Genetic Genealogy Standards

This document is intended to provide standards and best practices for the genealogical community to follow when purchasing, recommending, sharing, or writing about the results of DNA testing for ancestry.

These Standards are intentionally directed to genealogists, not to genetic genealogy testing companies. As used in the Standards, the term "genealogist" includes anyone who takes a genetic genealogy test, as well as anyone who advises a client, family member, or other individual regarding genetic genealogy testing. However, it is ultimately the responsibility of those taking a genetic genealogy test ("tester") to understand and consider these standards before ordering or agreeing to take any genetic genealogy test.

Standards for Obtaining, Using, and Sharing Genetic Genealogy Test Results

- 1. **Company Offerings**. Genealogists review and understand the different DNA testing products and tools offered by the available testing companies, and prior to testing determine which company or companies are capable of achieving the genealogist's goal(s).
- 2. **Testing With Consent**. Genealogists only obtain DNA for testing after receiving consent, written or oral, from the tester. In the case of a deceased individual, consent can be obtained from a legal representative. In the case of a minor, consent can be given by a parent or legal guardian of the minor. However, genealogists do not obtain DNA from someone who refuses to undergo testing.¹
- 3. **Raw Data**. Genealogists believe that testers have an inalienable right to their own DNA test results and raw data, even if someone other than the tester purchased the DNA test.
- 4. **DNA Storage**. Genealogists are aware of the DNA storage options offered by testing companies, and consider the implications of storing versus not storing DNA samples for future testing. Advantages of storing DNA samples include reducing costs associated with future testing and/or preserving DNA that can no longer be obtained from an individual. However, genealogists are aware that no company can guarantee that stored DNA will be of sufficient quantity or quality to perform additional testing. Genealogists also understand that a testing company may change its storage policy without notice to the tester.
- 5. **Terms of Service**. Genealogists review and understand the terms and conditions to which the tester consents when purchasing a DNA test.
- 6. **Privacy**. Genealogists only test with companies that respect and protect the privacy of testers. However, genealogists understand that complete anonymity of DNA tests results can never be guaranteed.
- 7. Access by Third Parties. Genealogists understand that once DNA test results are made publicly available, they can be freely accessed, copied, and analyzed by a third party without permission. For example, DNA test results published on a DNA project website are publicly available.

¹ Except in situations where DNA testing is specifically mandated by law or court order. This type of mandated DNA testing may affect other Standards, including Standards #3 (Raw Data), #6 (Privacy), and #8 (Sharing Results).

- 8. **Sharing Results**. Genealogists respect all limitations on reviewing and sharing DNA test results imposed at the request of the tester. For example, genealogists do not share or otherwise reveal DNA test results (beyond the tools offered by the testing company) or other personal information (name, address, or email) without the written or oral consent of the tester.
- 9. Scholarship. When lecturing or writing about genetic genealogy, genealogists respect the privacy of others. Genealogists privatize or redact the names of living genetic matches from presentations unless the genetic matches have given prior permission or made their results publicly available. Genealogists share DNA test results of living individuals in a work of scholarship only if the tester has given permission or has previously made those results publicly available. Genealogists may confidentially share an individual's DNA test results with an editor and/or peer-reviewer of a work of scholarship. Genealogists also disclose any professional relationship they have with a for-profit DNA testing company or service when lecturing or writing about genetic genealogy.
- 10. **Health Information**. Genealogists understand that DNA tests may have medical implications.
- 11. **Designating a Beneficiary**. Genealogists designate a beneficiary to manage test results and/or stored DNA in the event of their death or incapacitation.

Standards for the Interpretation of Genetic Genealogy Test Results

- 12. Unexpected Results. Genealogists understand that DNA test results, like traditional genealogical records, can reveal unexpected information about the tester and his or her immediate family, ancestors, and/or descendants. For example, both DNA test results and traditional genealogical records can reveal misattributed parentage, adoption, health information, previously unknown family members, and errors in well-researched family trees, among other unexpected outcomes.
- 13. **Different Types of Tests**. Genealogists understand that there are different types of DNA tests, including Y-chromosome DNA ("Y-DNA"), mitochondrial DNA ("mtDNA"), X-chromosome ("X-DNA"), and autosomal DNA ("atDNA") testing. Each test has advantages and limitations, and can be used in different ways for genealogical research. Often, multiple types of testing can be or must be used to test a hypothesis. Prior to testing, genealogists determine which type(s) of DNA testing is capable of achieving the genealogist's goal(s).
- 14. **Y-DNA and mtDNA Tests**. Genealogists understand the current recommended minimum Y-DNA and mtDNA testing standards, guidelines for which are currently being drafted and will be found at <u>www.GeneticGenealogyStandards.com</u> when completed. Genealogists are aware that even after an initial mtDNA or Y-DNA test, additional testing (e.g., additional markers and/or sequencing) might be necessary in order to achieve the genealogist's goal(s).
- 15. Limitations of Y-DNA Testing. Genealogists understand that Y-DNA test results reveal relationships among testers through their direct paternal lines. However, identification of the exact relationship or most recent common ancestor ("MRCA") cannot be determined by Y-DNA test results alone.

- 16. **Limitations of mtDNA Testing**. Genealogists understand that mtDNA test results reveal relationships among testers through their direct maternal lines. However, identification of the exact relationship or MRCA cannot be determined by mtDNA test results alone.
- 17. Limitations of Autosomal DNA Testing. Genealogists understand that autosomal DNA test results, alone, can be used to confirm or deny first degree relationships with certainty (parent/child or full siblings). Genealogists understand that analysis of genealogical relationships beyond the first degree requires the combination of DNA test results and traditional genealogical records.
- 18. Limitations of Ethnicity Analysis. Genealogists understand that ethnicity analysis is limited by the proprietary reference population database and algorithm utilized by the testing company, and thus understand that estimates can vary. Genealogists further understand that because individuals do not possess DNA from all ancestors, an ethnicity estimate can neither be predicted nor evaluated based solely on a genealogical family tree.
- 19. **Interpretation of DNA Test Results**. Genealogists understand that there is frequently more than one possible interpretation of DNA test results. Sometimes, but not always, these possible explanations can be narrowed by additional testing and/or documentary genealogical research. Genealogists further understand that any analysis of DNA test results is necessarily dependent upon other information, including information from the tester, and that the analysis is only as reliable as the information upon which it is based.
- 20. **DNA as Part of Genealogical Proof**. Genealogists understand that no single piece of evidence, including evidence gathered from DNA testing, alone constitutes genealogical proof. Establishing genealogical proof requires thorough research in reliable relevant records, complete and accurate documentation and source citation, analysis and correlation of all evidence, resolution of conflicts caused by contradictory information, and a soundly reasoned written conclusion. For more information, see the Genealogical Proof Standard (www.bcgcertification.org).
- 21. Citing DNA Test Results. Genealogists understand and use the current recommended minimum standards for citing DNA test results in reports to clients or in works of scholarship. Guidelines are currently being drafted and will be found at www.GeneticGenealogyStandards.com when completed.

The Genetic Genealogy Standards Committee January 10, 2015

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