



FAMILY NOTES

The Authorized Newsletter of

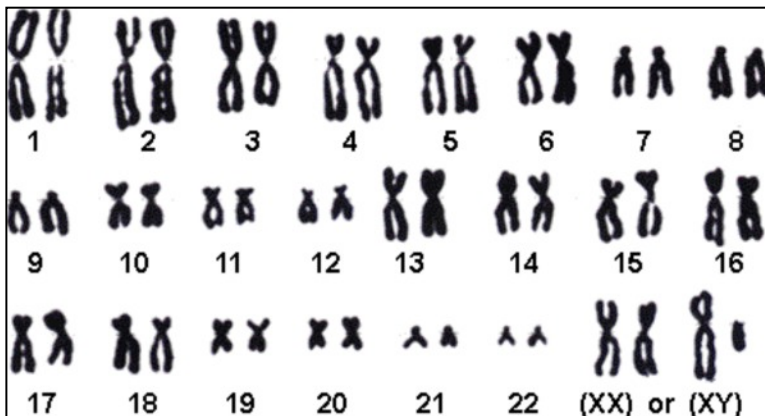
The Hubbell Family Historical Society

Descendants of Richard Hubball, Immigrant to North America

Incorporated in Missouri

Number 61

Spring 2016



Example of a fertilized egg containing 22 paired autosomal chromosomes and both sex chromosomes: two "X" chromosomes (female) and one "X" and one "Y" chromosome (male). In a normal fertilized egg only one of the 2 sex chromosome sets would be present.

DNA - It's Complicated

By Bob Dawes

Whenever I discuss DNA with another genealogist their response reminds me of the frequent Facebook relationship status "It's Complicated." Most family historians have their DNA tested, try to comprehend the results and then file away the information never to be seen again.

I am going to try and explain how I think the HFHS can use DNA testing to advance the goals and membership of the organization and I invite you to contact me if you want to discuss this further.

First a little biology: Both male sperm and female egg contain 23 chromosomes each. Male sperm contain one set of chromosomes including either an "X" or a "Y" sex chromosome. The female egg contains a second set of chromosomes including only an "X" sex chromosome. These sex chromosomes contain the information necessary to produce a male or a female. After the sperm fertilizes the egg, the egg will contain a total of 46 chromosomes

including the "X" chromosome from the egg and either an "X" or a "Y" chromosome from the sperm. The resulting males will have one "X" and one "Y" and a female will always have two "X" chromosomes.

Not only does the unfertilized female egg (cell) contain an "X" sex chromosome in its nucleus it also has a structure called a mitochondria. The mitochondria also contain some DNA. This DNA is called mitochondrial DNA. The male sperm does not contain any mitochondria.

There are three types of DNA tests that can be used for genealogy research:

1) **Y-DNA:** This test follows the male sex chromosome (the Y chromosome) and is passed from father to son through the male sperm. This trait can look far into the past but is a very narrow window.

2) **Mitochondrial or MT-DNA:** This test is performed on both males and

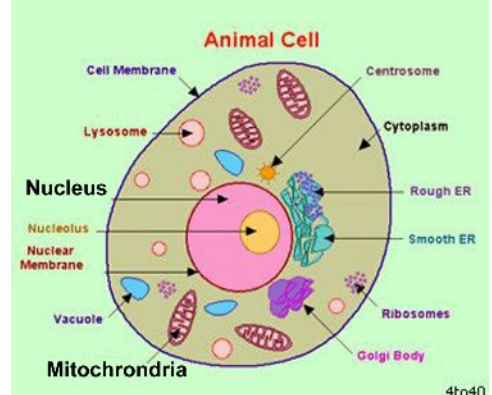
females but the DNA information is only passed on by the mother so it is also deep and narrow, tracing the maternal line much like Y-DNA traces the paternal line.

3) **Autosomal or AT-DNA:** This test focuses on the remaining DNA in the fertilized cell that is not in the mitochondria or the two sex chromosomes. Everyone receives 50% of this DNA from each parent. Everyone has 22 numbered chromosomes and 2 sex (X&Y or X&X) chromosomes. While each child has 50% from each of their parents the mix is different for each child unless they are identical twins. Since AT-DNA diminishes by 50% with each generation, its coverage is broad and shallow and is only good for researching about 5 generations into the past which is why it is good to get your oldest relatives tested while you can.

There are a lot of companies that provide DNA testing but only a few that specialize in doing it for genealogy and they usually provide some sort of matching service to link up relationships. I am hoping to have some information on our website to help you compare the offers of the different companies so you can make an informed choice if you decide to be tested.

The HFHS has had a Hubbell Y-DNA Project going for several years with 27 members participating. These participants

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Example of a cell showing the mitochondria

THE HUBBELL FAMILY HISTORICAL SOCIETY

The Hubbell Family Historical Society (HFHS) is a volunteer not-for-profit organization, founded in 1981, to research the genealogy, preserve the history, recognize the achievements, and promote fellowship for the descendants of Richard Hubball, the immigrant. The Society invites membership from descendants of Richard Hubball of England and the New Haven Colony, Connecticut, from persons interested in genealogy and history, and from organizations supporting such activities.

- President:**
Marjorie M.H.K Hlava
Vice President:
Roger Hubbell
Recording Secretary:
Dorcus Aunger
Treasurer:
Jan Hubble Fulton
Editor:
Richard Wood Hubble

- Annual Dues:**
(Payable in U.S. or Canadian dollars)
Individual / Family (w/ minor children) \$15
Contributing Member \$50
Participating Member \$100
Proud to be a Hubbell/Hubble Societies and Libraries \$200

Reunions:
Membership-reunion meetings are held every two years. The next Biennial will be held in Long Beach, CA in June of 2017.

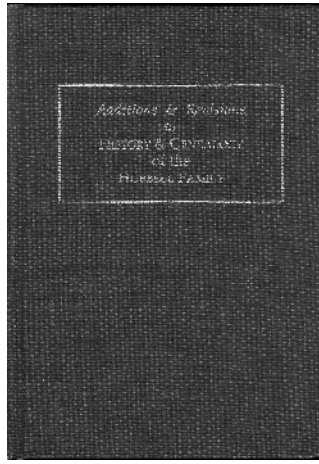
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The 1995 Additions and Revisions (A&R) edition of the Hubbell Family Genealogy will soon be updated with the release of The Millennium Edition (ME). In an effort to provide easy access to the information in the 1995 A&R, the index has been scanned and is searchable. The index will be posted on the website under the Publications/Other Publications tab and will be available to the general public.



Barbara's granddaughter Joanne Thornburg of New Albany, Ohio modeling Barbara's 1943 marine uniform

Barbara Kruse and Molly

Barbara Kruse attended a "Meet Molly Marine" program last October in New Orleans. Barbara was a guest speaker along with the Molly statue sculptor's daughter, Dr. Alferéz. Barbara, having spent time in New Orleans during the war, talked about her experiences in New



Barbara Kruse holding a miniature copy of the Molly Marine statue.

Orleans as a Marine recruiter. Accompanying Barbara was her 12 year old granddaughter, Joanne. Joanne modeled Barbara's 1943 marine uniform. The Molly Marine statue was made to help the recruitment effort early in the war effort. Today it stands in a small park at Canal and Elk Place. More pictures and Barbara's presentation at the meeting are posted on our website blog. Barbara also sent in a correction to the Thelma Marcela Hubbell story published in the 2015 Annual. Barbara pointed out the Marine Corps was the last branch of the military to accept women. She states that the Corps admitted women "February 13, 1943. On the 20th, one week later, and my 20 birthday, I went to the recruiting office to enlist."

Election Year

Another presidential election is upon us this Fall. A total of 1622 candidates filed to run for President of the United States. Along with Buddy the Elf, Obi Wan Kenobi, Donald and Hillary; **Michael Wayne Hubbell** (A&R# 9381) of Lexington Park, MD filed. Registered as an Independent, the treasurer for his champagne is **Judy Ann Hubbell**. Wait for his media blitz.



NOTICE:

Our website is undergoing major renovations. Soon you will be able to pay membership dues and purchase merchandise through the website. Also don't forget, all previous Family Notes and Annuals, along with other material, are available under the "Publications" Tab for reading and research. Go To: www.hubbell.org

Fresno, California's Rocketworks, a group of Fresno City College engineering students, is among 20 student teams selected by NASA to compete in a Student Launch Challenge to design and test a potential Mars mission spacecraft.



Project leader Michael Leon Hubble
(ME# 13897ba)

Fresno, California's Rocketworks, a group of Fresno City College engineering students, is among 20 student teams selected by NASA to compete in a Student Launch Challenge to design and test a potential Mars mission spacecraft.

The group of Fresno City College students is going up against some of the biggest names in American engineering schools in a NASA competition to design a spacecraft that can retrieve soil samples from Mars and launch them back to Earth for research. Fresno Rocketworks is among 20 student teams from across the country – and one of only two that are not four-year college or universities – selected by NASA to participate in the space agency's 2015-2016 Student Launch program.

The Fresno group joined the other teams for a telephone conference, last October, to review the basics of the competition and the schedule that will lead to testing their designs and launching their vehicles in April 2016 near NASA's Marshall Space Flight Center in Alabama.

During an October 2015 interview with The Fresno Bee (California) newspaper, Mike Hubble, 28, an engineering student at Fresno City College, who is the project leader said, "We do have a design in progress, but it has not leaped off of paper yet. We hope to start building and testing equipment as soon as we're able to."

Just to get to this point is considered a major success for the team, added Hubble, who is also a rocketry hobbyist who launches high-powered model rockets with the Central California Chapter of the national Tripoli Rocketry Association.

"We're the oddballs; our chances seemed so slim," he said. "We're not a four-year university and we're not a private company."

Teams submitted proposals to NASA over the summer of 2015 to be evaluated based on their design, recovery system-payload capability and safety, as well as each team's plans to engage students in their communities in science and technology education. Among other teams in the Mars Ascent Vehicle Challenge are Cornell University in New York, the U.S. Naval Academy in Maryland, the Georgia Institute of Technology, Northwestern University in Illinois and California State Polytechnic University, Pomona, CA.

"With schools like those, I'd like to think the competition was pretty intense," Hubble said. Another group of teams from universities such as Auburn, Georgetown, Notre Dame, Penn State and Vanderbilt are competing in a different portion of the Student Launch Challenge to design a reusable vehicle, but without the complication of the autonomous Mars Ascent Vehicle.

Because the Fresno team is not strictly a student group, participation is open to others with an interest in science, rocketry or engineering, whether as participants or mentors. The team already has some key support from Fresno Ideaworks, a nonprofit "maker" workspace in downtown Fresno, California. "We're partnering with Ideaworks, using some of their members as mentors and using their space to do our build," Hubble said. By registering as a nonacademic team, "we're not eligible for as much prize mon-

ey, but we have this wonderful space in Fresno Ideaworks and all these creative people coming through every day," Hubble said. "It's a great way to bring the entire community in on this."

The rocket project is not just a guy thing. Several women are on the nine-member team, including Jessica Lopez, a 22-year-old civil engineering student, and environmental engineering student Briseyda Zepeda, 25, who were classmates of Hubble's during an engineering class over the summer. "We both took an engineering course ... and we got hands-on experience on how to build things," Lopez said. "A rocket is something where you can get hands on, and you want to understand how it works and what makes it work."

Zepeda said she and others were infected by Hubble's enthusiasm. "At first I was really intimidated because I don't know anything about aerodynamics," she said. "But we decided to join and see what happens."

According to information from NASA, the Mars Ascent Vehicle Challenge requires teams to develop a spacecraft that can autonomously retrieve a sample container, insert it into a payload compartment of their rocket, and then launch itself from the surface. To be successful, the team must also safely recover both the sample and the rocket. NASA could consider such technology for future Mars exploration missions.

NASA sponsors the Student Launch Challenge as part of its efforts to promote education in science, technology, engineering and math, also known as STEM fields. "Student Launch provides a real-world opportunity for our next generation of engineers and scientists to succeed in aeronautics and aerospace," said Tammy Rowan, manager of academic affairs at NASA's Marshall center in Huntsville, Ala. "Student Launch pushes their limits in critical thinking, improves

NOTE: Mike Hubble is not listed in the 1995 A&R but has been included in the new genealogy to be printed this year. The new genealogy will be called The Millennium Edition and individual numbering will assume the format of ME# XXXX

their science, technology, engineering and math (STEM) skill sets and better prepares them for success in tomorrow's workplace."

In addition to designing and testing their spacecraft and launch system, teams must also demonstrate a commitment to advancing STEM education in schools in their communities. "We have to reach at least 200 local students," Hubble said. In addition to raising the money needed to build and test their system and get the team to Alabama for the launch competition in April 2016, Fresno Rocketworks is trying to gather enough funds to provide small model rockets to middle school students in the Fresno area.

"What's important about that is it engages other kids, especially here in the Valley where you don't hear much about aerospace and space technology," Hubble said. "We want to show kids, this is what we're working on, and to show them that they can do this, too. For them to actually fly a rocket at their school, it'll be a new experience for them."

Watch a video of the launch of their rocket at: <http://www.fresnorocketworks.com/>

This story consists of excerpts from an October 2015 article in The Fresno Bee Newspaper in Fresno, CA



Continued from page 1: DNA

form 9 different familial groups but even more interesting is that they represent 5 different haplogroups. A haplogroup is an indicator of our deep ancestry from more than 10,000 years ago and shows the migration pattern of our earliest ancestors. Unfortunately, while this study has provided valuable information for its participants it isn't doing much for the HFHS or its membership as a genealogical tool. It is also limited to only male Hubbell's and there are ways that we can make this more inclusive.

Since our AT-DNA consists of contributions from all of our ancestors it is a good tool to use as cousin bait. All testing companies will show you how many people you match and the quality of the match usually by potential relationship eg. 3rd, 4th or 5th cousin etc. This gives you a clue about where to look using traditional genealogical tools such

as charts and records. Some companies even provide online trees to help in this process. But, even more exciting are the third party tools which are popping up that allow the sharing of data across companies and more in-depth analysis. For example, I had mine and my mother's AT-DNA tested and by using a feature called Phasing I was able to subtract my mother's DNA from mine and create a replica of my deceased father's DNA.

I am proposing that we use the HFHS as a portal for sharing and comparing our DNA results to find matches. By using the free website GEDmatch, I have uncovered over 1,500 potential 2nd to 5th cousins with whom I am now trying to identify our exact relationship and hopefully break through some of my brick walls. Can you imagine how many potential cousins a group of connected Hubbell's could generate? These are also people who are interested in their genealogy and are all potential HFHS members which is the membership benefit to the organization.

My proposal is to set up a page on the HFHS website where members can post their DNA test kit numbers along with some historical information like most distant known ancestor and Hubbell family connection(s) for others to use in one to one comparisons. As this becomes a clearing house for Hubbell connections it will hopefully generate interest in the society and build membership.

Before you dive in, I invite you to do the research and see how this can help you in your personal genealogical journey and also help the society. There are a number of good blogs, webinars and websites which provide more information about how to use DNA to do genealogical research which I have listed below.

More information:

<http://www.isogg.org>
<http://www.yourdnaguide.com>
<http://dna-explained.com>
<http://www.dna-testing-adviser.com>
<http://thegeneticgenealogist.com>

Webinars:

<https://www.familytreedna.com/learn/ftdna/webinars/>
<http://www.genealogyjunkie.net/presentations-on-dna-testing.html>
<http://familytreewebinars.com>
<http://www.relativeroots.net/webinars/>

Blogs:

<http://blog.kittycooper.com>
<http://www.yourgeneticgenealogist.com>
<http://lialouisecooke.com/blog/>

3rdPartyTools:

<https://www.gedmatch.com>
<https://genomemate.org>
<http://www.math.mun.ca/~dapike/FF23utils/>
<http://www.dnagedcom.com/adsa/index.php>

The above are a smattering of web based resources to give you a complete overview of using DNA for family history. There are some pay sites but if you look through them carefully you will find free content like Family Tree Webinars where their weekly broadcast is free when it first airs. Others have archived content which is also free.

I hope I have opened up this concept for you and stay tuned for more developments on the HFHS website.

Bob Dawes can be contacted at:
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ORDERING AN AUTOSOMAL TEST

There are three primary testing companies in the US and all charge the same for their AT-DNA test (\$99.00).

Family Tree DNA

<http://www.familytreedna.com>

Ancestry DNA

<http://dna.ancestry.com>

23andme

<http://www.23andme.com>

If you are already an Ancestry.com customer you might want to integrate your test with your other Ancestry information, otherwise, I would go with Family Tree DNA as the company has the largest database and the one we use for our Hubbell Y-DNA project. 23andme originally provided a health assessment as well as ancestral matches but they are in a court battle with the FDA and have pulled that feature although it is still available elsewhere in the world. 23andme has also moved their on-line trees to My Heritage which is an extra cost to use. Regardless of which company you choose, you can download your raw data to use with the free GEDMatch website and Ancestry or 23andme users can upload their data to Family Tree DNA for \$39 to access their large database.

