

# Dixie Hansen's Anecdotal Cousin-Finding Experience with 3 Major Autosomal DNA Testing Services

23 And Me			
Estimated Relationship	DNA Matches	Confirmed Matches	Pedigree Posted
Close	1	1	0
2nd-3rd Cousin	5	5	1
3rd-4th Cousin	6	0	0
3rd-5th Cousin	41	0	3
3rd-6th Cousin	147	0	1
<b>Total</b>	<b>200</b>	<b>6</b>	<b>5</b>
<b>Percentage</b>		<b>3.0%</b>	<b>2.5%</b>

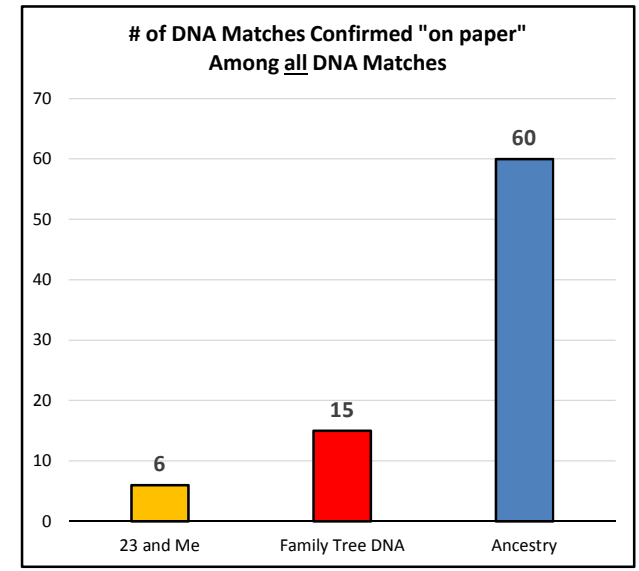
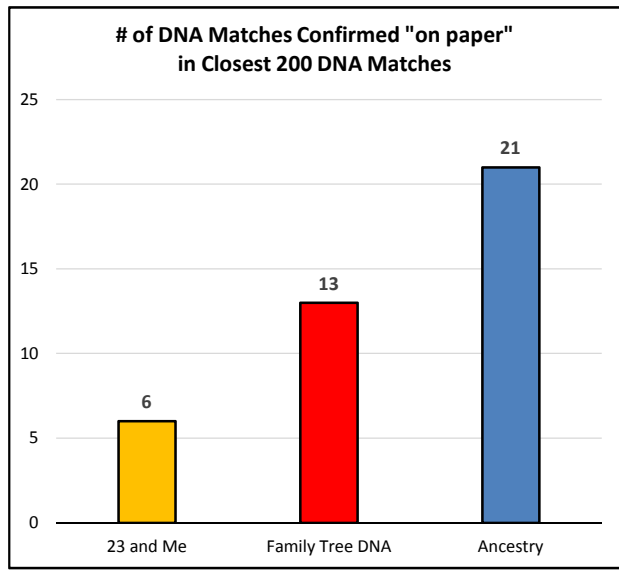
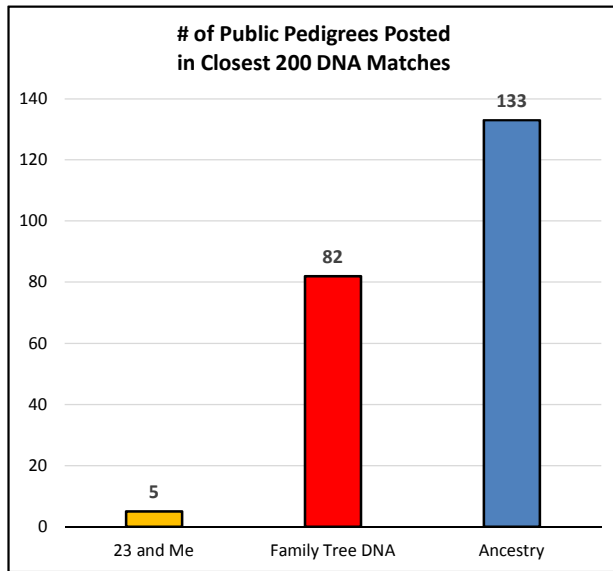
Family Tree DNA			
Estimated Relationship	DNA Matches	Confirmed Matches	Pedigree Posted
Close	3	3	3
1st-3rd Cousin	1	1	0
2nd-4th Cousin	33	6	13
3rd-5th Cousin	117	2	50
4th/5th-Remote Cousin	46	1	16
<b>Total</b>	<b>200</b>	<b>13</b>	<b>82</b>
<b>Percentage</b>		<b>6.5%</b>	<b>41.0%</b>

Ancestry			
Estimated Relationship	DNA Matches	Confirmed Matches	Pedigree Posted
Close & Immediate	2	2	2
1st/2nd-3rd Cousin	4	4	4
3rd-4th Cousin	2	2	2
4th - 6th Cousin	97	12	72
5th - 8th Cousin	95	1	53
<b>Total</b>	<b>200</b>	<b>21</b>	<b>133</b>
<b>Percentage</b>		<b>10.5%</b>	<b>66.5%</b>

<b>Total DNA Matches</b>	<b>933</b>
<b>Total Paper DNA w/ Paper Matches</b>	<b>6</b>

<b>Total DNA Matches</b>	<b>708</b>
<b>Total Paper DNA w/ Paper Matches</b>	<b>15</b>

<b>Total DNA Matches</b>	<b>3,809</b>
<b>Total Paper DNA w/ Paper Matches</b>	<b>60</b>



Copies of this handout: <http://www.dxhansen.com/DNA-Handout.pdf>

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## Autosomal DNA Testing and Data Access Comparisons (Personal Experience / Personal Opinions)

	23 and Me	Family Tree DNA	Ancestry
<b>PLUS</b>	Health/Genetic Trait Information is reported for those who tested before December 2013. Not currently available to new testers due to FDA restriction.	"Matches in Comon Tool" is very useful for finding matches. Matrix Tool expands on this.	Very good Surname and Location Searching & Matching tools (name/location data is searchable automatically if you upload your gedcom)
	Greatest # of participants at this date	Excellent Chromosome Browser for comparing Matches	7-generation family trees for matches are laid out nicely and are easy to navigate and explore (10 generations total)
	Haplogroup Identification for participant is provided along with autosomal test	Participant DNA Matching DNA segment data is public for <u>all</u> participants	Connects to more family trees with all genations for Ancestry Members who have linked trees
	Good Chromosome Browser for comparing Matches Segment by Segment	Summary data on all of your Matches can be downloaded (e.g. to Excel). Very handy!	Relationships are Suggested based on DNA / Posted Family Tree Comparisons
	Etnicity Estimates are Detailed and Reference Sample Statistics are reported	It's easy to contact matches (and contact is through external email) .	Large % of Participants Post their Family Trees
		Worldwide Testing. Native Norwegians are well represented.	Provides greatest # of matches (though number of close DNA matches is similar to other sites)
		Pedigree Charts are 9-generations	Large # of Participants (and growing)
		X-Chromosome Matching Indicator in list view	DNA Circles (matches in common) and suggested matches not in your tree are recent new features.
	Raw Data from Ancestry and 23 And Me Version 3 (no longer offerered) tests can be imported (cost is \$69)		
<b>MINUS</b>	Few Participants share DNA genomic data or post their Family Trees (default is no sharing)	Family Tree Browsing is awkward and requires much scrolling ( <i>the new-last week version doesn't look much better</i> )	Ancestry currently only tests in the US, UK, Ireland, Austrailia and New Zealand. If you are looking for DNA cousins in other countries you won't find many at all.
	Off-site 3rd Party Family Tree Browsing is tedious and there is no "pedigree" view	Far fewer # of Participants as of this date	No Chromosome Browser or DNA Comparison Data
	Searchable surname and Location Data is only available by manually typing it in (and many participants do not)		No x-chromosome matching indicator
	Screens load very slowly		Etnicity estimates for European ancestry are not accurate
	You can attach a note but there is no visual indicator		Ancestry Membership (\$\$) required to see posted trees
<b>SAME</b>	Prices are in the \$99 range on all 3 sites, with \$79 sales now and again (plus shipping)		
	Raw genetic data can be downloaded from all 3 sites (and can be uploaded to other sites which will accept uploads)		
	Great oppportunity to answer relationship questions and find DNA cousins who may have family information that you do not!		

## Autosomal DNA Testing Comparison Chart from the International Society of Genetic Genealogy Website *(copied 6/16/15)*

Information is updated periodically and the link for most recent data is: [www.isogg.org/wiki/Autosomal\\_DNA\\_testing\\_comparison\\_chart#Comparison\\_Chart](http://www.isogg.org/wiki/Autosomal_DNA_testing_comparison_chart#Comparison_Chart)  
 Data was compiled by ISOGG member Tim Janzen and is provided by the ISOGG for informational purposes only. Additions made upon ISOGG member request.

#	Comparison Category	23andMe	Family Tree DNA's Family Finder test	Ancestry.com's AncestryDNA test	National Geographic Genographic Project Geno 2.0 test	Chromo2 test
1	Primary purpose for which the test was designed	Medical Genealogical Personal Ancestry	Genealogical Personal Ancestry (Autosomal only)	Genealogical Personal Ancestry (Autosomal only)	Population Genetics Research Personal Ancestry (Autosomal) Personal Ancestry (Y-DNA) Personal Ancestry (mtDNA)	Personal Ancestry (Autosomal) Personal Ancestry (Y-DNA) Personal Ancestry (mtDNA)
2	Website	<a href="http://www.23andme.com">www.23andme.com</a> <a href="http://www.23andme.ca">www.23andme.ca</a> <a href="http://www.23andme.co.uk">www.23andme.co.uk</a>	<a href="http://www.familytreedna.com">www.familytreedna.com</a>	<a href="http://dna.ancestry.com">http://dna.ancestry.com</a>	<a href="https://genographic.nationalgeographic.com">https://genographic.nationalgeographic.com</a>	<a href="http://www.britainsdna.com">www.britainsdna.com</a> <a href="http://www.cymrudnawales.com">www.cymrudnawales.com</a> <a href="http://www.irelandsdna.com">www.irelandsdna.com</a> <a href="http://www.scotlandsdna.com">www.scotlandsdna.com</a>
3	Price (as of 12 Apr 2015)	\$99 for the lifetime of the platform in the U.S. (ancestry only; health reports discontinued in November 2013); CAD \$199 or £125 for health and ancestry reports (Canada and UK only at this time)	\$99 for the lifetime of the platform	\$99 in the U.S.; £99 in the UK and Ireland; AUS \$149.00 in Australia and New Zealand, CAD \$149 in Canada (an Ancestry subscription is required to access some features)	\$199.95	\$279 for the autosomal test only (All My Ancestry); \$399 for the autosomal, Y chromosome, and mitochondrial DNA combined test (Chromo Complete)
4	Shipping charges	\$14.95 for the first kit and \$5 per kit for additional kits in the U.S.; CAD \$19.95 for Canada; included in the cost of the test for the UK; price for other countries varies, but tends to range between \$66.95 and \$94.95. See Shipping DNA kits for further info.	\$9.95 for the USA and for international orders (prepaid return postage is included for US kits)	\$9.95 per kit; £20 UK and Ireland and £10 for additional kits (includes prepaid return postage) AUS \$29.99 Australia and New Zealand; CAD \$19.95 Canada	None for the U.S.; \$10 for Canada; \$20 (£13) for Europe and Australia; \$50 for all other countries	None
5	International product availability	56 countries	Worldwide	United States, United Kingdom, Ireland, Australia and New Zealand only at this time	Worldwide	Worldwide
6	Method for collecting the DNA sample	saliva sample (about 1 cc)	cheek swab	saliva sample (about 1/2 cc)	cheek swab	saliva sample
7	DNA sample storage	Yes, indefinitely	Yes, for a minimum of 25 years	Yes, indefinitely	Yes, for 25 years if the free transfer to FTDNA is used	Yes, indefinitely
8	Projects supported	No	Yes	No	No	No
9	Means of contacting people who share matching segments	Contact may be made after seeing your list of matches in DNA Relatives or Ancestry Finder; the matches must be willing to share genomes with you if you are to see what segments you share with your matches	E-mail addresses of all matches are available	Contact can be made through Ancestry.com's messaging system	No, but stories about one's Y patrilineal and matrilineal ancestry can be posted on the web site for others to view, so add your contact information to them.	No
10	Average responsiveness of matches	Fairly low	Medium to Fairly high	Medium	Not applicable	Not applicable
11	Average level of genealogical knowledge of matches	Fairly low	Fairly high	Medium	Not applicable	Not applicable
12	GEDCOM file upload allowed	Yes	Yes	Link is created to Ancestry.com pedigree charts	No	No
13	Upload of raw data file allowed from other companies	No	Yes, but 23andMe Version 3 files (c. November 2010 to November 2013) and Ancestry.com files only	No	No	No
14	Upload of raw data file allowed by GEDmatch into the GEDmatch database	Yes	Yes	Yes	No	No
15	SNP chip used for testing	Customized Illumina chip	Illumina OmniExpress	Illumina OmniExpress	Customized Illumina iSelect HD chip developed in collaboration with Family Tree DNA and Eran Elhaik at Johns Hopkins University	Customized Illumina Core chip
16	Number of autosomal SNPs tested	577,382	708,092	682,549	126,307	290,169
17	Number of Y chromosome SNPS	2,329	None	885 (labeled as chromosome 24)	12,064	14,497

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18	Number of X chromosome SNPS	19,487	18,091	17,604 (labeled as chromosome 23), plus 440 SNPs labeled as chromosome 25 that are either from chromosome X or from the pseudoautosomal regions of the Y chromosome	3,803	None
19	Number of mitochondrial DNA SNPS	3,154	None	None	11,378 probes covering 3281 positions on the mtDNA genome	3,142
20	Number of people in the database (as of 2 June 2015)	over 900,000	About 150,000	Over 850,000	200,196	over 10,000
21	Source for number of people in the database	23andMe website	personal estimate by Tim Janzen	article by Justin Petrone at <a href="http://www.genomeweb.com">www.genomeweb.com</a> on 28 Apr 2015	17 Mar 2015 e-mail from Miguel Vilar	personal estimate by Tim Janzen
22	Medically related SNP data included in data	Yes	Yes, but about 3000 medically related SNPs have been removed	Yes	No	Yes
23	Download of raw data file allowed	Yes	Yes	Yes	Yes	Yes
24	Information about the matching segments shared with customers and available for download	Yes (if the match is willing to share genomes)	Yes for all matches	No	Not applicable	Not applicable
25	Chromosome browser available for comparison of shared segments	Yes, using the Family Inheritance: Advanced tool	Yes, using the Chromosome Browser tool	No	Not applicable	Not applicable
26	Chromosome browser can be adjusted to different thresholds for matching segments	No	Yes, with thresholds of 1 cM, 3 cMs, 5 cMs, and 10 cMs	No	Not applicable	Not applicable
27	Maximum number of comparisons that can be done at a time using the chromosome browser	5	5	None	Not applicable	Not applicable
28	Criteria for matching segments	7 cMs and at least 700 SNPs for first segment; 5 cMs and 700 SNPs for additional segments and for people you are sharing with	7.69 cMs and at least 500 SNPs for the first segment and a total of at least 20 cMs (including the shorter matching segments between 1 cM and 7 cMs)	5 cMs for the first segment	Not applicable	Not applicable
29	Information about the start and stop positions of matching segments	Start and stop positions are rounded to the nearest millionth base pair in Family Inheritance: Advanced and nearest hundred thousandth pair in Ancestry Finder	Start and stop positions are rounded to the nearest complete block of 100 SNPs	Not Provided	Not applicable	Not applicable
30	Information reported about the lengths of matching segments	Lengths of matching segments reported in cMs and rounded to the nearest tenth of a cM	Lengths of matching segments reported in cMs and rounded to the nearest hundredth of a cM	Not provided	Not applicable	Not applicable
31	Information provided regarding the number of SNPs in each matching segment	Yes	Yes	No	Not applicable	Not applicable
32	Information about matching segments on the X chromosome reported	Yes	Yes	No	Not applicable	Not applicable
33	Criteria for matching segments on the X chromosome	For half-IBD segments: Male vs male: 200 SNPs, 1 cM; male vs female: 600 SNPs, 6 cMs; female vs female: 1200 SNPs, 6 cMs For full-IBD segments: 500 SNPs, 5 cMs	1 cM and 500 SNPs for both males and females; matches must already meet the autosomal DNA matching criteria	Unknown	Not applicable	Not applicable
34	Information about mitochondrial DNA matches reported	No	No	No	Yes, for those who have completed their profile about their matrilineal ancestry	No
35	Integrated genealogy database available to which customers may link	No, but Geni.com tree is on the MyHeritage website	Yes, to FamilySearch Family Tree	No, but OneWorldTree is on the Ancestry.com web site	No	No

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36	Yes, using the My Origins feature	Yes, using the "Who Am I" feature		Yes, using Global Connections, Population Percentage, and Chromosome Painting features		
37	Chromosomes painted according to ethnic or regional ancestry as part of the biogeographical ancestry analysis	Yes, using Ancestry Composition's Chromosome View	No	No	No	Yes, using Chromosome Painting
38	Overall accuracy and sophistication of the biogeographical ancestry analysis rated on a 1-10 scale with 10 being excellent and 1 being poor	Overall rating: 7 The Ancestry Composition feature offers a map view which displays one's ancestral components from various regions of the world as of 500 years ago, a split view for those who also have one or both parents who have been tested by 23andMe, and a breakdown by chromosome. Three settings are available: conservative, standard, and speculative. Overall accuracy is reasonably good, but predictions in Europe are still not optimal, particularly in the speculative mode. Ancestry Finder provides a breakdown of one's ancestry by country.	Overall rating: 3.5 The MyOrigins analysis is much improved over FTDNA's previous Population Finder analysis. However, it still lacks specificity, particularly for Europe. No chromosome painting feature is available.	Overall rating: 3 The Genetic Ethnicity Summary consistently overestimates the Central European and Scandinavian ancestral components for people whose ancestors were from the British Isles. The ancestral component from the British Isles is overestimated for people whose ancestors were from continental Europe. Overall, the European ancestry predictions tend to be inaccurate.	Overall rating: 2.5 Since a relatively limited number of autosomal SNPs are available for analysis, the biogeographical ancestry analysis is somewhat limited relative to other similar tools, particularly relative to Ancestry Composition. The two closest reference populations are given for each person who is tested. However, these predictions, particularly the second closest reference population, are frequently inaccurate.	Overall rating: 3.5 The All My Ancestry feature provides the percentages of one's ancestral components from various regions of the world as of about 3000 to 6000 years ago. Chromosome painting and a detailed principal components analysis by region of the world is also provided. The number of autosomal SNPs available for analysis is somewhat limited, which reduces the specificity of the biogeographical ancestry analysis relative to other similar tools, particularly relative to Ancestry Composition.
39	Phased data used for determining matching segments	No	No	Yes	Not applicable	Not applicable
40	Phased segments linked to specific ancestors	No	No	No	No	No
41	Average number of autosomal SNPs with discrepant data using two parent/one child trio datasets	About 335	About 210 to 220	Unknown	Unknown	Unknown
42	Link can be made to confirm known relationships	Yes	Yes	No	No	No
43	Special features	Ancestry Composition, Ancestry Finder, Neanderthal Ancestry, Ashkenazi Jewish ancestry tool, Y and mtDNA haplogroups provided for people you are sharing with	Customers can integrate their matches with the Y chromosome and mitochondrial DNA results. Family Finder matrix is available for project administrators.	Comparison of overlap of ancestral origins between matches and automatic identification of common ancestors, surnames and birth places between matches' family trees	There are approximately 75,000 Ancestry Informative Markers from about 450 populations around the world that are included on the test. About 10,000 of the Y chromosome SNPs included on the test have not previously been tested in large populations. Neanderthal and Denisovan ancestral percentages are provided.	Most of the 14,497 Y chromosome SNPs included on the test have not previously been tested in large populations.
44	Online Community Forum	Yes	Yes	Yes	Yes	No
45	Lead scientists in the company	Joanna Mountain, Brian Naughton, Steve Lemon	Connie Bormans	Ken Chahine, Catherine Ball, Scott Woodward, Jake Byrnes	Spencer Wells, Miguel Vilar	Jim Wilson, Angelika Kritz, Katie Barnes
46	Outside consultants for the company	Itsik Pe'er, Peter Underhill, Serafim Batzoglou, George Church, Michael Eisen, Marcus Feldman, Daphne Koller, Stanley Nelson, Jonathan Pritchard	Michael Hammer, Bruce Walsh, Doron Behar, Theodore Schurr, Alan Redd	Philip Awadalla, Jeffrey Botkin, Carlos Bustamante, Mark Daly, John Novembre, Brenna Henn	Connie Bormans, Eran Elhaik, Thomas Krahn, Elliott Greenspan	Unknown
47	Ownership	Privately held by various investors, particularly Anne Wojcicki, Johnson & Johnson Development Corp., The Roche Venture Fund, Google Ventures, and New Enterprise Associates	Gene by Gene	As of January 2013 owned by the European equity firm Permira	National Geographic Society <i>a Non-profit scientific and educational society</i>	The Moffat Partnership Directors include Alistair Moffat and James Wilson

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48	Additional information about the test	See: YGG: 23andMe New Ancestry Painting First Look DNA-Exp: New Worldview at 23andMe YGG: Comparison and Analysis from 23andMe CruwysBlog: 23andMe's New Ancestry Composition	See: TGG: FTDNA's Family Finder P1 TGG: FTDNA's Family Finder P2 CruwysBlog: The new Family Finder test from FTDNA	See: YGG: Multiple Posts March 2012 YGG: AncestryDNA, Raw Data and RootsTech YGG: My Review of AncestryDNA's Admixture Tool DNA-Exp: Ancestry Autosomal Results are Back DNA-Exp: Ancestry's Mythical Admixture Percentages YGG: Ken Chahine Answers My Questions and Reveals Behind the Scenes Information TGG: Problems with AncestryDNA's Genetic Ancestry Prediction TGG: A Review of AncestryDNA's New Autosomal DNA Test CruwysBlog: My updated ethnicity results from AncestryDNA - a British perspective	See: YGG: National Geographic and FTDNA DNA-Exp: National Geographic Geno 2.0 Announcement the Human Story GeneAlem: TGG: The Genographic Project Announces Geno 2.0 YGG: My Geno 2.0 Results Step-by-Step DNA-Exp: Geno 2.0 Results Kicking the Tires YGG: Archive 1-11-2012 CruwysBlog: Genographic Results from UK	See: CruwysBlog: A First Look at the Chromo2 All My Ancestry Test from BritainsDNA CruwysBlog: A First Look at BritainsDNA Chromo2 Y Tim Janzen's Chromo2: A First Look A review from DNA Testing Choice A review from DNA Testing Choice
49	Additional DNA testing options available from the company	No, not at this time	Yes, multiple options for Y chromosome STR and SNP testing, complete or partial mitochondrial DNA testing, and complete genome testing	No, not at this time (Ancestry previously offered Y-DNA and mtDNA tests but this option was discontinued in June 2014)	No, not at this time	No, not at this time
50	Address	1390 Shorebird Way, Mountain View, CA 94043	1445 North Loop West, Suite 820, Houston, TX 77008	360 W 4800 N Provo, UT 84604	1145 17th St., N. W., Washington, D. C. 20036-4688	Renwick Suite A, High St., Melrose, Scotland, United Kingdom, TD6 9PB
51	Phone Number	Enter a ticket online at customer care for a call-	713-868-1438	800-958-9124 (best for DNA related questions) or 800-262-3787 (in the U. S.); 0800-404-9723 (UK); 800-958-9073 (Canada); 800-252-838 (Australia)	888-557-4450 (in the U. S. or Canada) or 713-868-1807	0845-872-7634
52	E-mail address	customercare@23andme.com	FTDNA Contact Form	ancestrydna_support@custhelp.com	genographic@ngs.org	support@britainsdna.com
53	Date product launched	November 19, 2007	February 16, 2010	May 3, 2012	July 25, 2012	June 14, 2013