

# Niall Glúndub's Y-DNA and the Royal Succession AD 905

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*The O'Neills of Ireland are a fixture of Irish history. Their long-enduring dynasty traces a pedigree back to the semi-historical, semi-legendary Niall 'of the Nine Hostages' who founded the Uí Néill people and died in AD 405. Uí Néill male lineages provided Ireland with High-Kings and Ulster its Kings. From Niall's son Eóghan there emerged the Cenél Eóghain, or kindred of Owen, who provided Ulster with kings and its ruling families. The most notable, the Royal O'Neill, were Ulster kings during medieval and early modern times, and yet their patrilinear origins were only distantly related genetically to the Uí Néill through a mutual common ancestor in Ireland from thousands of years before. An examination of one lineage's oral tradition in light of Y-DNA data has led to the theory there was a disruption in the Cenél Eóghain royal bloodline prior to the Royal O'Neills. An analysis of Y-DNA data on 352 males with Y-SNP S588 in the Cenél Eóghain FamilyTree DNA project with Big Y results indicates the royal succession involved distinctly separate branches. Irish history literature and Y-DNA data suggest that prior to the Royal O'Neill (Y-SNP Z1513), the succession to the original Cenél Eóghain ruling branch (Y-SNP S603) was disrupted by, or before, the sons of Áed Finnliath (d. 879). His sons were half-brothers Domnall (d. 915) ancestor of Mac Lochlainn/ McLaughlin (Y-SNP S7814) and Niall Glúndub (d. 919) ancestor of O'Neill who, while unproven that any of his descendants survived, is on balance of probabilities assessed Y-SNP BY35717 > BY55263.*

## 1.0 Introduction

The study originated from an oral tradition in the author's Neill family, which claims descent from the ancient O'Neill kings of Ulster. The purpose of this research was to determine whether genetic Y-DNA data, combined with historical sources, could support this tradition.

## 2.0 Historical Background

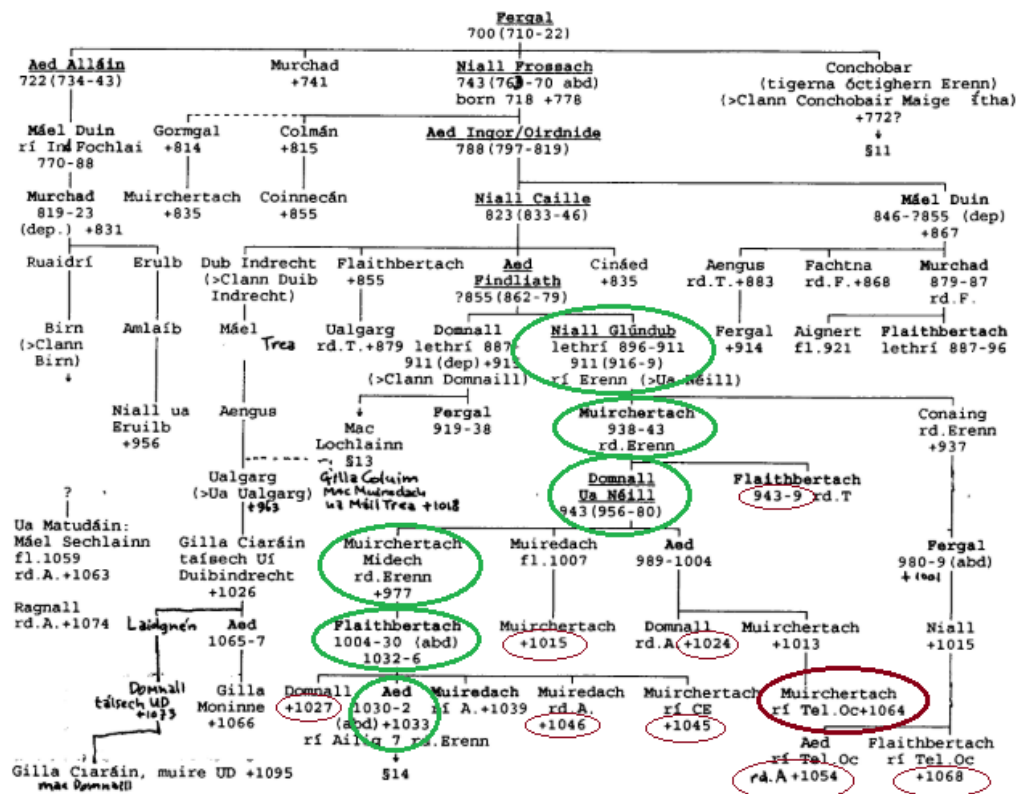
Niall Glúndub's traditional genealogy shows direct royal succession since about 400 from Niall of the Nine Hostages through his son Eóghan, down to Glúndub's father Áed Finnliath (d. 879) who was king of Aileach and later high-king of Ireland at Tara in Meath. The career of Niall Glúndub ('Black-Knee') was obscure until 905 when he challenged his half-brother, Domnall, to the kingship of Aileach that resulted in their collaborative rule over Cenél Eóghain for six years. In 911 and after successful campaigns against the Southern Uí Néill, Domnall went into religious retirement and Niall Glúndub solely ruled the Cenél Eóghain.<sup>1</sup>

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<sup>1</sup> Ailbhe Mac Shamhráin, "Niall Glúndub," Dictionary of Irish Biography, <https://www.dib.ie/biography/niall-glundub-a6200>

Succession to Niall Glúndub ultimately led to a deadly conflict between his and Domnall's descendants that lasted until the battle of Caimeirge in 1241. In *Figure 1*, the table shows the genesis of these claimants from Bart Jaski's *Genealogical Tables of Medieval Irish Royal Dynasties*,<sup>2</sup> with the line of succession to Ó Néill denoted in green. After Glúndub died in 919, Domnall's son Fergal gained power and held it until his death in 938. Glúndub's son Muircheartach succeeded and ruled from 938 until his death in 943 near Dundalk, slain by a force of Vikings.<sup>3</sup> Muircheartach was succeeded by his son, Domnall, called Ua Néill in reference to his grandfather Niall Glúndub, and he ruled until his natural death in 980. His name Ua Néill became hereditary, and later rendered Ó Néill and O'Neill. Like his father and grandfather, Domnall Ua Néill was concerned with containing the Vikings. Largely successful in his endeavors, continuity of the dynasty seemed assured with Ua Néill's numerous sons, grandsons, and great-grandsons shown in the table, but it was not. Young men slain in battle against Vikings and domestic enemies and early deaths from natural causes reduced the Ua Néill.

**Figure 1. Jaski's royal lineage from Fergal to Niall Glúndub and the Ó Néill Dynasty**



<sup>2</sup> Bart Jaski, *Genealogical Tables of Medieval Irish Royal Dynasties*, Bart Jaski, PDF version of 31 July 2013, [https://www.academia.edu/4144299/Genealogical\\_tables\\_of\\_medieval\\_irish\\_royal\\_dynasties](https://www.academia.edu/4144299/Genealogical_tables_of_medieval_irish_royal_dynasties)

<sup>3</sup> Ailbhe Mac Shamhráin, "Muircheartach na Cochall Craicínin," *Dictionary of Irish Biography*, <https://www.dib.ie/biography/muircheartach-na-cochall-craicinin-a6017>

The demise of these men was described by Darren McGettigan in *The Kings of Aileach and the Vikings AD 800-1060*.<sup>4</sup> Their last historical entry in the annals was in 1064 when it was noted, “Muircheartach Ua Neill, lord of Tealach-Og [Tullyhogue], was slain by Ui-Cremhthainn.”<sup>5</sup> This date is circled in red in *Figure 1* at the bottom right. Áed, shown at the bottom of the page circled in green, predeceased his father Flaithbertach in 1033 yet lived long enough to father a son. Áed’s was the only recorded surviving Ua Néill lineage.

At the same time that this original Ua Néill dynasty was faltering, Vikings who dominated or threatened most of northern Europe since 800 were on the wane. In 1066 in England, for example, Vikings were routed at the Battle of Stamford Bridge.<sup>6</sup> The main threat now facing the Ua Néill dynasty was internal to Cenél Eóghain, from Clann Domnaill. When Áed’s father Flaithbertach died in 1036 it had been a century since 938, when power had been last held outside the immediate family of Niall Glúndub. Descendants of Domnall, Niall Glúndub’s half-brother, had since grown into Clann Domnaill and their leading family was Mac Lochlainn (shown in *Figure 1*, hereafter called by the modern usage, McLaughlin).

**Figure 2. Niall of the Nine Hostages to Áed Finnliath (top) traditional genealogy branches to half-brothers Niall Glúndub and Domhnall (bottom), the respective progenitors of O’Neill and O’Donnelly**

APPENDIX.		2427
Now, by comparing this with the royal line of the family of O'Neill, it will appear that Aedh or Hugh Finnliath is the true stemma of this pedigree :		
<ol style="list-style-type: none"> <li>1. Niall of the Nine Hostages, Monarch of Ireland, slain A. D. 406.</li> <li>2. Eoghan, <i>a quo</i> Cinel-Eoghain, or Kinel-Owen, d. 465.</li> <li>3. Muiredach.</li> <li>4. Muircheartach More Mac Erc, monarch, d. 533.</li> <li>5. Domhnall Ilchealgach, monarch, d. 566.</li> <li>6. Aedh Uairidhnach, monarch, d. 612.</li> <li>7. Maelfithrig, Chief of Kinel-Owen, sl. 625.</li> <li>8. Maelduin.</li> <li>9. Fergal, monarch, d. 722.</li> <li>10. Niall Frasach, monarch, d. 770.</li> <li>11. Aedh, or Hugh Oiridnigh, monarch, d. 819.</li> <li>12. Niall Caille, monarch, d. 879.</li> <li>13. Aedh, or Hugh Finnliath, monarch, d. 879.</li> </ol>		
<ol style="list-style-type: none"> <li>14. Niall Glúndub, <i>a quo</i> O'Neill, monarch, sl. 919.</li> <li>15. Muircheartach Mac Neill, na-gCochall gCroiceann, King of Aileach, sl. 943.</li> <li>16. Domhnall O'Neill, of Armagh, King of Aileach, d. 980.</li> <li>17. Muircheartach Midheach, sl. 975.</li> <li>18. Flahertach-an-trostain O'Neill, King of Aileach, d. 1036.</li> <li>19. Aedh Athlaman O'Neill, d. 1033.</li> <li>20. Domhnall O'Neill.</li> <li>21. Flahertach O'Neill.</li> <li>22. Conchobhar ná-fiodhgha O'Neill.</li> <li>23. Teige Glinne O'Neill.</li> <li>24. Muircheartach O'Neill, of Moylinny, sl. 1160.</li> </ol>	<ol style="list-style-type: none"> <li>14. Domhnall, King of Aileach.</li> <li>15. Eochaidh, <i>a quo</i> Ui-Eathach Droma-Lighean.</li> <li>16. Ceallach.</li> <li>17. Seachnasach.</li> <li>18. Donnghal, <i>a quo</i> O'Donnelly.</li> <li>19. Dobhailen, or Develin.</li> <li>20. Ceallachan O'Donnelly.</li> <li>21. Donnghal O'Donnelly.</li> <li>22. Echtighern O'Donnelly.</li> <li>23. Gilla-MacIag O'Donnelly, chief of Fearsa Droma, slain at Down by Sir John De Courcy, A. D. 1177.</li> </ol>	

<sup>4</sup> Darren McGettigan, *The Kings of Aileach and the Vikings AD 800-1060*, Dublin, Ireland: Four Courts Press, 2016.

<sup>5</sup> *Annals of the Four Masters*, M1064.7, <https://celt.ucc.ie/published/T100005B/text017.html>

<sup>6</sup> John Haywood, *Northmen: The Viking Saga AD 793-1241*, New York: St. Martin's Press, 2015.

McLaughlin recognized its opportunity for power and acted. However, the claim that Clann Domnaill descended from Domnall (d. 915) the son of Áed Finnliath (d. 879), upon whom its royal claim rested, was suspect.<sup>7</sup> Jaski's 2013 handwritten edits and dotted lines in the genealogical table attest to confusion in the historical record. Equally important to our topic is that the O'Donnelly lineage also claims this Domnall as their founding ancestor (see *Figure 2*),<sup>8</sup> indicating their close kinship to McLaughlin.

The information in *Figure 2* by John O'Donovan visually demonstrates several important points regarding Niall Glúndub. First, an orderly line of succession is presented in the top half of the image, from Niall of the Nine Hostages (#1) to Áed Finnliath (#13), which is thereafter disrupted (two #14s). Secondly, the O'Neill lineage from Niall Glúndub lacks detail after 1036 (#20-#24), although it reflects oral tradition as recorded about 1577-80 in *An Leabhar Eoghanach*, or '*The Book of the Descendants of Eoghan*' which was translated from the original Irish by Dr. Malachy Ó Néill.<sup>9</sup> Thirdly, royal lineages diverge at Áed Finnliath's sons Niall Glúndub and Domnall ('Domhnall' in table), indicating competition between Ó Néill and Clann Domnaill (i.e., McLaughlin and O'Donnelly). Fourthly, that the O'Neill lineage stops at #24 is noteworthy in that the next in sequence is Áed 'an Macaomh Tóinleasc' (translated as 'the lazy-arsed lad'), a pivotal figure in Ó Néill rule. Áed was not of the royal bloodline, or even Cenél Eóghain, which was discovered using DNA data and came as a surprise to many familiar with O'Neill history.<sup>10</sup>

Áed 'an Macaomh Tóinleasc' came to power with his colorful sobriquet gained by refusing to stand in the presence of the king, Muircheartach McLaughlin, while the king was visiting the house of Áed's foster-father. A controversial political figure, Muircheartach McLaughlin, was slain in 1166 by an army led by Donnchad Ó Cerbaill (O'Carroll), the king of Airgíalla, who was backed politically by the king of Connacht, Ruaidrí Ua Conchobair (O'Connor), and supported by a majority of Cenél Eóghain. Ó Cerbaill was described leading an "avenging army" when proceeding to Mag Imcláir near Dungannon where Áed was proclaimed king of Cenél Eóghain.<sup>11</sup> In 1167, Ua Conchobair split Cenél Eóghain territory between Áed and Muircheartach McLaughlin's son and heir, Niall, who ruled as half-kings and continued their contest. Áed ruled the half of Cenél Eóghain that was south of Slieve Gallion, then died in battle against McLaughlin in 1177. His son Áed Méith succeeded him about 1196 and ruled until 1230 as Ó Néill, continuing the expansion of regained territories. Áed Méith's son Brian ultimately routed the McLaughlin at the battle of Caimeirge in 1241, ending this internecine conflict, eliminating McLaughlin as a political power in Cenél Eóghain and thus settling the matter of Niall Glúndub's succession that had begun in 905.

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<sup>7</sup> *The Ancestry of Lochlainn*, [attributed to a Mr. McLaughlin of County Donegal], undated, link included in email message from Alan Mill to author, personal communication, May 7, 2024, <https://amuligane.co.uk/wp-content/uploads/2024/05/the-ancestry-of-lochlainn.pdf> [broken link]

<sup>8</sup> John O'Donovan, "Appendix: The O'Donnells of Ballydonnelly", in John O'Donovan, *Annala rioghachta Eireann: Annals of the Kingdom of Ireland, by the Four Masters, from the earliest period to the year 1616*, 7 vols, vol. 5: [1501–1588; Appendix], 2nd ed., Dublin: Hodges, Smith & Co., 1856, pp. 2426–2430.

<sup>9</sup> Malachy Ó Néill (translator), "An Abridged Edition of An Leabhar Eoghanach", *Dúiche Néill, Journal of the O'Neill Country Historical Society*, Vol. 18, 2010. O'Neill Country Historical Society, [https://pure.ulster.ac.uk/ws/portalfiles/portal/11479953/DN\\_18\\_An\\_Leabhar\\_Eoghanach\\_-\\_An\\_Abridged\\_Edition\\_in\\_Modern\\_Irish.pdf](https://pure.ulster.ac.uk/ws/portalfiles/portal/11479953/DN_18_An_Leabhar_Eoghanach_-_An_Abridged_Edition_in_Modern_Irish.pdf)

<sup>10</sup> Edwin B. O'Neill and John D. McLaughlin. "Insights Into the O'Neills of Ireland from DNA Testing" *Journal of Genetic Genealogy* 2:18-26, 2006 <https://jogg.info/wp-content/uploads/2021/09/22.003.pdf>

<sup>11</sup> Katherine Simms, *Gaelic Ulster in the Middle Ages: History, Culture and Society*, Dublin, Ireland: Four Courts Press, 2020, p. 80.

By 1241, there was no recorded descendant lineage of Niall Glúndub beyond Áed Méith's sons: no other Ua Néill, and none recorded from Glúndub's second son, Conaing.<sup>12</sup> The political settlement that emerged from 1241 brought stability to Cenél Eóghain that lasted until the fall of Gaelic Ireland in the early 1600s.<sup>13</sup> The Ó Néill alliance that stood in opposition to McLaughlin rule took their places in the lordship of Ó Néill as hereditary ruling families: O'Kane, the chief under-king; O'Donnelly, the marshal in charge of military resources; O'Hagan, the chief steward or civil service that inaugurated *The Ó Néill*; O'Devlin, the kerne, or foot soldiers; and O'Quinn the sheriff, or law enforcement.<sup>14</sup> The genetic profile of these families and their relationship is shown in Appendix A.

As to the fate of Glúndub's Ó Néill descendants, Ó Ceallaigh (1951/1994) considered the possibility the Ó Néill line had been killed off by the McLaughlin, but concluded it was more likely there had been some surviving males since historical Irish rulers typically had many children.<sup>15</sup> More recently (2016), historian Darren McGettigan supported Ó Ceallaigh's hunch, "The Ua Neill family survived in the Tulach Oc [Tullyhogue] region and probably retained their status as a highly noble branch of the Cenél nEógain".<sup>16</sup> Historian Katherine Simms wrote (2020) of a practice in medieval Ulster whereby "the previous royal dynasty in the area seems often to have remained *in situ*, abandoning their claim to rule and taking their place among the other local landowners and nobility as subjects of the new chieftain".<sup>17</sup> This scenario seems plausibly applicable to the Cenél Eóghain Ó Néill. Simms (2021) suggested the possibility that Niall of the Nine Hostages's DNA lineage might have survived from an early Ó Néill king.<sup>18</sup>

### 3.0 Methods

#### 3.1 Research Approach

The research approach is an iterative process using genealogy studies, DNA results, and history literature to reconcile DNA to its historical context. Cenél Eóghain settled and ruled the area of northwest Ireland since about 400, so there is a clear timeline associated with the subject, and published materials are available that reflect their oral traditions. In 2022, the Cenél Eóghain Y DNA Project of FamilyTreeDNA identified the historical figure Eóghan as belonging to haplogroup R-S588 and undertook to match downstream genetic results to cenél (or, people) that traditionally descend from Eóghan's eleven sons, namely, Muireadhach, Eochu Binneach, Fearghus, Echen, Aonghus, Dallán, Corbmac, Cormac Iollan, Feidhlimidh, Eochaidh, and Ailill, using historical and genealogical information.<sup>19</sup> The research is fully reliant on FamilyTree DNA for testing physical specimens, producing genetic raw data, and housing data on its project website. The reliance upon FamilyTree DNA analytical techniques for properly identifying

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<sup>12</sup> Desmond O'Neill, *The Ancient and Royal Family of O'Neill*, [Ireland], compact disk, 1995.

<sup>13</sup> Éamon Ó Doibhlin, "Ceart Uí Néill: A Discussion and Translation of the Document", *Seanchas Ardmhacha: Journal of the Armagh Diocesan Historical Society*, 1970, Vol. 5, No. 2 (1970), pp. 324-358.

<sup>14</sup> Dr. Colm Donnelly, "The Ó Néill Lordship of Medieval Tír Eoghan and its Supporting Lineages," The South Tyrone NIFHS' [North of Ireland Family History Society] zoom call, April 12, 2022.

<sup>15</sup> Séamus Ó Ceallaigh, et al., *Gleanings from Ulster History*, 1951/1994, from Edward Kane in Cenél Eóghain Y DNA Project activity feed, May 1, 2023.

<sup>16</sup> Darren McGettigan, *The Kings of Aileach and the Vikings AD 800-1060*, Dublin, Ireland: Four Courts Press, 2016, p. 158.

<sup>17</sup> Katherine Simms, *Gaelic Ulster in the Middle Ages: History, Culture and Society*, Dublin, Ireland: Four Courts Press, 2020, p. 247.

<sup>18</sup> Katherine Simms, email message from Katherine Simms to author, personal communication, March 21, 2021.

<sup>19</sup> Dwayne O'Neill & Edward Kane, (Administrators), "Cenel Eoghain Y DNA Project. Descendants of Eógan mac Néill d 465" <https://www.familytreedna.com/groups/cenel-eoghainy-dnaproject/about/background>

haplogroups, relationships among haplogroups, and estimated dates of origin is partially offset by manual analytical techniques to interpret results and produce genetic signatures.<sup>20</sup> Visual inspection of the data in charts and trees is an important feature of the analysis, since the underlying data is time series.<sup>21</sup>

An important feature of the research is the alignment of DNA results to branches of the cenél, as branches are better understood within context of results from other branches. Accordingly, this research is not driven by surnames and is therefore not limited by surname considerations. This paper is also not a simple matching of the surname O'Neill to historical figures. Overall, the method allows for a comprehensive view of the cenél, so that its essential genetic branches can be identified along with concentrations of surnames (see Appendix A) and instances where the same surname is used by multiple families (see Appendix B). In the context of this study, it means all branches were considered for possible association to Niall Glúndub (see Appendix A) and all uses of the O'Neill surname were considered as possibly representing a surviving Niall Glúndub lineage (see Appendix B). This approach is vital in reducing the potential for error of misidentification because the data is evaluated top-down, bottom-up, earliest-to-most recent, and most recent-to-earliest.

As research findings accumulate across the cenél it both builds the body of knowledge and reduces the number of unknown lineages. Yet, the nature of this cenél research requires collaboration and consensus building among researchers as iterative conclusions must be considered against the totality of the project's historical, genetic, and genealogical data including oral tradition. To do so, group communications (activity posts) in the Cenél Eóghain DNA project site are used for vetting key points and aiding in transparency.<sup>22</sup> It is worth noting the Cenél Eóghain DNA project has a nexus with the O'Neill DNA project both in its administrators and content, in that the individuals with Cenél Eóghain Ó Néill ancestry were first identified as a group in the O'Neill surname project.<sup>23</sup> Similarly, there is a nexus with the Dál Cuinn Teóra Connachta and the Uí Néill DNA project.

### 3.2 Assumptions

Key assumptions were in mind as the research was undertaken. First, using DNA for ancestry research is still a nascent science and there certainly will be ongoing enhancements to techniques and capabilities, with unknown impacts. Haplogroup formation dates are assumed to be estimates subject to change and refinement that are unreconciled to the historical record, but a necessary element of this type of analysis. Secondly, the large body of published material on Irish genealogies focusing on ruling lineages

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<sup>20</sup> Dwayne O'Neill & Edward Kane, "Use of SNPs and Signature STRs in Combination to Determine Lineages and Identify Historical Relationships," 2021. [https://www.academia.edu/49081807/Use\\_of\\_SNPs\\_and\\_Signature\\_STRs\\_in\\_Combination\\_to\\_Determine\\_Lineages\\_and\\_Identify\\_Historical\\_Relationships](https://www.academia.edu/49081807/Use_of_SNPs_and_Signature_STRs_in_Combination_to_Determine_Lineages_and_Identify_Historical_Relationships)

<sup>21</sup> Glass, Gene V.; Willson, Victor L., & Gottman, John M. (2008), *Design and Analysis of Time-Series Experiments*, Charlotte, NC: Information Age Publishing.

<sup>22</sup> Dwayne O'Neill, Edward Kane, & Jon Patraic Neill, (2023, April 1 & April 5), *The pattern among the individuals in S588 that tested negative for SNP 603*; (2023, April 22), *Clann Aodha Bhuidhe, or Clandeboye O'Neills being part of the Cenél nEógain dynasty*, Activity Feed, "Cenél Eoghain Y DNA Project. Descendants of Eógan mac Néill d 465, son of Niall Noigialloach." <https://www.familytreedna.com/groups/cenel-eoghainy-dnaproject/about/background>

<sup>23</sup> Dwayne O'Neill, Edwin B. O'Neill, Fred Mulholland, & Sean O'Neill (Administrators), "O'Neill. The Ancient and Royal Family of O'Neill," Y DNA Project, <https://www.familytreedna.com/groups/oneill/about/background>



contains flaws.<sup>24</sup> The medieval-era issuers of these genealogies had their own agenda, which was to support claims to political power, not to record individuals for the curiosity of future generations. It is accordingly assumed that some of these genealogies have errors in which certain political relationships are recast as biological relationships. An aim of this and similar research is to identify these political relationships, or have the assumption proven false. Thirdly, genealogical data and corresponding oral traditions are essential to this effort but can be false or incorrectly transmitted. Generations are assumed to be 25 years for modeling purposes when genealogical data is otherwise missing.

### 3.3 Scope

The subject of this research pertains to Cenél Eóghain haplogroup R-BY35717, that formed after haplogroup R-S588 and around the time period AD 559. The findings are presented in the results section, and the conclusions follow. Supporting analysis is shown in Appendix A, with concentrations of surnames identified by haplogroup, and in Appendix B, where the sharing of surnames across branches of the Cenél Eóghain is examined.

### 3.4 Some Key Terms Used

*O'Neill*: Niall Glúndub (d. 919) is the eponymous ancestor of Domnall Ua Néill (d. 980).<sup>25</sup> Ua Néill was later rendered Ó Néill,<sup>26</sup> then in the English language as O'Neill.

*Clann Domnaill*: Niall Glúndub (d. 919) had a half-brother, Domnall (d. 915). His descendants Mac Lochlainn and O'Donnelly were known as Clann Domnaill. Mac Lochlainn was later rendered McLaughlin.

## 4.0 Results

### 4.1 Dál Cuinn, Uí Néill, and Cenél Eóghain Y-DNA Connections

Haplogroup R-BY35717 formed about AD 550 in Ireland. Table 1 outlines this lineage starting with haplogroup R-658 which is associated with Conn Cétchathach, founder of the Dál Cuinn (people of Conn) in the north half of Ireland in haplogroup R-DF104. Next, R-DF105 is associated with Conn's descendant Eochaid Mugmedon, whose identity is pegged to his son appearing 21 years later in haplogroup R-ZZ87. R-ZZ87 is identified as Niall of the Nine Hostages, as the genetic branches are consistent with historical description of the Northern Uí Néill. In the 400s the Uí Néill in Meath became ascendant over other ruling branches of Dál Cuinn known as Teóra Connachta.<sup>27</sup> Two branches of R-ZZ87 then migrated northwest to Donegal, called the Northern Uí Néill, one of which was led by Eóghan (Owen). Eóghan is identified as R-S588 and his descendants known as Cenél Eóghain, including genetic branch R-BY35717.

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<sup>24</sup> See Carey, John, (1994), *The Irish National Origin-Legend: Synthetic Pseudohistory*, Department of Anglo-Saxon, Norse, and Celtic, University of Cambridge. Cambridge, England, <https://www.asnc.cam.ac.uk/publications/Quiggin/ECQ%20Vol%201%201994%20Carey.pdf>, Brian Lacey, (2006), *The Cenel Conaill and the Donegal Kingdoms, AD 500-800*, Dublin, Ireland: Four Courts Press. (Both authors overstate the scale of fabricated material in instances. A general assessment of such claims of fabrication is beyond the scope of this paper.)

<sup>25</sup> James Hogan, "The Irish Law of Kingship, with Special Reference to Ailech and Cenél Eoghain", *Proceedings of the Royal Irish Academy*, Vol. 40 (1931/1932), pp. 186-254, <http://www.jstor.org/stable/25515953>, p. 201.

<sup>26</sup> Malachy Ó Néill (2023, October 21), personal communication at Desertcreat, co. Tyrone. Dr. Ó Neill estimates the Irish language shift from Ua to Ó took place in the eleventh or twelve century.

<sup>27</sup> Bart Jaski, *Early Irish Kingship and Succession*, Dublin: Four Courts Press, 2013/2000, p. 166.

**Table 1. Dál Cuinn, Uí Néill, and Cenél Eóghain Origins of R-BY35717**

Date Haplogroup Formed	Haplogroups & Kindred Groups					
100	R-S658	Conn Céthachathach (Conn of the Hundred Battles)				
150		R-DF104	Dal Cuinn			
216			R-DF105	Eochaid Mugmedon		
237				Niall of the Nine Hostages		
293				R-ZZ87	R-S588	Uí Néill
344						Cenél Eóghain
548						R-BY35717

Archaeology is one of the disciplines together with DNA, geopolitical landscape, and documentary sources available to explore the origins of Dál Cuinn and Uí Néill.<sup>28</sup> The expansion of the Dál Cuinn is demonstrated by skeletal remains excavated and analyzed from recent archaeological activity.<sup>29</sup> In Table 2, traditional origins of Dál Cuinn's Teóra Connachta in Connacht (co. Roscommon) and Uí Néill in Meath are indicated, as is Northern Uí Néill in co. Donegal. Evidence includes two Dál Cuinn men (R-DF105), from Connacht and Donegal, whose mothers had the same mitochondrial DNA type (H13a1a) indicating common familial connections. Another Dál Cuinn burial was identified at Lagore, co. Meath, nearby a crannog that was used as a royal residence by a line of Southern Uí Néill kings.<sup>30</sup> Impacts of the Viking era are indicated by the remains of individuals in this Irish Y-DNA lineage whose burials were in Viking communities in Dublin, Iceland and the Faroe Islands.

<sup>28</sup> Patrick Gleeson, (2017), "Luigne Breg and the origins of the Uí Néill", *Proceedings of the Royal Irish Academy: Archaeology, Culture, History, Literature*, Vol. 117C, pp. 65-99, <https://www.jstor.org/stable/10.3318/priac.2017.117.04>

<sup>29</sup> FamilyTreeDNA, (2024), Ancient Connections, R-FTC78015, <https://discover.familytreedna.com/y-dna/R-FTC78015/ancient>, accessed June 2, 2024.

<sup>30</sup> Hugh Hencken, Liam Price, Laura E. Start (1950/1951), "Lagore Crannog: An Irish Royal Residence of the 7th to 10th Centuries A.D.", *Proceedings of the Royal Irish Academy: Archaeology, Culture, History, Literature*, Vol. 53, pp. 1-247.



**Table 2. Dál Cuinn, Uí Néill Evidence from Skeletal Remains**

Y-DNA	Formed	Individual	Cultural Group	Burial Location	mtDNA	Reference
R-S658	100	900-1300	Viking Iceland	Hofstaðir, Iceland	H6a1a3a	VK95 from Margaryan et al. 2020
R-DF104	150	600-1300	Medieval Ireland	Kilteasheen, County Roscommon, Ireland	K1a4a1	KIL009 from Gretzinger et al. 2022
R-DF105	216				J1c1a	KIL033 from Gretzinger et al. 2022
					KIL014 from Gretzinger et al. 2022	
					V3a1	KIL041 from Gretzinger et al. 2022
					U5b2c2b	KIL044 from Gretzinger et al. 2022
			KIL037 from Gretzinger et al. 2022			
			H13a1a	Sk331 from Jackson et al. 2022		
689-975	Gaelic		Ballyhanna, County Donegal, Ireland	H5a1a2a	Sk197 from Jackson et al. 2022	
1492-1665	Historic Ireland	Lagore, County Meath, Ireland	V15a	LG14 from Cassidy 2018		
665-865	Viking Ireland	Ship Street Great, Dublin, Ireland	H1bb	VK545 from Margaryan et al. 2020		
R-ZZ87	237	1500-1700	Faroe Islanders	Sandoy, Faroe Islands	H3a1a	VK44 from Margaryan et al. 2020

While archaeological evidence in Table 2 supports the identities of Dál Cuinn, Uí Néill, and Cenél Eóghain kinship groups that lead to haplogroup R-BY35717 shown in Table 1, DNA data and traditional genealogy are unreconciled. Table 3 shows a reconciliation model comparing DNA data to traditional genealogy for the purpose of identifying problems in reconciling these two data sets. DNA data comprises haplogroup, the date the haplogroup formed, and number of branches created by sons with surviving male lineages using FTDNA projects. Traditional genealogy data comprises names of individuals, historical dates, and number of sons using documentary sources. Since both DNA and traditional genealogy are incomplete in some aspect of providing a generation-by-generation reckoning, the reconciliation model provides a timeline for this analysis. The “age fathered” column is calculated based on the timeline of births, and aids in assessing the realism of the timeline. The last column are the problems quantified. The largest problem in the model pertains to Niall of the Nine Hostages, which is a 113-year difference between DNA and traditional genealogy.

The type of problems encountered, detailed in the table, follow key themes that lead to pathways for resolution. First, the accuracy of haplogroup formation dates could be impacted by long stretches of fathers without branches (see DNA years 150-216) followed by prolific fathers with many branches unlikely to have had long stretches of time between generations (see DNA years 237-344). Collection of more data and refinement of genetic modeling present opportunities to resolve. Secondly, there is an opportunity to reengage traditional genealogy, with its time-worn problems of missing or fabricated information, from a DNA lens to identify dynastic claims that are rooted in social and political relationships rather than biological, male-lineage kinship. Gleeson (2017) describes such relationships as confederated dynasties, and these are peculiar to Irish royal families. Understanding the genealogical record of Conn Cétchathach branches, such as the R-BY35717 subject of this paper, is essential for reconciling to—then reinterpreting—the historical record.

**Table 3. Problems in Reconciling Dál Cuinn, Uí Néill, Cenél Eóghain DNA Data to Traditional Genealogy**

DNA Data			Traditional Genealogy			Reconciliation Model of DNA and Traditional Data		
Date Formed	Haplogroup	Branches	Date Estimated	Individual	Sons	Date Modeled	Age fathered	Problems in Reconciling
100	R-S658	2	100	Conn Cétchathach	2	100		
				Art Óenfer mac Cuinn	1	125		
150	R-DF104	2		Cormac mac Airt	1	150	35	1 unidentified DNA branch
				Cairbre Lifechair	4 *	185	35	3 traditional sons (* Three Collas) indicated by DNA as not biological sons
				Fiacha Sroiptine	1	220	40	40 is older range to be father
				Muireadhach Tirech	1	260	40	Zero branching since 150 - traditional genealogy might be missing individuals and/or DNA dating erroneous for the next branch R-DF105
216	R-DF105	9		Eochaid Mugmedon	3	300	50	84 years difference model to DNA dating 50 is older range to be father, though Niall was his youngest son
237	R-ZZ87	18	360	Niall of the Nine Hostages	8	350	40	113 years difference model to DNA dating 10 years difference model to traditional genealogy
293	R-S588	15	400	Eóghan mac Néill	11	390	40	97 years difference model to DNA dating 56 years since prior branch indicates traditional genealogy might have missed a generation of an only son or DNA dating erroneous
344	R-S603	12		Muireadhach	4	430		86 years difference model to DNA dating 51 years since prior branch indicates traditional genealogy might have missed a generation of an only son or DNA dating erroneous

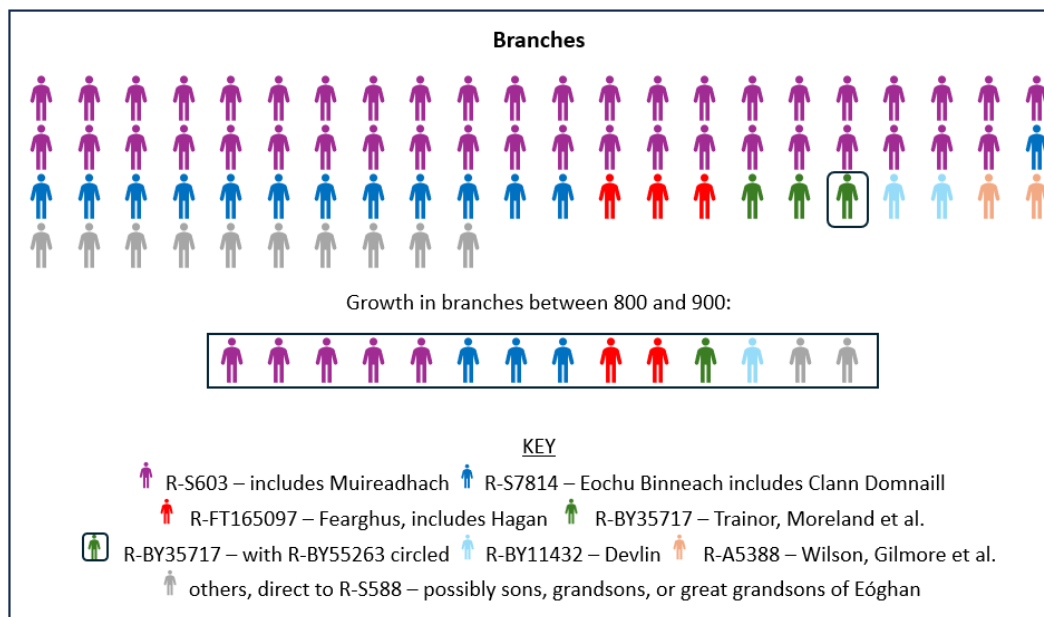
The Dál Cuinn, Teóra Connachta, Uí Néill, and Cenél Eóghain peoples are represented in haplogroup R-DF105 as researchers would be led to expect from historical accounts, despite unreconciled differences. DNA results seemingly align to key historical persons in traditional genealogy, such as Conn Cétchathach, Eochaid Mugmedon, and Niall of the Nine Hostages. Yet there are also disproven claims of biological kinship, notably the Three Collas whose father was not Cairbre Lifechair, as demonstrated by DNA data (see modeled year 185).<sup>31</sup> This is the earliest case in the lineage of an important social and political relationship being given familial status, thereby confederating their dynasties for future generations. Later, four generations with between 9 and 18 branches in succession reflect rulers who could have had multiple wives and fathered many sons (see DNA years 216-344) or individual SNPs formed at the birth of a grandson or even great grandson. The genetic data is also consistent with the historical narrative that in the 400s Uí Néill's Cenél Conaill and Cenél Eóghain gained control over northwest Ireland, followed by population growth in the AD 500s, 600s, 700s.

By 800, Cenél Eóghain had grown to 76 branches of male lineages that survive to the present day. Its composition is shown visually in *Figure 3*. The icons in the figure are color-coded to represent the genetic branches according to which son of Eoghan they sprang from historically. Three sons account for 77% (59) of these branches—Muireadhach (43), Eochu Binneach (13), and Fearghus (3). The remaining 17 branches are not clearly attributed to a son at present. Cenél Eóghain's growth continued and by 900 there were an additional 14 genetic branches with surviving male lineages, a growth rate of 18%, also shown by branch in the middle of the table (see Key). R-BY35717 had three branches in AD 800, a fourth

<sup>31</sup> Craig McKie, Tim (McEvoy) Gwinn, Gráinne Ní Fhlannagáin, Linda Stanfill, David Wilson, (Administrators), "Dal Cuinn Teóra Connachta and the Uí Néill," Y DNA Project and database, retrieved June 16, 2024, <https://www.familytreedna.com/groups/dalcuinnteoracconnachtaandtheuineill/about>

by AD 900, and is the largest haplogroup under R-S588 not identified by its founding son of Eóghan. R-BY35717 and one of its branches, R-BY55263 (circled), is discussed further.

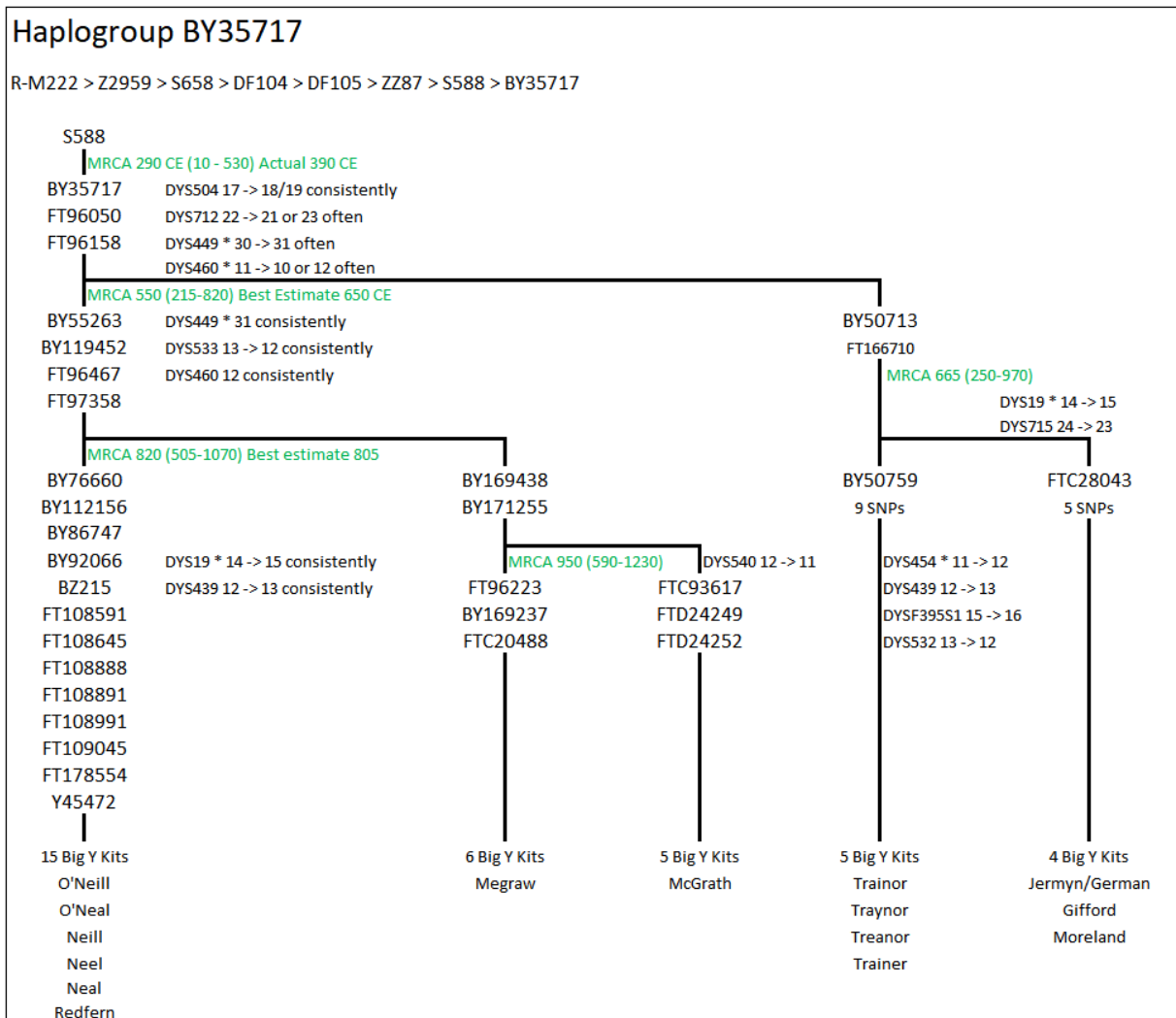
**Figure 3. *Cenél Eóghain in 800***



The results of the DNA testing for R-BY35717 are shown in *Figure 4*. Its Y-DNA haplogroup signature is R-M222 > Z2959 > S658 > DF104 > DF105 > ZZ87 > S588 > BY35717. About 35 males in this haplogroup, with surnames concentrated in Ó Néill, Mac Craith and Treinfhir, have completed Big Y testing that provides information on their Single Nucleotide Polymorphisms (SNPs). A Y-DNA haplogroup (such as R-S588) is a group of testers who share a common ancestor on their patrilineal line. These SNP genetic variants form about every third generation at a son's conception, then these mutations are passed down in a block with prior mutations from father to son. Each generation may or may not have had more than one son. If a second or other son was born at any generation, and if their male descendants survived to the present, and did Big Y DNA testing, then that would form a new branch descending from one of the SNPs in the block. SNPs are named and SNP haplotrees illustrate the relationships to each other. The order of the SNPs in the block are arbitrary, but are typically presented alphabetically.

There are currently two R-BY35717 descendant lineages, named R-BY55263 and R-BY50713. The focus of this paper is R-BY55263, and is shown midway in *Figure 4*. R-BY55263 comprises two branches aligning to R-BY76660 Ó Néill and R-BY169438 Mac Craith. FamilyTree DNA block tree results do not indicate the presence of unnamed branches for BY55263. The second R-BY35717 branch includes R-BY50759 Treinfhir and R-FTC28043 (Jermyn, German, Gifford, Moreland) and is not covered further. Additional subbranches may be discovered in the future and each subbranch is expected to become more detailed based on new testers.

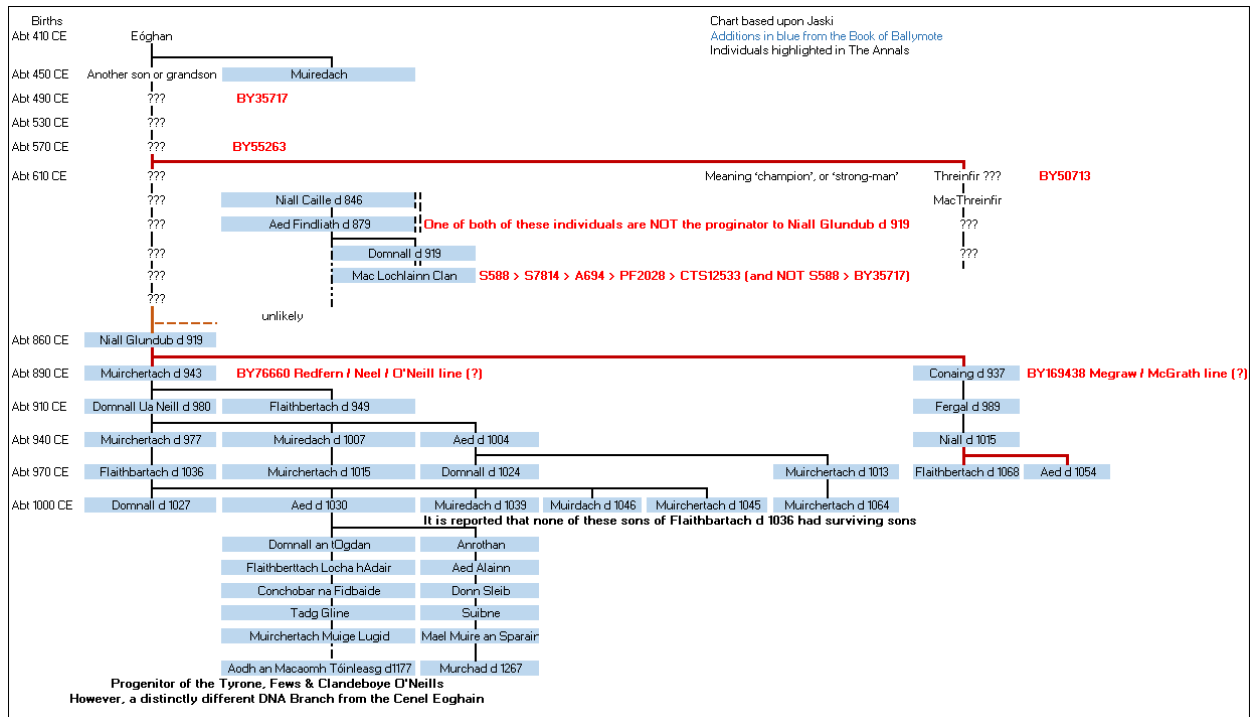
**Figure 4. Cenél Eóghain Haplotree R-BY35717**



## 4.2 Niall Glúndub in Historical and Traditional Accounts

DNA haplotree structure under evaluation for Niall Glúndub aligns with the lineage branching as documented in historical accounts. The historical record pertaining to Niall Glúndub for the timeframe of 400 to 1200 is shown in *Figure 5* overlaid with DNA results shown in red. These data comprise the genealogical charts from Jaski in *Figure 1*, *Annals of The Four Masters*, and a review from the *Book of Ballymote* that yielded no additional information. The conclusions drawn from the text in red are that *if* Niall Glúndub is R-BY55263, then one or both of Áed Finnliath (d. 879) and Niall Caille (d. 846) could not have been a progenitor of Niall Glúndub. Furthermore, Domnall (d. 915) was not R-BY35717 and accordingly he could not have been Niall Glúndub's brother. The figure demonstrates there were two branches derived from the historical accounts of Niall Glúndub's two surviving sons, matching the number of genetic branches. This infers a parsimonious alignment between the historical and genetic data sets, such that the results shown in *Figure 5* can be neither affirmed nor disproven.

**Figure 5. Niall Glúndub historical account overlaid with haplogroup R-BY35717**



The study originated because of the oral tradition in the Neill family of Belfast descending from ancient O'Neill kings in Ulster, and the study was performed within this context. This point is emphasized because it is not expected that independent observers should generate conclusions from this data set by simply matching historical and genetic records, without incorporating oral tradition and genealogy. While this paper is not intended as a genealogical treatise, it is worth noting the associated body of genealogical research was produced by the lead author over a period of nearly fifty years, periodically peer-reviewed and published, with research judged positively by leading 20<sup>th</sup> century genealogical journals, and evaluated by a research librarian before its inclusion into the Library of Congress collection in 2020.

The oral tradition in the Neill family in America dates to 1935 when William John Neill, then mayor of Cedar Rapids, Iowa, and weeks before his death, told it to his newlywed daughter-in-law Ruby, the grandmother of Jon Patraic Neill. She was a key source and friendly ear for the author's research from 1974 until her death thirty years later. William John Neill was born in Belfast in 1875, where his grandfather Samuel Neill died in 1889. By tradition, the Neills were part of the Ulster Scots Protestant community in county Antrim, originally surnamed O'Neill and descended from an early Irish king. This piece is particularly important as it is both seemingly contradictory and matching an oral tradition present in the Neel family (R-FTC93099, formed 1721) who emigrated to the Carolinas in the 1770s and descended from the same Cenél Eóghain O'Neill ancestor born about 1500 (R-BY76660).

Further details in the Neill oral tradition were sparse, with only the names Niall of the Nine Hostages and the first O'Neill king, Donald (Domnall) O'Neill. (That the author's grandfather's name was Donald Neill (b. 1908) was probably not coincidental). Niall Glúndub was not specified, though he descends from Niall

of the Nine Hostages and he was the grandfather of Domnall O'Neill, so he would be included in the scope of the claim as an unknown detail. There was no further claim to more recent royal ancestry, which turned out to be particularly important to its veracity in that *no aspect of the claim was subsequently disproven by DNA*. Research conclusions *before* genetic testing led to belief in the Neill family that its most recent royal O'Neill ancestor was likely Flaithbertach O'Neill (d. 1036) and that this O'Neill/Neill lineage branched off before Aodh Méith O'Neill was born about 1170s, whose sons formed the Tyrone and Clandeboye branches. Others among the R-BY76660 O'Neill families who remained in Ulster said they "know" their bloodline was royal, even before genetic testing, and even if not knowing exactly how. Some R-BY76660 had no specific tradition as to their origins. There was no tradition from R-BY169438 descendants regarding Mac Craith origins.

Irregularity of oral tradition details among R-BY76660 O'Neills is understandable. The longer away from Ireland the less meaningful are details beyond the word 'king'. The longer in Ireland the more intermarriages with other O'Neills and the passage of time obscured paternal bloodlines, while government policy in Ulster was to teach English, not Irish, history to schoolchildren. In this sense, the timing of Neill emigration was distinctive (and fortuitous to this study), as was the long-ago royal aspect of its tradition that was secondary in interest to its religious tradition. While William John Neill (d. 1935) was Presbyterian with mostly Ulster Scots ancestry due to maternal lineages, his father John Neill (d. 1900) was Catholic, his grandfather Samuel Neill (d. 1889) was, again seemingly contradictory, Quaker. These claims were confirmed in 2021 with the aid of autosomal DNA data from 2018 and the digitization of Ireland's Quaker records in 2016.<sup>32</sup> Quite possibly the Neill's ensconcement in the Quaker community for several hundred years helped preserve this oral tradition. Yet, on the other hand, it certainly contributed to isolation from its O'Neill kindred, whether Catholic or Protestant.

A final aspect of the Neill family tradition that is salient to this genetic study, is that beyond the available genealogical record timeframe in Ireland there were no known branches of Neill or O'Neill kindred, while allowing for previously unknowable considerations such as Neill branches possibly emigrating to America before the late 1800s, or the possibility of O'Neill kindred before the fall of Gaelic Ireland who were not Aodh Méith O'Neill descendants. For sake of comparison on the historical lack of branches, the sole individual in Cenél Eóghain's O'Neill branch R-BY76660 in AD 1500 compares to 42 known branches of Royal O'Neill's R-Z1513 at the same time. While a second surname, Redfern, later came into use in R-BY76660, there are over 20 surnames used in R-Z1513.

DNA research provided evidence that conclusively affirmed three aspects of the Neill oral tradition:

- 125-year-old oral tradition of Quaker origins (autosomal DNA and R-FTC78015);
- 300-year-old oral tradition of being native Irish and having previously used the O'Neill surname (R-BY76660);
- 1600-year-old oral tradition of descent from Niall of the Nine Hostages (R-ZZ87).

Accordingly, the aspect of the Neill oral tradition that is 1000-plus years involving Domnall O'Neill (d. 980) and being reviewed here associating R-BY55263 with Niall Glúndub (d. 919), cannot be rejected.

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<sup>32</sup> *It is relevant to the discussion that these three faith traditions continue to be actively represented among the John Neill (d. 1900) descendants in America.*



### 4.3 Data Assessment and Identity Determination

A structured approach to assessing DNA data was performed to arrive at the point of being able to make a determination as to identity. This assessment began with a general assessment of data, in Table 4.

**Table 4. General data assessment identifying concerns in DNA data collection and sampling**

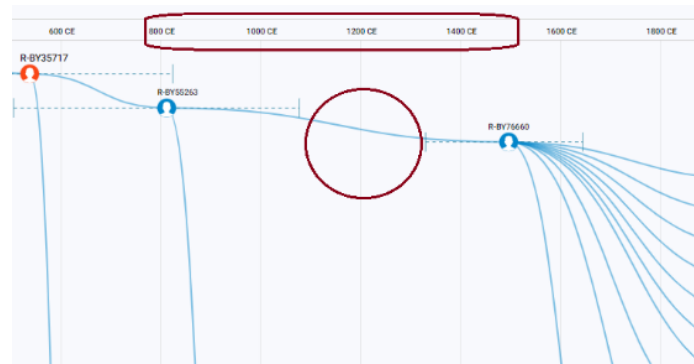
Data Assessment - General			
Consideration	Favorable	Unfavorable	Comments
Current	X		no aged or stale data problems
Accurate	X		data produced in laboratory setting
Complete	X		no missing data points in panels of DNA markers
Reliable	X		consistency in test results observed
Trustworthy	X		trusted source, but subject to profit-making conditions
Collection		X	amount of markers tested is less than 1,000 of 3 billion in genome; testing less than 700 markers suboptimizes data collection effort
Sampling		X	unsettled minimum data set required for making determinations

Table 5 continues the protocol with an assessment of data characteristics pertaining to the subject identified as haplogroup BY35717, with an important gap in the timeline shown in *Figure 6*.

**Table 5. Data assessment and observations used in determining identity of R-BY35717**

Data Assessment - Subject				
Conditions	Favorable	Unfavorable	Determination	Comments
Subject	X		clearly identified	Haplogroup BY35717
Data set	X		small data set	721 members in Cenél Eóghain project, with 55 (8%) members in subject BY35717. 467 members (65%) in Group Time Tree resulting from Big Y testing, of which 33 (7%) are the subject. Minimum of 30 observations met for inferential statistics used in hypothesis testing, with 33 Big Y results for subject. Time series minimum 50-100 met for project with 467 members, and 55 members for subject. This suggests dating BY35717 will be impacted by broader data sets that might have different characteristics. Observations might not be representative of subject's data, meaning other branches might exist between years 500 and 1500. This particular data set meets minimum size for making determinations, but indicates dating of haplogroups to change as data set grows.
Concentration	X		concentration sending strong signal	In surname projects, subject's O'Neill represents 17 of 1,173 (1%) in O'Neill project, Mac Craith represents 8 of 344 (2%) in McGrath project. In subject haplogroup, O'Neill and Mac Craith concentration of 22 of 33 (67%) observations in Cenél Eóghain project shown in Appendix A. Data concentration indicates patterns of clusters, density and distribution. This particular concentration in BY55263 provides a strong signal.
Noise		X	high amount of noise in data	O'Neill royal line of Cladeboye, Tyrone, and the Fewes in R-Z1513 - who are not Cenél Eóghain - comprise most instances of O'Neill usage but are easily identified with DNA. Three other Cenél Eóghain lineages with surname O'Neill shown in Appendix B. Name change event observed with Redfern downstream from consistent use of O'Neill. Mac Craith surname spelling variants of McGraw, Megraw, McGrath. Noisy data means inconsistency making it difficult to analyze a pattern, such as can be observed with name change events and use of different surnames in upstream haplogroups.
Outliers	X		low impact of outlying data	R-FTC28043 dating to 1135 was then one of 5 branches in subject and is associated with an individual who lived in Great Britain. This is around the time of the Anglo-Norman invasion of Ireland. Outliers deviate from the data set in a way that may not describe the overall pattern.
Gaps	X		one important gap in timeline	BY76660 has a gap extending nearly 700 years, between years 820 and 1500, indicating the lack of branching when most expected between 1100 and 1300. Gaps indicate a time period in which a mutation is expected but not observed because the lineage lacks branches. Such disruption in a timeline suggests underlying historical incidents. This particular gap send a strong signal of historical events requiring explanation. If gap is eventually closed it will be because new data provides insight.

**Figure 6. Screen-grab of R-BY55263 haplogroup branching gap between 800 and 1500 in O'Neill line**



**Table 6. Data assessment in determining identity of R-BY35717 as associated with Niall Glúndub**

Subject Determination incorporating Data Assessments	
Determination	Rationale
Subject	Haplogroup BY35717
Tradition	Royal O'Neill lineage from Niall of the Nine Hostages
Data Assessment	Conditions are sufficient to make determination, despite noise in data. Small data set indicates dating of BY35717 and downstream haplogroups likely to change as data is added from new testers, and other branches might be discovered in the focal timeframe of years 500 to 1500. Unfavorable data conditions noted for DNA analysis in general when collecting data that is under 700 markers, and lack of testing more markers of the 3 billion markers available in the genome.
Data signals	Strongest signal is concentration of O'Neill in BY76660 together with gap between roughly 800 and 1500, consistent with historical record in which O'Neill dynasty by 1170 had a sole survivor.
Supporting evidence (non-DNA)	Key references are Donnelly, Hogan, Jaski, McGettigan, Desmond O'Neill, Reeves, Simms. Tradition common among BY76660 O'Neill. Few details, yet no erroneous claims. FTC78015 Neill specificity in tradition was accurate by not claiming Clandeboye, Tyrone or Fewes ancestry.
Proposed identification	R-BY55263 is Niall Glúndub
DNA data not present in tradition	Traditionally Niall Glúndub is a descendant of the royal lineage Muireadhach in R-S603. Mac Craith branch is not present in tradition, although in Figure 1 (Jaski) Niall Glúndub had a son Conaing whose royal descendants died out. No Mac Craith tradition of Niall Glúndub ancestry.
Worst data problem	Dating of BY76660 Most Recent Common Ancestor (MRCA) is 1495 by FTDNA and 1655 when estimating using project-specific average mutation speeds (160-year difference), shown in Appendix D. Also, Niall of the Nine Hostages traditional dating has 113-year difference to DNA data, shown in Table 3.
Best alternate plausible explanation	BY76660 O'Neill likely resided in Clandonnell territory, which was a Clandeboye branch that had few surviving men, and this child could have been adopted into Clandonnell and given O'Neill surname, see Section 4.5 Cenél Eoghain Ó Néill
Accept or reject identification	Accepted R-BY55263 is associated with Niall Glúndub

The problem with the best alternate plausible explanation in Table 6 is that it and similar scenarios do not account for what ultimately happened with the Niall Glúndub dynasty. Possibly it simply died out. It also requires R-BY55263 coincidentally matching historical impacts experienced by Niall Glúndub's descendants shown above in *Figure 6*.<sup>33</sup> There would need to be a royal sponsor of such child. One underexplored scenario is what happened to young men in the years after the fall of Gaelic Ireland who

<sup>33</sup> Dwayne O'Neill & Edward Kane, (Administrators), "Cenel Eoghain Y DNA Project. Descendants of Eógan mac Néill d 465, son of Niall Noigialloach." <https://www.familytreedna.com/groups/cenel-eoghainy-dnaproject/about/background>. Similar visual gaps: R-S603 >> R-FT95366 (Crane) from ~1100-1700 has a long duration. Other noticeable gaps for R-FT83376 (Kossnar et al.), R- A11307 (Stewart et al.), FTA76357 (Savage et al.), R-BY79813 (Hamill). No other branches include both the use of O'Neill surname and a gap as indicated by the historical record.

were actively under fosterage at that time.<sup>34</sup> This is particularly relevant research for haplogroups formed after 1603 with a name change event in their lineage involving surnames used by families in the lordship of Ó Néill political structure (see Appendix B), and R-BY76660 formation is broadly in this range. This might explain some of the noisy data surrounding the use of the O'Neill surname. As is generally the case, there is no scenario here that neatly reconciles all the data between traditional and DNA results.

The best and simplest explanation is R-BY55263 is associated with Niall Glúndub, as claimed in tradition and shown in Appendix A among the families in the lordship of Ó Néill political structure.

#### 4.4 Niall Glúndub Y DNA STR Signature

The Y DNA STR (Short Tandem Repeat) of Niall Glúndub shown in Table 7 is consistent with a descendant of Niall of the Nine Hostages, whose DNA signature was published by FamilyTree DNA.<sup>35</sup> The distinctive difference for Niall of the Nine Hostages compared to the modal values of R1b European males is the values of 11 and 13 at DYS 385a/b, 14 at DYS 392, and values of 15, 16, 16, 17 at DYS 464a/b/c/d, noted in blue. These differences for Niall of the Nine Hostages are also present for Niall Glúndub, with the additional distinctions of values 15 at DYS 19, 13 at DYS 439, and 31 at DYS 449, from the Cenél Eóghain project and noted in dark blue.

**Table 7. Niall Glúndub Y DNA STR Signature**

DNA Markers																									
3 9 3	3 9 0	1 9 	3 9 1	3 8 5	3 8 5	4 2 6	3 8 8	4 3 9	3 8 9	3 9 2	3 8 9	4 5 8	4 5 9	4 5 9	4 5 5	4 5 4	4 4 7	4 3 7	4 4 8	4 4 9	4 6 4	4 6 4	4 6 4	4 6 4	
				a	b					- 1			- 2	a	b						a	b	c	d	
Niall of the Nine Hostages																									
13	25	14	11	11	13	12	12	12	12	13	14	29	17	9	10	11	11	25	15	18	30	15	16	16	17
Niall Glúndub																									
13	25	15	11	11	13	12	12	13	13	14	29	17	9	10	11	11	25	15	18	31	15	16	16	17	

DNA markers mutate at various speeds. The markers in the distinctive Niall Glúndub DNA signature are characterized by mutation rates that are generally fast (DYS 449), moderate (DYS 439), and slow (DYS 19).

#### 4.5 Niall Glúndub and the Royal Succession

Niall Glúndub's DNA haplogroup R-BY35717 did not match the expected R-S603, associated with the historical royal lineage of Eóghan's son Muireadhach. This indicates either the royal succession was

<sup>34</sup> See Peter Parkes, "Celtic Fosterage: Adoptive Kinship and Clientage in Northwest Europe", *Comparative Studies in Society and History*, April, 2006, Vol. 48, No. 2, pp. 359-395, <https://www.jstor.org/stable/3879355>; Thomas Charles O'Donnell, (2016), *The Affect of Fosterage in Medieval Ireland*, doctoral dissertation, University College London, <https://core.ac.uk/download/pdf/111031424.pdf>

<sup>35</sup> FamilyTreeDNA, (2024), "Discover if You're a Niall of the Nine Hostages Descendant", <https://help.familytreedna.com/hc/en-us/articles/6246351479695-Discover-if-You-re-a-Niall-of-the-Nine-Hostages-Descendant#dna-testing-can-show--0-0>, retrieved June 9, 2024.

disrupted by Niall Glúndub in 905 when he came to power or by his predecessors Áed Finnliath (d. 879) or Niall Caille (d. 846). Back in *Figure 2*, Glúndub and Domnaill were claimed to be half-brothers whose descendants shared the kingship and later fought over it. This context is crucial to determining the identity of Niall Glúndub as R-BY35717. *Not only was Glúndub not of the claimed royal lineage, neither was Domnaill and his descendants MacLochlainn or McLaughlin (R-S7814).* The genealogical claim of Niall McLaughlin (died 1061) was not accepted contemporaneously, and Hogan in his treatise on the Cenél Eóghain kingship described him being “beyond the legal limit to eligibility” to become king.<sup>36</sup>

Regardless of Glúndub’s identity, evidence of MacLochlainn DNA debunks the historical line of father-to-son succession. One obvious problem now evident was McLaughlin’s claim did not fit neatly into genealogical charts. It could be that Niall Glúndub already laid claim to these ancestors and Clann Domnaill had more branches of its large family to account for. As was already shown in the R-BY35717 haplotree in *Figure 4*, Glúndub did not have kindred branches to account for since it had been two to three hundred years since there had been a branch (R-BY50713), and by the time Glúndub came to power it comprised three men with surviving lineages making it easier for this cadet branch to plug into the royal genealogy. The haplogroups and surnames involved in this power struggle are highlighted in Appendix A.

The pairing of Ó Néill and McLaughlin to explain Cenél Eóghain history continued as a starting point of analysis in the DNA era.<sup>37</sup> *Figure 7* shows O’Donovan’s royal lineage from *Figure 2* now overlaid with DNA haplogroups, starting with the common ancestor Eóghan (R-S588). The traditional royal lineage of R-S588 > S603 ends with Áed Finnliath, and the kingship continued, shown below in the split-screen image of Glúndub (R-S588 > BY35717) and Domnaill (R-S588 > S7814). Not shown in the figure was the next king, Áed ‘an Macaomh Tóinleasc’, who like McLaughlin was described by Hogan in 1932 as ‘beyond the legal limit to eligibility’ when he became king in 1166. Áed was accepted as the ‘sole surviving son’ of Muircheartach *Muighe Lughan* Ó Néill (Hogan, p. 215), yet his DNA was R-Z1513.<sup>38</sup>

The Glúndub and Domnaill rivalry that started in AD 905 continued among their descendants Ó Néill and McLaughlin as they struggled for political and territorial control. Tullyhogue, described as the political center of gravity in 1083 “where descendants of Niall Glúndub were at home”,<sup>39</sup> was by 1170 controlled by Clann Domnaill’s McLaughlin and O’Donnelly.<sup>40</sup> After 1241, when the political settlement was reached for the lordship of Ó Néill that endured for the remainder of the medieval era, Tullyhogue became the homestead of Ó Hagan of Cenél Fearghusa.<sup>41</sup>

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<sup>36</sup> James Hogan, “The Irish Law of Kingship, with Special Reference to Ailech and Cenél Eoghain”, *Proceedings of the Royal Irish Academy*, Vol. 40 (1931/1932), pp. 186-254, <http://www.jstor.org/stable/25515953>, p. 219. See Mac Lochlainn, pp. 210-218.

<sup>37</sup> Edwin B. O’Neill & John D. McLaughlin, “Insights Into the O’Neills of Ireland from DNA Testing,” *Journal of Genetic Genealogy*, 2, pp. 18-26, 2006.

<sup>38</sup> Dwayne O’Neill, Edwin B. O’Neill, Fred Mulholland, & Sean O’Neill, (Administrators), “O’Neill. The Ancient and Royal Family of O’Neill,” Y DNA Project and database, <https://www.familytreedna.com/groups/oneill/about/background>

<sup>39</sup> James Hogan, “The Irish Law of Kingship, with Special Reference to Ailech and Cenél Eoghain”, *Proceedings of the Royal Irish Academy*, Vol. 40 (1931/1932), pp. 186-254, <http://www.jstor.org/stable/25515953>, p. 206.

<sup>40</sup> Séamus Ó Ceallaigh, et al. *Gleanings from Ulster History*, 1951/1994, see map of 1170 territorial control, p. 193.

<sup>41</sup> Dr. Colm Donnelly, “The Ó Néill Lordship of Medieval Tír Eoghain and its Supporting Lineages,” The South Tyrone NIFHS’ [North of Ireland Family History Society] zoom call, April 12, 2022.

**Figure 7. O'Donovan's royal lineage from Figure 2 overlaid with haplogroup results**

APPENDIX.		2427
Now, by comparing this with the royal line of the family of O'Neill, it will appear that Aedh or Hugh Finniath is the true stemma of this pedigree :		
	1. Niall of the Nine Hostages, Monarch of Ireland, slain A. D. 406.	
R-S588	2. Eoghan, <i>a quo</i> Cinel-Eoghain, or Kinel-Owen, d. 465.	
	3. Muiredhach.	
	4. Muirheartach More Mac Erca, monarch, d. 533.	
	5. Domhnall Ilhealgach, monarch, d. 566.	
	6. Aedh Uairidhnach, monarch, d. 612.	
	7. Maelfithrigh, Chief of Kinel-Owen, sl. 625.	
R-S588 >	8. Maelduin.	
R-S603	9. Fergal, monarch, d. 722.	
	10. Niall Frasach, monarch, d. 770.	
	11. Aedh, or Hugh Oiridnigh, monarch, d. 819.	
	12. Niall Cailne, monarch, d. 879.	
	13. Aedh, or Hugh Finniath, monarch, d. 879.	
	14. Niall Glunduv, <i>a quo</i> O'Neill, monarch, sl. 919.	
	15. Muirheartach Mac Neill, na-gCochall gCroiceann, King of Aileach, sl. 943.	
	16. Domhnall O'Neill, of Armagh, King of Aileach, d. 980.	
	17. Muirheartach Midheach, sl. 975.	
	18. Flahertach-an-trostain O'Neill, King of Aileach, d. 1036.	
	19. Aedh Athlaman O'Neill, d. 1033.	
	20. Domhnall O'Neill. R-S588 >	
	21. Flahertach O'Neill. R-BY35717	
	22. Conchobhar na-fiodhgha O'Neill.	
	23. Teige Glinne O'Neill.	
	24. Muirheartach O'Neill, of Moylinny, sl. 1160.	
	14. Domhnall, King of Aileach.	
	15. Eochaidh, <i>a quo</i> Ui-Eathach Droma-Lighean.	
	16. Ceallach.	
	17. Seachnasach.	
	18. Donnghal, <i>a quo</i> O'Donnelly.	
	19. Dobhailen, or Develin.	
	20. Ceallachan O'Donnelly. R-S588 >	
	21. Donnghal O'Donnelly. R-S7814	
	22. Echtighern O'Donnelly.	
	23. Gilla-Macliag O'Donnelly, chief of Fearsa Droma, slain at Down by Sir John De Courcy, A. D. 1177.	

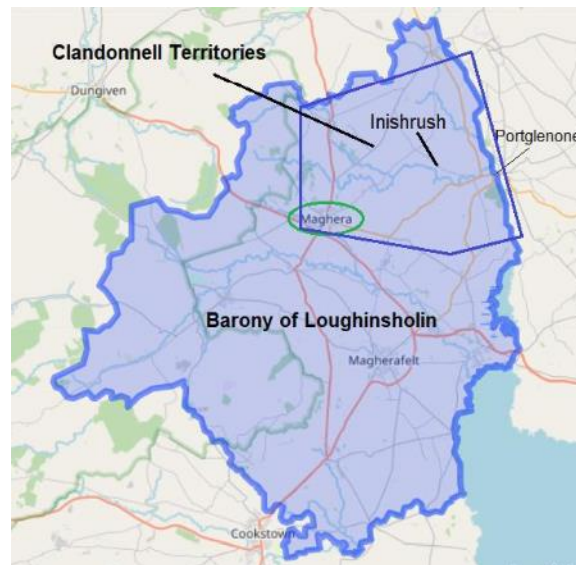
#### 4.6 Cenél Eóghain Ó Néill

In 1500, the Cenél Eóghain Ó Néill homestead was likely located in the vicinity of Clandonnell territory, shown in Figure 8. The location is indicated by R-BY76660 members, despite social disruption caused by the Plantation era in the early 1600s and emigration in the 1700s and 1800s, shown in Appendix D. <sup>42</sup> R-BY76660 certainly flourished, indicating the vicissitudes of his ancestors during medieval times had been overcome. While the R-BY76660 progenitor was certainly Catholic, the faith traditions of the lineages springing from him were equal parts Catholic and Protestant (Presbyterian and Quaker). In the 1600s and 1700s, being Protestant was a legal requirement for land ownership. By 2000, the Cenél Eóghain Ó Néill were living in Ireland (including the modern state of Northern Ireland in the United Kingdom), England, Wales, the United States, Canada, Australia, and New Zealand. A lineage model incorporating DNA results for R-BY76660 member Jon Patraic Neill is shown in Appendix E.

<sup>42</sup> See Richard O'Neal (2024/2016), "The Genealogy and Ancestral History of the O'Neal Family of Callaway County, Missouri", Patrick N. O'Neill (2021/1987), "The O'Neills of Greenlough, co. Derry, from 1820 onwards", <https://www.pko-genealogy.id.au/2021/07/01/oneills-of-greenlough-family-tree/>, Jon Patraic Neill (2020/2019), *Chronicle of the Neill Family*, Volume 1, and (2024/2022) "Thomas and Elizabeth Neill (flourished 1670) Quaker Family of Ireland".



**Figure 8. *Cenél Eóghain Ó Néill heartland of Clandonnell territory in Loughinsholin***



Clandonnell's stronghold was a crannog (timber fortress surrounded by swampland) in Greenlough, called Inishrush, just west of Portglenone and the River Bann.<sup>43</sup> Maghera in the southwest of Clandonnell protected mountain passes from north Derry. The Ó Néill Clandeboye kingdom gained control over this territory in 1347, and by 1444 it was considered Clandonnell, from the Clandeboye branch of Donnell *Donn na Banna* (Domhnall or Donnell 'Brown' Ó Néill of the Bann).<sup>44</sup> Its colorful leader Brian *Carrach* Ó Néill died in 1586. That same year England's marshal of the army in Ireland during Tudor times, Nicholas Bagenal, described it as "Brian Carraghe's country" and the "fastest grownde of Irelande", meaning impenetrable. Brian's son Shane *Boy* succeeded him and during the Nine Years' War in 1599 provided "rebel forces" an estimated 50 men and 10 horse.<sup>45</sup> Ó Néill across Ulster were cavalymen by tradition,<sup>46</sup> suggesting there were 10 or so adult Ó Néill men at that time in Clandonnell territory including Cenél Eóghain.<sup>47</sup> In 1603 Gaelic Ireland fell and soon afterwards the British crown

<sup>43</sup> Bishop Reeves, (1911), "An Account of the Crannoge of Inishrush, and Its Ancient Occupants", *Ulster Journal of Archaeology*, Vol. 17, No. 1, p. 4. "Local tradition circumscribes his territory still more, bounding it on the north by Wolf Island; north-west by Drumlane March; on the east by Tyane Burn; on the south-east by Cut of the Hill, near Bellaghy and on the south by the Clady River."

<sup>44</sup> Dwayne O'Neill, (2023/2024), *Clandeboye O'Neill Clann Donnell Donn of Bann and Y-DNA R-FGC49744 Haplogroup*. See also, *Clandeboye O'Neill of the Barony of Toome, Co. Antrim and DNA FGC37026 Haplogroup*, Part 1, by Dwayne O'Neill, 2023; *Clandeboye O'Neill Killetra (Kilytraghe) Clann and Y-DNA R-FT218632 Haplogroup*, Part 3, by Dwayne O'Neill, 2023; *Clandeboye O'Neill and Y-DNA R-FTA18943 Haplogroup*, Part 4, by Dwayne O'Neill, 2023.

<sup>45</sup> Bishop Reeves, (1911), "An Account of the Crannoge of Inishrush, and Its Ancient Occupants", *Ulster Journal of Archaeology*, Vol. 17, No. 1, p. 4.

<sup>46</sup> Dr. Colm Donnelly, "The Ó Néill Lordship of Medieval Tír Eoghan and its Supporting Lineages," The South Tyrone NIFHS' [North of Ireland Family History Society] zoom call, April 12, 2022.

<sup>47</sup> Ó Néill of Clandonnell territory in 1599: 10 adult men estimated from cavalry compares to 3 men living in 1599 listed by Desmond O'Neill (Feardorcha, Turlough, Cormac son of John [Shane] Boy), 2 of these 3 also listed by Reeves (Shane Boy, Cormac), and 1 more identified by Dwayne O'Neill (Felimy), for a total of 5 individuals not including Shane Boy's brother-in-law Sean O'Neill (married Anne O'Neill) of Shane's Castle in Edenduffcarrick who was a Clandeboye royal and would not be in



took control of lands in Loughinsholin, which were given to London guilds for resettling Derry as part of the Ulster Plantation.<sup>48</sup> The plantation era disrupted native society and seemingly led to the dispersal of the Cenél Eóghain Ó Néill throughout Ulster. In *Figure 9*, there is evidence that an individual with this identity survived in Clandonnell territory into the 19<sup>th</sup> century.<sup>49</sup>

**Figure 9. “Cenelon Oneil” in the 1833 tithe applotment book for Glenone, near Portglenone**

Glenone	
Landholder's Name	Acres
17. Henry Shannon	27
18. J. E. O'Neill	1
19. J. E. O'Neill	2
20. J. E. O'Neill	2
21. J. E. O'Neill	1
22. J. E. O'Neill	2
23. J. E. O'Neill	2
24. J. E. O'Neill	1
25. J. E. O'Neill	1
26. J. E. O'Neill	1
27. J. E. O'Neill	1
28. J. E. O'Neill	1
29. J. E. O'Neill	1
30. J. E. O'Neill	1
31. J. E. O'Neill	1
32. J. E. O'Neill	1
33. J. E. O'Neill	1
34. J. E. O'Neill	1
35. J. E. O'Neill	1
36. J. E. O'Neill	1
37. J. E. O'Neill	1
38. J. E. O'Neill	1
39. J. E. O'Neill	1
40. J. E. O'Neill	1
41. J. E. O'Neill	1
42. J. E. O'Neill	1
43. J. E. O'Neill	1
44. J. E. O'Neill	1
45. J. E. O'Neill	1
46. J. E. O'Neill	1
47. J. E. O'Neill	1
48. J. E. O'Neill	1
49. J. E. O'Neill	1
50. J. E. O'Neill	1
51. J. E. O'Neill	1
52. J. E. O'Neill	1
53. J. E. O'Neill	1
54. J. E. O'Neill	1
55. J. E. O'Neill	1
56. J. E. O'Neill	1
57. J. E. O'Neill	1
58. J. E. O'Neill	1
59. J. E. O'Neill	1
60. J. E. O'Neill	1
61. J. E. O'Neill	1
62. J. E. O'Neill	1
63. J. E. O'Neill	1
64. J. E. O'Neill	1
65. J. E. O'Neill	1
66. J. E. O'Neill	1
67. J. E. O'Neill	1
68. J. E. O'Neill	1
69. J. E. O'Neill	1
70. J. E. O'Neill	1
71. J. E. O'Neill	1
72. J. E. O'Neill	1
73. J. E. O'Neill	1
74. J. E. O'Neill	1
75. J. E. O'Neill	1
76. J. E. O'Neill	1
77. J. E. O'Neill	1
78. J. E. O'Neill	1
79. J. E. O'Neill	1
80. J. E. O'Neill	1
81. J. E. O'Neill	1
82. J. E. O'Neill	1
83. J. E. O'Neill	1
84. J. E. O'Neill	1
85. J. E. O'Neill	1
86. J. E. O'Neill	1
87. J. E. O'Neill	1
88. J. E. O'Neill	1
89. J. E. O'Neill	1
90. J. E. O'Neill	1
91. J. E. O'Neill	1
92. J. E. O'Neill	1
93. J. E. O'Neill	1
94. J. E. O'Neill	1
95. J. E. O'Neill	1
96. J. E. O'Neill	1
97. J. E. O'Neill	1
98. J. E. O'Neill	1
99. J. E. O'Neill	1
100. J. E. O'Neill	1

## 5.0 Conclusion

While unproven that *any* descendants of Niall Glúndub survived, Niall Glúndub is on balance of probabilities associated with Y-SNP BY35717 > BY55263. This is evidenced by historical texts and oral traditions of Cenél Eóghain who are R-BY76660 Ó Néill. Rule by Glúndub's bloodline ended in 1166 when Áed 'an Macaomh Tóinleasc', who was not of the traditional ruling lineage, was proclaimed king of Cenél Eóghain and whose descendants continued the Ó Néill dynasty.

Glúndub's accession to power in 905 means this was the usurpation of the royal lineage of Muireadhach that had ruled the Cenél Eóghain for almost 500 years, if indeed he was Y-SNP BY35717 > BY55263. Glúndub came to power during an era of social disruption associated with Viking incursions into Ireland, and when his dynasty faltered by 1060 from a lack of heirs they were challenged for power by the McLaughlin, another Cenél Eóghain clann also not of the royal lineage of Muireadhach. This began a cycle of war and bloodshed lasting until 1241.

Clandonnell cavalry. Y-DNA results from surviving male lineages indicate in 1599 there were 6 genetic branches of Ó Néill accounting for at least 6 individuals: 1 from Clandonnell R-FGC49754 and 5 from Cenél Eóghain R-BY76660. Taken together, DNA and historical data indicate 5 Clandonnell Ó Néill and 5 Cenél Eóghain Ó Néill individuals, for a total of 10 (perhaps coincidentally equal to the number of cavalry). Clandonnell comprises about 13 townlands in co. Derry and 2 townlands in co. Antrim. See BY35717 haplotree; Dwayne O'Neill (2023/2024); Desmond O'Neill (1995); Reeves (1911), p. 6.

<sup>48</sup> For the 1622 map of Plantation ownership of Loughinsholin by guild, see Causeway Museum Service, 2013, 'The Project of Plantation': 17th Century Changes in North East Ulster People & Places, Coleraine Borough Council, <https://niarchive.org/wp-content/uploads/2019/04/Project-of-Plantation-booklet.pdf>, p. 10.

<sup>49</sup> "Tithe applotment for the parish of Tamlaght [O'Crilly]...", 1833, Public Record Office of Northern Ireland (PRONI), Reference number FIN/5/A/254A, <https://apps.proni.gov.uk/eCatNI/IE/ResultDetails.aspx>, p. 34.

## **5.1 Further Research**

The Cenél Eóghain royal succession and its medieval politics require reinterpretation knowing that Mac Lochlainn (McLaughlin) was not from the ruling lineage, as history tells us, and possibly neither was his rival Niall Glúndub. The McLaughlin-O'Neill dynastic wars tracked the Viking age from 793 to 1241, yet the enormous impact of the Vikings evidenced in skeletal remains seems unmatched in Ulster's historical emphasis. The connectivity of the Viking age, Y-DNA, and medieval political power could be better understood. Increasingly, archaeological evidence of skeletal remains represents an opportunity to better inform this intersection of genetic and social research. The essential challenges of genetic data collection and sampling size can be addressed not only by additional testers, but with a strategic research methodology incorporating whole genome sequencing.

## References

- Ancestry of Lochlainn*, [attributed to a Mr. McLaughlin of County Donegal], (undated), link included in email message from Alan Milliken to author, personal communication, May 7, 2024, <https://amuligane.co.uk/wp-content/uploads/2024/05/the-ancestry-of-lochlainn.pdf> [broken link]
- Annals of the Four Masters*, <https://celt.ucc.ie/published/T100005B/text017.html>
- Carey, John, (1994), *The Irish National Origin-Legend: Synthetic Pseudohistory*, Department of Anglo-Saxon, Norse, and Celtic, University of Cambridge. Cambridge, England, <https://www.asnc.cam.ac.uk/publications/Quiggin/ECQ%20Vol%201%201994%20Carey.pdf>
- Causeway Museum Service, (2013), ‘*The Project of Plantation*’: 17th Century Changes in North East Ulster People & Places, Coleraine Borough Council, <https://niarchive.org/wp-content/uploads/2019/04/Project-of-Plantation-booklet.pdf>
- Donnelly, Colm, (2022), “The Ó Néill Lordship of Medieval Tír Eoghan and its Supporting Lineages,” The South Tyrone NIFHS’ [North of Ireland Family History Society] zoom call, April 12, 2022.
- FamilyTreeDNA, (2024), Ancient Connections, R-FTC78015, <https://discover.familytreedna.com/y-dna/R-FTC78015/ancient>, accessed June 2, 2024.
- FamilyTreeDNA, (2024), “Discover if You’re a Niall of the Nine Hostages Descendant”, <https://help.familytreedna.com/hc/en-us/articles/6246351479695-Discover-if-You-re-a-Niall-of-the-Nine-Hostages-Descendant#dna-testing-can-show--0-0>, retrieved June 9, 2024.
- Glass, Gene V.; Willson, Victor L., & Gottman, John M. (2008), *Design and Analysis of Time-Series Experiments*, Charlotte, NC: Information Age Publishing.
- Gleeson, Patrick, (2017), “Luigne Breg and the origins of the Uí Néill”, *Proceedings of the Royal Irish Academy: Archaeology, Culture, History, Literature*, Vol. 117C, pp. 65-99, <https://www.jstor.org/stable/10.3318/priac.2017.117.04>
- Haywood, John, (2015), *Northmen: The Viking Saga AD 793-1241*, New York: St. Martin’s Press.
- Hencken, Hugh; Price, Liam, & Start, Laura E., (1950/1951), “Lagore Crannog: An Irish Royal Residence of the 7th to 10th Centuries A.D.”, *Proceedings of the Royal Irish Academy: Archaeology, Culture, History, Literature*, Vol. 53, pp. 1-247.
- Hogan, James “The Irish Law of Kingship, with Special Reference to Ailech and Cenél Eoghain”, *Proceedings of the Royal Irish Academy*, Vol. 40 (1931/1932), pp. 186-254, <http://www.jstor.org/stable/25515953>, p. 201.
- Jaski, Bart, (2013/2000), *Early Irish Kingship and Succession*, Dublin: Four Courts Press.
- Jaski, Bart, (2013), *Genealogical Tables of Medieval Irish Royal Dynasties*, PDF version of 31 July 2013, [https://www.academia.edu/4144299/Genealogical\\_tables\\_of\\_medieval\\_irish\\_royal\\_dynasties](https://www.academia.edu/4144299/Genealogical_tables_of_medieval_irish_royal_dynasties)
- Kane, Edward, & O’Neill, Dwayne (2021), “Use of SNPs and Signature STRs in Combination to Determine Lineages and Identify Historical Relationships,” [https://www.academia.edu/49081807/Use\\_of\\_SNPs\\_and\\_Signature\\_STRs\\_in\\_Combination\\_to\\_Determine\\_Lineages\\_and\\_Identify\\_Historical\\_Relationships](https://www.academia.edu/49081807/Use_of_SNPs_and_Signature_STRs_in_Combination_to_Determine_Lineages_and_Identify_Historical_Relationships)

- Lacey, Brian, (2006), *The Cenel Conaill and the Donegal Kingdoms, AD 500-800*, Dublin, Ireland: Four Courts Press.
- McGettigan, Darren, (2016), *The Kings of Aileach and the Vikings AD 800-1060*, Dublin, Ireland: Four Courts Press
- McKie, Craig; Gwinn (McEvoy), Tim; Ní Fhlannagáin, Gráinne; Stanfill, Linda; Wilson, David, (Administrators), (2024), “Dal Cuinn Teóra Connachta and the Uí Néill,” Y DNA Project and database, <https://www.familytreedna.com/groups/dalcuinnteoracconnachtaandtheuineill/about>
- Mac Shamhráin, Ailbhe, (2009), “Muirchertach na Cochall Craicínin,” *Dictionary of Irish Biography*, <https://www.dib.ie/biography/muirchertach-na-cochall-craicinin-a6017>
- Mac Shamhráin, Ailbhe, (2009), “Niall Glúndub,” *Dictionary of Irish Biography*, <https://www.dib.ie/biography/niall-glundub-a6200>
- Neill, Jon Patraic, (2024/2022) “Thomas and Elizabeth Neill (flourished 1670) Quaker Family of Ireland”.
- Neill, Jon Patraic, (2019), *Chronicle of the Neill Family, Volume One*. Tampa, Florida. <https://search.worldcat.org/title/1226077480>
- Ó Ceallaigh, Séamus, et al. (1951/1994), *Gleanings from Ulster History*, Ballinascreen Historical Society.
- Ó Doibhlin, Éamon, (1970), “Ceart Uí Néill: A Discussion and Translation of the Document”, *Seanchas Ardmhacha: Journal of the Armagh Diocesan Historical Society*, 5, No. 2 (1970), pp. 324-358.
- O’Donovan, John, “Appendix: The O'Donnellys of Ballydonnelly”, in John O’Donovan, *Annala rioghachta Eireann: Annals of the Kingdom of Ireland, by the Four Masters, from the earliest period to the year 1616*, 7 vols, vol. 5: [1501–1588; Appendix], 2nd ed., Dublin, Ireland: Hodges, Smith & Co., 1856, pp. 2426–2430.
- O’Neill, Desmond, (1995), *The Ancient and Royal Family of O’Neill*, [Ireland], compact disk.
- O’Neill, Dwayne, (2023), *Clandeboyne O’Neill Clann Donnell Donn of Bann and Y-DNA R-FGC49744 Haplogroup*.
- O’Neill, Dwayne; O’Neill, Edwin B.; Mulholland, Fred, & O’Neill, Sean, (Administrators), (2024), “O’Neill. The Ancient and Royal Family of O’Neill,” Y DNA Project and database, <https://www.familytreedna.com/groups/oneill/about/background>
- O’Neill, Dwayne & Kane, Edward, (Administrators), (2024), “Cenel Eoghain Y DNA Project. Descendants of Eógan mac Néill d 465, son of Niall Noigialloach.” <https://www.familytreedna.com/groups/cenel-eoghainy-dnaproject/about/background>
- O’Neill, Edwin B. & McLaughlin, John D., (2006), “Insights Into the O’Neills of Ireland from DNA Testing,” *Journal of Genetic Genealogy*, 2, pp. 18-26, <https://jogg.info/wp-content/uploads/2021/09/22.003.pdf>
- Ó Néill, Malachy (Translator), (2010), “An Abridged Edition of An Leabhar Eoghanach”, *Dúiche Néill, Journal of the O’Neill Country Historical Society*, 18, O’Neill County Historical Society, [https://pure.ulster.ac.uk/ws/portalfiles/portal/11479953/DN\\_18\\_An\\_Leabhar\\_Eoghanach - An Abridged Edition in Modern Irish.pdf](https://pure.ulster.ac.uk/ws/portalfiles/portal/11479953/DN_18_An_Leabhar_Eoghanach_-_An_Abridged_Edition_in_Modern_Irish.pdf)

- O'Neill, Patrick N., (2021/1987), "The O'Neills of Greenlough, co. Derry, from 1820 onwards", <https://www.pko-genealogy.id.au/2021/07/01/oneills-of-greenlough-family-tree/>
- O'Neal, Richard, (2024/2016), "The Genealogy and Ancestral History of the O'Neal Family of Callaway County, Missouri".
- Reeves, Bishop, (1911), "An Account of the Crannoge of Inishrush, and Its Ancient Occupants", *Ulster Journal of Archaeology*, Vol. 17, No. 1, pp. 3-9, <https://www.jstor.org/stable/20608683>
- Simms, Katherine (2020), *Gaelic Ulster in the Middle Ages: History, Culture and Society*, Dublin, Ireland: Four Courts Press.
- "Tithe applotment for the parish of Tamlaght [O'Crilly]...", (1833), Public Record Office of Northern Ireland (PRONI), Reference FIN/5/A/254A, <https://apps.proni.gov.uk/eCatNI/IE/SearchPage.aspx>

## Appendices

### Appendix A

#### Surname Use in 1600 by Cenél Eóghain Branches

The table shows R-S588 downstream haplogroups that meet the criteria of being Big Y results with branches formed by 1600 having at least two instances of surname usage in the Group Time Tree. The year 1600 is important to show the DNA and surname structure of Cenél Eóghain before the start of the modern era. After 1600, social disruption impacted the usage and spelling of names and led to increasing name change events. The oldest haplogroups are shown first. The surnames highlighted in green are branches involved in the medieval lordship of Ó Néill political structure as described in *Ceart Uí Néill*. Dates from the Group Time Tree are not reconciled to the historical record, which is beyond the scope of this paper. For example, McCluskey (shown as formed 916) descended from Blosky O'Kane, as indicated by *The Annals of the Four Masters* entry in 1196 (M1196.2), whereas Kane is showing as forming later than McCluskey, in 1148. The data is from June 17, 2024.

R-S588		Branches by 1600 showing at least 2 usages of a surname in Group Time Tree					
Haplogroup	Formed	Haplogroup	Formed	Surname	Big Y testers		
					Total	2+ useages	
R-S7814	334	R-FGC59192	1101	Donnelly	55	4	17
		R-FGC75642	1247	McLaughlin		7	
		R-BY18197	1306	Hamilton (Hamill)		3	
		R-FT71844	1538	Lashley		3	
R-603	340	R-FGC16740	755	Quinn	202	4	75
		R-FT56993	848	Kelly		3	
		R-S595	916	McCluskey (Cosby)		14	
		R-FGC57762	1006	Carr		2	
		R-FT121579	1049	Kelly		2	
		R-BY19782	1148	Kane		6	
		R-FGC34067	1191	McDermott		2	
		R-BY167328	1199	Campbell		4	
		R-BY18212	1258	Campbell		2	
		R-FT169286	1263	Kennedy		2	
		R-BY200412	1272	Short		4	
		R-FT381245	1295	Clancy		4	
		R-BY18227	1301	McAnally		5	
		R-BY18204	1318	O'Hair		3	
		R-FT47641	1380	McHenry		3	
		R-FGC19863	1433	Ewing		8	
		R-FTA82426	1427	MacQuaid		3	
		R-FT405220	1437	MacSorley		2	
		R-FT94703	1574	MacDonald		2	
R-A5388	341	R-BY57166	1232	Gilmore	33	4	13
		R-BY20536	1558	Wilson		9	
R-BY35717	545	R-BY169438	948	Mac Craith	33	9	29
		R-BY76660	1493	O'Neill		13	
		R-BY50759	1269	Trainor		5	
		R-FTC26570	1283	Jermyn		2	
R-BY11432	583	R-FTC17116	1124	Devlin	20	5	5
R-FT165097	622	R-FT165098	752	Hagan	9	3	3



## Appendix B

### Surnames Shared Across Cenél Eóghain Branches, Itemizing O'Neill Usage

The table shows surnames that are shared across Cenél Eóghain R-S588 branches that meet the criteria of test kits with at least 111 markers tested. Branches directly from R-S588 with five or fewer observations are excluded due to low numbers. Overall, there was no sharing of surnames for about 80% of Cenél Eóghain individuals, with 20% having a surname shared in some way across branches. The data is divided into three groups based on involvement in the medieval lordship of Ó Néill political structure. In the first group, there was no sharing of the surnames McLaughlin, Donnelly, Devlin, or Hagan across branches identified. In the second group, O'Neill, Campbell, Kane, and Quinn are shared in either their common or variant form of spelling or pronunciation. The subject of this study, O'Neill (highlighted green), is the most shared surname in this study and appears in four branches described below. The data is from December 31, 2023.

Surname	Largest Branches in Cenél Eóghain DNA Project										
	Domnaill	Conchobair (Connor)	Máien	Fearadhaigh (Faraday)	Donnachaídh (Robertson)	O'Neill / Mac Craith	Wilson / Gilmore / O'Neill	Ó Doibhlín (Devlin)	O'Duibhdhior ma (McDermott)	Fergusa (Hagan)	Quinn
Medieval Lordship of O'Neill political families - no shared surnames											
McLaughlin	✓										
Donnelly	✓										
Devlin								✓			
Hagan										✓	
Medieval Lordship of O'Neill political families with shared surnames											
O'Neill	1		1			9	4				
Campbell		2		11					1		
Kane	1	7						2			
Quinn	2	1									6
All other Cenél Eóghain families with shared surnames											
Gilmore					4		5				
Graham	1		5								
Johnson			2				2	2			
Kelly			3	2							
Short	1			4							
Hamilton	4									1	
Byrnes		2							1		
Moore	1	1					1				
Murray	1	1		1							
Coleman	1									1	
McCarthy	1		1								
Stewart	1								1		
White	1	1									

Domnaill branch includes R-FTA80600, which dates to 1605 and includes one O'Neill and one Mannon surname. Upstream branch R-FTA76566 from 1497 did not use O'Neill.

Máien branch includes one O'Neill, which is undated.

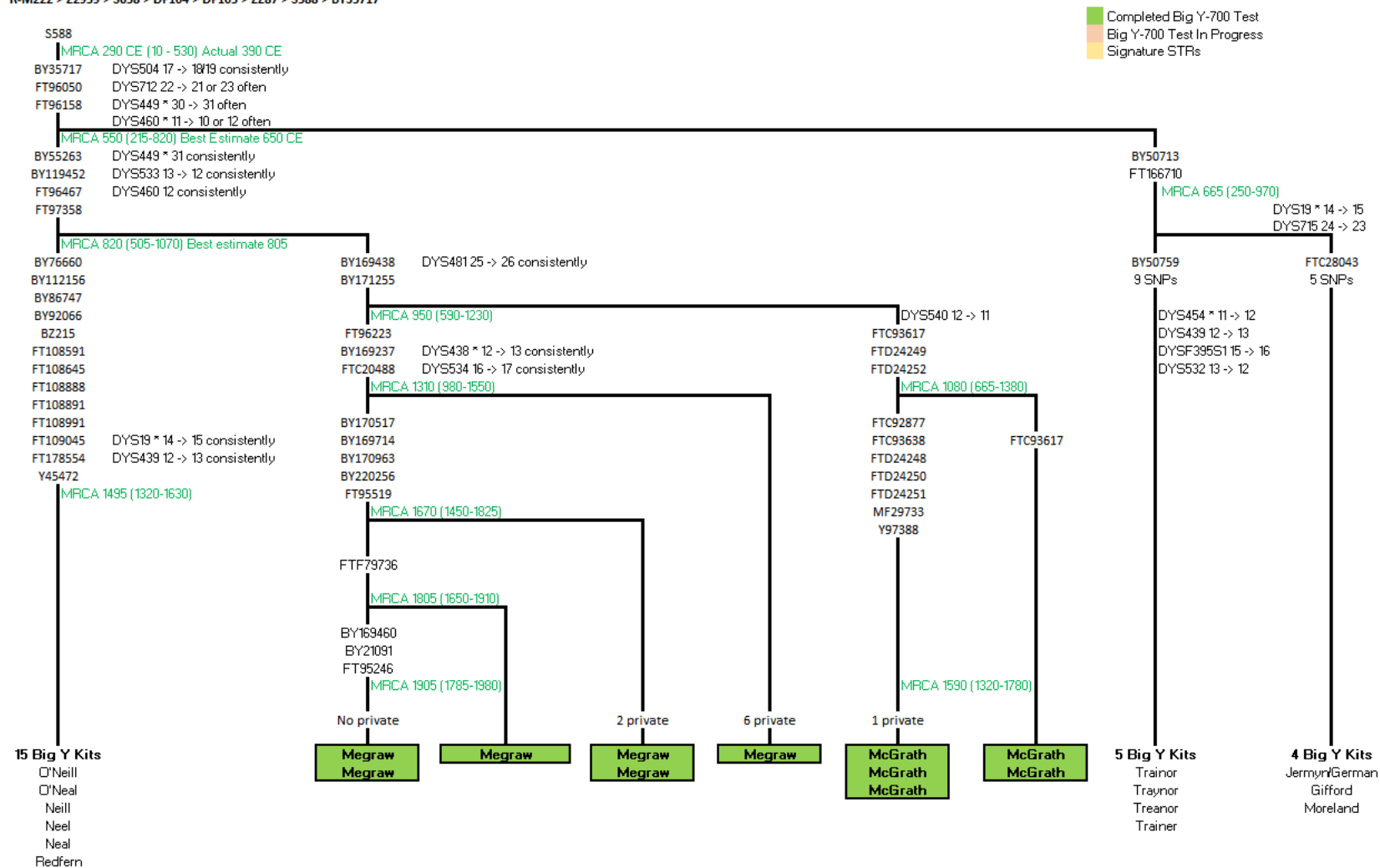
O'Neill / Mac Craith branch is the subject of this paper.

Wilson / Gilmore / O'Neill branch R-A5388 formed in 341, and first branched at R-FTC27704 in 732 with Big Y surnames Williams, Johnson, O'Donnell. The second branch R-A5386 formed in 1007, has branches R-FT52304 and R-FT213315 (formed 1396 with Big Y surnames Turner, Partin, Hunter, Moore, Haslett). R-FT52304 formed in 1028 with the surname Seton, and branched to R-A5387 in 1188. R-A5387 had 7 branches by 1400, including R-A9883 formed in 1616 comprising O'Neill and branch R-BY91591 formed in 1736 with Neel, Neal, and Johnson (4 kits total). The other six branches from R-A5387 has Big Y surnames Wilson (9 kits), Gilmore (5 kits), Thompson, Gray, Stinson, Stevenson.

## Appendix C

### Haplogroup BY35717 > BY55263 > BY169438 Mac Craith

R-M222 > Z2959 > S658 > DF104 > DF105 > Z287 > S588 > BY35717

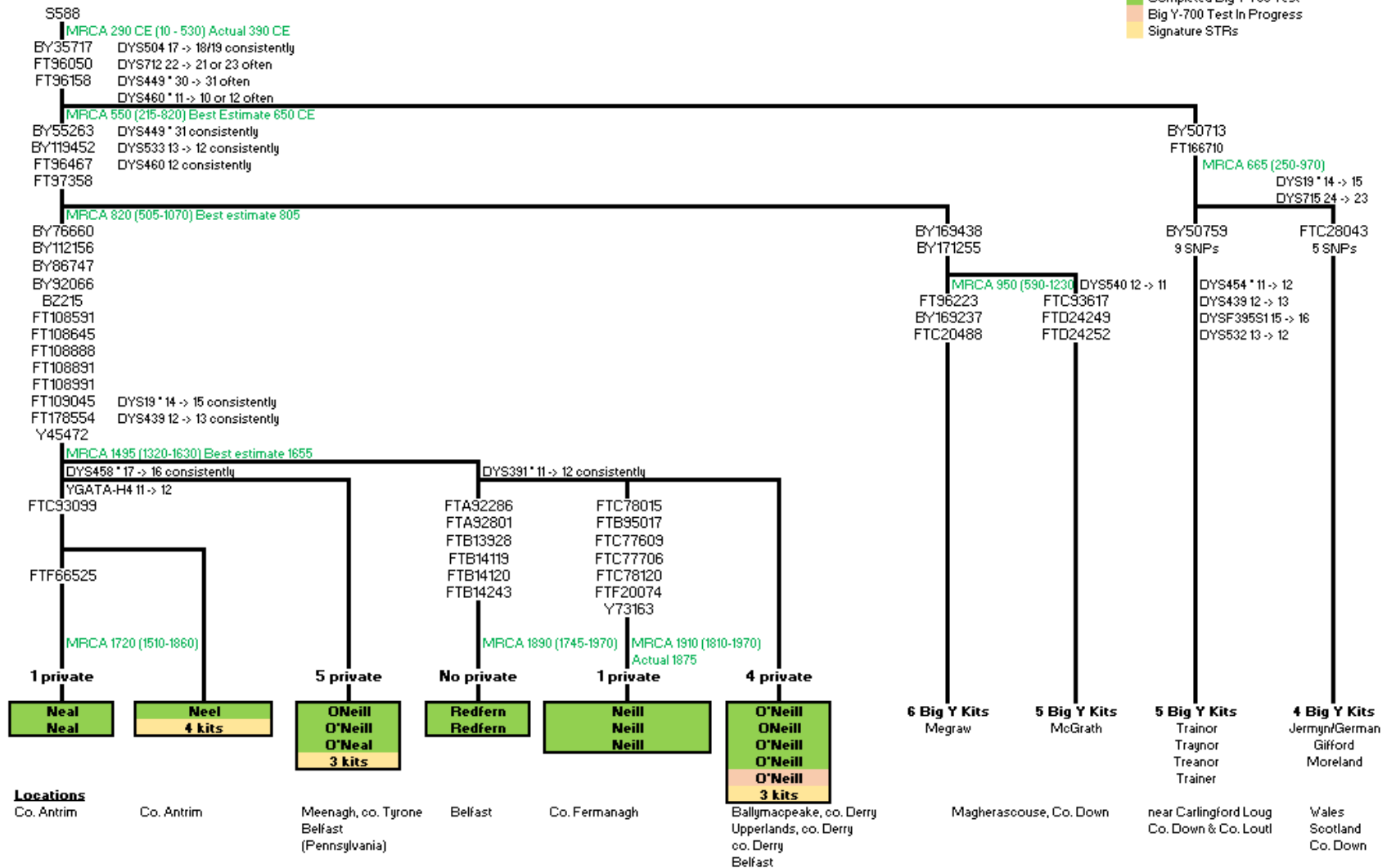


## Appendix D

### Haplogroup BY35717 > BY55263 > BY76660 O'Neill

R-M222 > Z2959 > S658 > DF104 > DF105 > ZZ87 > S588 > BY35717

Completed Big Y-700 Test  
Big Y-700 Test In Progress  
Signature STRs



## Appendix E

### Traditional Lineage Model for R-BY35717 > BY55263 > BY76660 > FTC78015, Jon Patraic Neill

Generation	Date	Haplogroups & Traditional Genealogy (Unreconciled Dates) - Ancestry Model of Jon Patraic Neill						
1	100	R-S658	Conn Cétchathach (Conn of the Hundred Battles)	Art Óenfer mac Cuinn	Cormac mac Airt	Cairbre Lifechair	Fiacha Sroiptine	Muiredach Tirech
2	125							
3	150							
4	185							
5	220							
6	260							
7	300							
8	350							
9	390							
10	415							
11	440	R-DF104	Eochaid Mugmedon	Niall of the Nine Hostages	Eóghan mac Néill	branch of Cenél Eóghain		
12	465							
13	490							
14	515							
15	540							
16	565							
17	590							
18	615							
19	640							
20	665							
21	690	R-DF105	Niall Glúndub	Muircheartach na gCochall gCraiceann	Domnall Ard Macha Ua Néill	Muircheartach Midheach Ua Néill	Flaithbheartach an Trostáin Ua Néill	Aedh Athlamhain Ua Néill
22	715							
23	740							
24	765							
25	790							
26	815							
27	840							
28	865							
29	890							
30	915							
31	940	R-ZZ87	Domnall an tÓgdamh Ua Néill	Flaithbheartach Locha Feadhaidh Ua Néill	Conchubhar na Fiodhbhuidhe Ua Néill	Tadhg Glinne Ua Néill	Muircheartach Muighe Lughan Ua Néill	Ó Néill during the McLaughlin wars
32	965							
33	990							
34	1015							
35	1040							
36	1065							
37	1090							
38	1115							
39	1140							
40	1165							
41	1190	R-S588	Ó Néill surviving lineage	Ó Néill resurgent	Thomas Neill	James Neill	John Neill	Samuel Neill
42	1215							
43	1240							
44	1265							
45	1290							
46	1315							
47	1340							
48	1365							
49	1390							
50	1415							
51	1440	R-BY35717	R-BY55263	R-BY76660	R-FTC78015	William John Neill	Donald George Neill	John Peter Neill
52	1465							
53	1495							
54	1530							
55	1555							
56	1580							
57	1605							
58	1630							
59	1670							
60	1703							
61	1739	R-BY5263	R-BY76660	R-FTC78015	Jon Patraic Neill	Connor Homan Neill		
62	1776							
63	1809							
64	1845							
65	1875							
66	1908							
67	1936							
68	1962							
69	1993							

## **About the Authors**

### **Jon Patraic Neill, PhD**

*Neill resides in Rockville, Maryland, outside Washington DC, with his wife Elizabeth and two sons, daughter-in-law, and grandson. His academic specialty within sociology is political science and public policy, using time-series data analysis methods. He has published nine volumes published and housed in the Library of Congress. He has been researching this O'Neill lineage since 1974.*

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### **Dwayne O'Neill**

*Dwayne resides in Sarnia, Ontario, and has a son and daughter and granddaughter. He is a retired chemical engineer. He picked up the interest in genealogy from his Mom and turned to Y DNA to explore his O'Neill roots. He is an administrator with five different FT DNA Projects including the Cenél Eóghain Y-DNA Project and O'Neill Surname Project among others.*

### **Stanley R. Megraw, PhD**

*Stan resides with his wife in Saint-Bruno-de-Montarville, on the south shore of Montreal, Quebec, and they have three sons and four grandchildren. He is a retired environmental research scientist and a first-generation Canadian whose father emigrated from Belfast, Ireland. Curious about his ancient Irish paternal (MacCraith) roots, he developed a keen interest in genetic genealogy, particularly focusing on Y-DNA research.*