

The Meek Family Group B Introduction

The Meek/Meeks DNA Project¹ has established Y-DNA STR signatures² for a significant number of early American ancestors. This allows for a determination of which Meek ancestors were related and which ones were not related. Combined with genealogies, Y-DNA shows several major unrelated groups of men, one of which is designated as Group B. Y-DNA 37 STR³ marker tests on Group B descendants indicate that they all shared a common Meek ancestor.

As a result of Y-DNA testing, the term “Group B” can be defined as an umbrella group which includes distantly related subgroups some of which include more closely related branches. In other words, Y-DNA shows a large complex family structure. This is born out genealogically as the various early families are spread out between Maryland, S. W. Pennsylvania, Tennessee, and North Carolina. Few of these families can be connected genealogically except by proximity and association. Given the same surname, Y-DNA signature, haplogroup, and associations certain assumptions can be made about their relationships. A word of caution is in order. Not all conclusions presented here are completely supported or without alternative hypothesis.

This article has been revised on numerous occasions as more people have joined the project and additional Y-DNA test results have become available. Y-DNA tells us there were six separate families that migrated to the United States in the mid to late 1600’s or early 1700’s. This article explores that portion of the Group B Meek family that can be seen by genetics and genealogy. While the genetic structure presented here pre-dates most of the earliest known ancestors it connects to them by virtue of the Y-DNA tests of their descendants. The genetic structure that can be seen is not necessarily the entire family either living today or in the past. There may well be other branches not yet known to us.

This article is divided into three sections, two appendix and two separate articles on genetic detail. All of them are important to understanding Group B. This article will undoubtedly be revised again. New readers should check the project web site for the latest information.

Part 1 – Group_B Introduction/Genealogical Summary
Appendix A: Roberts/Meek Connection (subgroup B1b)
Part 2 - Y-DNA Haplogroup/SNP structure of Meek Group B
Part 3 - Group B Y-DNA Ancestral STR Signature
Appendix B: R-BY25610 Smith Family

¹ <http://meekdna.com>

² 37 Y-DNA STR marker results. AKA DNA haplotype, signature, or profile

³ STR=short tandem repeat

Section 1 – Group B Genealogies

Subgroup B1b – Washington Co., PA: In 1769 the Proprietor of Pennsylvania opened the area of S. W. Pennsylvania to settlers⁴. Ownership of the area was also claimed by Virginia and control of the area alternated between the two states. The dispute was not settled until the 1780's when Virginia ceded the area to Pennsylvania. Virginia took part of West Augusta County and divided the area into Yohogania, Monongalia and Ohio Counties. However, the area of S. W. Pennsylvania was more commonly known as Westmoreland Co., PA which was formed in 1773 from Bedford County⁵.

In 1769 the area was inhabited by Indians and under attack by the British and French⁶. Forts were established to protect the western frontier and the settlers. In this relatively small hostile area many men named Meek brought their families and established new lives.

As early as 1772 men named Meek had settled west of Ft. Pitt in modern day Allegheny Co., PA⁷. A short distance to the south a different unrelated Meek family settled in Washington County. Some of these men from Washington Co., PA were well documented and have extensive descendant charts. Others left a very small footprint and little or no information is available about their descendants. Following is a brief summary of what is known about those men and their families.

Isaac Meek was listed in the 1774 tax list of Tyrone TWP, Westmoreland Co., PA. Isaac Meek buys 50 acres on Buffalo Creek from Derrick Hoagland in 5 Jun 1775 (Deed Book 1 page13). Isaac Meek was awarded a land grant in Ohio Co., VA on “Buffaloe Creek” on 10 Nov 1785. The Virginia certificate indicates he settled the land in 1775. He sold his land on Buffalo Creek to his daughter Elizabeth and husband, Beal Pumphrey, 5 Dec 1798. While there is some uncertainty about the identity of the man in Tyrone Township⁸ the Isaac Meek who sold his land in 1798 also bought land in Jefferson Co., OH in 1798. He was Isaac Meek born 1746. He died 12 Dec 1840. He married Mary Robinson in 1770 Ohio Co., VA according to traditional genealogies. They had 10 children. He married Rachel Hedges 31 Jan 1792. They had nine children.

Samuel Meek was listed in the March 1781 tax list of Bethlehem TWP, Washington Co., PA. He was also listed in the 1783 tax list and the 1790 census for this area. He received a land grant for land named Snake Den on 27 Jan 1785. The patent was dated 31 Mar 1788. When he actually settled in Washington County is not known. His date of birth is usually given as 1732 although there is no proof of this. He signed a will on 27 Feb 1793 in Washington Co., PA. He died on 12 Feb 1799 in Washington Co., PA. His estate was probated on 13 Mar 1799. His wife and children are mentioned in his will. He married Charity and contrary to popular belief her surname is not known. They had seven children.

⁴ The History of Allegheny Co., PA, by Samuel Durant, 1876

⁵ Washington County was formed in 1781. Fayette County was formed in 1783. Allegheny County was formed in 1788 and Green County was formed in 1796. To the west of Washington County and East of the Ohio River was Ohio Co., VA which later became part of West Virginia. This area was subdivided into Ohio, Brooke, Marshall and Hancock Counties.

⁶ The History of Washington Co., PA, by Boyd Crumrine, 1882

⁷ The Meek/Meeks Family of Maryland, Pennsylvania and Kentucky, by Christopher A. Meek, 9 Sep 2006

⁸ Men Named Isaac Meek by Christopher A. Meek, 18 Dec 2011

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Nathaniel Meek (AKA Nathan⁹) was listed in the 1783-1786 tax lists of Morgan TWP, Washington Co., PA. He was listed in the 1790 census of Washington Co., PA (1-6-3). In 1794 he signed an oath of allegiance in West Bethlehem Township. He witnessed the will of William Iiams on 20 Feb 1795 in Washington County. He left for Pulaski Co., KY before 1799. He moved to Jennings Co., IN and died in Pulaski Co., KY in 1827. Neither his date of birth nor his wife's name is known. He had 11 children born after 1775.

There is no evidence that **Basil Meek** born 1763¹⁰ was in S. W. Pennsylvania. However, he lived near Nathaniel in Pulaski Co., KY and Jennings Co., IN. He died on 12 Jan 1844 in Woodford Co., IL. He married Eleanor Roberts on 18 Aug 1796 in Clark Co., KY. They had nine children.

Elisha Meek first appears in the records of S. W. Pennsylvania in 1800. He appeared on the census of Morris TWP, Greene Co., PA between 1800 and 1840. He was born between 1760 and 1764. He signed a will on 20 Dec 1837 in Greene Co., PA. He married Mary Short, and they had 10 children.

Each of the men named above has a one or more descendant who has undergone Y-DNA testing. The test results (37 marker haplotypes) strongly indicate that these five men shared a common male ancestor¹¹. These results do not reveal who that ancestor was, when he lived or what the relationship between the men was. The results also show that the men named Meek in Washington County were not related to the men name Meek in Allegheny County. The Allegheny Co., PA Meek family is known as Group A. and the Washington Co., PA Meek family is part of what is known as Group B.

These five men were not the only men named Meek who lived in the area of Washington and Green Counties¹². The following unidentified men have been excluded from being sons of the five men named above.

Jacob Meek in Bethlehem TWP, Washington County 1783 tax list

Jeremiah Meek in Morgan TWP, Washington County 1783 tax list

Isaac Meek in Bethlehem TWP, Washington County 1783 tax list

(Probably the following man)

Isaac Meek born before 1765 1810 census of Amwell TWP, Washington Co., PA

Isaac Meek born between 1765 and 1769 1810 census of Greene Co., PA

Bazel Meek born between 1774 and 1784 Washington Co., PA 1800 census

(Probably Bazel Meek born 1776 who resided in Miami Co., OH.)

John Meek born between 1774 and 1784 Greene Co., PA¹³ 1800 census

William Meek born between 1765 and 1784 1810 census of Amwell TWP, Washington Co., PA

Samuel had sons named Jacob born about 1762 and William born 1755. These sons were listed separately in tax lists and/or census records. Samuel also had a son named John born about 1751. Isaac born 1746 had sons John born 1781, Jacob born 1784 and Isaac born 1795. Nathaniel had a son named Jeremiah who was born about 1776. The men listed above do not appear to be sons of

⁹ The name Nathaniel appears in some records. Its use is a matter of personal preference by the author

¹⁰ A Meek Genealogy, by H. B. Meek, 1902 Undocumented date of birth 7 Mar 1863

¹¹ The Meek/Meeks Y-DNA Project

¹² Early Meek Settlers of S. W. Pennsylvania by Christopher A. Meek, 17 Jul 2004

¹³ Tuscarawas Co., OH Death Record #2 record the death of Nathan Meek age 89 on May 8, 1883, age 89 born Green Co., PA, Parents: John and Margaret Meek.

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Samuel, Isaac, or Nathaniel. One of the unidentified men could have been the father of one or more of the others on the list. Some of them could have been a grandson of Samuel based solely on their age as told by the records. But in most cases, there is not enough information on any of these men to even speculate on if or how they might have been related. In addition, it must be remembered that the unrelated Group A Meek ancestors lived in nearby Allegheny County.

While these men in the above list could have been totally unrelated, their presence in close proximity to the Group B ancestors raises the possibility of a larger extended family. While the children of the Samuel, Isaac born 1746 and Nathaniel are known their dates of birth are far from certain. Any one of them could have had an unknown wife and additional children.

East Tennessee/Arkansas: A person named **Jeremiah Meek** appears in Greene Co., TN court records in 1784. Jeremiah Meek received land grant #2014 in 1787 for 400 acres on Lick Creek, Holston River. He sold his land 10 Sep 1796 according to the Greene Co., TN Deed Book #6. The deed indicates that he was a resident of Blount Co., TN. A person named **Jacob Meek** signed a petition for a new state in East Tennessee in 1782. On Dec 9, 1796 Jacob Meek was bondsman for the marriage of **John Roberts** and Rachel Robinett. Finally, a person named **Jeremiah Meek** married Betsy Blevins on 8 Feb 1802 in Blount Co., TN according to court records. It seems unlikely that this Jeremiah Meek was the same person who appeared in the early court records. It is believed that Jeremiah Meek who married Betsy Blevins and Jacob Meek migrated to Carroll Co., AR and were immortalized in history books as Blue Jacob Meek and Shotgun Jerry Meek.

There is no direct evidence where Jeremiah and Jacob came from before Blount Co., TN. It may be pure coincidence that they lived in Carroll Co., AR where two sons of Jacob Meek who died in Henry Co., TN also lived (see below). Jeremiah T. Meek and John E. Meek came to the area from Henry Co., TN just a couple of years after Blue Jacob and Shotgun Jerry. Jacob Meek of Blount Co., TN was born about 1765 and Jeremiah Meek of Blount Co., TN may have been born between 1771 and 1780.

John Roberts was born about 1773 in Maryland according to the 1850 census. He married Rachel Robinett 6 Dec 1796 in Blount Co., TN. The bondsman was Jacob Meek. He was listed in the 1830 census of Cape Girardeau, MO, early tax records of Izard and Carroll Co., AR and the 1840 census of Carroll Co., AR. He was listed in the 1850 census of Milam and Williamson Co., TX. John Roberts associated with and migrated with the Meek family his entire adult life. Based on Y-DNA John Roberts shared a Meek patrilineal ancestor with the other descendants of ancestors in subgroup B1. Based on his long association with the Meek family he was probably not too distantly related.

Two adult sons of John Roberts were recorded in the 1880 census which indicates John Roberts was born in Maryland. Given his relationship with the Meek family it is possible that Jacob and Jeremiah Meek also came from Maryland. Subgroup B1 does have three ancestors who resided in Maryland in the early 1800s and may have lived there much earlier. Unfortunately, there are no records proving that the larger B1b Meek family was from Maryland.

Subgroup B1c – Tennessee/Arkansas: In September 1799 Nathaniel Meek appears in the tax records of Pulaski Co., KY along with Basil Meek born 1763. Nathan Meek receives a certificate

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for land on Wolf Creek 14 Aug 1800¹⁴. Also listed in tax and land records were **Jacob Meek**, Jeremiah Meek and Jeremiah Meek Jr. These three were believed to have first settled in nearby Cumberland County¹⁵. A case could be made that Jacob and Jeremiah came to the area from Washington Co., PA with Nathaniel but the evidence is not conclusive. The number of people named Jacob Meek and Jeremiah Meek was fairly small prior to 1785¹⁶. Jacob Meek can be identified as the man who died in Henry Co., TN in 1824¹⁷. More than one of his descendants has been Y-DNA tested and they shared a common ancestor with the descendants of the Washington Co., PA Meek family. Whether or not Jacob came from Washington County he was related to Nathaniel and Basil. However, analysis of the DNA results suggests the relationship may have been more distant than the relationship between Nathaniel and the other men in Washington County.

Two of Jacob Meek's son, Jeremiah T. and John E., moved to Carroll Co., AR and lived not far from Jeremiah Meek, Jacob Meek and John Roberts from Blount Co., TN. As mentioned above Y-DNA proves these men were also related to the men who lived in Washington Co., PA. That they lived near each other may have been a coincidence, but Jacob Meek and his sons shared a common ancestor with the other men in subgroup B1b.

Subgroup B1a: There are also other somewhat later Maryland ancestors represented in Group B1 of the DNA project. **William Meeks** was born about 1808 in Maryland. **John W. Meek** was born about 1815 in Maryland. Both his parents were born in Maryland. He married Catherine Jones. **William Meek** was born about 1824 in Maryland. All these men lived in Baltimore, MD. While there is no known genealogical connection between these three men, the Y-DNA results show that they shared a common ancestor, and each had one unique marker value (DYS570=18) difference from the ancestral signature of subgroup B1b. The overall analysis of Group B Y-DNA suggests a separate line of descent from the common ancestor of subgroup B1. However, length of that line of descent is unknown.

Prior Genealogies: In 1902 H. B. Meek published his genealogy and described the 16 children of Jacob Meek born 1698, son of Adam Meek¹⁸. While there is much controversy regarding the validity of his claim subsequent researcher identified eight of the supposed sons of Jacob Meek as residents of early S. W. Pennsylvania. Carleton Meek expanded on the genealogy of H. B. Meek in 1962 and provided details on Joshua, John, Jacob, Jeremiah, Nathan, Basil, Isaac, and Samuel¹⁹. According to Y-DNA results these men were from two unrelated families.

A review of the early Meek genealogies failed to find any documentation to support the genealogies provided by the two authors in so far as the earliest generations are concerned. Y-DNA results unequivocally tell us that the complete list of supposed sons of Jacob Meek came from three unrelated Meek families. Other researchers assigned the same set of children to Jacob Meek born 1717 the son of Guy Meek of Ann Arundel Co., MD²⁰. In over 100 years of

¹⁴ The Kentucky Land Grants 1782-1924, Willard Rouse Jillson,

¹⁵ The Meek/Meeks Families of Tennessee and Arkansas 19 May 2006 by Christopher A. Meek

¹⁶ Men Named Jacob and Jeremiah Meek July 17, 2004 by Christopher A. Meek

¹⁷ The Meek/Meeks Families of Tennessee and Arkansas 19 May 2006 by Christopher A. Meek

¹⁸ A Meek Genealogy, by H. B. Meek, 1902

¹⁹ Meek Genealogy, by Carleton Lee Meek, 1962

²⁰ On Meek Families, 1967 by Joseph L. Meek, unpublished

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genealogical research no one has provided any documentation concerning the sons of either Jacob Meek²¹.

Jacob Meek born 1717 is a reasonable alternative to Jacob Meek born 1698 as there are records concerning him in Maryland. There is no evidence that Jacob Meek born 1698 ever came to America let alone Maryland. One cannot trust H. B. Meek or Carleton Meek in that regard given their poor work on Jacob's children. Jacob Meek born 1717 cannot be excluded as the father of some of the supposed sons assigned to him. Jacob Meek owned land not far from Hagerstown in Washington Co., MD. Washington County is across the Potomac from Berkeley Co., WV.

H. B. Meek said his ancestor Basil Meek born 1763 was born in Hagerstown. That may or may not be true. It is not known where Basil Meek born 1763 lived before showing up in the Clark Co., KY. He may have been in Washington Co., PA. However, Basil signed the 7 Feb 1795 marriage bond for Thomas Hulse, the son of Paul Hulse, in Clark Co., KY. Paul Hulse also paid 1787 Virginia taxes for Elisha Meek one of the men from Washington Co., PA. The Hulse family is documented to have come from Berkeley Co., WV²².

Paul Hulse born 1740 was the oldest male child of Josiah Hulse who died 1777/78 in Berkeley Co., VA. Josiah owned land on the mouth of Sleepy Creek and the Potomac River, which is now part of Morgan Co., West Virginia, near Berkeley Springs. Berkeley Springs are about 5-10 miles south of the Maryland border and 20 miles west of Hagerstown, MD.

Summary – Subgroup B1 Genealogies: This section provided a brief introduction to one group of early Meek ancestors known here as DNA Group B1. Y-DNA ties together a group of documented Meek ancestors from Washington Co., PA with ancestors in Tennessee and a later group in Maryland. The records also hint at a number of other Meek ancestors who lived alongside of these men in Washington Co., PA and Pulaski Co., KY. This was clearly a large extended family more complex than the early authors recognized. However, it is also noted that there were at least two other unrelated Meek families in the area.

A major issue is where these families came from before Pennsylvania and Tennessee. Despite a tremendous number of genealogies that claim to know this information there is little evidence that pinpoints where they originated in America. It is suggestive that this group includes men who lived in Baltimore around 1800. Other families that the Meeks associated with in S.W. Pennsylvania came from Maryland. John Roberts of Blount Co., TN came from Maryland according to three census records. His descendants also match subgroup B1

Subgroup B1a has at least one member whose parents were also born in Maryland. It is assumed that these families had been in the Baltimore area before 1800. Geographically they appear to be separate from the SW PA subgroup (B1b), but one cannot rule out a back migration from SW PA to Maryland. The location combined with the apparent lack of a mutation at DYS570 suggests a separate branch. Isaac Meek born about 1746 of the SW PA (B1b) subgroup may have been part of this subgroup due to the same mutation. But this cannot be proven without additional genealogical and/or Y-DNA evidence.

²¹ The Progenitor Myth by Christopher A. Meek

²² Iams of America, Landed Gentry of Maryland, Copyright 1998 by Ralph D. Reynolds

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Even a minimal amount of research will reveal that one Meek family dominated the area just south of Baltimore. Guy Meek was in Ann Arundel Co., MD in the mid 1600's. Despite hundreds of genealogies that will indicate a connection with the ancestors listed in the Meek DNA Project no genealogical connection to Guy Meek or Ann Arundel County has ever been proven. In addition, it is known that Group A did in fact come from Ann Arundel County. Guy Meek's Y-DNA is not known as a proven descendant has not been tested. However, this author does believe Group B is more likely the descendants of Guy Meek than Group A.

To understand this family one must look at various aspects of the history of genealogy concerning the Meek settlers of Washington Co., PA. Taken together they show that the traditional published genealogies of past times were grossly inaccurate. The early authors that so many genealogists have relied upon for decades did not engage in adequate research to fully understand the Meek family they wrote about or to fully understand how far off track they were. Even today with the benefit of years of research and technological advances such as DNA one cannot prove who the progenitor of this Meek family was.

It is the opinion of this writer that it is not possible to identify the father or fathers of these Meek ancestors based on currently available genealogical records alone. Utilizing Y-DNA it is possible to exclude many known early Meek ancestors in the United States from any relationship with them. Y-DNA does not reveal who the common ancestor was or when he lived. It does not reveal the relationships between the men in subgroup B1, or any group of men.

Subgroup B2 – New York: This major subgroup has only one member with a Y-DNA sample. However, his Big Y test with seven private variants supports the conclusion it is a separate subgroup. The member descends from **Edward Meeks** born in 1680 who lived in New York City. He married Maria Kortwright. He had one known son; Joseph Meeks was born about 1710.

The marker values in question are DYS570=18 and CDY=36-38. The sample does have the all-important DYS576=20 typical of subgroup B1 and not seen in subgroup B3. In addition to the single sample the markers themselves present certain problems when used to determine ancestral haplotypes.

The ancestor does not match the other New York Meek family found in early Putnam Co., NY. There are no other known Meek(s) families in New York this early.

Subgroup B4-Thomas:

Five men named Thomas with 37 or more markers match the Group B ancestral signature with few recent mutations. They descend from one or more men who came to the United States and settled in Virginia and North Carolina in the 1700s. Most descend from Benjamin Thomas born about 1756 who lived in Anson Co., NC. Timing of the split with the Meek surname is unknown. Not all genealogical connection between the Thomas members has been established.

Subgroup B6 (formally B3a) – Baltimore, MD: **George B. Meek** was born about 1785 in Maryland according to the 1860 census. He married Catherine Everly. George was listed in the 1850 census of Pontotoc Co., MS, age 66. (Place of birth unclear.) He was living with Oscar Meek age 25 born Tennessee. George was listed in the 1860 census of Monroe Co., MS (age 75, MD) living with his son, John. John's 1880 census also says his father was born in Maryland. In an 1810 depositions George states that he lived in Baltimore with (James) Williamson. Also tested was a descendant

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of **William W. Meek** born about 1810 who also lived in Baltimore. The descendants match on 67 of 67 markers but the genealogical connection between them is unknown.

Subgroup B3 (formerly B3b2) –Pitt Co., NC: **John Meeks** may have been born about 1710. He died about 1772 in Pitt Co., NC. He was first mentioned in the 1755 poll tax of Beaufort Co., NC with a son. (Pitt County was formed from Beaufort County.) He received a land grant on 5 Mar 1761 from Lord Granville for 542 acres on Grindal Pocosin, adjoining Edward Collins and David Hataway. The surveyed was dated 22 Apr 1756. He signed with the mark "I". Deed records suggest that he had sons named John, Walter, Francis, and James. The last deed record was dated 22 Jan 1772 for 100 acres to James Meek. Tax records also list the names Thomas and Nathan Meeks.

It is believed that John had a father or brother named **James Meeks** in this same area. James obtained land on 6 Dec 1747 in what is now Pitt Co., NC. It was 100 acres from Joseph Barrow of Beaufort County on the east side of Coneto Creek at Thomas Little's line. John sells James's land on 1 Mar 1757. Court records place James in North Carolina, Bertie precinct on July 1727. James died before 1757.

Genealogies for this family are inconsistent. Some claim the progenitor was James Meeks rather than John. Dates of birth vary widely. Except for a few deed records showing the transfer of land between John Meeks and men listed as his sons there is no documentation known to this author regarding the relationship between James, John and the men thought to be his sons.

Subgroup B5 (formally B3b1) – West Virginia: **Thomas Meeks** was born about 1768. His will was written 25 Feb 1826 in Monongalia Co., VA. The will was probated in May 1826. He married Elizabeth Susannah George about 1793 in Maryland. She was born about 1776 in Maryland. She died about 1841 in Champaign Co., OH.

Family lore indicates Thomas was born in Scotland. That may not be true. If born in Scotland, he would represent a branch of the family that migrated much later than the others. According to Y-DNA he was related to the Pitt Co., NC family but there is no genealogical reason to believe he descends from the progenitor of that family. The common progenitor may have lived in Maryland or he may have been born in Scotland.

Subgroup B6 (formally B3a) – Baltimore, MD: **George B. Meek** was born about 1785 in Maryland according to the 1860 census. He married Catherine Everly. George was listed in the 1850 census of Pontotoc Co., MS, age 66. (Place of birth unclear.) He was living with Oscar Meek age 25 born Tennessee. George was listed in the 1860 census of Monroe Co., MS (age 75, MD) living with his son, John. John's 1880 census also says his father was born in Maryland. In an 1810 depositions George states that he lived in Baltimore with (James) Williamson. Also tested was a descendant of **William W. Meek** born about 1810 who also lived in Baltimore. The descendants match on 67 of 67 markers but the genealogical connection between them is unknown.

Summary – Subgroups B3, B5, and B6 Genealogies: While Group B3 involves a smaller number of early American Meek(s) ancestors, the Y-DNA suggests a subgroup structure nearly as complex as Group B1. The earliest known ancestor was John Meeks born about 1700. John sells the land of James Meek who can be documented to have been in North Carolina as early as 1727. The genealogical information is limited.

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While Y-DNA STR markers and the surname ties B1 and B3 together in one family there are differences. The genealogical evidence for Group B3 is limited but does extend back to 1700. However, Y-DNA evidence suggests the ancestral signature of the Pitt Co., NC family (B3) extends back many generations before the earliest known ancestors. When and where the B3 came to the United States is not known. Many questions remain about this group of people.

Section 2 – Y-DNA Discussion

The pursuit of one's genealogy involves tracing one's antecedents from the most recent generation (the parents) to the most distant, one generation at a time. Eventually the information runs dry, and one is stuck at some point in the past, unable to find a name for the next generation. That is where DNA might provide some guidance. This report covers Y-DNA which addresses the father's patrilineal line of the man being tested. No DNA test alone will provide that elusive name for the next generation. But it may assist the genealogical effort and may provide general information about the early family.

As of the 2020 Group B includes nearly 70 members, most of whom descend from a man named Meek or Meeks, who have had their Y-DNA tested. Each has a minimum of 37 markers while 23 have 67 markers and 9 have 111 markers. Twelve men have tested to the Big Y level. They represent more than 20 early American ancestors. These men share a common ancestor named Meek and they are related to each other.

Group B is one of the largest groups of early Meek(s) ancestor that can be tied together by Y-DNA. Few of the ancestors are connected genealogically and the parents of these men are unknown. A review of known ancestors named Meek or Meeks born before 1800, which appear in official records, reveals few ancestors who have not been excluded by Y-DNA²³ or who were born early enough to have been the progenitor of either Group B or any subgroup in it²⁴. Only a small number of those not excluded have known descendants who are likely to be DNA tested.

The ultimate progenitor of Group B, also known as the "common ancestor", produced six known subgroups that can be identified by Y-DNA, including STR and SNP markers. They are named here as B1 through B6. Each of these positions on the family tree represent unknown ancestors who in turn was responsible for different branches of the Group B family. All the subgroups are tied together by the similarity of their respective ancestral STR signature²⁵. Each subgroup has a slightly different set of defining markers²⁶. There is no known genealogical connection between the six major subgroups. The timing of when subgroups split is also problematic. For details of how Y-DNA reveals this information see the companion articles Meek Group B Y-DNA Ancestral STR Signature and Haplogroup/SNP Structure of Meek Group B. In addition, at least one member in five of the major subgroups underwent advanced SNP testing. Each is positive for the SNP marker R-BY25608. This means the common ancestor of all four subgroups also was positive for BY25608. Each member who was SNP tested had one or more private variant for which the other Big Y tested members are negative. It is now known that subgroups B1, B2 and B4 are more

²³ Meek DNA Project

²⁴ The Meek/Meeks Family of the United States by Christopher Meek

²⁵ Ancestral haplotype: The haplotype of a MRCA deduced by comparing descendants' haplotypes and eliminating mutations. (ISOGG glossary)

²⁶ Defining markers are those markers that make one group different from another.

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closely related than subgroup B3. Subgroups B1 and B2 are more closely related than subgroup B4.

Table A – Earliest known ancestors <1800

Table A

Group	# Tested	# Big Y	Ancestor	Location1	Location2	DOB
Gp B1b	4		Samuel Meek	Washington Co., PA	Ohio	@1732
"	1		Isaac Meek	Washington Co., PA	Ohio	1746
"	3	1	Nathaniel Meek	Washington Co., PA	KY, IN	Unk
"	2	1	Basil Meek	Washington Co., PA	KY, IN	1763
"	2		Elisha Meek	Washington Co., PA	Greene Co., PA	@1765
"	2		Jeremiah Meek	Blount Co., TN	Carroll Co., AR	@1771
"	4		John Roberts	Blount Co., TN	Carroll Co., AR	@1773
Gp B1a	1		William Meeks	Baltimore, MD		@1808
"	1	1	John W. Meeks	Baltimore, MD		@1815
"	1		William Meek	Baltimore, MD	Williamson Co., TN	@1824
Gp B1c	5		Jacob Meek	Henry Co., TN	Carroll Co., AR	@1760
Gp B2	1	1	Edward Meeks	New York City		@1680
Gp B4a	8	1		N. Carolina		
Gp B4b	7	2	Benjamin Thomas	N. Carolina		@1756
"	1		William Meek	Baltimore, MD		@1810
Gp B3	7	1	John Meeks	Pitt Co., NC		@1710
Gp B5	2	1	Thomas Meek	Monongalia Co., VA		@1768
Gp B6	1		George B. Meek	Baltimore, MD		@1785

Group B ancestral signature

Table 2	DYS439	DYS389	DYS392	DYS458	DYS447	DYS464a	DYS464b	GATA H4	DYS576	DYS570	CDY	DYS442	DYS438
L151	12	13-29	13	17	25	15	15	11	18	17	37-38	12	12
Group B	13	13-28	12	15	26	14	14	12	19	18	36-37	10	13
Con't	DYS534	DYS710	DYS556	DYS533	DYS575	DYS461		DYS572					
L151	15	36	11	12	10	12		11					
Group B	16	36	11	11	11	13		11					

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Section 3 - Conclusions

The Meek DNA Project through Y-DNA testing has revealed significant facts about the Group B Meek families. Men named Meek(s) can be Y-DNA tested and grouped with other related men based on values for specific Y-DNA STR markers. Anyone not closely matching this set of marker values cannot be related to the group of ancestors mentioned above. Y-DNA does not reveal who a common ancestor was or when he lived.

Following is a list of major accomplishments related to DNA Group B.

- The Meek DNA Project has disproven the genealogy of H. B. Meek, Carleton Meek and other early authors who claim descent from Adam Meek born 1640 in Lincolnshire, England. Descendants of the sons Matthew Meek and Jacob Meek born 1698 were not related. Sons assigned to Jacob Meek came from at least three unrelated Meek families. The sons of Jacob Meek who settled in S. W. Pennsylvania came from unrelated Meek families. Most of the men who lived in Washington Co., PA in the mid 1700's are assigned to Group B and were not related to the men who lived in nearby Allegheny Co., PA who are in Group A.
- Men assigned to the Meek DNA Project Group B (Y-DNA tested) all share a common Meek ancestor regardless of surname. They are all related based on a series of STR marker values.
- Y-DNA 37 marker tests and advanced SNP tests has established six subgroups which probably connect prior to immigration to the United States. All descend from haplogroup R-BY25608.
- The men who lived in Pitt Co., NC in the mid 1700's (subgroup B3) shared a common ancestor (R-BY25608) with the other ancestors in Group B.
- Jacob Meek who died in 1824 Henry Co., TN shared a common ancestor with Group B1b earliest known ancestors but does not descendant from any of them.
- Jeremiah Meek of Blount Co., TN (married Betsy Blevins) shared a common ancestor with other men in Group B1b particularly those in Washington Co., PA. John Roberts born about 1773 also shared a common ancestor and associated with Jeremiah's family. He was born in Maryland according to census records.
- Edward Meeks born in 1860 who lived in New York City shared a common ancestor with other men in Group B.
- * Several men named Thomas (subgroup B4) match the ancestral signature of Group B 110 of 111 markers and descend from a Meek common ancestor who was positive for R-YP1080. Timing of the split is unclear.
- Many 1800's ancestors with unknown connections to earlier known ancestors shared a common ancestor with men in Group B and are not related to other groups or individual identified by the Meek Project.

These accomplishments are significant even if they do not reveal a specific connection. They tell one where to focus their research attention and what areas to avoid. It is just as important to know who one is not related to as it is to know who one might be related to.

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Appendix A Roberts/Meek Connection

An associate of Jeremiah and Jacob Meek of Blount Co., TN was John Roberts. Jacob Meek signed the bond for the marriage of John Roberts and Rachel Robinett on 9 Dec 1796 in Blount Co., TN. John Roberts was listed in the 1830 census of Cape Girardeau Co., MO along with Jacob Meek. He was listed in tax and census records for Carroll Co., AR in the 1830s and 1840s. He was listed in the 1850 census of Milam and Williamson Co., TX where some of the children of Jeremiah Meek lived. Jeremiah Meek was a presumed brother of Jacob Meek.

John Roberts was born about 1773 in Maryland according to the 1850 census. His sons Henry and John W. were recorded in the 1880 census of Parker Co., TX and Wise Co., TX respectively. Both records indicate that their father was born in Maryland. His children, as reported in unverified genealogies, were Aaron Roberts (1795 – 1870), Nancy Elizabeth Roberts (1795 –), Richard Roberts (1800 – 1870), John Wesley Roberts (1815 – 1880), Edward Franklin Roberts (1817 – 1881), Henry J. Roberts (1819 – 1881), James T. Roberts (1825 – 1869). In the 1850 census John Roberts is listed in the household of his son John W. Roberts age 35 Alabama. On the same page of the census is listed Aaron Roberts age 55 Tennessee.

One descendant of Aaron Roberts and two descendants of John W. Roberts have Y-DNA 37 marker results which match the ancestral STR signature of Meek Group B1b and specifically a descendant of Jeremiah Meek of Blount Co., TN who married Betsy Blevins. Using the three Roberts haplotypes one can project an ancestral haplotype for the Roberts family that matches the Meek Group B1b on 37 of 37 markers. In other words, John Roberts' Y-DNA STR signature probably looked similar to that of Jeremiah Meek.

Y-DNA for Jeremiah Meek=Betsy Blevins

Son: Lewis Meek b: @1818

Wallace D. Meek Kit# 87158>Reuben D. Meek b: @1912>Reuben Meek b: @1891>John H. Meek b: @1867>Moses Meek b: @1841> Lewis Meek b: @1818

And

Son: George W. Meek b: @1825

Gary Meek Kit# 366234>Walter E. Meek b: 1914>William H. Meek b: @1879>Richard H. Meek b: @ 1852>George W. Meek b: @1825

Both kits match the ancestral values for Meek Group B1b on 37 of 37 markers.

Y-DNA for John Roberts b: 1773

Son: Aaron Roberts b: 1795

(Private) Roberts Kit#433974> > >Aaron Roberts b:@1795

Matches Meek Group B1b ancestral values with exception of DYS570=18

and

Son: John W. Roberts b: @1815

Merle Smith Kit#154530>Louis Smith b: 1900>George L. Roberts AKA William L. Smith b: 1871>John B. Roberts b: @1841>John W. Roberts b: @1815

(The Smith/Roberts connection also supported by autosomal DNA.)

Matches Meek Group B1b ancestral values with exception of DYS439=12, CDY=36-37

and

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Chester D. Roberts Kit# 376619>Bobby D. Roberts b: 1933> William N. Roberts b: 1898>
William L. Roberts b: 1872>Newton W. Roberts b: @1847>John W. Roberts b: @1815
Matches Meek Group B1b ancestral values with exception of DYS439=14, CDY=36-37

Conclusions:

Descendants of John Roberts share a common ancestor with members of Meek Group B1b.

John Roberts and Jeremiah Meek shared a common ancestor. Who that ancestor was or when he lived is not revealed by DNA alone. Both men were approximately the same age. One did not descend from the other.

The Roberts family came from Maryland. However, Maryland records have not been reviewed. Traditional genealogies that have been shown to be inaccurate in other areas say the Meek family came from Ann Arundel Co., MD and/or Washington Co., MD. No proof of this has ever been offered although there are records available in Ann Arundel County. Some Group B1a Meek ancestor were born in Baltimore, MD shortly after 1800.

Based on their associations during their adult lives the relationship between John Roberts and the Blount Co., TN Meek families may not have been too distant. The earliest known date for Group B1b is 1732 (Samuel Meek, Washington Co., PA).

By Christopher A Meek
6 Dec 2018

Meek DNA Project

Group B Ancestral Signature

The purpose of this paper is to explore the method and logic used by the author in establishing the Y-DNA ancestral signature for the Meek DNA Project Group B as well as the various subgroups and branches. This is possible due to the number of test results and genealogies available for analysis. However, more data is needed to increase the level of confidence for some conclusions. Some of the conclusions presented here may change as more data becomes available.

Background

There are two types of Y-DNA tests. First is a STR¹ marker test, such as the 37-marker test from Family Tree DNA. This test looks at the patrilineal lineage back through genealogical time frames and beyond. These are useful for surname studies and will be discussed later. The other component is the haplogroup² or SNP³ test. SNPs also look at the patrilineal line and compliments STR marker tests. With overlapping time frames SNPs can also look further back in time. However, in some cases it can show family structure not revealed by STR markers. Some haplogroups can be predicted by examining the STR haplotype⁴ but can only be confirmed by a SNP test. Generally speaking, the modal haplotype⁵ for many major haplogroups is known. Meek Project Group B is in the “R1b”⁶ haplogroup. Specifically, a branch headed by the SNP R-L151⁷. Twelve kits in Group B, representing each of the subgroups, have tested positive for the SNP marker R-BY25608. This is in the S1194 branch of R-L151. The path is R-P310>L151>S1194>CTS4528>S14328>A8469>ZS5789>BY13029>S16939>BY25610>**BY25608**.

The first man to carry the BY25608 SNP was a direct patrilineal ancestor of the men in Group B. At least one of his descendants was named Meek and had the same basic STR signature discussed below. More importantly, SNP testing adds information on how the subgroups are connected to each other and descend from the Group B common ancestor. While confirmation needs to be obtained, it appears SNP testing will confirm some of the conclusions from STR testing discussed below. SNP testing will not however replace STR testing. For more information on Meek Group B haplogroups and SNP testing see “SNP Structure of Meek Group B”.

Analysis of STR markers involves a process of looking at the pattern of marker values for a group of related people or a group of people thought to be related. The **ancestral signature**⁸ is a deduced haplotype for a group or subgroup. It is determined by calculating the statistical mode for each marker and taking into consideration individual or subgroup differences. Therefore, it is not a modal haplotype. The level of confidence of such calculations is dependent on genealogies, the

¹ STR=Short tandem repeat

² Haplogroup: A group of similar haplotypes that share a common ancestor with a SNP mutation. (ISOGG glossary)

³ SNP= Single nucleotide polymorphism

⁴ Haplotype: The term for the set of numbers that consists of your Y-chromosome or mitochondrial DNA results. Haplotypes are also known as genetic signatures. (ISOGG glossary)

⁵ A modal haplotype is the most commonly occurring haplotype (a set of STR marker values) derived from the DNA test results of a specific group of people. The modal haplotype does not necessarily correspond with the ancestral haplotype - the haplotype of the most recent common ancestor. (ISOGG glossary)- Most recent common ancestor (MRCA): The most recent ancestor from whom a group of individuals share descent. (ISOGG glossary)

⁶ R1b is a misnomer generally refers to the haplogroup R-M269 and its subclades.

⁷ R-L151 has four branches, P312, U106, S1194 and A8053.

⁸ Ancestral haplotype: The haplotype of a MRCA deduced by comparing descendants' haplotypes and eliminating mutations. (ISOGG glossary)

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number of test results involved and their distribution within the different branches of a group of related people.

Defining markers are a sub-set of markers, taken from the 111-marker STR ancestral signature, whose values, taken as a group, are unique in the general population of men in the same haplogroup. The set of defining markers for Group B is those markers that deviate from L151 modal values. Several of the Group B values for these markers are infrequently observed. Subgroups also have defining markers indicated by the deviations from the ancestral signature or higher level subgroup.

Key parts of the Group B ancestral signature appear to be quite old. Each of the defining markers mutated at different times during the process. It is probably impossible to date these changes. However, some of them can be seen to have mutated very early based on other surname groups that branched off before the BY25608 SNP mutation. As time moved towards the present additional markers changed their values. The markers values, as they exist today, when taken together as a set of markers, became the unique Meek Group B signature. This culminated before the time of the Group B common ancestor. Table 2 shows the defining markers and marker values for Group B. In this chart the colored marker names are the subgroup markers.

Table 2	DYS439	DYS389	DYS392	DYS458	DYS447	DYS464a	DYS464b	GATA H4	DYS576	DYS570	CDY	DYS442	DYS438
L151	12	13-29	13	17	25	15	15	11	18	17	37-38	12	12
Group B	13	13-28	12	15	26	14	14	12	19	18	36-37	10	13
Con't	DYS534	DYS710	DYS556	DYS533	DYS575	DYS461		DYS572					
L151	15	36	11	12	10	12		11					
Group B	16	36	11	11	11	13		11					

Meek project Group B has a fairly large number of defining markers. There are ten defining markers in the 37-marker panel. There is one additional defining marker in the 67-marker panel. Finally, there are three additional defining markers in the 111-marker panel. While that is a total of fourteen defining markers, many of these markers may not always be reliable. There are an addition six markers used to define subgroups five of which could have been used as defining markers for the ancestral signature. Any two men in the R-M269 predicted haplogroup who have the same values in most of the Group B defining markers likely share a common Meek(s) ancestor. If their surname is Meek(s), Thomas or Roberts, or variations thereof, it is almost certain that they share a common ancestor named Meek who lived during genealogical time frames.

It has long been observed that some men with different surnames have Y-DNA signatures close to that of the Group B signature. Some of these may have a break in their surname line (NPE) and descend from a man named Meek. Some may connect to the Meek line before the use of surnames. Some may have no genetic connection at all. Experience to date has shown that genealogically significant connections with the Meek surname will usually have DYS447=26 rather than 25.

Subgroup Structure of Group B

Even in the early days of the Meek Project (17 years ago) it was apparent that there were two distinct branches within Group B. They were eventually named subgroups B1b and B3b. However, members of each branch would receive the same list of matches as members of other branch, albeit at different genetic distances. Genetic distance alone did not always show a new member without

Group B Ancestral Signature

a connecting genealogy which branch of Group B he belonged to. It was still necessary to look at the pattern of marker values to determine which matches the new member should focus on.

As the membership of Group B grew there appeared to be other subgroups as well as branches within subgroups. In some cases genealogy assisted in defining branches but in others they have been determined solely on the basis of genetics. A relatively large number of unique marker values allows for the ability to include or exclude a member from Group B. But changes in a relatively small number of markers defined the major subgroups and subordinate subgroups.

While SNP testing has largely confirmed the existence of the STR based subgroups of BY25608, it has also increased our understanding of how the subgroups were connected. This is particularly true of subgroups B1, B2, and B4. Two levels of common ancestors have been added. The haplogroup YP1080, a descendant of the Group B common ancestor, includes subgroup B4 (FT182745) and a second branch, FT303176. This haplogroup includes the common ancestors for subgroup B2 (BY172868) and B1. This also explain some of the STR mutations that define the subgroups. At some point around the time of YP1080 there was a STR mutation $DYS576=20$. This is true because members subgroups B1, B2 and B4 have that mutation. Somewhat later, there was STR mutation, $DYS556=12$, around the time of FT303176. We know this because members of subgroups B1 and B2 carry that mutation. Lower-level subgroups based solely on STR mutations may not always turn out to be correct.

Subgroup B1: The ancestral signature for subgroup B1 was established by reviewing over forty 37-marker test results. They included descendants of multiple sons of eight ancestors in the subgroup. In the case of subgroup B1, it is believed that there are three genetic branches. In addition to $DYS576=20$, which emerged about the time of YP1080, and $DYS556=12$, which

	DYS576	DYS556	CDY	DYS710	DYS570	DYS439
L151	18	11	37-38	?	17	12
Group B	19	11	36-37	36	18	13
YP1080	20	11	36-37	36	18	13
FT182745 SG B4	20	11	36-37	36	18	13
FT303176	20	12	36-37	36	18	13
BY172868 SG B2	20	12	36-37	36	18	13
Subgroup B1	20	12	37-37	37	18	13
Subgroup B1a	20	12	37-37	37	18	13
Subgroup B1b	20	12	37-37	37	17	13
Subgroup B1c	19	12	37-37	37	17	14

emerged about the time of FT303176, the markers that distinguish subgroup B1 from other subgroups are $CDYa=37$ and $DYS710=37$. These mutations emerged after the genetic branch FT303176 and before the common ancestor of subgroup B1. This was determined since most of the members have those values which are not seen, in that combination, in other subgroups. Genetic branch BY172868 (subgroup B2) does not have those values.

Subgroup B1a: This branch continues with the Group B1 signature. The three members of subgroup B1a descend from three ancestors born between 1808 and 1824 in Maryland. The hypothesis is that the Maryland ancestors had a common ancestor who carried $DYS570=18$ and who lived very near the time that the earliest B1b ancestors from Washington Co., PA lived. Therefore, the common ancestor of the Maryland and S. W. PA families carried $DYS570=18$. There is minimal proof that the Washington Co., PA Meek families came from Maryland, which has been speculated widely in old genealogies. Three of three members have $DYS570=18$ while 35 of 41 members of subgroup B1b carry $DYS570=17$. One or more of the three members with the value 18 may belong in subgroup B1a. This is arguably a weak proof statement. All members of subgroup B1a match the other mutations that identify subgroup B1b.

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One member of this subgroup has completed the Big Y test. His haplogroup, FT303176, is expected and unhelpful. However, he has seven private variants which suggest that additional branches will be found below FT303176. The member is negative for FTC799, the only SNP branch thus far discovered for subgroup B1. Additional SNP testing may resolve the issue and support a separation from subgroup B1b. Until that time, the existence of subgroup B1a is a hypothetical.

The subgroup B1b ancestor Isaac Meek born 1746 carried DYS570=18 based on a single test. Some of the earliest genealogies of the B1 Meek family claim without proof that Isaac Meek came from Anne Arundel Co., MD. This author has been reluctant to move Isaac Meek to the subgroup B1a due to the single test, single marker, and unverified genealogical information. However, if Isaac Meek did in fact carry DYS570=18 and come from Maryland it would support the hypothesis above.

Subgroup B1b: This subgroup started with a descendant of the B1 ancestor who first carried DYS570=17 (26 of 32) in addition to CDYa=37 (27 of 32), DYS710 (6 of 7) and the other marker values brought down from the B1 ancestor. The earliest known ancestors were born in the mid-1700s and moved along separate migration routes. Five or more men went to Washington Co., PA and their descendants moved into Ohio. The other group of three ancestors, including John Roberts, moved through South Carolina to East Tennessee. They moved to Arkansas and eventually Texas. They all appear to have come from a large extended family that may or may not have originated in Anne Arundel Co., Maryland. The one marker difference between subgroups B1a and B1b does not preclude a close connection between the two branches of subgroup B1. One Big Y 500 test shows the haplogroup FT303176 with two private variants. The second member with a Big Y test has a haplogroup of FTC799 with three private variants.

Subgroup B1c: This branch is made up of descendants from multiple sons of Jacob Meek born about 1760 who died in Henry Co., TN in 1824 as well as a couple of men who are thought to have descended from him but have not proven the connection. The results are remarkable because Jacob had two mutations from the subgroup B1b values. They are DYS439=14 and the all-important DYS576=19. As there is no indication genealogically that they had a connection to subgroup B3, DYS576=19 is apparently a back mutation. One member has a haplogroup of FTC799 with one private variant. Jacob was born about the same time as the early B1b ancestors and there is some data to suggest that he came from Washington Co., PA. If true, Jacob likely could not have been a brother or possibly not even a first cousin to the other men who lived in Washington County in the later part of the 1700's due to these two markers that trace back to him. Subgroup B1c appears to descend from the B1b common ancestor but not one of the earliest known ancestors because of Jacob's date of birth and the number of mutations.

The member who descends from Nathaniel Meek and has a Big Y result of FTC799 would not fit in the genealogy of subgroup B1c. In addition, he does not have the two STR mutations that define subgroup B1c. Nathaniel's date of birth is not known but his first known child was born between 1775-1780. It would appear he was a contemporary of Jacob Meek born about 1760. He lived near Jacob in Pulaski Co., KY and witnessed one of his deeds. Still the two mutations that define subgroup B1c can be traced back to Jacob because members descend from two different sons and possibly a third. Based on the above data FTC799 covers more than the descendants of Jacob Meek

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(subgroup B1c). But there is insufficient evidence to determine if this haplogroup covers all members of subgroup B1b.

Subgroup B2 (BY172868): There are two members in this subgroup. Both members have a haplogroup of BY172868 with seven and four private variants. One member has an uncertain genealogy. An ancestral signature based on two tests is uncertain. They mismatch on DYS449 and both CDY markers. That would leave them very close to the Group B ancestral signature with an uncertain value at CDY. It was originally listed as a separate subgroup because the earliest known ancestor was born about 1680 and lived in New York City rather than Maryland. Edward Meeks, born 10 May 1680, may have been one of the earliest members of the Group B Meek family to come to the United States.

Subgroup B4 (FT182745): This is the second half of YP1080. Three Big Y tests provide a confirmed haplogroup of FT182745. In addition, the line splits with two members positive for FT405497. This subgroup is based on four 111-marker tests and six additional 37-marker tests with very few STR mutations. They descend from one or more men who came to the United States and settled in Virginia and North Carolina in the 1700s. Most descend from Benjamin Thomas born about 1756 who lived in Anson Co., NC. The ancestral signature is a near match to the ancestral signature of the common ancestor of Group B. The exception is DYS576=20. Because it is one of several subgroups using the Meek(s) surname it is more likely than not that the B4 common ancestor descended from a man named Meek(s).

Non-YP1080 subgroups: The three genetic branches FT88084, FT50483 and the undefined subgroup B6 were formerly included in subgroup B3. STR markers gave a hint to some structure which was noted in the previous subgroups B3a, B3b1 and B3b2. Fortunately, Big Y tests became available and greatly enhanced our understanding of how the three subgroups actually connected to each other. This in turn refined our understanding of the Group B ancestral signature. All three subgroups descended independently from the common ancestor and BY25608.

Table 4	DYS576	DYS389	CDYa	CDYb	DYS570	DYS572	DYS710	DYS556
L151	18	13-29	37	38	17	11	?	11
Group B	19	13-28	36	37	18	11	36	11
SG B3	19	14-29	36	38	18	11	36	11
SG B5	19	14-29	36	38	18	11	36	11
SG B6	19	13-28	36	37	18	10	36	11

Subgroup B3 (FT88084): This branch is remarkable for DYS389-1=14. Members of this subgroup, in addition to DYS389=14-29, also has CDY=36-38. The former is a single mutation due to the unusual nature of DYS389. Any insertion or deletion from DYS389i is also reflected in DYS389ii. However, the opposite is not true. There are 15 members, two of which have a Big Y test. The haplogroup is FT88084, a descendant of the Group B common ancestor and BY25608.

This subgroup includes descendants of John Meeks born about 1710 and who lived in Pitt Co., NC. Unfortunately, connections to his supposed sons are not well documented. Five members have DYS570=17 and five members have DYS570=18. Of the former, 3 are descended from Charles Meeks born 1797, son of Francis, son of Francis Meeks born 1747. However, two other sons of Francis born 1747 and one brother, John born 1740 had DYS570=18. The remaining kits were either unconnected or did not have results for that marker. Therefore, the conclusion is that John Meek born 1710 and consequently subgroup B3 had DYS570=18. Those members in this subgroup

Group B Ancestral Signature

with the value 17 can be reasonably sure that this is a mutation that began with Charles Meeks born in 1797. DYS570=17 does not reflect the ancestor's value for that marker.

Subgroup B5 (FT50483): This subgroup includes two members named Meeks and one named Lee with an unknown connection. One man named Meeks and the Lee member have the Big Y test. The haplogroup is FT50483, a descendant of the Group B common ancestor and BY25608. Subgroup B5 also has the unique mutations found in subgroup B3, DYS389=14-29 and CDY=36-38. The significance of this is not fully understood at this time.

Subgroup B6: This branch was originally included in subgroup B3 although it never seemed to fit there or in any other subgroup. The two members match the Group B ancestral signature except for a unique mutation at DYS572. Neither member has been SNP tested. The members involve two descendants of two Baltimore, MD ancestors born 1785 and 1810 who seem more likely to be related to subgroup B1 based on proximity. However, they do not match the marker values associated with YP1080 or subgroup B1.

Summary

Meek Project Group B is made up of more than 70 men who have been identified by thirteen unique matching STR marker mutations. These mutations, along with the remaining markers from the 111 Y-STR marker test is called the ancestral signature. The Big Y test reveal four major branches or haplogroups below the common ancestor and BY25608. One of those branches, YP1080 has multiple levels and subgroups based on SNPs and STR's. The former will usually take precedence over the latter.

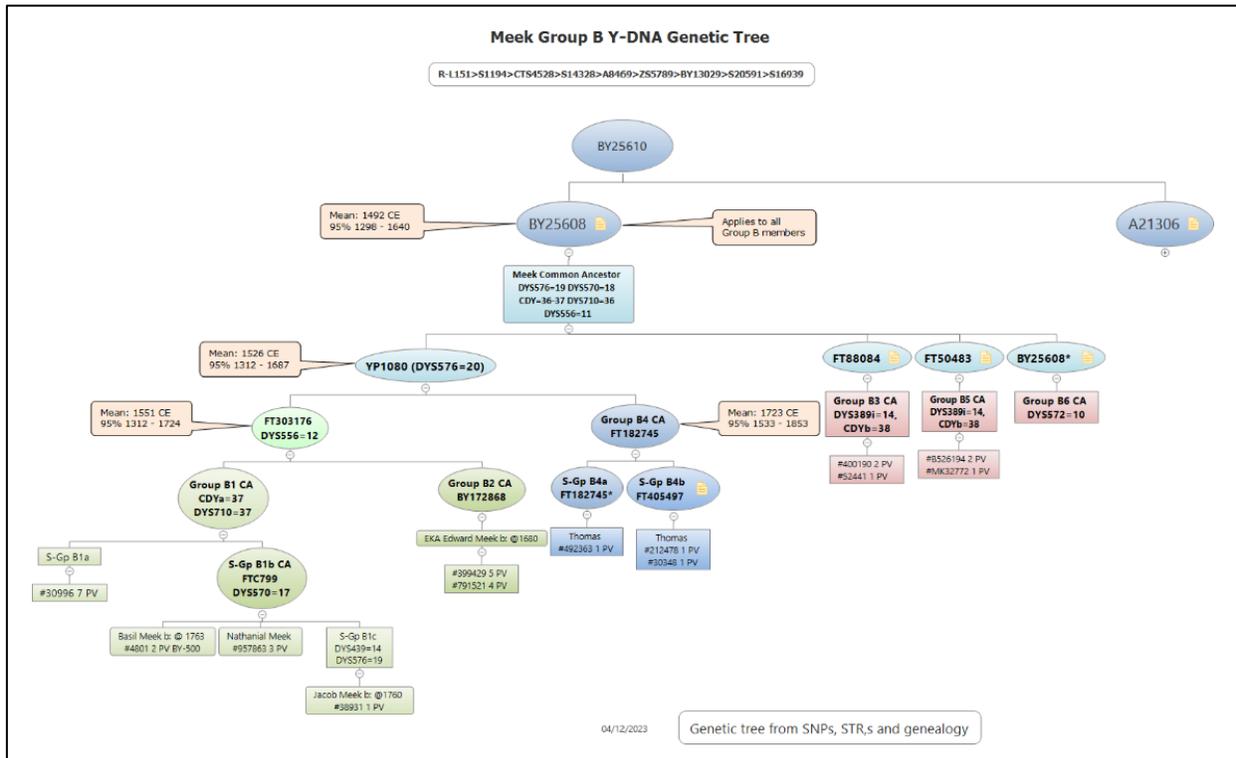
Thirteen members took the advanced SNP marker test known as the Big Y test and all of them were positive for the SNP R-BY25608. This marker represents a position on the "R" Haplotree. All "R" haplogroup men who match the STR marker ancestral signature in Table 2 on page 2 will likely be positive for BY25608. The unknown man who is the common ancestor of all men in Group B would have been positive for R-BY25608.

The Big Y test revealed four major subgroups but not the original four subgroups. A previously unknown SNP, YP1080, and common ancestor combined subgroups B1, B2, and B4. Two men in subgroup B3 are positive for FT88084. Two of three men previously in subgroup B3 tested positive for FT50483 which is now in a new subgroup B5. Two men not SNP tested were placed in new subgroup B6 because they do not fit in any subgroup based on STR markers. Including lower-level subgroups there are seven distinct groups based on STR and/or SNP markers. The common ancestors of each major subgroup were unknown men who lived in an unknown time more recent than the Common Ancestor of all Group B and before the earliest known ancestor(s) of their respective subgroups. All seven genetic branch common ancestors were part of an extended family that lived in an unknown place, probably in England.

Genealogically, some groups have multiple earliest known ancestors primarily born in the 1700's. Future SNP testing may reveal as yet undiscovered genetic branch within the BY25608 haplotree which may intersect one or more genealogical trees.

Group B Ancestral Signature

The below tree chart shows the recent haplogroup tree and the STR mutations for the different subgroups. At the center of the chart a rectangle shows the common ancestor of the four major subgroups. Six of the seven subgroups have an identifying SNP marker as well as a unique STR signature.



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Additional Tables: 1

Pre BY25608 markers

Table 1	DYS439	DYS389-2	DYS447	DYS464a	DYS464b	DYS570	DYS442	DYS438	DYS461
R1b	12	29	25	15	15	17	12	12	12
Pre Gp B	13	28	25	14	14	18	10	13	13

Additional Tables: 5

The ancestral signature for each subgroup B1 through B6 uses the defining markers noted above. Each subgroup deviates slightly using a subset of the defining markers as a base. They are **DYS576**, **DYS570**, **CDY**, **DYS710** and **DYS556** in addition to the markers **DYS389**, **DYS439**

Table 5	DYS389	DYS439	DYS576	DYS570	CDYa	CDYb	DYS572	DYS710	DYS556
L151	13-29	12	18	17	37	38	11		
Group B	13-28	13	19	18	36	37	11	36	11
SG B1	13-28	13	20	18	37	37	11	37	12
SG B1a	13-28	13	20	18	37	37	11	37	12
SG B1b	13-28	13	20	17	37	37	11	37	12
SG B1c	13-28	14	19	17	37	37	11	37	12
SG B2	13-28	13	20	18	36	??	11	36	12
SG B4	13-28	13	20	18	36	37	11	36	11
SG B3	14-29	13	19	18	36	38	11	36	11
SG B5	14-29	13	19	18	36	38	11	36	11
SG B6	13-28	13	19	18	36	37	10	36	11

and **DYS572** for secondary branches. Table 5 shows the mutations from the ancestral signature of all subgroups. Table 6, below, shows the mutations of just the major subgroups.

Group B ancestral signature by major subgroup

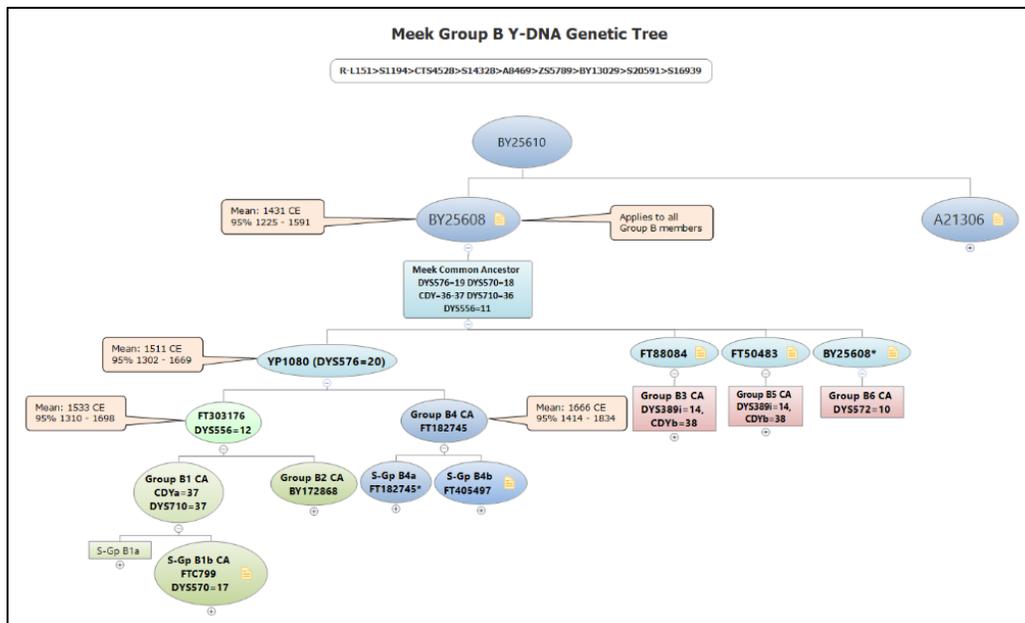
Table 6	DYS439	DYS389	DYS392	DYS458	DYS447	DYS464a	DYS464b	GATA H4	DYS576	DYS570	CDY	DYS442	DYS438
L151	12	13-29	13	17	25	15	15	11	18	17	37-38	12	12
Group B	13	13-28	12	15	26	14	14	12	19	18	36-37	10	13
YP1080	13	13-28	12	15	26	14	14	12	20	18	36-37	10	13
SG B1	13	13-28	12	15	26	14	14	12	20	18	37-37	10	13
SG B2	13	13-28	12	15	26	14	14	12	20	18	??	10	13
SG B4	13	13-28	12	15	26	14	14	12	20	18	36-37	10	13
<>YP1080	13	13-28	12	15	26	14	14	12	19	18	36-37	10	13
SG B3	13	14-29	12	15	26	14	14	12	19	18	36-38	10	13
SG B5	13	14-29	12	15	26	14	14	12	19	18	36-38	10	13
SG B6	13	13-28	12	15	26	14	14	12	19	18	36-37	10	13
Table 6	DYS534	DYS710	DYS556	DYS461		DYS572							
L151	15	36	11	12		11							
Group B	16	36	11	13		11							
YP1080	16	36	11	13		11							
SG B1	16	37	12	13		11							
SG B2	16	36	12	13		11							
SG B4	16	36	11	13		11							
<>YP1080	16	36	11	13		11							
SG B3	16	36	11	13		11							
SG B5	16	36	11	13		11							
SG B6	16	36	11	13		10							

Meek DNA Project

Y-DNA Haplogroup/SNP Structure of Meek Group B

The purpose of this paper is to explain the genetic structure of Meek Project Group B. The Meek project started in November 2004 and Group B is the earliest group of members identified. Additionally, it has consistently been the largest group of members within the Meek Project. Today it consists of over 70 members. One reason Group B is the largest is that it appears to be collection of smaller groups who are distantly related possibly before any of the early ancestors immigrated to America. The genetic tree presented here is based on Y-DNA SNP¹ markers (Big Y 700), STR² markers and genealogy. For more information on STR markers see “Group B Y-DNA Ancestral STR Signature”, APR 2023, Christopher A. Meek. SNP markers will always override any hypothesis made using STR markers.

Group B has 14 defining STR markers whose values deviate from the L151 modal values with varying degrees of importance. This allows for the determination of a man, who matches most of these marker values, belonging to Group B. That man will share a common ancestor with other men who also match these values with a high degree of confidence. This is important because, for many, the cost of a Big Y test can be prohibitive. STR markers have been important for the Meek project. However, STR markers can take the project only so far. Advance SNP testing has been required to fully understand the structure of Meek Project Group B ancestors.



Family Tree DNA (FTDNA)³ predicts the haplogroup⁴ for each Y-DNA STR tester. This is represented by a specific SNP marker. However, they only predict at a very high level (older). A SNP test is required to confirm this prediction and provide refinement to more recent haplogroups/SNPs. The terminal SNP is the most recent SNP, confirmed by two Big Y tests, that does not have any descendant SNPs that are confirmed by two Big Y tests according to FTDNA. There may be more recent SNP which have not met this standard.

¹ SNP=Single nucleotide polymorphism, a type of DNA marker.

² STR=Short tandem repeat, a type of DNA marker.

³ FTDNA is the testing company, Family Tree DNA.

⁴ Haplogroup: A group of similar haplotypes that share a common ancestor with a SNP mutation. (ISOGG glossary)

Y-DNA Haplogroup/SNP structure of Meek Group B

Group B has 13 members who have taken the Big Y test, at least one in each of five of the six major subgroups thus far tested. Subgroup B6 has not been SNP tested but clearly falls within Group B based on STR markers. The results indicate all six subgroups descend from the first man to carry the **R-BY25608** mutation of the Y-DNA Haplotree. The path is R-P310>L151>S1194>CTS4528>S14328>A8469>ZS5789>BY13029>S20591>S16939>BY25610>**BY25608**. The first man to carry the BY25608 mutation was the direct paternal ancestor of all Group B members. This is in the S1194 branch of R-L151. Half of the subgroups descend through two previously unknown genetic branches.

The above chart represents that portion of the Y-DNA Haplotree⁵ that applies to Group B down to the major subgroup level. Each oval represents a SNP marker which has mutated from its previous state. Each SNP on the tree represents a descendant of the previous SNP (top to bottom). In other words, each SNP is more recent in time than the previous SNP. An unknown number of generations separates each SNP.

Also displayed is A21306, a branch of BY25610, which is populated by a family with the surname of Smith. Their STR signature is similar to that of BY25608. It is not clear what surname was used prior to the common ancestor or the first man to carry the BY25608 mutation. Never-the-less, the Smith group is the closest genetic ancestor to descendants of BY25608. In addition, they are the only other men, thus far tested, who descended from BY25610 with one exception.

On the charts an eclipse represents a proven SNP mutation. A rectangle represents a genealogical node deduced by STR markers or genealogy. The rectangle below BY25608 in the chart represents the common ancestor⁶ of Group B, a man who was positive for the SNP BY25608 but not necessarily the first man to carry the BY25608 mutation. The common ancestor's node is associated with four STR mutations. These mutations occurred prior to the common ancestor. When each STR marker actually mutated is not possible to determine at this time. The common ancestor's Y-DNA STR signature is deduced from those of the various subgroups and members. Placement of STR mutations within the haplogroup chart is speculative.

Another major part of the Big Y results is a list of "private variants" (PV). It is from the private variants that new and more recent branches are discovered. The word "private" means they do not match any other current customer of FTDNA and have not been placed on the haplotree. Each of the current members who has been SNP tested has at least one suitable private variant not found in any of the other member's results. These markers need to be confirmed by an additional Big Y test positive for the same marker before its position on the tree is recognized by FTDNA.

While STR markers initially identified four separate subgroups, SNP testing offered some surprises. Notably, new insight revealed how they were connected to each other. However, the big surprise was the grouping of three subgroups below a branch, YP1080. This finding clearly sets subgroup B3 apart from the other three. Not so surprising is a subsequent SNP test for a subgroup B3 member reveals a new genetic branch, FT50483, that also descends directly from BY25608. It is now referred to as subgroup B5. The member's STR signature matches the former subgroup B3b signature except for DYS449=28 and CDYb=38. Thus, the current chart shows YP1080,

⁵ Haplotree: A haplogroup tree. A diagram or chart showing the different lineages within a haplogroup. (ISOGG glossary)

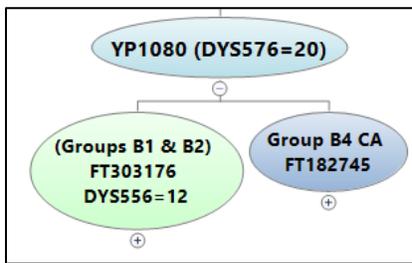
⁶ Common ancestor: The unknown ancestor responsible for two or more genetic branches.

Y-DNA Haplogroup/SNP structure of Meek Group B

FT50483, FT88084 and one yet to be defined branch that includes the former B3a subgroups. Subgroup B3a never matched subgroup B3b STR signature. They match the Group B ancestral STR signature, except for $DYS572=10$. For the sake of clarity, they will now be referred to as subgroup B6. It is shown as a separate undefined descendant of BY25608 based on STR markers. This is subject to change.

FTDNA provides a date for the Group B common ancestor of between 1225 – 1591 (95% confidence) with a mean date of 1431⁷. These are the FTDNA statistics for R-BY25608, the common genetic ancestor of Group B. Few Meek(s) genealogists has extended their genealogies back to 1431. The margin of error provides a great deal of flexibility if and when the times comes.

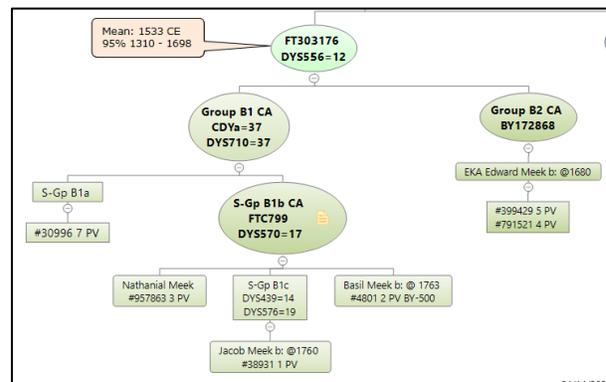
YP1080 is an important node that was previously unknown. There are no equivalent SNPs. There



is no genealogical data connecting the different subgroups. There is not even a legend that suggests a connection. However, SNP testing clearly shows that there was a common ancestor for subgroups B1, B2, and B4. In addition, subgroups B1 and B2 share a common ancestor, who was positive for FT303176, that excludes subgroup B4. Descendants of YP1080 will generally have STR marker $DYS576=20$ rather than 19, which is thought to be the ancestral value for Group B.

B. Branches identified by YP1080 and FT303176 do not have any equivalent SNPs. This precludes any additional unknown branches at this level of the tree with the possible exception of subgroup B4 (FT182745) which has two equivalents. There are likely more branches identified by private variants below this level. FTDNA provides a date for YP1080 of between 1302 – 1699 (95% confidence) with a mean date of 1511.

FT303176 is another previously unknown node that also has no equivalent SNPs. All members who are positive for this SNP (6) also have the STR mutation $DYS556=12$. It is not surprising that subgroups B1 and B2 are combined under FT303176. Subgroup B2 is based on two Big Y tests. Originally based on STR markers, it could have been placed within subgroup B1. FTDNA provides a date for the branch FT303176 of between 1310 – 1698 (95% confidence) with a mean date of 1533.



Subgroup B1 has over 40 Y-DNA STR tests representing multiple earliest known ancestors, largely born in the 1700's. Subgroup B1 has a distinctive Y-STR signature. Of the 44 members of Subgroup B1 38 have the STR mutation $CDYa=37$. Eight of nine members have the STR mutation $DYS710=37$. Subgroup B1 appears to have split into two branches. Subgroup B1a is only different

⁷ This author cautions reader that all dating methods are problematic, IMHO. There are numerous variables which are difficult to quantify. At best one will not get reliable answers using a very small number of tests. Group B, the projects largest group will likely never have the number of tests needed. Finally, these are statistics. Statistics apply to groups, not individuals. All date information from FTDNA.

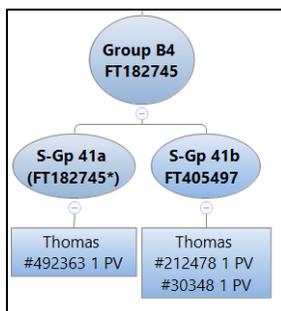
Y-DNA Haplogroup/SNP structure of Meek Group B

by DYS570=18 versus 17. Initially, they were grouped separately based primarily on genealogy. Now one subgroup B1a member has a Big Y test which includes seven private variants none of which matches one Big Y test from subgroup B1b, excluding two tests for FTC799 (subgroup B1c). The member is negative for FTC799. That B1b test is a Big Y 500 test which limits its usefulness. In the absence of other information Subgroup B1 appears to have two branches, B1a and B1b.

There also appears to be a subgroup, B1c (DYS439=14 and DYS576=19) below B1b with nine members. The latter STR value is a back mutation. All of this could probably be officialized if more Big Y testers were available. Based on Y-DNA STR marker tests from descendants of multiple sons these mutations can be dated as far back as Jacob Meek born about 1760 and who died 10 Aug 1824 in Henry Co., TN.

FTC799: One member from subgroup B1b and one from subgroup B1c are positive for the SNP branch FTC799. Of the members of subgroup B1b and subgroup B1c thirty-six of forty-two are positive for DYS570=17. As mentioned earlier, the two members of subgroup B1a have the ancestral value of eighteen for this marker. Subgroup B1a is also negative for FTC799.

Subgroup B2 is based on two Y-DNA tests. Both have the Big Y tests and are positive for BY172868. Based on STR markers, they could have been placed within subgroup B1. Based on STR markers (DYS570=18 and CDYa=36), geography (New York VS Maryland) and the date of the earliest known ancestors (1600's VS 1700's) it was placed in a separate subgroup. This decision would seem to have been justified once the second Big Y test results became available. The two members have five and four private variants.

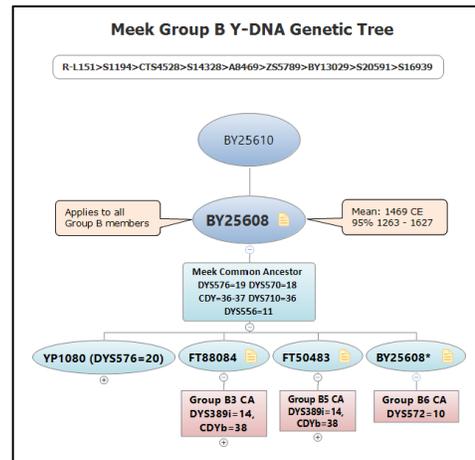


Subgroup B4 is comprised of men named Thomas who came out of North Carolina in the 1700's. Most descend from Benjamin Thomas born 18 Jul 1756 and who lived in Anson Co., NC. The ancestral STR signature matches the larger Group B ancestral STR signature except for DYS576=20. The lack of STR mutations is not necessarily helpful. However, the three Big Y tests made up for that. Not only was there a clear separation from other subgroups (FT182745) but it split with two of the three tests positive for FT405497. Subgroup B4 split from subgroups B1 and B2 after the first man who carried the YP1080 mutation. The common ancestor for FT182745 descendants was born between 1526 – 1851 (95%) with a mean date of 1719. FT405497 was born between 1594 - 1901 (95%) with a mean date of 1779. All dates provided by Family Tree DNA. These dates should be considered very approximate due to the small number of tests involved.

All three men have one private variant. Therefore, it is possible additional branches will be identified. The question remains as to who the common ancestor was and when he lived. There is an apparent name change from Meek(s) to Thomas based on the fact that there are multiple descendant groups with the Meek(s) surname within Group B.

Not YP1080

In the early days of the Meek Project with only a small number of members it was confirmed by FTDNA that there was a difference between subgroups B1 and B3. The other subgroups came later. It is now known that subgroups B1, B2, and B4 are grouped together under SNP YP1080 which sets subgroup B3 (FT88084) apart from the YP1080 group but still under the Group B common ancestor and SNP BY25608. The most recent Y-DNA SNP results show that three former members of subgroup B3 actually belong to a new branch directly under BY25608 which is now known as subgroup B5 (FT50483). The project administrator has moved two other members to a new subgroup now known as B6. They should not have been grouped in subgroup B3 based on STR markers. Unfortunately, neither of them has been SNP tested. At the same time, they lack the STR mutations that identify the groups under YP1080 or subgroup B3.



Subgroup B3 is branch of BY25608 with the name of FT88084. There are two members of this group with the Big Y test. One has two private variants and the other has one. These are primarily descendants of John Meeks born about 1710 and who lived in Pitt Co., NC. There is no known genealogical connection to other subgroups in Group B or any other group of Meek families. There are 16 members of subgroup B3. The ancestral STR signature is unique from other subgroups within the larger Group B except subgroup B5. All of them have DYS389i=14. Thirteen members of subgroup B3 have DYS576=19 while most members who fall under YP1080 have the value of 20. Finally, 12 members have CDYb=38 while YP1080 members have the value of 37. More than half of the members of subgroup B3 have DYS570=17. The men in subgroup B3 with this value all descend from Charles C. Meeks born about 1797. This dates the mutation to about 1797 and removes it from consideration as the ancestral value for the subgroup which is 18.

Subgroup B5 is identified by the haplogroup FT50483. This group has two members named Meeks who descend from Thomas Meeks born about 1768 and who lived in modern-day West Virginia. Also, one member named Lee with an unknown genealogical connection. Mr. Lee has one of the two Big Y tests. Their two Big Y tests separate them from subgroup B3 where they had previously been placed based on the similarity of their STR markers. There is no known genealogical connection to men in subgroup B3. Geographically, they came from different regions. Two of the three members have DYS389i=14 and CDYb=38 which are the primary STR marker that identifies subgroup B3. The common ancestor of men positive for FT50483 was born between 1347 – 1834 (95%) with a mean age of 1642. Use caution with these dates. See footnote 8.

Subgroup B6 involves two men whose genealogy date to 1785 and 1810 in Maryland. The genealogical connection is unknown. The DOB and geographical information suggest a connection to the B1a subgroup. But they do not have the STR mutations defining that subgroup. In addition, they are the only members of Group B who have DYS572=10. Otherwise, they match the key STR marker values defining Group B and lack the STR marker values defining YP1080.

Summary

From the first handful of test results involving 37 STR markers it was determined that Group B results showed a unique STR signature that would make it easy to identify future members for Group B by either genealogy, STRs or SNPs. In addition, it was clear there were two major genetic branches who also had no known genealogical connection. From that time the data grew as new members were added which allowed additional insights into the structure of Group B. It was not until advanced SNP testing became affordable that there was a clear picture of the structure of Group B. Nor all the questions have been answered and new ones keep popping up. However, our understanding of Group B has evolved and will continue to be refined as new members join the project or current members upgrade to the Big Y test. Y-DNA STR markers have been useful but have limitations. Y-DNA SNP markers can provide more certainty. STRs will remain important because many members are not available for additional DNA testing. Any tester who matches the Group B STR signature will likely also test positive for BY25608.

The original four subgroups deduced from STR markers and genealogy have largely been confirmed by SNP testing. If they are not outright confirmed by SNPs, then there is a single tester who has private variants which should identify a new genetic branch when additional members have been SNP tested. After several Big Y tests, the relationship between the subgroups is now better understood. As suspected previously subgroups B1 and B3 are distantly related with a date for the common ancestor between 1263 – 1627 (95% confidence) with a mean date of 1469⁸. These are the FTDNA statistics for R-BY25608, the common genetic ancestor of Group B. The common genealogical ancestor probably lived before the family migrated to America.

The members, representing various earliest known ancestors, are a “sample” data set of the Ultimate Progenitor’s descendants. Since we do not know who that man was, we cannot know if the sample completely covers all branches of the Progenitor’s descendant chart. BY25608 has four equivalent SNPs which may indicate possible yet to be discovered branches. All current Big Y testers in Group B are positive for all four equivalent SNPs.

It is now known that genealogical subgroups B1 & B2 are more closely related than other subgroups with a common ancestor positive for FT303176. They join subgroup B4 (FT182745) in a previously unknown subgroup with an unknown ancestor positive for YP1080. Subgroup B4 is split with some men testing positive for FT405497.

One can see from the chart below that some genetic lines have more structure than others. YP1080 has more branches than non-YP1080 subgroups. This is partly a function of the number of tests involved but is also a function of the random nature of Y-DNA mutations. One can also see that the number of existing tests in subgroup B1 and B2 suggests that genetic branches will extend into known genealogies when more men order the Big Y test. Subgroup B4 may already be near that point. Nine members under FT303176 who have different earliest known ancestors and have a Big Y test. Given its size, Group B is undertested, especially subgroup B1b.

⁸ This author cautions reader that all dating methods are problematic, IMHO. There are numerous variables which are difficult to quantify. At best one will not get reliable answers using a very small number of tests. Group B, the projects largest group will likely never have the number of tests needed. Finally, these are statistics. Statistics apply to groups, not individuals. All date information from FTDNA.

Y-DNA Haplogroup/SNP structure of Meek Group B

There may well be other subgroup involving men who are not in the Meek Project. These men may not have been Y-DNA tested. Other lines may have daughtered out. The Meek project is nearly 19 years old, so it is not likely there are too many men who have tested at least 37 Y-DNA markers that are unknown to the project. At the same time the project is knowledgeable of Meek genealogies going back for over a hundred years and has had communication with many genealogists even before Y-DNA testing was available. See the companion article “Group B Introduction” summary of genealogies list of earliest known ancestors generally born before 1800.

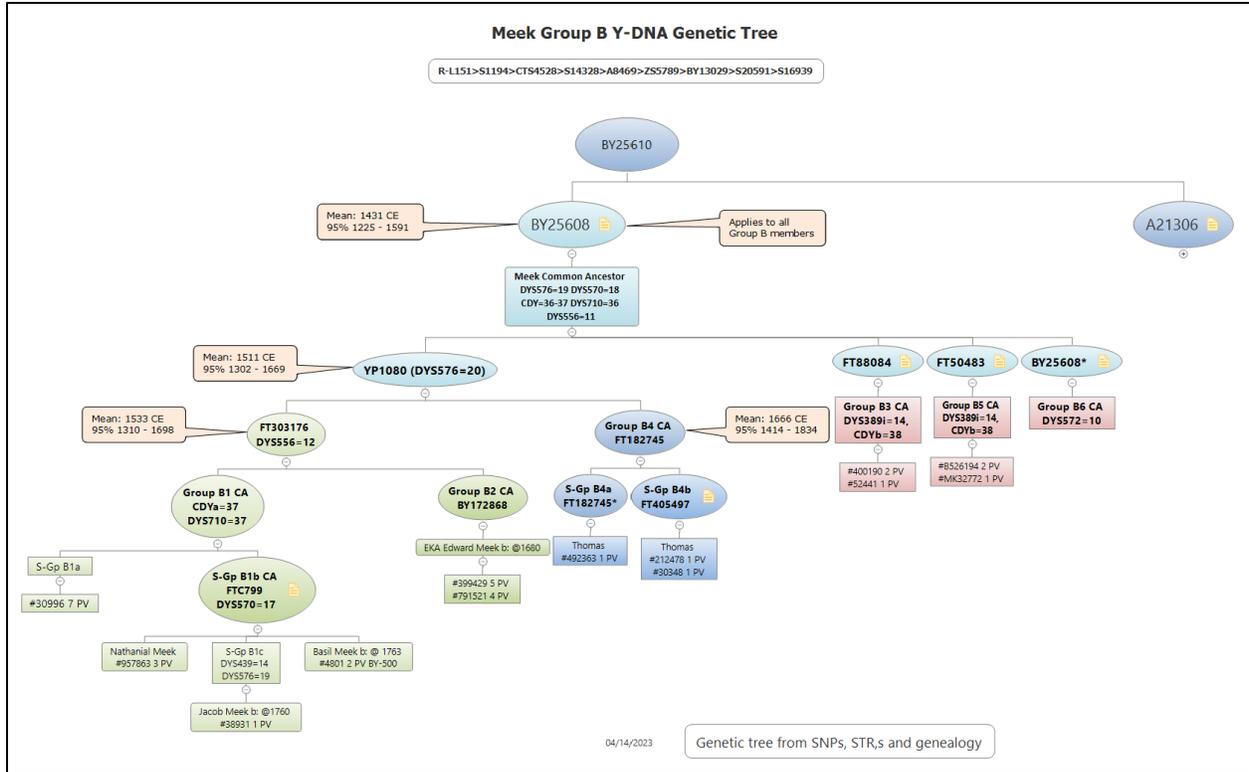
In summary, Group B (R-BY25608) has four known genetic branches but not the original four subgroups. YP1080 includes the previous subgroups B1, B2, and B4. FT88084 includes the primary portion of subgroup B3 from Pitt Co., NC. FT50483 includes a small group, previously part of subgroup B3 but out of Maryland now known as Subgroup B5. Finally, two men out of Maryland whose STR marker suggest they will form a separate genetic subgroup of BY25608.

Clearly subgroup B1 has more “earliest known ancestors” and has potential for the discovery of more genetic branches. However, more members will need to purchase the Big Y test.

Group B defining markers

Table 2	DYS439	DYS389	DYS392	DYS458	DYS447	DYS464a	DYS464b	GATA H4	DYS576	DYS570	CDY	DYS442	DYS438
L151	12	13-29	13	17	25	15	15	11	18	17	37-38	12	12
Group B	13	13-28	12	15	26	14	14	12	19	18	36-37	10	13
Con't	DYS534	DYS710	DYS556	DYS533	DYS575	DYS461		DYS572					
L151	15	36	11	12	10	12		11					
Group B	16	36	11	11	11	13		11					

Y-DNA Haplogroup/SNP structure of Meek Group B



Copyright by Christopher A. Meek 10/28/2016/Rev 11/20/2016/Rev 12/28/2016/Rev 10/15/2017/Rev 1/29/2018/
 Rev2/13/2018/Rev 4/2/2018/Rev 8/23/2018/Rev 9/2/2018/Rev 10/16/2018/Rev 12/6/2018/Rev 7/25/2021/Rev
 1/16/2022/Rev Mar 2022/Rev Nov 2022/Rev Apr 2023/Rev Jul 2023

R-A21312 Smith Family

Y-DNA Results

This is a summary of Y-DNA results for one group of men named Smith. This Smith family can be distinguished from other Smith families by using Y-DNA. Many of the members descend from George Smith b: 1760 while a couple descend from David Smith born 1720 through his son William. William may be a brother of George but this is not proven.

Background

A Y-DNA test has two components. One component is the STR¹ marker test, such as the 37 marker test from Family Tree DNA. This test looks at the paternal lineage back through genealogical time frames. These are useful for surname studies. The other component is the haplogroup² or SNP³ test. SNPs look at the paternal line back to more than 20,000 years, obviously well before genealogical time frames. These can also be useful for genealogy where there are few if any surname matches or one wants to explore the early origins of the family. Advanced testing may extend into more recent genealogical time frames. Some haplogroups can be predicted by examining STR haplotype⁴ but can only be confirmed by a SNP test. Generally speaking the modal haplotype⁵ for many haplogroups is known. The Smith group is in the “R1b”⁶ haplogroup. Specifically, a branch headed by the SNP R-P151⁷. The large percentage of European men fall in the L151 haplogroup.

Haplogroup/SNPs

Two member have taken an advanced SNP test known as the Big Y test and has been assigned a terminal SNP of R-A21312. This SNP marker marks the position (branch) on the “R” haplotree⁸ where the Smith family resides. The haplotree is similar to a family tree although there is usually more than one generation between branches. This result will apply to all direct male descendants of George Smith born about 1760 with the same or similar STR marker signature. A21312 may apply more broadly to brothers, uncles and cousins of George Smith. However, this cannot be known with any degree of certainty without additional test from descendants of those men.

A21312 is in the S1194 branch of R-L151. The path is R-L151>S1194>CTS4528>S14328>A8469>ZS5789>BY13029>S20591>S16939>BY25610>A21306>A21312

That portion of the haplotree shown below also reflect some of these steps.

The tree is based on the SNP tests done up to this point. It may change and/or expand as more people are tested. There has not been many men tested in this area of the tree. There has only been

¹ STR=Short tandem repeat

² Haplogroup: A group of similar haplotypes that share a common ancestor with a SNP mutation. (ISOGG glossary)

³ SNP= Single nucleotide polymorphism

⁴ Haplotype: The term for the set of numbers that consists of your Y-chromosome or mitochondrial DNA results. Haplotypes are also known as genetic signatures. (ISOGG glossary)

⁵ A modal haplotype is the most commonly occurring haplotype (a set of STR marker values) derived from the DNA test results of a specific group of people. The modal haplotype does not necessarily correspond with the ancestral haplotype - the haplotype of the most recent common ancestor. (ISOGG glossary)- Most recent common ancestor (MRCA): The most recent ancestor from whom a group of individuals share descent. (ISOGG glossary)

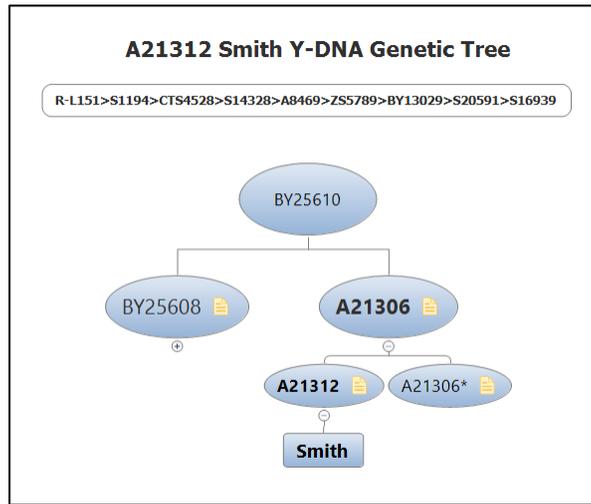
⁶ R1b is a generally refers to the haplogroup R-M269 and its subclades.

⁷ L151 also known as P311, P310 & L11

⁸ Haplotree: A diagram or chart showing the different lineages within a haplogroup. (ISOGG glossary)

R-BY25610 Smith Family Y-DNA Results

nine known men tested who are positive for ZS5789 and its subclades. The Meek project is responsible for identifying the four levels below that.



The Smith branch, A21306, is a brother clade to the Meek project Group B. Dating when SNPs first appeared is problematic especially given the small number of tests. Equivalent SNPs are A21308, A21310, and A21311. However, A21306 has two descendant branches, A21312 and an unidentified branch labeled A21306*. The asterisk means at least one person who is negative for all known downstream SNPs.

The two Big Y Smith testers are positive for A21312. Equivalent SNPs are A21307, and BY137421. The Smith haplogroup is A21312. In addition to providing the terminal SNP and position on the haplotree the Big Y test provides a list of private variants. These are SNPs whose position on the tree is unknown and is consider not official. One member has no private variants, and another has one, 9560915 T>A. These two areas are where future genetic branches of the tree might be found if they exist.

There is one unknown person who is positive for A21306 and negative for A21312. He apparently has Y-DNA sharing turned off. Since his surname is unknown, it is not known if the Smith surname extends back to the A21306 branch.

STR Markers

Analysis of STR markers involves a process of looking at the pattern of marker values for a group of related people or a group of people thought to be related. The **ancestral signature**⁹ is a deduced haplotype for a group or subgroup. It is determined by calculating the statistical mode for each marker and taking into consideration individual or subgroup differences. Therefore it is not a modal haplotype. The level of confidence of such calculations is dependent on the number of test

⁹ Ancestral haplotype: The haplotype of a most recent common ancestor deduced by comparing descendants' haplotypes and eliminating mutations. (ISOGG glossary) - Most recent common ancestor (MRCA): The most recent ancestor from whom a group of individuals share descent. (ISOGG glossary)

R-BY25610 Smith Family Y-DNA Results

results involved and their distribution within the different branches of a group of related people. The following table shows the 37 marker ancestral signature of the Smith family.

R-A21312 Smith Y-DNA Results																																					
DYS name -->	DYS438	DYS442	CDYb	CDYa	DYS570	DYS576	DYS456	YCAIIb	YCAIIa	Y-GATA-H4	DYS460	DYS464d	DYS464c	DYS464b	DYS449	DYS448	DYS437	DYS447	DYS454	DYS455	DYS459b	DYS458	DYS389II	DYS392	DYS389I	DYS439	DYS388	DYS426	DYS385b	DYS385a	DYS391	DYS19	DYS390	DYS393			
R1b1 Modal	13	24	14	11	11	14	12	12	13	13	29	17	9	10	11	11	25	15	19	29	14	14	17	17	11	11	19	23	16	15	19	17	37	38	12	12	
BY25610																																					
Smith - A21312	13	24	14	11	11	14	12	12	13	13	28	15	9	10	11	11	25	15	19	29	14	14	17	17	11	12	19	23	16	15	19	17	37	38	10	13	

Members should compare their results against the ancestral signature rather than other individuals. It is not necessary to match all markers. In fact, all of the current members have one or more recent mutations. These mutations are not important in deducing the ancestral signature. It is more important which markers one does not match as will be seen in the next section.

Defining markers are a sub-set of markers, from the ancestral signature, whose values, taken as a group, are unique in the general population of men in the same haplogroup. The set of defining markers for the Smith group is those markers that deviate from L151 modal values. Several of the Smith values for these markers are infrequently observed. Subgroups also have defining markers indicated by the deviations from the ancestral signature or higher level subgroup.

Table 1	DYS439	DYS389	DYS392	DYS458	DYS464a	DYS464b	GATA H4	DYS576	DYS442	DYS438	DYS537
L151	12	13-29	13	17	15	15	11	18	12	12	10
Smith	13	13-28	12	15	14	14	12	19	10	13	11

These are the markers that make the Smith family unique from other groups. In comparing results one needs to pay attention to how many of these markers are a mismatch. Additional test from near relatives may help resolve any conflicts. Mutations can occur anywhere along the line of descent and on any marker. When that mutation occurred is also important as it will define new branches.

The Smith signature is similar to that of Meek Group B. This is not too surprising given that both families descend from a man who carried the BY25610 SNP mutation. The mutation of defining markers was a continuous process from some point in history to the earliest known Smith ancestor and on to the present.

Following is a comparison of the defining markers for Meek Group B which has a similar set of defining markers. Meek Group B is also positive for the SNP marker BY25610 but then had a mutation at BY25608. The Smith family had a SNP mutation at A21312. The orange cells show the STR marker differences between Smith and Meek.

Table 2	DYS439	DYS389	DYS392	DYS458	DYS447	DYS464a	DYS464b	GATA H4	DYS576	DYS442	DYS438	DYS537	DYS534
L151	12	13-29	13	17	25	15	15	11	18	12	12	10	15
Smith	13	13-28	12	15	25	14	14	12	19	10	13	11	15
Meek	13	13-28	12	15	26	14	14	12	19	10	13	10	16

Many of the defining STR markers were present in a man who carried the BY25610 SNP mutation. He produced two known branches which became the Smith and Meek families. After the split between the Smith and Meek families Meek had two STR mutations and Smith had one. These mutations probably occurred after BY25610 and before the common ancestor for both families.

R-BY25610 Smith Family Y-DNA Results

Meek Group B developed the all-important STR mutation at DYS447=26. This mutation seems to be unique with men who are positive for BY25608.

All mutations are random. Whatever science tells us about DNA mutations it only applies generally to large groups. Mutations occur at different rates for different groups and even different branches of the same known family. It is not necessary for all members of a group or subgroup to have the same value in all defining markers. Mutations can occur anywhere along the line of descent and on any marker. When a mutation occurred is just as important as the fact that it occurred at all. When a mutation is observed, tests from other descendants of other sons or branches of the same ancestor may show what the ancestral value for the common ancestor should be. This is a process known as triangulation¹⁰.

Summary:

Descendants of George Smith born about 1760 and his extended family can be identified by 37 or more Y-DNA STR markers. Two of George's descendants are positive for the Y-DNA SNP marker R-A21312. This marker may or may not identify the extended family of George. But all Smith descendants should be positive for BY25610.

The R-A21312 Smith family and R-BY25608 Meek family connect at a common ancestor who carried the BY25610 SNP mutation but probably not the first man to carry that mutation. The two families have remarkably similar STR marker signatures. Many of the defining markers were inherited from the common ancestor or the first man to carry the BY25610 mutation.

There are no reliable dating methods for either STR or SNP mutations although some may be dated by genealogy. The common ancestor for may have lived as recently as the 1700 but the first man to carry the A21312 mutation may have lived much earlier. More data may help refine the guesswork. Any attempted to date any particular SNP is hampered by the small number of tested subjects.

There are about seven STR results which match the A21312 Smith signature and which have unknown ancestry. If any of them descend from an ancestor other than George Smith he should do the Big Y test. Bear in mind there are BY25608 Meek member named Smith who are not part of the A21312 Smith family. They descend from a men named Meek(s).

As is true for genealogy, more data allows for better analysis of Y-DNA and a higher level of confidence for conclusions. There are limits to how much more can be gain from additional Big Y tests except as mentioned above. New member with 37 marker would be helpful and the ancestral signature for the 111 marker panel is not yet well understood.

¹⁰ Triangulation: A method of determining the ancestral haplotype of an ancestor using the DNA results of direct line descendants. (ISOGG glossary)

R-BY25610 Smith Family Y-DNA Results

Addendum

Smith 38-67 marker ancestral signature.

R-A21312 Smith Y-DNA Results																													
DYS name -->	DYS531	DYS578	DYS395S1A	DYS395S1B	DYS590	DYS537	DYS641	DYS472	DYS406S1	DYS511	DYS425	DYS413B	DYS557	DYS594	DYS436	DYS490	DYS534	DYS450	DYS444	DYS481	DYS520	DYS446	DYS617	DYS568	DYS487	DYS572	DYS640	DYS492	DYS565
R1b1 Modal	11	9	15	16	8	10	10	8	10	10	12	23	23	16	10	12	15	8	12	22	20	13	12	11	13	11	11	12	12
BY25610						10																							
Smith - A21312	11	9	15	16	8	11	10	8	10	10	12	23	23	16	10	12	15	8	12	22	20	13	12	11	13	11	11	12	12

Smith 68-111 marker ancestral signature. R1b modal values not always reliable.

R-A21312 Smith Y-DNA Results																																													
DYS name -->	DYS710	DYS485	DYS632	DYS495	DYS540	DYS714	DYS716	DYS717	DYS505	DYS556	DYS549	DYS589	DYS522	DYS494	DYS533	DYS636	DYS638	DYS575	DYS462	DYS452	DYS445	Y-GATA-A10	DYS463	DYS441	Y-GAATA-1B1	DYS525	DYS712	DYS593	DYS650	DYS532	DYS715	DYS504	DYS513	DYS561	DYS552	DYS576	DYS587	DYS643	DDYS497	DYS510	DYS434	DYS435			
R1b1 Modal	36	15	9	16	12	26	26	19	12	12	13	12	11	9	12	12	10	11	11	30	12	13	24	13	10	10	21	15	17	14	24	15	12	15	24	12	23	18	10	14	16	9	12	11	
BY25610																																													
Smith - A21312	35	15	9	16	12	26	26	19	12	11	12	12	10	9	11	12	11	11	11	30	12	13	24	13	10	10	22	15	18	15	24	16	12	15	24	12	23	18	10	14	20	9	13	11	

Not enough data is available to properly analyze the 111 marker panel

SONS OF GEORGE SMITH, SR. B. ABT. 1760 AND DIED ABOUT 1836

George Smith, Jr.	Richard Smith	John "Honey" Smith	John "Honey" Smith
Rosco B. Smith	Andrew Smith	Thomas W Smith	John Wesley Smith
Pearson Smith	Richard Andrew Smith	John A. Smith	William Smith
James R. B. Smith	?	Thomas A. Smith	Lonnie Smith
Frank Smith		Billy G. Smith	
		Ricky Smith	

Genealogy not verified by this author.

Participants: Eight men have 37 markers. Five of those have 67 markers and two have 111 markers. Two men descend from David Smith born about 1720 presumably through his son William. Five men descend from George Smith born about 1760 through two different sons.

Four 67 marker tests are divided between descendants of David Smith and George Smith. The two from George Smith are from two different sons. Mr. Brownstein has 67 markers but his connection to the Smith surname is not known. The two 111 marker results are from descendants of George Smith.

Other 37 marker results which has been found for the Smith surname are not included because there is no genealogical information. It is likely that some of them share a common ancestor with the men above. However, it is an issue of timing coupled with a very common surname.

R-BY25610 Smith Family Y-DNA Results