WOTOGO THUNDER

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Issue 9

MANAGING YOUR MONEY: CHOOSING THE RIGHT MORTGAGE

By Martin L. Mikaya, M.D.

You have heard the news! Real estate values have dropped in the United States. Well, it depends on which part of the country you are talking about. So this can be an opportunity for you to buy a house. Since very few people can afford to pay for the full value of a house immediately, most people need to visit a bank, credit union or some other financial institution and apply for a mortgage.

A simple definition of a mortgage is: A loan used to finance the purchase of real estate and secured by the real estate so purchased. As you know, a bank will not loan you money for nothing because banks are in the

business of making money. Therefore, they are going to charge interest expressed as a percentage of the loan during a specified term . The term of the loan (usually 10, 15, 20 or 30 years) is the period of time during which payments for the entire loan are made. There are two main types of mortgage interest. A fixed – rate mortgage (FRM) does not change during the life of the loan while an adjustable – rate mortgage (ARM) is tied to and fluctuates with market conditions. There are several variations of the ARM in addition to combinations of the FRM and ARM.

The question now is which one should you choose. I like to keep things simple. If you have a relatively secure job, like your community and want to live there for at least five years, choose a 30 – year fixed rate mortgage. You will enjoy low, fixed payments which will translate to financial stability. If you then make an extra monthly payment just once a year, you will pay off your entire mortgage in less than 22 years and save yourself tens of thousands of dollars. Make sure you inform the bank that you are making an additional payment towards the principal.

HAND WASHING SAVES LIVES

By Martin L. Mikaya, M.D.

It sounds simple, but it is true that proper and timely hand washing does save lives. It is a simple habit that requires only soap and water.

Your hands pick up and accumulate a lot of germs daily from a variety of sources, such as shaking hands with other people, touching contaminated surfaces, food, animals, animal and human waste. These germs can make you sick if you touch your eyes, nose or mouth with your dirty hands. Others can also be infected if you touch them or surfaces that they also touch.

The common cold, influenza and many types of infectious diarrhea are examples of diseases that can be spread through hand-to-hand contact. Some people can die as a direct result of these infections. Therefore, be sure to wash your hands before eating, after visiting the latrine, touching other people, handling animals or coming into contact with any surfaces or objects used by other people.

Follow the following instructions for proper hand washing with soap and water:

- Wet your hands with warm, running water. In the absence of any running water, boil your own water, let it cool down then have another individual pour it in a steady, gentle stream. Use a clean bar of soap and lather well.
- Rub your hands vigorously together.
- Scrub your palms, backs of your hands, wrists, between your fingers and under your fingernails.
- Rinse well.
- Dry your hands with a clean towel.
- Use a towel to turn off the faucet.

DNA: What Can It Do?

By Amos Dada & Robert Simbe

You probably heard about this old familiar tale from your parents or grandparents; that the Kakwa people migrated from Ethiopia or more appropriately, *Lolowe* moved down south west, crossed the River Nile *(Supiri)* and settled along latitude (3°57'37.94"N) and longitude (30°53'43.51"E), somewhere around the *Koro'be* hills, in South Sudan; from where they dispersed and eventually settled in the regions we know today. The problem with this argument is that we rely mainly on oral history and with time, this history either fades away or gets distorted into different versions as elders try to pass it down to the next generation. It is unfortunate that we do not have easily accessible material or historical documents to record this important migration and support this theory, a genuine theory in our opinion nonetheless. To uncover this myth, and perhaps add more weight to this theory, we (Robert Simbe & Amos Dada) decided to embark on a journey, to trace our Kakwa roots through the use of science. We thought that it is imperative to not only trace our historical ancestry, but also to start documenting our family history and the Kakwa lineage through the use of cutting edge technology. To do this, we turned to GeneTree for answers.

GeneTree [www.genetree.com] like many others "*is a family history sharing site created to help people everywhere understand how their personal stories belong within the framework of the greater human genetic story – by discovering their genetic heritage and identity, connecting and collaborating with living relatives, and sharing meaningful information and perspective through personal stories, photos, video and documents. Key genetic family history information for GeneTree is provided by the Sorenson Molecular Genealogy Foundation (SMGF), a non-profit organization that is building the world's foremost collection of DNA samples correlated with genealogy information, gathered from individuals in more than 170 nations. ISO-accredited Sorenson Genomics performs DNA testing services for GeneTree.*"

The Search

The science of genetic testing has become something of a phenomenon especially among African Americans, who are keen in tracing where their slave ancestors could have hailed from. For instance, in commemoration of black history month, the 2006 PBS documentary "African American Lives" tested the DNA of several prominent African Americans, including Whoopi Goldberg, Oprah Winfrey and Quincy Jones. Winfrey's results suggested her most likely match was from the *Kpelles* tribe in Liberia, a disappointment for Winfrey who initially thought that her ancestry could be linked with the *Zulu* tribe. Actress and comedian Whoopi Goldberg, is strongly suggested to be linked to the *Papel* and *Bayote* tribes of Guinea-Bissau. What about film maker Spike Lee? His likely lineage is suggested to be rooted in Niger and Cameroon. So, such is the trend that record numbers of enthusiastic and curious participants are turning to science in the hope of discovering their past.

To help understand the analysis of the data, centers of genealogy and genetic research have typically classified human populations into haplogroups. A haplogroup is a group of people who share a specific mutation or series of mutations that link those individuals to a common ancestor. Haplogroups are coded with letters for the sake of nomenclature. For instance: Haplogroup **H** is the most common mitochondrial lineage in western Eurasian populations, Haplogroup **A** and **B** is commonly associated with Native (Aboriginal) populations in North and South America respectively. **M**, **N**, **R** associated with Eurasia, America, Australasia and Oceania haplogroups. Finally haplogroup **L**, is mainly associated with Africans.

Findings

We know we are Africans, we know we are Sudanese and most importantly, we know we belong to the proud *Kakwa* tribe from the deep south of Sudan. Can the science prove this fact? The thought of the test makes us nervous to begin with. However, we quickly over came our fears and put our curiosity on the line by taking DNA test to determine our ancestry. We started off by ordering the kits and taking the tests independently. Equally crucial was the fact that we each concealed our profiles. That is, we did not reveal our relationship and neither did we disclose our country and place of birth as well as ethnicity (race).

What turned out was not surprising but rather impressive. The good news is that our mitochondrial DNA (mtDNA) has been linked to the Haplogroup **L** and Subgroup **2a**. A quick search through the Sorenson database easily confirmed that we are in fact genetically linked siblings. So, the science is right after all! Now, to help understand what the Haplogroup **L2a** represents, let us take an insight into the larger **L** haplogroup associated with Africans. It is important to note that mtDNA test research traces only the maternal-line.

DNA: What Can It Do?

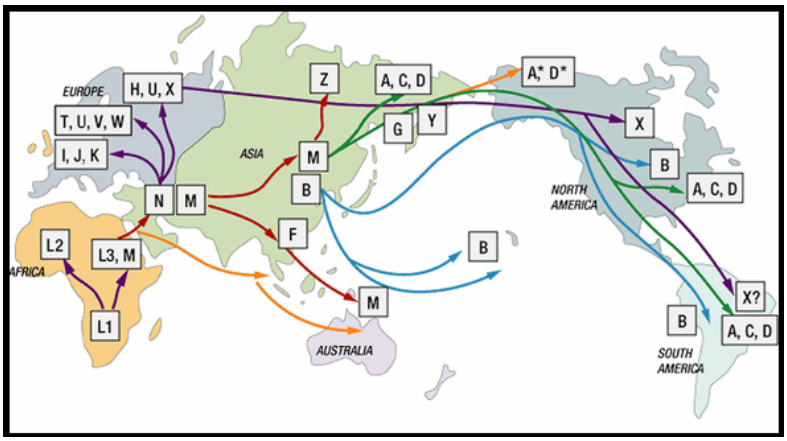
Haplogroup **L** is known as the first derivative of mtDNA variation in modern humans. When looking at the evolution of mtDNA through history, haplogroup **L** is linked to the theory of 'Mitochondrial Eve.' This name has been given to the woman carrying the ancestral mtDNA of modern *Homo sapiens* approximately 200,000 years ago; haplogroup **L** is the first variation from these original women. Eight existing derivations exist within haplogroup **L**. These derivates are known as L0, L1, L2, L3, L4, L5, L6 and L7.

Haplogroup L0

Haplogroup L0 originated in east Africa approximately 160,000 years ago. Geographically, haplogroup L0 is currently restricted to sub-Saharan Africa with low frequency in northwestern Africa

Haplogroup L1

Haplogroup L1, arose about 145,000 years ago, likely originated in western Africa, and is nearly absent in eastern and southern Africa.



Haplogroup L2

Haplogroup L2, which appeared approximately 70,000 years ago, originated in sub-Saharan Africa. This variation is present in nearly one-third of all people in sub-Saharan Africa. Four subclades of L2 exist: L2a, L2b, L2c, and L2d, which correlate with geographic and ethic distributions. **L2a (our case),** the most common subclade, appeared about 55,000 years ago, and is widespread across all of Africa, though more concentrated in western Africa. L2a comprises 62% of the total haplogroup L2 population. L2a is the most common subclade among African-Americans.

Haplogroup L3

Haplogroup L3 originated in East Africa about 85,000 years ago and it was very successful in giving rise to many descendant haplogroups. Most likely, this event occurred in the Horn of Africa because the richest branching around haplogroup L3 is reflected in modern Ethiopian samples.

HaplogroupL4

Haplogroup L4 reveals high sequence diversity in Ethiopians. It is believed the split between haplogroups L3 and L4 occurred during the late Pleistocene in the Red Sea region (east Africa). This period is close to the proposed beginning of the migration to Eurasia.

Haplogroup L5

Haplogroup L5 has been observed only at low frequency in eastern Africa, Egypt, and among the *Mbuti* Pygmies.

The bad news

As much as we had hoped to be linked to a specific tribe or country, the *Sorenson* database cannot presently localize our lineage to a specific group or region due to the fact that L2a is widespread. Also, the fact that the center does not have significant number of samples from the region (Sudan and Ethiopia) limits the ability of GeneTree from explicitly predicting where we might have possibly descended from. *Sorenson* reveals that no significant DNA samples were collected from Sudan or Ethiopia, but thanks to this pioneer study, the center now has 2 samples from Ethiopia and 4 from Sudan. All four samples from Sudan are unfortunately from the Kakwa tribe.

To date, The Sorenson database contains nearly 100,000 samples and over six million corresponding genealogical records from participants in more than 170 nations through out the world. In the African case, most samples were collected in West Africa. This is perhaps due to the belief that most African slaves were brought from the West African region due to obvious reasons such as proximity to the Americas. History tells that between the 15th and 19th centuries, the Atlantic slave trade resulted in the forced movement of approximately thirteen million people from Africa, mainly to the Americas. Only eleven million survived the passage and many more died in captivity.

DNA: What Can It Do?

Historical literature suggests 62% of African slaves came from western Africa, 30% from west-central Africa, and 8% from southern Africa. These percentages are supplemented by haplogroup data: characteristic West African (L1b, L2b, L2c, L2d, L3b and L3d) and west-central African (L1c and L3e) haplogroups are in high frequency among present-day African-Americans. Therefore, it is no surprise that the focus in the past was to get samples from West Africa.

The hope and future:

The science of mtDNA to determine ancestry and trace lineage is not without its critics due to concerns such as the emotional impact the results may have on the lives of people searching for their heritage. Also, the social, legal, economic and political repercussions could be enormous. These fears are obviously legitimate concerns, but still these concerns do not seem to deter the increasing number of participants wanting to be part of the quest in unlocking the mystery of history. With more samples collected especially from regions never researched before, more matches could become apparent, and this can only be good news for the optimists.

SMGF is currently offering free DNA testing for people who live in the USA, those interested in joining the hundreds and thousands of others in unearthing the past can now take this opportunity to participate and be part of history in an effort to determining exactly where we came from and perhaps, make family connections. This month, SMGF will start collecting DNA samples from all the Sudanese tribes residing in the Salt Lake City area and may be in the rest of USA. SMGF is also looking forward to sending a team to Sudan soon to collect more samples from all the tribes and regions of the Sudan once the initial samples are showing interesting results. If you live in any US city, you can order a kit from the SMGF website [www.smgf.org], fill out the 4 generation pedigree, sign the consent form and use the same prepaid box to mail back your DNA sample all for free. However, if you live outside USA, you can still order a kit online for free. You can only pay a small fee for the cost of shipping back the kit.

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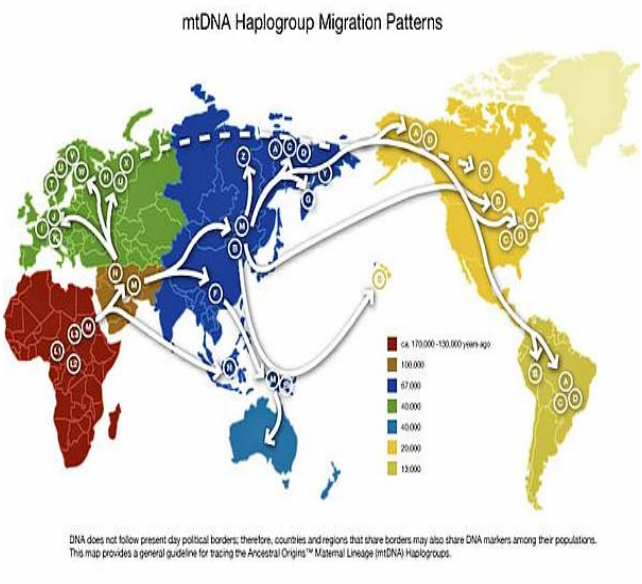

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Contact Information

Phone: 801-364-2811
Email: rsimbe@yahoo.com
Skype: rsimbe