by author in June 2007. Rachel's inscription is badly worn, but enough survives to confirm a 1932 transcription. See Adella Fink Spangler, Spangler Notebook 61–2, p. 126 (list of burials at McConnellstown Cemetery, 1932); Spangler Collection, Pennsylvania Room, Centre County Library and Historical Museum, Bellefonte, Pa.

- In 1817 James and Rachel Lee sold half the land left by James's father.²
- In 1835 they sold property to their son John.³ When James sold more property to John in 1844, a year after Rachel died, she was not a party to the deed.⁴
- In 1854 daughter Mary married Annas Woolheater, creating a rare pre-1885 government-recorded Pennsylvania marriage. Mary T. Lee's parents are given as James Lee and Rachel Lee, both deceased.⁵ Mary was born in 1823–26.⁶

James and Rachel likely married in Huntingdon County around 1808, long before Pennsylvania required marriage records.⁷ No indexed church marriage record exists.⁸ No newspaper account of their marriage or deaths seems to exist.⁹

In 1810 their eldest child, John, born in January 1809, was the only child in their household, in Warriors Mark Township, Huntingdon County.¹⁰ His age helps estimate when his parents married. By 1814 they were in Hopewell Township on

6. Find A Grave (http://findagrave.com/cgi-bin/fg.cgi), memorial 86217818, digital image of Mary T. Woolheater gravestone (McConnellstown Cemetery, Huntingdon Co., Pa.), 4 March 2012, by Karen Miller. The inscription gives her birth as 18 December 1826. Also, Huntingdon Co., Death Register 1894–1905, p. 181, no. 97, Mary T. Wolheater (1897); Orphans Court, Huntingdon, giving Mary's age as 74 years, 2 months. Also, Huntingdon Co., Will Book 5:29, James Lee will, 3 January 1848, proved on 25 April 1848; Orphans' Court, Huntingdon. James listed Mary and other apparent children.

7. Alice Eichholz, ed., Ancestry's Red Book: American State, County and Town Sources, rev. ed. (Salt Lake City: Ancestry, 1992), 620–21.

8. Church and Cemetery Records Huntingdon County Areas Pennsylvania (Huntingdon, Pa.: Standing Stone NSDAR, ca. 1963, 1970). This contains Presbyterian records from the county's various congregations.

9. Huntingdon County Historical Society (HCHS), index cards of deaths and marriages from local newspapers; HCHS, Huntingdon, Pa. Also, "Juniata College: Huntingdon County Historical Newspaper Collection," *Power Library: Pennsylvania's Electronic Library* (http://www.accesspadr.org /cdm/landingpage/collection/ajuncnews), search for "Addleman," date range of 1806–January 1810. Twelve results for John or William Addleman involved letters at the post office or unpaid taxes, in 1809. The alternate spelling "Attleman" produced no results.

10. 1810 U.S. census, Huntingdon Co. Pa., Warriors Mark Twp., p. 1, J. Lee; microfilm publication M252, roll 51, National Archives and Records Administration (NARA), Washington, D.C. Also, Huntingdon Co., Will Book 5:29, James Lee, 1848, names James's son John. Also, McConnellstown Cemetery, John Lee gravestone, viewed June 2007. John died in 1875 at age 66 years, 2 months, 5 days.

^{2.} Huntingdon Co., Pa., Record Book P-1:300, Lee to Lee, 20 March 1817; Recorder of Deeds, Huntingdon. The chain of title is described.

^{3.} Ibid., D-2:568, Lee to Lee, 17 December 1835. The description gives the property's chain of title.

^{4.} Ibid., E-2:240, Lee to Lee, 17 May 1844.

^{5.} Clarion Co., Pa., Marriage Register 1852–1854, p. 28, no. 113, Woolheter and Lee, 4 March 1854; Recorder of Deeds, Clarion. The book is untitled, but a transcription of the act appears at its front: "An act to provide for a registration of marriages, births and deaths," *Laws of the General Assembly of the Commonwealth of Pennsylvania Passed at the Session of 1852* (Harrisburg: the State, 1852), 2–7. This law was repealed in 1855. See "Guide to Marriage Records," *Chester County, Pennsylvania, Archives* & Record Services (http://www.chesco.org/DocumentCenter/View/5828).

property James inherited from his father, Robert.¹¹ Their daughter Elizabeth (Lee) Thompson, born about 1812, named children James Lee Thompson and Rachel Thompson.¹² The Lees' deeds included no land that Rachel had inherited.

From ages reported in 1810–40, James's wife was born in 1784–90, consistent with Rachel's calculated birthdate, 5 November 1789.¹³ No evidence suggests James had married anyone else before 1843, when Rachel died.¹⁴ Rachel's birth in the late 1780s and death in 1843 are insufficient to link her to a natal family. More is needed.

DNA CLUES

A documented descendant of James and Rachel shares significant amounts of autosomal DNA (atDNA) with two other atDNA tested descendants of Caleb and Mary (Addleman) Thompson of Warriors Mark.¹⁵ See figures 1-3 for diagrams. The township's historically small population makes the location genealogically useful.¹⁶ Further atDNA statistical matches confirm common Addleman ancestry.

Andrew Addleman of Warriors Mark

Andrew Addleman of Warriors Mark died in 1795, when the child who would grow up to be Rachel Lee was about six years old. He left five minor children:

13. Spangler, Spangler Notebook 61-2, 126 (McConnellstown Cemetery survey). Rachel's age at death was transcribed in 1932 as "53 y, 3 m, 5 d." Also, 1810 U.S. census, Huntingdon Co., Pa., Warriors Mark Twp., p. 1, J. Lee. Also, 1820 Huntingdon Co., Pa., Hopewell Twp., p. 26, James Lee; NARA microfilm M33, roll 104. Also, 1830 U.S. census, Huntingdon Co., Pa., Walker Twp., p. 109, James Lee; NARA microfilm M19, roll 166. A notation by James's name gives "Hopewell T." Also, 1840 U.S. census, Huntingdon Co., Pa., Hopewell Twp., p. 145, James Lee; NARA microfilm M704, roll 462.

14. 1810 U.S. census, Huntingdon Co., Pa., Warriors Mark Twp., p. 1, J. Lee. Year of marriage is roughly estimated from family composition of only one child in 1810.

15. The first statistical matches were found on FTDNA and moved to *GEDMatch.com* (http://www.GEDMatch.com), were Deborah Lee (kit T302206, a James and Rachel Lee descendant), Jim Harvey (son of Elizabeth Dudas, kit A895486), and Laura Kraemer (kit T246863).

16. The 1800 census shows 211 families living in the township, 92 in 1810, 143 in 1820, and 198 in 1850. See U.S. censuses, Huntingdon Co., Pa., Warriors Mark Twp., for 1800 (NARA microfilm M32, roll 40), 1810, 1820, and 1850 (M432, roll 784).

^{11.} Huntingdon Co., Hopewell Township Tax List, 1814, p. 375, James Lee; microfilm 1,148,578, Family History Library (FHL), Salt Lake City. Hopewell and Warriors Mark tax lists begin in 1788; James first appears in 1814. The author examined Hopewell Twp. Lists for 1788–1822 and Warriors Mark Twp. Lists for 1798–1833, both on FHL microfilm 1,148,581. Also, Huntingdon Co., Wills 1:216–18, Robert Lee, 21 June 1803. Robert left real estate to his son, James.

^{12.} Bond Co., Ill., Death Record B:148, no. 216, Elizabeth Thompson, 23 December 1893; Co. Clerk's office, Greenville, gives Elizabeth's age as 81 years. Also, Bond Co., estate files, box 242, for Elizabeth Thompson and Elvira Hooper, Petition for Letters of Administration, 9 January 1894; Circuit Court, Greenville, names Rachel as a deceased daughter. Also, ibid., Jeffres Thompson will, 31 May 1876. Jeffries ties this Illinois family back to Pennsylvania by naming Mary Johnson of Clarion Co., Pa. Elizabeth's husband calls him James L. Thompson. Also, Huntingdon Co., Will Book 5:29, James Lee, 1848. Also, "Obituary of James Lee Thompson," *Chase County Leader* (Cottonwood Falls, Kans.), 14 December 1927.

William, Margaret, Sarah, Andrew, and Rachel.¹⁷ In 1812 their grandfather John M. Addleman named his deceased son Andrew's seven children, including Rachel, omitting their last names. He stipulated that they were to receive the proceeds from sale of his Warriors Mark land.¹⁸ Andrew's daughter Rachel Addleman was a minor in 1795 and living seventeen years later. Was she James Lee's wife?

Andrew Addleman's Children

Andrew Addleman's oldest children were John, born in April 1773; Mary, born in early 1777; and William, born in April or May 1779.¹⁹ The petition for the younger children's guardian sequenced them as Margaret, Sarah, Andrew, and Rachel.²⁰ Their grandfather listed them in two sequences with Rachel last.²¹ She probably was the youngest. In 1795 all four were under fourteen.²² Thus, the eldest was born no earlier than 1781. With two-year spacings between children, the youngest, likely Rachel, was born no earlier than 1785.

Rachel Addleman was the right age to be Rachel Lee. Rachel Lee was born in 1789. Her husband, James Lee, was over fourteen and under twenty-one on 13

18. For all seven children, see "Pennsylvania Probate Records, 1683–1994," *FamilySearch* (https://familysearch.org/search/film/005534147), digital film 005534147, image 591, Chester Co., Pa., Will Book M (vol. 12): 82–83, John Addleman, 2 March 1812. The probate file—consisting of the original will, inventory, and an account—offers no further identification of the names of Andrew's children. See Chester Co., probate file 6066, John M. Addleman (1812); Chester County Archives, West Chester.

19. Robert P. Addleman, The American Addlemans: German Immigrants to Pennsylvania (Apollo, Pa.: Closson, 1991), beginning at page 67. Marriages for the daughters are unknown. The author is a DNA test-taker. For Mary (Addleman) Thompson's maiden name and Huntingdon County origin, see the biography of her son Philip J. Thompson in Commemorative Biographical Record of Central Pennsylvania including the Counties of Centre, Clearfield, Jefferson, and Clarion Containing Biographical Sketches of Prominent Citizens, etc. (Chicago: Beers, 1898), 1604. For John, see Find A Grave, memorial 61910385, digital image of John Michael Addleman gravestone (Burket Cemetery, Warriors Mark, Pa.), 24 October 2013, by Robert Addleman. The stone is broken, but a significant portion survives. A 1933 transcription says "Jno. M. Addleman d. June 15, 1859, 86 y. 1 m. 25 d." See Spangler, Spangler Notebook 61-1, p. 57 (list of burials at the Methodist Episcopal Cemetery now known as Burket Cemetery). For Mary, see Phipps Cemetery (Knox Twp., Clarion Co., Pa.), "Mary Wife of Caleb Thompson" headstone; photographed by author in July 2015. The inscription says 77 years, 4 months, and [1]8 days old on 29 May 1854. Her age in 1850 dates her birth a year later. See 1850 U.S. census, Venango Co., Pa., Pinegrove Twp., p. 76, dwelling/family 28, Mary Thompson; NARA microfilm M432, roll 832. Also, Huntingdon Co., Orphans' Court Docket A:49, William Addleman, petition for a guardian, 8 September 1795. William's age was 16 years, 4 months.

- 20. Addleman, petition for guardian for minor heirs, 8 September 1795.
- 21. Chester Co., probate file 6066, John M. Addleman (1812).
- 22. Addleman, petition for guardian appointments for minor heir, 8 September 1795.

^{17.} Huntingdon Co., Orphans Court file A, no. 48, John Addleman, petition to appoint guardian for minor heirs of Andrew Addleman, deceased, 8 September 1795 and file A no. 47, petition of William Addleman to have guardian appointed for himself, naming William, Margaret, Sarah, Andrew, and Rachel Addleman, minor heirs of Andrew Addleman. File A, no. 47, is not dated, but Orphans Court Docket A:49 shows 8 September 1795, for the same event. Andrew, minor child of Andrew who died in 1795, does not appear after 1812 and left no known descendants with DNA matches. All further references to "Andrew Addleman" refer to the father who died in 1795.

September 1803, when he petitioned to choose a guardian. He was sixty-one at death in 1848 so born in $1787.^{23}$

LEE AND ADDLEMAN ASSOCIATIONS

Associations between Lees and Addlemans, although scant, extend for decades. In 1823 John Addleman witnessed an agreement for James Lee and his mother. On 11 August 1831 John swore he saw James, Elizabeth Lee, and Azariah Sackett sign.²⁴

In 1810 "J[ames] Lee" was enumerated in Warriors Mark, between "W Attleman" and, three households away, "J Addleman." D[avid] Sackett, A[zariah] Sackett, and A[nthony] Masters[on] are listed nearby.²⁵ No deeds exist for Andrew Addleman.²⁶ In 1795, however, Anthony Masterson bought property and Andrew was a neighbor.²⁷

The name of James and Rachel's son Andrew does not come from the Lee side of the family. James had only one brother, Robert Lee.²⁸ Perhaps Andrew, son of James and Rachel, was named for Rachel Addleman's father.²⁹ Andrew Lee and his brother John lived near Rachel Addleman's brother William.³⁰ Without atDNA test results, these almost casual connections might signify only neighborly interaction.

23. Huntingdon Co., Orphans Court file D, no. 68, James Lee petition for guardian, 13 September 1803. Also, Spangler, Spangler Notebook 61-2, p. 126, list of burials at McConnellstown Cemetery.

24. Huntingdon Co., Will Book 1:216-19, Robert Lee will, 30 August 1819. He left a bequest to his mother. Also, Huntingdon Co., Record Book W-1:464–65, evidence of contract between Elizabeth Lee and James Lee, recorded 11 August 1831; Recorder of Deeds, Huntingdon.

25. Knowledge of the names of these people comes from searches in court and tax records that show no other Lee family in the county to 1830. See Huntingdon Co., Grantor Index to Deeds L–M (Sept. 20, 1787 to Dec. 31, 1986); Grantee Index to Deeds L–M (Sept. 20, 1787 to Dec. 31, 1986); search in all given names; Index to Wills [&] Letters of Administrations, no Lee entries other than Robert Lee Sr., Robert Lee Jr., and James Lee through 1862; Continuance Docket A-1 through M-1 [1787–1829], indexed; Tax Assessment Lists for 1800–1820 for the townships of Barree, Huntingdon, West, Union, Hopewell, Dublin, Shirley, Springfield, Tell, Tyrone, Franklin, Warriors Mark, Morris, Woodberry on FHL microfilms 2243413, 2243313, 1148578–1148581.

26. Huntingdon Co., Grantor Index and Grantee Index to Deeds A–B (Sept. 20, 1787 to Dec. 31, 1986). The author examined given names starting with "A."

27. Huntingdon Co., Record Book I-1:177–78, Massey to Masterson, 2 November 1795. Property description begins, "beginning at the North easterly corner of Andrew Addleman land."

28. Huntingdon Co., Will Book 1:216-19, Robert Lee will, 21 June 1803.

29. Ibid., 5:29, James Lee will, 3 January 1848.

30. Centre Co., Pa., Deed Book A-2:538, John and Eliza Lee to Azariah Sackett, 17 December 1835; Recorder of Deeds, Bellefonte. The unrecorded purchase is described in the sale. Also, Centre Co., tax list for 1838, section after alphabetical list for occupation taxes, Andrew Lee, wagon maker; Centre County Library and Historical Museum. Photocopies of the originals are bound in volumes. This list is in volume "Halfmoon Township 1831–1838." Also, "In Memoriam," *Clarion Democrat* (Clarion, Pa.), 20 October 1887, page 4, col. 4. Also, Centre Co., tax list, 1829, certified by assessors in October–December 1828, arranged alphabetically by first letter of surname, William Addleman; photocopies of originals bound into volume titled "Halfmoon Township 1820–1830." Also, "Pennsylvania, Land Warrants and Applications, 1733–1952," *Ancestry* (http://interactive.ancestry.com/2350/33019_b078820-00040), digital image of entry for William Addleman, Centre Co., 2 January 1854. William lived in Clearfield County in 1850. See 1850 U.S. census, Clearfield Co., Pa., Penn Twp., p. 702, dwell./ fam. no. 955, William Adleman; NARA microfilm M432, roll 768.

DNA EVIDENCE OF KINSHIP

Children receive about one-quarter of their atDNA from each grandparent. Because pairs of autosomal chromosomes recombine in unique ways for every child, each sibling inherits different combinations and percentages of grandparental atDNA. This makes siblings' atDNA useful.

Current technology allows genealogists to identify DNA segment origins by noting overlapping segments from other documented or hypothesized descendants.³¹ Triangulation is when at least three people with a common ancestor share an atDNA segment.³² Triangulation limits misattributing descent from the wrong ancestor.

Strong cases emerge when two test-takers share multiple segments and when several test-takers share one segment. Because ancestral atDNA is halved on average at each generation, however, a descendant after five generations may have no atDNA from one great-great-grandparent.³³ Fourth cousins, sharing common ancestry five generations back, have less than a 0.2 percent chance of sharing atDNA.³⁴ Testing many descendants of an ancestral couple reduces this limitation.

A match through other shared ancestry may happen if an ancestor is unidentified or misidentified. Here, fairly large numbers of triangulated matching segments through other Addleman descendants makes misidentification unlikely.

Figure 1 shows three descents from Andrew Addleman's father, John. Figures 2 and 3 expand two of those descents to further generations. They present sibling test-takers together as being of the same descent. Several of Rachel Lee's descendants share Goodman descents, accounting for some of their shared atDNA. The figures show only the segments shared with Addleman descendants.

Figures 4–12 show the test-takers' overlapping segments.³⁵ These demonstrate where Rachel Lee descendants share atDNA at reliable levels with Addleman

31. Matching segment data is no less than half-identical regions at 7 centimorgans (cMs) within 700 single nucleotide polymorphisms (SNPs) on the same chromosome and in the same location on that chromosome. For updates, see *The Genetic Genealogy Standards* (http://www.geneticgenealogystandards .com/). Also, *International Society of Genetic Genealogists*, "Autosomal DNA Match Thresholds" (https://isogg.org/wiki/Autosomal_DNA_match_thresholds). Certified labs set these parameters.

32. Jim Bartlett, "Does Triangulation Work?," *Segment-ology* (https://segmentology. org/2015/10/19/does-triangulation-work/). See Triangulation Criteria section. Also, Blaine Bettinger, "A Triangulation Intervention," *The Genetic Genealogist* (http://thegeneticgenealogist .com/2016/06/19/a-triangulation-intervention/).

33. Luke Jostins, "How Many Ancestors Share Our DNA?" *Genetic Inference* (http://www.genetic inference.co.uk/blog/2009/11/how-many-ancestors-share-our-dna/).

34. Ibid..

35. Autosomal DNA analysis, on-request reports, *GEDmatch.com: Tools for DNA and Genealogy Research*, "one-to-one" comparisons among kits T034871 (Addleman), A586040 (Grigaliunas), A003214 (DeRue), A767691 (Goodman), A273786 (Salada), A527181 (Glidden), T246863 (Kraemer), M329448 (Freeman), A794638 (Turko), A212000 (Graham), T514993 (Hobbs), T664909 (Polk), T302206 (Lee), T639731 (Moore), T530336 (Miller), A134442 (Seedorf), and T667572 (Witter). *Ancestry* tested kits A586040, A003214, A767691, A273786, A527181, A794638, A212000, A134442; *FamilyTreeDNA* tested kits T034871, T246863, T514993, T664909, T302206, T639731, T530336, T667572; and *23andMe* tested kit M329448.

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descendants and identify each set of overlapping segments with its chromosome number and each segment's start and end points. These are significant because:

- They show only segments with values over 7 centimorgans (cMs).³⁶
- The smallest number of single nucleotide polymorphisms (SNPs) in any of the matching segments is 1072.³⁷ (The figures do not show SNP counts.)

Figures 4–12 show offset matching segments because one segment has different beginning and endpoints. Because cM is not a strict measure of length, adding and subtracting them would mislead. Therefore, those figures show a plus to signify that the segment is longer than shown.



^{36.} Segments greater than 7 cM were found to be identical by descent 90 per cent of the time in Brenna M. Henn, et al., "Cryptic Distant Relatives are Common in Both Isolated and Cosmopolitan Genetic Samples," *PLOS One* (http://www.plosone.org), published 3 April 2012, see figure 6.

^{37.} The triangulated segment on chromosome 3 includes Grigaliunas's smallest segment with only 1072 SNPs. See figure 4.





Rachel, Wife of James Lee of Huntingdon County, Pennsylvania

				F	igure	e 4									
Triangulated Matches on Chromosome 3 Rachel Lee Descendant (R) and John Addleman Descendants (J)															
Chromosome 3	Start	End	cMs	164	166	168	170	172	174	176	178	180	182	184	
Moore [R] Grigaliunas [J] Addleman [J]	165.2 165.2 173.4	184.7 184.7 178.4	21.7 21.7 7.6	;											

Figure 5												
Triangulated Matches on Chromosome 11 Rachel Lee Descendant (R) and William Addleman Descendants (W)												
Chromosome 11	Start End	Ms 80 82 84 86 8	88 90 92 94 96 98 100 102 104									
Graham [W] Moore [R] Freeman [W]	81.8 103.4 81.8 103.4 102.0 178.4	7.5 7.5 3.6										

Figure 6 Triangulated Matches on Chromosome 16A Rachel Lee Descendant (R), John Addleman Descendant (J), and WilliamAddleman Descendant (W)																	
Chromosome 16A	Start	End	cMs	54	56	58	60	62	64	66	68	70	72	74	76	78	80
Moore [R] Addleman []]	54.3 54.3	80.0 79.0	31.5+ 31.5														
Graham and Turke [W]	67.8	80.0	20							I							

Figure 7												
Triangulated Matches on Chromosome 16B Rachel Lee Descendant (R), John Addleman Descendant (J), and Mary Addleman Descendant (M)												
Chromosome 16B Start End cMs 82 82.5 83 83.5 84 84.5 85 85.5 86 86.5 87												
Hobbs, Lee, Moore, Polk [R] 82.0 87.0 17.5 Addleman [J] 82.0 87.0 17.5 DeRue [M] 82.0 85.8 15.3												
Figure 8												
Triangulated Matches on Chromosome 17 Rachel Lee Descendant (R) and Mary Addleman Descendants (M)												
Chromosome 17 Start End cMs 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40												

Cinomosonic 17	Start	Linu	C1415	10	12 1	T 10	10	20	 47	20	20	50	54	54	50	50-	rU
Lee [R]	11.2	39.0	30.7 +	· 1													
Dudas [M]	11.2	31.4	30.7														
Glidden [M]	24.9	39.0	17.1														
L																	

Triangulated Matches on Chromosome 7 Rachel Lee Descendant (R) and Mary Addleman Descendants (M)														
Chromosome 7	Start End	cMs	124	125	126	127	128	129	130	131	132	133	13	
Polk [R] Goodman and	124.6 133.7	10.4												
Salada [M]	124.6 133.7	10.4												
Salada [M] Dudas [M]	124.6 133.7 124.7 133.7	10.4 10.3	I											

In figure 10 a William Addleman descendant statistically matches both a Mary Addleman descendant and Karen Miller [Rachel], but the overlap of Miller and Glidden [Mary] is not enough to meet the criteria of matching segments to each other.



In figure 11 a John Addleman descendant statistically matches a William Addleman descendant in the first part of the segment, and he matches Carol Seedorf [Rachel] on the last part of the segment. Graham [William] and Seedorf [Rachel] do not share enough to meet matching criteria.

Figure 11														
Matches with Insufficient Overlap for Triangulation on Chromosome 1													1	
Chromosoma 1	Stort	End	cMe	220	222	224	226	228	230	222	234	236	238	240
Addleman []ohn]	219.9	240.0	26.4	+		224	220	220	230	232	234	230	230	240
Graham [William] Seedorf [Rachel]	219.9 228.9	229.4 240.0	8.2 26.4											

The figures 10 and 11 segments are not truly triangulated. Two people statistically match a third, but their overlap to each other is so small that they do not show as matches to each other. Although this is not as high a level of assurance of common ancestry as a triangulated segment, that the two segments in each case fall on a single segment of a third person means the third person inherited a larger ancestral segment. This may, in some cases, be an indication that the person with the larger segment is a shorter generational distance from the common ancestor.

Recombination can also cause exceptions. The odds of this statistical match happening by chance are practically non-existent.

Table 1 shows matching segments that are not triangulated.

	Table 1												
Rachel and Single Matches or Close Relative Paired Matches with No Triangulation													
COMPARISON	CHROMOSOME	START	END	cMs	SNPs								
Graham [W] Miller [R]	1	6.1	15.3	18.7	2362								
Witter [Jo] Seedorf [R]	2	75.2	104.5	18.0	4691								
Kraemer [M] Lee and Polk [R]	9	124.7	133.7	10.3	2059								
Salada & Goodman [M] Moore [R]	11	41	60.3	8.0	3046								
Goodman [M] Hobbs [R]	17	56.9	68.9	18.5	2925								
Goodman [M] Lee [R]	17	52.4	68.8	23.1	3744								
Salada [M] Hobbs [R]	17	60.5	68.8	14.4	2269								
Salada [M] Lee [R]	17	60.5	68.7	14.0	2227								

These demonstrate other segments shared between Rachel descendants—Miller, Hobbs, Lee, Moore, and Polk—and Mary and William descendants. One segment shows Rachel Lee descendant Carol Seedorf in figure 11 also significantly matches a descendant of Andrew's brother Joseph Addleman. By itself, it may only suggest a relationship, but in concert with other segments, it supports Rachel Lee's connection to the Addlemans. This same Joseph Addleman descendant, Billy Witter, also triangulates on a segment on chromosome 16 with a Mary Addleman descendant and a John Addleman descendant as shown in figure 12, further validating his genealogical connection to the Addleman family.

These figures show that descendants of Andrew Addleman's children John, Mary, and William share segments with Rachel Lee's descendants. The descendant of Andrew's brother Joseph also shares segments with Rachel's descendants. Every paired and triangulated segment includes one of her descendants and at least one Addleman descendant. The number of atDNA segments they share with Rachel's descendants leaves little doubt that Rachel was their sister.

Figure 12												
Joseph Addleman Descendant Triangulated with Mary Addleman and Joh Addleman Descendants												
Chromosome 16B	Start	End	cMs	78	79	80	81	82	83	84	85	86
DeRue [Mary] Addleman [John]	78.1 78.1	85.8 85.8	25.0 25.0									
Witter [Joseph]	78.2	82.1	10.6									

CONCLUSION

Traditional genealogical research offers no clues to the parentage of Rachel, wife of James Lee. It does disclose a decades-long neighborly association with an Addleman family in a small Pennsylvania community. The DNA evidence overwhelmingly supports common ancestry of Rachel Lee's descendants with descendants of Andrew Addleman and his brother Joseph.

The DNA evidence revealed recognizable connections. Rachel named a child Andrew, and two of her children lived near Andrew Addleman's son William. Andrew's will names a daughter Rachel of age to be James Lee's wife. DNA evidence coupled with scanty documentary evidence proves that Rachel Lee was born Rachel Addleman, the daughter of Andrew Addleman and his unknown wife.