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# Getting Started Guide

Contact us at [help@23andme.com](mailto:help@23andme.com)

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**Me:**

# Where is my data?

The short answer is: everywhere!

When you log into 23andMe you'll be taken to your own account home page, which acts as a jumping-off point for exploring your data. There are four main areas of the website:

- ❶ My Gene Journal tells you how your data relates to scientific research on the genetics of physical characteristics, including disease.
- ❷ My Ancestors traces your ancestry and compares you genetically with people from around the world.
- ❸ Family and Friends compares you to other people who have signed up with 23andMe and shared their information with you.
- ❹ 23andWe allows you to take surveys and learn about ongoing research at 23andMe.

The screenshot shows the 23andMe account home page. On the left is a navigation menu with sections: **me** (My Gene Journal (70), Browse Raw Data), **family & friends** (Compare Genes, Family Inheritance), **my ancestors** (Maternal Line, Paternal Line, Ancestry Painting, Global Similarity), **23andWe** (Introduction, My Surveys (6), Ongoing Research), and **account** (My Profiles, Genome Sharing, Settings, Help/Contact Us). The main content area features a 'welcome to you.' header, a search bar, and four numbered sections: ❶ My Gene Journal (Latest Established Research topics: Lupus, Celiac Disease, Eye Color, See all topics (70)...), ❷ Family & Friends (Compare Genes, Family Inheritance), ❸ My Ancestors (Maternal Line, Paternal Line, Ancestry Painting, Global Similarity), and ❹ 23andWe (Introduction, My Surveys (6), Ongoing Research). A green box highlights 'New at 23andMe' (Last updated May 21, 2008), introducing 23andWe and listing features like a new search feature and genome sharing upgrade. Below this are sections for 'My Connections (12)' (Invite more family and friends...), 'Help / Contact Us' (Frequently Asked Questions, help@23andme.com), and 'Order More!' (Sign up your friends and family at the 23andMe store).

**Me:**

# I want to see my data related to health and other characteristics.

My Gene Journal is where you can see how the latest scientific research in genetics applies to your genome. There are two types of articles in My Gene Journal:

- ❶ Established Research: The research presented in these articles is widely accepted by the scientific community.
- ❷ Preliminary Research: The research presented in these articles has been published in peer-reviewed journals, but has not yet been fully accepted by the scientific community.
- ❸ You can bring all of the Established Research articles to the top of the list using the check box located at the upper left.
- ❹ The pulldown box allows you to bring new and recently updated articles to the top of your list.
- ❺ You can search for specific diseases or physical characteristics using the search box.
- ❻ You can see your data and the data for anyone who has used “extended sharing” to share their genome with you by clicking on an article name. On each article page, you will need to scroll down to see your data.

The screenshot shows the 'my gene journal' interface. On the left is a navigation menu with sections: 'me', 'My Gene Journal (70)', 'family & friends', 'my ancestors', and '23andWe'. The main content area is titled 'my gene journal' and includes a sub-header 'Browse and Search Topics (70)'. Below this is a search bar with a 'View:' dropdown set to 'All Topics' (annotated with 4), a 'Search:' input field (annotated with 5), and buttons for 'Go' and 'Show All Topics'. A checkbox labeled 'Show Established Research first.' (annotated with 3) is present. Below the search bar is a table of research topics with columns for 'Name' and 'Research Confidence'. The table lists several topics with their corresponding star ratings: Age-related Macular Degeneration (5 stars), Alcohol Dependence (3 stars, annotated with 6), Alcohol Flush Reaction (5 stars), Ankylosing Spondylitis (3 stars), and Antidepressant Response (2 stars). Annotations 1 and 2 are placed above the table, pointing to the star ratings and their corresponding text descriptions: 'Established Research is widely accepted by the scientific community.' and 'Preliminary Research has been published in peer-reviewed journals but may not yet be fully accepted.'

Me:

# I need help understanding my data for Established Research in My Gene Journal.

For some Established Research articles in My Gene Journal, you'll see your genetic data and associated risk information presented in two complementary formats:

- 1 Odds Calculator:** This tool compares your genetic risk of developing a disease with the average risk. This estimate is dependent on the ethnicity and age range selected in the pulldown boxes, **2** and is based only on SNPs with known associations to the disease that are on our genotyping chip.
- 3 Marker Effects Bar Chart:** This chart displays the approximate effects of the selected person's genotype at each SNP reported for the disease.
- 4** The name of the gene where each SNP is found is given above or below the corresponding bar on the chart.

**my gene journal**  
Age-related Macular Degeneration  
Established Research on 3 reported markers.  
Last updated: May 21st, 2008

**About Age-related Macular Degeneration**

Age-related macular degeneration (AMD) is the most common cause of irreversible vision loss in the western world among people over 60. The disease affects the central part of the retina, which is critical for activities like reading, driving, or even recognizing faces. AMD can develop so slowly that some people may not even realize they have it, while others suffer a rapid loss of sight in both eyes. More than 1.7 million people in the U.S. have AMD (about 7% of people over 75). It is estimated that by 2020, almost 3 million people will have the disease. Regular, comprehensive eye exams can detect the early signs of AMD. Though any vision that is lost to the disease cannot be restored, there are treatments that can slow AMD's progress.

**Your Genetic Data**

Show information for **Lilly Mendel** assuming **European** ethnicity and an age range of **40-59**

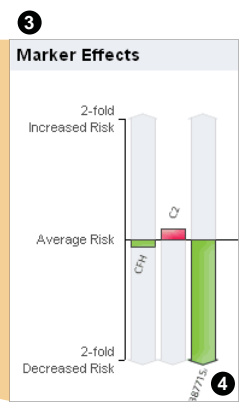
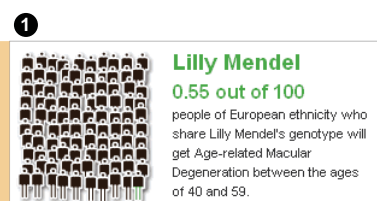
**Lilly Mendel**  
0.55 out of 100  
people of European ethnicity who share Lilly Mendel's genotype will get Age-related Macular Degeneration between the ages of 40 and 59.

**Average**  
1.2 out of 100  
people of European ethnicity will get Age-related Macular Degeneration between the ages of 40 and 59.

**Genes vs. Environment**  
45-71% Attributable to Genetics  
Estimates of the heritability of AMD vary from 45% to 71%. This means that genetic factors contribute at least as much as environmental factors do to risk of AMD. Genetic factors that play a role in AMD include known factors, such as the SNPs we describe here, and unknown factors. Established environmental risk factors include age, family history of AMD, cigarette smoking, low dietary intake or blood levels of antioxidant vitamins and zinc, and European ancestry. Other possible risk factors may include being female, having light-colored irises, a history of cardiovascular disease, or increased exposure to sunlight. (sources)

**Marker Effects**

What does this chart show?  
The chart shows the approximate effects of the selected person's genotype at the 3 reported markers. Higher, red bars indicate increased risk from the average, while lower, green bars indicate decreased risk from the average. The light gray bars show the maximum possible effects for the possible genotypes at the marker.



Me:

# I need help understanding my data for Established Research....continued.

For some Established Research articles in My Gene Journal, you'll see your genetic data (as well as the data for people who have used extended sharing to share their genome with you) in a table. Characteristics and diseases where one SNP controls most, if not all, of the variation in the population are reported in this type of article. Environment contributes very little to these characteristics and diseases.

- 1 Each possible genotype for the SNP reported in the article is listed in the table.
- 2 Find your name (or the name of a family member or friend) in the left side of the table and read across to see the genotype for that person and what it means.

my gene journal

Bitter Taste Perception

★★★★ Established Research on 1 reported marker.

Your Data How It Works Timeline

About Bitter Taste Perception

Why do some people seem to enjoy Brussels sprouts, while others can't stand them? The answer may be that genetic variation prevents some people from tasting bitter flavors found in certain vegetables. About 25% of people are unable to taste a chemical called propylthiouracil (PROP) similar to the bitter components found in cabbage, raw broccoli, coffee, tonic water, and dark beers. These people are essentially "taste-blind"—and compared to those who do respond to PROP, taste-blind people find most food and drink to be less bitter, or not bitter at all. It turns out that sensitivity to this kind of taste is due almost entirely to a single gene that encodes receptors in taste buds on the tongue. A SNP in this gene is responsible for whether a person is bitter taste-blind.

Learn more about the biology of Bitter Taste Perception. Major discoveries in Bitter Taste Perception.

**A Hint of Bitterness**

Take survey as: Lilly Mendel

Does raw broccoli taste bitter to you?

Yes

Somewhat

No

I've never tried this

next question →

About this survey

Your Genetic Data

Who	Genotype	What It Means
	GG	Can taste certain bitter flavors.
Lilly Mendel (Mom)	CG	
Greg Mendel (Dad)	CC	Has ~80% chance of not being able to taste certain bitter flavors.

**Genes vs. Environment**

Sensitivity to bitter tastes is highly heritable. High heritability means that the trait is controlled almost entirely by your genes—environmental factors play little or no role. Because of this, simply knowing your genotype is almost enough to know your sensitivity to PROP-like bitter tastes. If you carry two copies of the PROP-blind version of TAS2R38, though, there is still a 20% chance that you carry a PROP-sensitive version of the gene other than TAS2R38, meaning that you can still taste this kind of bitter flavor.

Who	1 Genotype	What It Means
	GG	
Lilly Mendel 2	CG	Can taste certain bitter flavors.
Greg Mendel (Dad)	CC	Has ~80% chance of not being able to taste certain bitter flavors.

**Me:**

# I need help understanding my data for Preliminary Research in My Gene Journal.

For Preliminary Research articles in My Gene Journal, your data will be presented in a table. You'll see your name, (as well as the names of people who have used extended sharing to share their genome with you) in a table.

- ❶ Each possible genotype at the SNP reported for the trait is listed in the table.
- ❷ Find your name (or the name of a family member or friend) in the left side of the table and read across to see the genotype for that person and what it means.
- ❸ Information about the scientific study presented in the article can be found on the left side of the page.

## Caffeine Metabolism

[< Prev](#)  
C-reactive Protein Level

[Next >](#)  
Celiac Disease

★★★ **Preliminary Research** on 1 reported marker.

Your Data

[Printable Version](#)

**About Caffeine Metabolism**

Have you ever noticed that some people respond more strongly to caffeine than others? The reason may lie with their genetics. Caffeine, like most drugs, is metabolized by enzymes in the liver. Different versions of these enzymes can change how efficiently people metabolize caffeine.

**Preliminary Research**

This is a Preliminary Research topic, and includes results of studies that still need to be confirmed by the scientific community. It also includes topics where there may be contradictory evidence. The results of these studies are not conclusive.

### Caffeine metabolism and heart attack

<p><b>Journal</b> <i>JAMA</i> ❸</p> <p><b>Study Size</b>  3</p> <p><b>Replications</b> None</p> <p><b>Contrary Studies</b> None</p> <p><b>Applicable Ethnicities</b> European</p> <p><b>Marker</b> rs762551</p> <p style="font-size: 0.8em; margin-top: 10px;">Caffeine is primarily metabolized by the enzyme cytochrome P450 1A2 (CYP1A2) in the liver. The SNP rs762551 causes a change in this enzyme that may</p>	<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr style="background-color: #e0e0e0;"> <th style="padding: 5px;">Who</th> <th style="padding: 5px;">❶ Genotype</th> <th style="padding: 5px;">What It Means</th> </tr> </thead> <tbody> <tr> <td style="padding: 5px;">Greg Mendel (Dad)</td> <td style="padding: 5px;">AA</td> <td style="padding: 5px;">Fast caffeine metabolizer: drinking coffee didn't increase subjects' heart attack risk</td> </tr> <tr> <td style="padding: 5px; color: #4285f4;">Lilly Mendel,</td> <td style="padding: 5px; color: #4285f4;">❷ AC</td> <td style="padding: 5px;">Slow caffeine metabolizer: drinking coffee increased subjects' heart attack risk.</td> </tr> <tr> <td style="padding: 5px;"></td> <td style="padding: 5px;">CC</td> <td style="padding: 5px;">Slow caffeine metabolizer: drinking coffee increased subjects' heart attack risk.</td> </tr> </tbody> </table>	Who	❶ Genotype	What It Means	Greg Mendel (Dad)	AA	Fast caffeine metabolizer: drinking coffee didn't increase subjects' heart attack risk	Lilly Mendel,	❷ AC	Slow caffeine metabolizer: drinking coffee increased subjects' heart attack risk.		CC	Slow caffeine metabolizer: drinking coffee increased subjects' heart attack risk.	
Who	❶ Genotype	What It Means												
Greg Mendel (Dad)	AA	Fast caffeine metabolizer: drinking coffee didn't increase subjects' heart attack risk												
Lilly Mendel,	❷ AC	Slow caffeine metabolizer: drinking coffee increased subjects' heart attack risk.												
	CC	Slow caffeine metabolizer: drinking coffee increased subjects' heart attack risk.												

**Me:**

# I want to take surveys and participate in research.

23andWe is a new way of doing genetic research that has the potential to produce valuable insights more quickly and inexpensively than traditional methods, with the ultimate goal of contributing to improved health care.

- 1 To learn more, click Introduction under 23andWe on the left side of any page.

Surveys are the heart of 23andWe. In addition to being interesting and fun, 23andWe surveys are designed to collect important data for scientific research.

- 2 To get involved, click My Surveys under 23andWe on the left side of any page and select a survey to participate in.

**me**  
My Gene Journal (70)  
Browse Raw Data

**family & friends**  
Compare Genes  
Family Inheritance

**my ancestors**  
Maternal Line  
Paternal Line  
Ancestry Painting  
Global Similarity

**23andWe** 1  
Introduction  
My Surveys (6)  
Ongoing Research

**account**  
My Profiles  
Genome Sharing  
Settings  
Help/Contact Us

**my surveys**

**23andWe begins with you**

23andWe surveys are designed to collect important data for scientific research. And our surveys don't just ask you questions – sometimes they give you answers, too. After finishing one you might find out how fast your reflexes are, or whether you have perfect pitch. Or you might learn how you compare to everyone else who has taken the same survey.

Related topics: [About 23andWe](#), [Ongoing Research](#), [23andWe FAQ](#)

Take survey as:

**Featured Survey:**  
**Ten Things About You**  
About this survey | May 2008

We have no surveys related to active research projects at this time, though a few are in the works. For now we invite you to take our featured survey, which asks about a variety of fun and interesting traits that are thought to be influenced by genetics.

[see results](#)

**Bitter Taste Perception: A Hint of Bitterness**  
May 2008 2 [start survey →](#)

**Alcohol Flush Reaction: Feeling Flush**  
May 2008 [see results](#)

**Earwax Type: A Sticky Question**  
May 2008 [see results](#)

**Lactose Intolerance: Does Milk Do Your Body Good?**  
May 2008 [see results](#)



**Me:**

# I want to see my data for SNP I have heard about.

If you learn about a SNP in the news or on the 23andMe blog (The Spittoon), or you just want to look around at your data, click Browse Raw Data on the left-hand side of any page. You'll be able to see your genotype at any of more than 580,000 SNPs.

- ❶ You can enter the ID of a specific SNP (in the form "rs123456") and see your data if we include that SNP in our analysis.
- ❷ You can enter the exact name of a gene and see your data for all analyzed SNPs within it.
- ❸ You can click on a chromosome and scroll through your data at every SNP on it that 23andMe genotypes. Note: Because so few SNPs have been associated with physical characteristics, including disease, browsing is a very inefficient way to look at your data.
- ❹ If you like, you can download a large file containing your raw data.

**me**  
My Gene Journal (70)  
Browse Raw Data  
family & friends  
Compare Genes  
Family Inheritance  
my ancestors  
Maternal Line  
Paternal Line  
Ancestry Painting  
Global Similarity  
23andWe  
Introduction  
My Surveys (6)  
Ongoing Research  
account  
My Profiles  
Genome Sharing  
Settings  
Help/Contact Us

## browse raw data

❹ download raw data

**NOTE:** This is an advanced view of all the uninterpreted SNP data from your chip. To see how these raw data relate to 70 traits and conditions, go to your [Gene Journal](#).

Most of the DNA inside each of your body's cells is divided into pieces called chromosomes, with the remaining DNA found in tiny loops inside your cells' mitochondria. Click below on any chromosome or the mitochondrial loop to see the genes and SNPs it contains. [Learn more about how to use this feature.](#)

❶ Jump to a gene:  Go a SNP:  Go ❷

Chromosome	Bases	Genes	SNPs
1	247M	2810	43k
2	242M	1886	46k
3	199M	1475	38k
4	191M	1157	34k
5	180M	1270	35k
6	170M	1521	38k
7	158M	1460	31k
8	146M	989	32k
9	140M	1158	27k
10	135M	1109	30k
11	134M	1848	28k
12	132M	1369	28k
13			
14			
15			
16			
17			
18			

## My Family and Friends:

# I want to share my genome with friends and family.

To share your genome with someone, simply send an invitation!

Click Genome Sharing under Account on the left side of any page.

❶ You will need a person's 23andMe username to send them a sharing invitation. You can ask them directly or search for it using their first name, last name or email address. Searching will find only people who have agreed to be searchable.

❷ Once you have the username, click "Share Your Genome".

In the invitation, you can choose how much information you and your invitee will be able to see about each other by choosing either Basic ❸ or Extended ❹ sharing. Click "What are the levels?" for details. If you own multiple profiles, you will be able to choose which profile(s) will be shared.

People you invite to share will receive an email informing them of your request. They can also see your request on the Genome Sharing page in their accounts. They can choose to accept or ignore your invitation.

The screenshot displays the 'genome sharing' interface. At the top, there is a search bar labeled 'Search for other 23andMe users:' with a 'Go' button. Below this, the user's profile 'Lilly Mendel' is shown, along with a 'Share Your Genome' button. A modal window titled 'Invite People to Share Genomes' is open, containing the following elements:

- Enter Usernames:** A text input field with a note: 'To invite multiple people at once, add commas between usernames.'
- Profiles to Share:** A list with a checked box next to 'Lilly Mendel'.
- Sharing Level:** Two radio buttons: 'Basic' (selected) and 'Extended'. A link 'What are levels?' is next to the 'Extended' option.

On the right side of the modal, there are 'Upgrade' and 'Stop Sharing' links for each profile listed.

## My Family and Friends:

# I want to see which DNA sequences I share with relatives.

Click Family Inheritance on the left side of any page and choose the Genome View tab to compare your DNA with that of relatives who have shared with you.

❶ Choose a different person in each pulldown box to see which regions of your genomes are identical, half-identical or non-identical. In the example shown here two siblings – Erin and Ian Mendel – are being compared. All three types of regions are shown.

When two people are related within the last few generations, long regions within their chromosomes may be completely identical because they are exact copies of each other. These regions are shown in dark blue. Regions where two people are half-identical (meaning one of their two chromosomes is exactly the same in that region) are shown in light blue. For stretches of DNA where the two people do not share any identity, the chromosomes are colored white.

❷ You can highlight genes associated with traits listed on the right side of the display. The red arrows point to the genes you have chosen.

❸ You can also highlight a gene or genes you are interested in by entering exact names.

Using this tool to compare yourself with people you are not related to generally will not show any areas of similarity or identity. If you want to compare yourself with friends, you should click Compare Genes (see page 11 for more).

family inheritance

See what DNA you share with relatives, both close and distant.

**Genome View** GrandTree

Tell me how to use this feature...

Compare the genome of:  To the genome of:

**Genome-Wide Comparison**  
Comparison across all of the genome data

1

2

3

Click on a trait below for comparison:

- Genome-Wide Comparison**  
Comparison across all of the genome data
- Bitter Tasting**  
Genes related to bitter tasting
- Circadian Rhythm**  
Genes related to regulating your internal clock
- Endurance**  
Genes related to physical endurance
- Female Fertility**  
Genes related to fertility in women
- Immune System Compatibility**  
Genes related to histocompatibility
- Non-Bitter Tasting**  
Genes related to sweet, umami, sour, and spicy tasting
- Pigmentation**  
Genes related to skin, eye, and hair color
- Weight/Body mass index**  
Genes related to weight/body mass index
- Any set of genes.**  
Enter a list of genes separated by comma [Submit](#)

**Estimates**

- Half-identical (1.41 Gb)
- Completely identical (0.57 Gb)

## My Family and Friends:

# I want to see which DNA sequences I inherited from my grandparents.

- ❶ Click Family Inheritance on the left-hand side of any page and then choose the GrandTree tab to trace DNA links between grandparents and grandchildren.
- ❷ Drag individuals from your list of shared genomes to build your family tree. We're relying on you to get it right – if you put names in the wrong place, the information that is shown when you hit “Recalculate” won't be right.
- ❸
- ❹ You can look at the inheritance of genes associated only with certain traits by choosing from the list on the right side of the display.
- ❺ You can also enter the exact name of any genes you are particularly interested in.

### family inheritance

See what DNA you share with relatives, both close and distant.

Genome View
GrandTree ❶

[Tell me how to use this feature...](#)

**Please select a grandchild and at least one grandparent.**

Recalculate ❸

Click and drop your relatives onto the GrandTree above: ❷

Lilly Mendel	Fred Mendel
Alan Mendel	Greg Mendel
Blake Mendel	Gwen Mendel
Brent Mendel	Ian Mendel
Daniel Mendel	Margo Fisher

**Click on a trait below for comparison:**

- ❹ Genome-Wide Comparison  
Comparison across all of the genome data
- Bitter Tasting  
Genes related to bitter tasting
- Circadian Rhythm  
Genes related to regulating your internal clock
- Endurance  
Genes related to physical endurance
- Female Fertility  
Genes related to fertility in women
- Immune System Compatibility  
Genes related to histocompatibility
- Non-Bitter Tasting  
Genes related to sweet, umami, sour, and spicy tasting
- Pigmentation  
Genes related to skin, eye, and hair color
- Weight/Body mass index  
Genes related to weight/body mass index

❺ Any set of genes.  
 Enter a list of genes separated by comma Submit

## My Family and Friends:

# I want to see how similar I am to friends who share their genomes with me.

Click Compare Genes on the left side of any page to see how similar you are to friends who have shared their genomes with you. You can also compare yourself with family members, though you might find Family Inheritance more interesting for this (see page 9).

- 1 If you choose the One-to-Many tab you'll see a semi-circular display **2** that ranks how similar you are to the people you have shared your genome with. You can re-center the display on any person by clicking his or her name. The amount of similarity between the person at the center of the semi-circular display and another person is indicated by how close the other person is to the center of the display. **3** The same information is also presented in a bar chart below the semi-circular display.
- 4 Choosing the One-to-One tab allows you to compare two individuals from your list of shared genomes. Simply choose the names of those you wish to compare from the pulldown boxes.
- 5 For both types of comparison you can compare a subset of genes associated with a particular trait by choosing from the list on the right.

### compare genes

Compare yourself to family and friends across various genetic traits.

**1** One-to-Many
One-to-One
**4**

Tell me how to use this feature...

**Genome-Wide Comparison**  
Comparison across all of the genome data

**2**

Increasing similarity to Robert Gramble

	Percent similarity over 577363 total SNPs
<b>3</b> Robert Gramble	100%
Greg Mendel (Dad)	78.86%
Erin Mendel (Daughter)	78.77%

Click on a trait below for comparison:

- 5** + **Genome-Wide Comparison**  
Comparison across all of the genome data
- + **Bitter Tasting**  
Genes related to bitter tasting
- + **Circadian Rhythm**  
Genes related to regulating your internal clock
- + **Endurance**  
Genes related to physical endurance
- + **Female Fertility**  
Genes related to fertility in women
- + **Immune System Compatibility**  
Genes related to histocompatibility
- + **Non-Bitter Tasting**  
Genes related to sweet, umami, sour, and spicy tasting

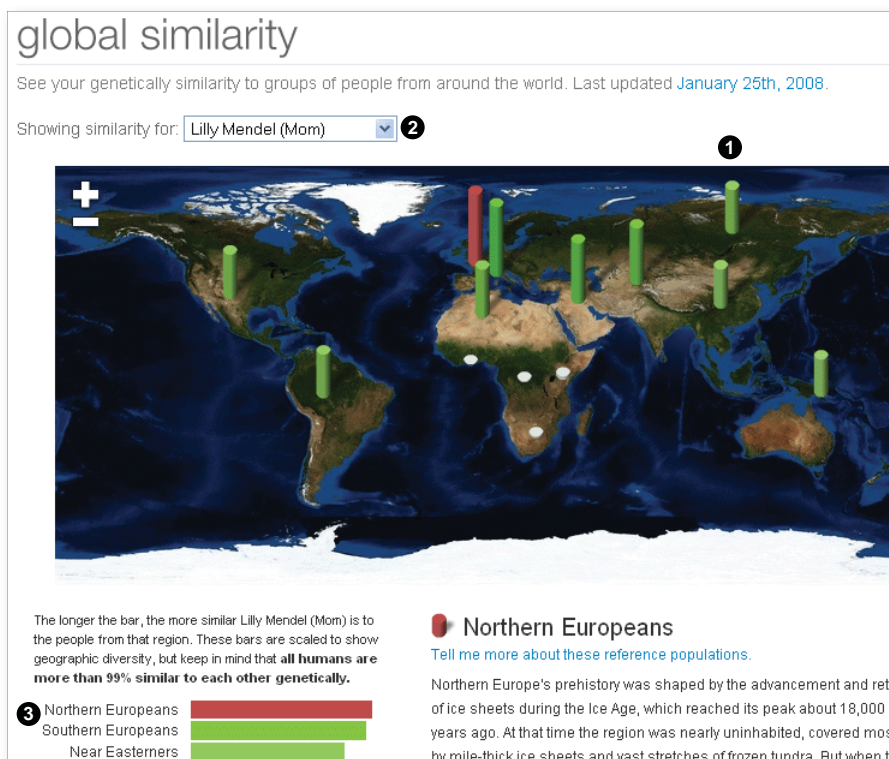
**My Ancestors:**

# I want to compare myself with different world populations.

Click Global Similarity on the left side of any page to compare your genome to those of people from around the world.

① Hovering over the bars on the map will identify the populations and tell you how much similarity there is between the person chosen in the pulldown box ② and that population. Clicking on the bar on the map or the corresponding bar below the map will bring up information about the population.

③ The bars below the map are ranked in order of similarity to the person selected in the pulldown box.



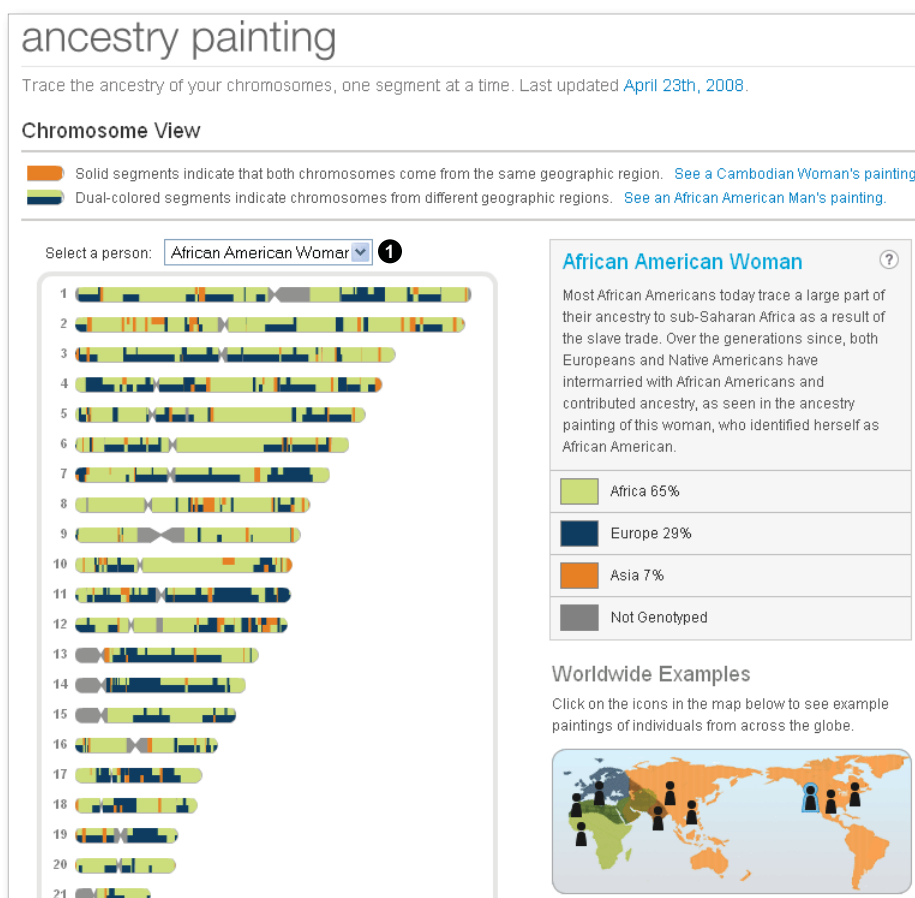
**My Ancestors:**

# I want to know where in the world each part of my DNA came from.

Click on Ancestry Painting to see the story of your chromosomes in color!

The display shows the amount of DNA in each segment of your chromosomes 1 - 22 contributed by ancestors from three broad geographic regions – Africa, Asia, and Europe.

❶ You can change the person whose painting is shown by choosing a different name from the pulldown box.



## My Ancestors:

# I want to trace my ancestry back through my mother's mother or my father's father.

Click Maternal Line (mother) or Paternal Line (father) on the left side of any page to trace your deep ancestry using mitochondrial DNA or the Y chromosome.

Only men can trace their paternal ancestry. If you are a woman and you want to know about your father's line, you will need to "adopt a Y" by sharing genomes with your father, brother, paternal uncle, or another male relative who shares your paternal ancestry.

- ❶ The haplogroup (branch, or closely related groups of branches, on the tree of all mitochondrial DNA or Y chromosome DNA sequences) for you and anyone with whom you are sharing your data are shown in the right column.
- ❷ Click on a haplogroup name to learn more. Initially, you will see a map of where this haplogroup is found in the world and a short summary. You can also click on the "History" tab ❸ or the "Haplogroup Tree" tab ❹ for more information.

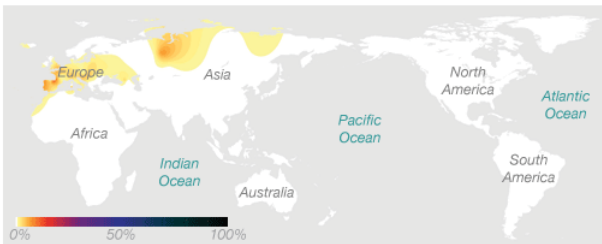
### maternal line

Your mitochondrial DNA determines your maternal haplogroup. [What is a haplogroup?](#)

Map ❸
History ❹
Haplogroup Tree

#### Maternal Haplogroup: **H3**

Locations of haplogroup H3 circa 500 years ago, before the era of intercontinental travel. ❷



Haplogroup H, the parent of H3, originated in the Near East and then expanded throughout

**Haplogroup:** H3, a subgroup of [H](#)

**Age:** greater than 15,000 years

**Region:** Europe

**Populations:** Spanish (Galician), Basques

**Highlight:** H3 was involved in the resettlement of northern Europe after the Ice Age.

#### Your Family and Friends ❶

<a href="#">V'</a>	Daniel Mendel, Greg Mendel,
<a href="#">H</a>	Erin Mendel



**My Ancestors:**

# I want to know if I share maternal or paternal ancestry with someone famous.

Click Maternal Line or Paternal Line on the left side of any page. This will take you to the page for your own maternal or paternal haplogroup.

❶ At the bottom right of the page there is a selection of famous people whose haplogroups are known.

You are not necessarily related to the people shown in this list. We show the same people for every 23andMe user. If your haplogroup matches that of a person on the list, then you share either a maternal ancestor (for mitochondrial haplogroups) or paternal ancestor (for Y chromosome haplogroups) with that person since your haplogroup originated.

If your haplogroup does not match a famous person's you can find when your most recent common maternal or paternal ancestor lived by using the "Haplogroup Tree" tab. Click on the haplogroup of the famous person to highlight it on the tree and then trace back from there and from your own haplogroup until your lineages converge. (See page 16 for more)

**Your Family and Friends**

<a href="#">R</a>	Robert Gramble
<a href="#">V'</a>	Greg Mendel (Dad)
<a href="#">H</a>	Erin Mendel (Daughter)
<a href="#">H4a</a>	Ron Fisher (Grandpa)
<a href="#">H3'</a>	Lilly Mendel (Mom), Ian Mendel (Son), Alan Mendel (Son), Margo Fisher (Grandma)
<a href="#">T2b2</a>	Fred Mendel (Grandpa)
<a href="#">L3e</a>	Nigerian Man
<a href="#">D5a2</a>	Chinese Man
<a href="#">D4e2</a>	Japanese Man

**Famous People** ❶

<a href="#">H</a>	Marie Antoinette
<a href="#">H1</a>	Jimmy Buffett, Warren Buffett
<a href="#">T2</a>	Jesse James
<a href="#">V</a>	Benjamin Franklin, Bono

**My Ancestors:**

# I want to know when I last shared a common ancestor with someone.

❶ Click Maternal or Paternal Line on the left side of any page. Then click the “Haplogroup Tree” tab to show a diagram of how all of the haplogroups for either mitochondrial DNA (Maternal Ancestry) or the Y chromosome (Paternal Ancestry) are related.

You can highlight a haplogroup on the tree (yours, that of someone who has shared their genome with you, or a famous person’s), by clicking the haplogroup name next to the person’s name on the right side of the page.

❷ To trace back to a common ancestor, trace the path on the tree that leads back from two haplogroups to a single point.

❸ Use the +/- to zoom in or out. To move around the tree, hold down the mouse button and drag.

