



# Selection of Genealogy Programs & Services

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# Genealogy Objectives

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- Build Family Tree
  - What are your roots?
  - Who are your cousins?
  - Legacy for your children.
- Publish
  - Record your family's accomplishments.
  - Help other researchers.
- Contact Distant Relatives
  - Shared information
  - Travel Interest
- Control Costs
  - How much do you want to spend?

# Family Tree Location

## - On PC or On-line ?






|                                  | On Your Personal Computer<br>PC Genealogy Programs | On the Internet<br>On-Line Genealogy Services |
|----------------------------------|--|---|
| <b>Features</b>                  |  |   |
| Searching Records or Other Trees | From Tree & browser                                | From Tree                                     |
| Hint System                      | While on line                                      | Yes, Even when logged off                     |
| Common Ancestors from DNA        |  | Part of hint system                           |
| Documenting sources              | Manual or Web copying                              | Attaching records more efficient              |
| Graphs and Reports               | Very Good  | Very Limited                                  |
| Publication                      | Separate   | Automatic - Incremental                       |
| Contacting Distant Relatives     | Identify common individuals                        | Identify and Contact                          |
| Others Find & Contact you        | No   | Yes   |
| Privacy                          | Yes  | Private or Public (not living)                |
| Backup                           | User File Copy                                     | Automatic by Service Company                  |
| Cost                             | One Time US \$35 to 80                             | Ongoing - \$10 to \$25/month                  |
| Access after stop paying         | Complete   | Very Limited                                  |

# On-Line Genealogy Services

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<https://www.toptenreviews.com/best-genealogy-websites>

<http://www.exploringlifesmysteries.com/best-genealogy-sites>

| Top Ten Reviews - Ranking        | 1   | 2  | 3   | 4   | 5   |
|----------------------------------|---|--|---|---|---|
|                                  |  |  |  |  |  |
|                                  | Ancestry  | MyHeritage   | Archives  | FamilySearch  | Findmypast  |
| Exploring Lifes Mysteries - Rank | 1   | 2  | 4   |   | 3   |
| Searchable Records               | 27 Billion  | 16 Billion   | 11 Billion  | 6 Billion   | 4-8 Billion   |
| Countries Documented             | 80  | 65   |   | >100  | 6   |
| Canadian Record Sets             | 1391  | 153  | Few   | Many  | 242   |
| Canadian Vital Stats - BMD       | 29/30   | 10/30  |   |   | 11/30   |
| Hint System                      | Good  | Slower, Trees  |   |   | Yes   |
| Family Trees On-Line             | > 100 million   | 83 million   | Yes   | Many - Shared   | Yes   |
| DNA Testing                      | AncestryDNA   | MyHeritageDNA  | AncestryDNA   | No  | LivingDNA   |
| Cost - Premium/Best              | Cdn\$ 260/year<br>2 weeks free<br>monthly rates                                   | Cdn\$ 269-389/year<br>250 people max free<br>only annual                           | US\$ 10/mo  | Free  | US\$ 15/mo<br>pay as you go   |
| Main Reason to Chose             | Most Effective  |  |   | Many Records  | UK & Irish Records  |

# PC Genealogy Programs

Feb 2022

## On-Line Review of Synchronization

<https://www.yourdnaguide.com/ydgblog/family-history-software-sync-online-trees>

|   | Ancestral Quest                                      | Family Historian          | Family Tree Builder | Family Tree Maker        | Legacy Family Tree                       | RootsMagic   |
|---|--|---------------------------|---------------------|--------------------------|--|--|
| Windows/Mac                                     | Both   | Windows                   | Both                | Both                     | Windows                                  | Both   |
| Free basic version available?                   | Yes!   | No, but 30 day free trial | Yes!                | No                       | Yes!                                     | Yes!   |
| Gives you hints to find genealogy records on... | Ancestry<br>FamilySearch<br>Findmypast<br>MyHeritage | Findmypast<br>MyHeritage  | MyHeritage          | Ancestry<br>FamilySearch | FamilySearch<br>FindMyPast<br>MyHeritage | Ancestry<br>FamilySearch<br>Findmypast<br>MyHeritage |
| Initial export from FamilySearch tree?          | Yes!   | No                        | No                  | Yes!                     | Yes!                                     | Yes!   |
| Syncs with (two-way updates)...                 | FamilySearch   |                           | MyHeritage          | Ancestry                 | FamilySearch                             | Ancestry<br>FamilySearch                             |






Additional information since article was published:

MyHeritage  
future sync

# PC Genealogy Programs

## Key Features

Feb 2022

| Free Standing Programs  |   |  |   |   |   |
|---|---|--|---|---|---|
|   |  |  |  |  |  |
|   | Legacy Family Tree  | Family Historian   | Family Tree Maker   | RootsMagic  | Family Tree Heritage  |
| Versions:   | L9  | FH7  | FTM2019   | RM8   | Gold  |
| Windows   | Y   | Y  | Y   | Y   | Y   |
| Mac   | N   | N  | Y   | Y   | Y   |
| <b>Research Data Access - All On-Line Resources can be accessed through browsers. Genealogy data can be transferred manually.</b> |   |  |   |   |   |
| <b>In addition, each of these PC genealogy programs can access some On-Line Resources Directly. Data transfer is easier</b>       |   |  |   |   |   |
| <b>Direct Access to On Line Services and Web Hints (Number of Hints - Canadian Test - John Gemmill, born 1888, Ontario.)</b>      |   |  |   |   |   |
| Ancestry  | -   | -  | 8 Rec + 6 Trees   | 8 Rec + 6 Trees   | -   |
| MyHeritage  | 1 Record + 3 Trees  | 1 Rec + 3 Trees  | -   | 1 Rec + 3 Trees   | -   |
| Family Search   | 0   | -  | 4 Trees   | 6 Records   | ?   |
| Findmypast (mainly UK)  | 1 Record + 3 Trees  | 1 Record   | -   | 1 Record  | -   |
| Genealogy Bank (mainly USA)   | 0   | -  | -   | -   | -   |
| Tree Synch  | Family Search<br>MyHeritage-future  | ?  | Ancestry (Full tree)  | Ancestry (Indiv)  | ?   |
| Charts & Reports  | 45  | 43   | 35  | 35  |   |
| Cost Full Version - US \$   | US \$35   | US \$70  | US \$80   | US \$40   | US \$50   |
|   | Free basic version  | 30 day trial   |   | Free basic version  | (Other versions)  |
| Main Reason to Choose   | Charts & Reports<br>Sync MyHeritage   | Ease of Use<br>(personal)  | Research<br>Sync Ancestry   | Research<br>Compare 2 DB  |   |

# Recommended Computer Tools & Services

## Conventional Genealogy – (Before DNA)

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- **Low Cost Starter – PC program, free Internet sources**
  - Never on-line: Legacy
  - Some day on-line: Family Tree Maker (with Ancestry)
  - Legacy (future with MyHeritage)
- **Mid Cost Starter – Ancestry, no PC Program**
  - Local Ancestry Subscription & Free Internet
- **Most Capable – Both PC & Ancestry - Synchronized**
  - Ancestry World Wide Subscription,
  - Family Tree Maker & Free Internet.

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## DNA Tests for Genealogy

- now routine, and can be very effective



# DNA Test Types

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## □ Autosomal DNA Tests

- Ethnicity                      mainly for fun
- DNA Matches                tree building

□ Y chromosome                male line            (Advanced)

□ Mitochondrial                female line        (Advanced)

□ Segment Analysis              (Advanced)

# Autosomal DNA Matches

## 23andMe Match List



Donald



2nd Cousin

2.30% DNA shared, 8 segments



Dulcie



2nd Cousin

2.22% DNA shared, 8 segments



effie



2nd Cousin, Once Removed

1.89% DNA shared, 9 segments



William



2nd Cousin, Once Removed

1.31% DNA shared, 5 segments

Invitation sent

# Autosomal DNA Matches

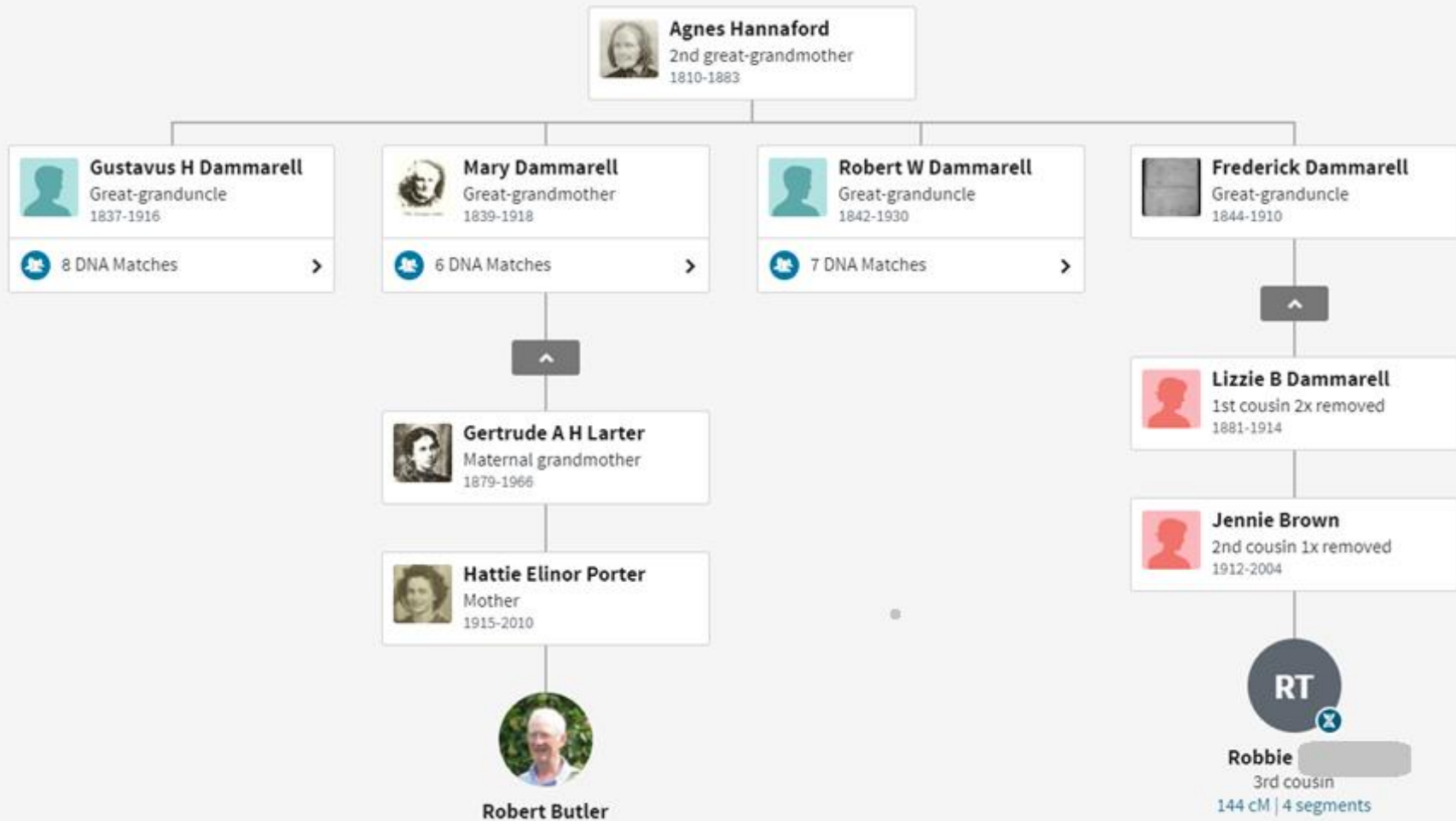
## centiMorgan Match Size vs Kinship

| <b>Relationship</b>                | <b>Expected Average DNA %</b> | <b>Expected Average DNA cM</b> | <b>Measured Average DNA cM *</b> | <b>Common Ancestors</b>   | <b>Gens Back To Common Ancestors</b> | <b>Common Ancestor Possible Birth Year</b> |
|------------------------------------|-------------------------------|--------------------------------|----------------------------------|---------------------------|--------------------------------------|--|
| <b>Parent</b>                      | <b>50</b>                     | <b>3400</b>                    | <b>3487</b>                      |                           |                                      |  |
| <b>Sibling</b>                     | <b>50</b>                     | <b>3400</b>                    |                                  | <b>Parents</b>            | <b>1</b>                             | <b>1940</b>                                |
| <b>Sibling (Excluding Doubles)</b> | <b>37.5</b>                   | <b>2550</b>                    | <b>2629</b>                      | <b>Parents</b>            | <b>1</b>                             | <b>1940</b>                                |
| Nephew or Niece                    | 25                            | 1700                           | 1750                             | Parents/Grandparents      | 1.5                                  |  |
| Uncle or Aunt                      | 25                            | 1700                           | 1750                             | Parents/Grandparents      | 1.5                                  |  |
| <b>First Cousin</b>                | <b>12.5</b>                   | <b>850</b>                     | <b>874</b>                       | <b>Grandparents</b>       | <b>2</b>                             | <b>1910</b>                                |
| First Cousin once removed          | 6.25                          | 425                            | 439                              |                           | 2.5                                  |  |
| <b>Second Cousin</b>               | <b>3.13</b>                   | <b>213</b>                     | <b>233</b>                       | <b>Great Grandparents</b> | <b>3</b>                             | <b>1880</b>                                |
| Second Cousin once removed         | 1.56                          | 106                            | 123                              |                           | 3.5                                  |  |
| <b>Third Cousin</b>                | <b>0.78</b>                   | <b>53</b>                      | <b>74</b>                        | <b>GG Grandparents</b>    | <b>4</b>                             | <b>1850</b>                                |
| Third Cousin once removed          | 0.39                          | 27                             | 48                               |                           | 4.5                                  |  |
| <b>Fourth Cousin</b>               | <b>0.19</b>                   | <b>13</b>                      | <b>35</b>                        | <b>GGG Grands</b>         | <b>5</b>                             | <b>1820</b>                                |
| Fourth Cousin once removed         | 0.1                           | 7                              | 28                               |                           | 5.5                                  |  |
| <b>Fifith Cousin</b>               | <b>unreliable</b>             | <b>3</b>                       | <b>25</b>                        | <b>GGGG Grandparents</b>  | <b>6</b>                             | <b>1790</b>                                |

\* Shared cM Project

# Autosomal Matches - Ancestry

## Common Ancestors: ThruLines



# Autosomal Matches – My Heritage

## Common Ancestors: Theory of Family Relativity



Alexander Porter  
Your great-grandfather  
1831 - 1914



Catherine Wilson  
Your great-grandmother  
1839 - 1929



Robert Andrew Porter  
Your grandfather  
1871 - 1945



Albert Edward Porter  
Your great-uncle  
1869 - 1951



Hattie Elinor Porter  
Your mother  
1915 - 2010



Edna Ellis Alice? Porter  
Your 1st cousin once removed  
1908 - 1927



Robert Butler  
You  
Born: 1940



Jesse Albert Kennedy  
Your 2nd cousin  
1927 - 2001

75%



jesse kennedy  
Your 2nd cousin  
1927 - 2001



<Private>  
Your 2nd cousin once removed








John  
Your 2nd cousin twice remov...

# Autosomal DNA Matches

Jan 2022

- Same person (British & Irish), 5 Companies

|  |   |  |   |  |  |
|--|--|--|--|---|---|
| Number of Customers  | 12 million   | 1.4 million  | 19 million   | 5.2 million   | 1.2 million   |
| Minimum Match (about 50% false) cM                           | 5  | 7  | 7  | 8   | 7   |
| Total Matches reported                                       | 1509 <sup>*1</sup>   | 5,004  | 23,980   | 11,234  | > 10,000  |
| Matches (mostly true) 20 cM or more                          | 1501   | 284  | 1,334  | 1,339   | 346   |
| Quality Matches (most useful) 35 to 600 cM <sup>*2</sup>     | 150  | 22   | 266  | 96  | 36  |
| Matches with known common ancestors                          | 21 <sup>*3</sup>   | 5 <sup>*3</sup>  | 61 <sup>*3</sup>   | 13 <sup>*4</sup>  | 11 <sup>*6</sup>  |
| Matches common ancestor hints or trees                       | n/a  | n/a  | > 140 Thrulines  | 16 ToFR + many SM <sup>*5</sup>   |   |
| Shared Matches   | Yes  | Yes  | Yes  | Yes   | Yes   |
| Match Size between Shared Matches                            | Yes  | No   | No   | Yes   | Yes   |
| Conventional Genealogy                                       | No   | No   | Yes  | Yes   | No  |
| Ongoing Subscription Cost for effective match identification | No   | No   | Yes  | Yes   | No  |
| * Notes  | <ol style="list-style-type: none"> <li>Limited to 1509 matches</li> <li>QM used by Family History Fanatics</li> <li>Trees by Ancestry Matches &amp; Thrulines</li> </ol> |  | <ol style="list-style-type: none"> <li>Mainly Theory of Family Relativity</li> <li>Smart Matches not all common ancestors</li> <li>Most matches from Ancestry test data</li> </ol> |   |   |

# Genetic Genealogy Web Sites

## Family History Fanatics Rating

<https://youtube.com/watch?v=DiZmj-9yybo&feature=share>

| Weighting       |               |      |                    | 0.3            | 0.15         | 0.2           | 0.15     | 0.2      |             |
|-----------------|---------------|------|--------------------|----------------|--------------|---------------|----------|----------|-------------|
|                 | Database Size | QM/M | Genealogy Activity | Effective Size | Effective QM | Triangulation | Transfer | X-factor | Total Score |
| MyHeritage      | 6             | 16.3 | 0.55               | 3.3            | 8.97         | 2             | 1        | 2        | 3.28        |
| GEDmatch        | 1.75          | 14.3 | 0.62               | 1.1            | 8.87         | 3             | 2        | 3        | 3.16        |
| Ancestry        | 20            | 15.6 | 0.4                | 5.2            | 6.24         | 0             | 0        | 1        | 2.70        |
| Family Tree DNA | 1.75          | 19.4 | 0.55               | 1.0            | 10.67        | 1             | 1        | 2        | 2.64        |
| 23andMe         | 12            | 16   | 0.25               | 3.0            | 4.00         | 2             | 0        | 2        | 2.30        |
| LivingDNA       | 0.75          | 26.7 | 0.25               | 0.2            | 6.68         | 0             | 2        | 0        | 1.36        |
|                 |               |      |                    | 1.56           | 1.6005       | 0.6           | 0.3      | 0.6      |             |

- M = Database size – millions of tests
- QM = Quality Matches 35 to 600 cM
- Genealogical Activity – See website – partly related to trees.
- X-factor related to tools
- Results based on Arbitrary Parameters and Factors.

# Genetic Genealogy Web Sites

## Rating Based on Common Ancestors Identified

- Match data for REB – Canadian of English, Scottish & Irish Descent
- Match identification based on Family Tree with 4200 people
- No testing at GEDmatch. Included for comparison of results
- Common Ancestors Identified mainly dependent on Quality Matches





|            | Data Base | Total   | Matches | Quality   | QM/M        | Trees > 25 people |          | Hints | Hints/QM | Common    |
|------------|-----------|---------|---------|-----------|-------------|-------------------|----------|-------|----------|-----------|
|            | Size M    | Matches | >20 cM  | Matches   | per million | Number            | Trees/QM |       | %        | Ancestors |
|            |           |         |         | 35-600 cM |             |                   | %        |       |          | Confirmed |
| Ancestry   | 20        | 24062   | 1337    | 266       | 13.3        | 101               | 38       | 64    | 24       | 61        |
| MyHeritage | 6         | 11234   | 1339    | 96        | 16.0        | 41                | 43       | 9     | 9        | 13        |
| 23&Me      | 12        | 1512    | 1500    | 150       | 12.5        | 0                 | 0        |       |          | 21        |
| FTDNA      | 1.75      | 5004    | 284     | 22        | 12.6        |                   |          |       |          | 5         |
| LivingDNA  | 0.75      | pending |         |           | 0           |                   |          |       |          |           |
| GEDmatch   | 1.75      | ?       | 346     | 36        | 20.6        |                   |          |       |          | 11        |



# DNA Testing Companies

Feb 2022

[https://isogg.org/wiki/Autosomal\\_DNA\\_testing\\_comparison\\_chart](https://isogg.org/wiki/Autosomal_DNA_testing_comparison_chart)

|  |  |  |  |  |
|--|---|---|---|---|
| <b>I. Conventional Genealogy</b>           |   |   |   |   |
| Records, billions                          |   |   | 27  | 16  |
| Ongoing Subscription Cost Cdn \$/year      |   |   | 260   | 269-389   |
| REB Rating                                 |   |   | 9/10  | 7/10  |
| <b>II. DNA Genealogy</b>                   |   |   |   |   |
| Number of Customers                        | 12 million  | 1.4 million   | 19 million  | 4.5 million   |
| Autosomal DNA Test & Shipping Cost         | CDN \$149   | CDN \$115   | CDN \$149   | CDN \$139   |
| Y DNA & mtDNA Tests (extra costs)          |   | Yes   |   |   |
| Personal Ancestry/Ethnicity (ISOGG Rating) | 7/10  | 3.5/10  | 5/10  | 5/10  |
| DNA Genealogy (REB Rating - Brit & Irish)  | 5/10  | 5/10  | 9/10  | 7/10  |
| <b>III. DNA Segment Analysis</b>           |   |   |   |   |
| Match & Segment Lists                      | Yes   | Yes   | No  | Yes   |
| Chromosome Browser                         | Yes   | Yes   | No  | Yes   |
| Triangulation                              | Yes   | Partial   | No  | Yes   |
| DNA Segment Analysis Rating                | 7/10  | 6/10  | 0/10  | 8/10  |
| Main Reason to Choose                      | Health & Trait Report<br>Personal Ancestry  | Y & mt Tests<br>Projects  | Best Trees<br>& Matching  | Good Overall<br>Good Tools  |

# Recommended Computer Tools & Services

## - Conventional Genealogy including DNA

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### □ Ethnicity Only

- ISOGG Recommendation                      23andMe
- UK roots (more detail)                      Living DNA

### □ Matches & Common Ancestors

- Requires Family Trees
- For most Common Ancestors                      Ancestry
- For advanced Segment analysis                      My Heritage
- Others are useful to add matches that tested elsewhere but are not adequate by themselves without a tree building capability.

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Questions ?

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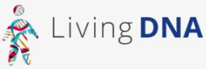
# Backup Slides

# Ethnicity Comparison

## Autosomal Ethnicity Estimates

- same person, different companies

Apr, 2022

|                            | Great Great Grandparents |            |  23andMe |             |  FamilyTreeDNA |             |  ancestryDNA |              |            |  MyHeritageDNA |  LivingDNA |
|----------------------------|--------------------------|------------|---|-------------|--|-------------|---|--------------|------------|---|---|
|                            | Number                   | %          | 2019  | 2021 & 2022 | 2019   | 2021 & 2022 | 2019  | 2021         | 2022       | 2019 - 2022   | 2022  |
| English                    | 11.5                     | 71.9       |   |             |  |             | 87  | 54           | 46         | 11.4  | 36.2  |
| Scottish                   | 2                        | 12.5       |   |             |  |             |   | 30           | 39         | 0   | 38.9  |
| Welsh                      | 0                        | 0          |   |             |  |             |   | 0            | 0          |   | 1.3   |
| English Welsh & Scottish   | 13.5                     | 84.4       |   |             |  | 81          |   | 84           | 85         | 11.4  | 76.4  |
| Irish                      | 2                        | 12.5       |   |             |  | 0           |   | 11           | 10         | 0   | 2.4   |
| Irish, Scottish & Welsh    | 4                        | 25.0       |   |             |  |             | 13  | 41           | 49         | 0   | 42.6  |
| Great Britain & Ireland    | 15.5                     | 96.9       | 67.5  | 81.3        | 69   | 81          | 100   | 95           | 95         | 11.4  | 78.8  |
| Northwest & Central Europe | 0.5                      | 3.1        | 19.6  | 7.2         | 17   | 10.0        | ....  | with English | ....       | 88.6  | 21.1  |
| German & Franch            |                          |            | 7.5   | 2.5         |  |             |   |              |            |   |   |
| Scandinavian               |                          |            | 3.7   | 7.5         |  | 8           |   | 5 Sweden     | 5 Swe+Den  | 0   |   |
| South & East Europe        |                          |            | 1.6   | 1.2         | 11   |             |   |              |            | 0   |   |
| European Jewish            |                          |            |   |             |  | < 1         |   |              |            | 0   |   |
| <b>Total</b>               | <b>16.00</b>             | <b>100</b> | <b>100</b>  | <b>100</b>  | <b>97</b>  | <b>99</b>   | <b>100</b>  | <b>100</b>   | <b>100</b> | <b>100</b>  | <b>100</b>  |

# Ethnicity

## - Living DNA

