How Commercial DNA testing can Pinpoint your Galway Origins







Dr Tyrone Bowes
tyronebowes@gmail.com



Who am I/ What I do

- Dr Tyrone Bowes (experienced biotechnologist)
- Personal interest in using DNA to uncover my own ancestral origins.
- Set up the Irish Origenes website to help others rediscover their Irish ancestry using only their DNA.
- I do Personalised Case Study reports (free consultation), sell a range of Irish themed maps from the Irish Origenes website, surname studies, and write articles for various magazines
- Launched Irish Origenes in June 2011
- Launched Scottish and English Origenes in 2012,
- Welsh Origenes will be launched in 2014?



There are 3 main commercial ancestral DNA tests

mtDNA; to reveal people with whom you share a common female ancestor Y-DNA; to reveal people with whom you share a common male ancestor Autosomal DNA test; to reveal shared male and female ancestry

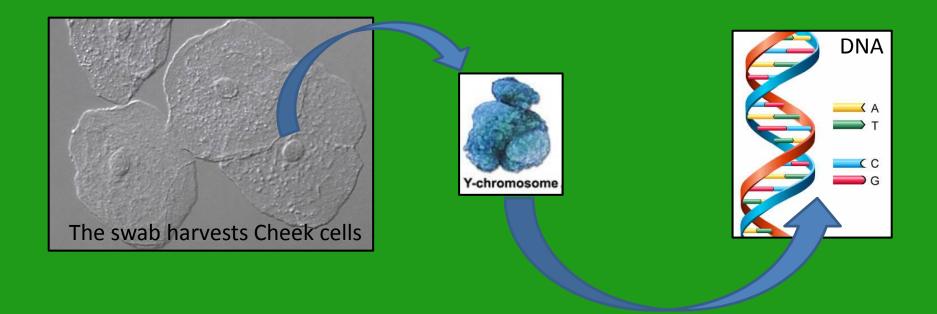
	Commercial ancestral DNA test										
	Y-DNA 🛑	mtDNA	Autosomal								
Who can take this DNA test?	males only	females only	males and females								
Pinpointing a geographical origin (how specific is it)	very specific to within a 5 mile radius	Country/Geographical region	not applicable								
Time Scale (to shared ancestry)	when surnames became common (e.g. 1000 years ago in Britain)	thousands of years	150-200 years								
Can the link to an area be confirmed	Yes	Yes	not applicable								



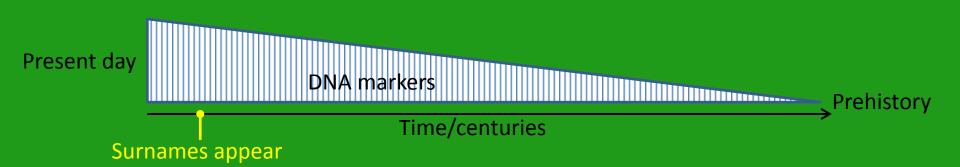
DNA testing is painless
Swab the cells and return it to
the DNA testing company



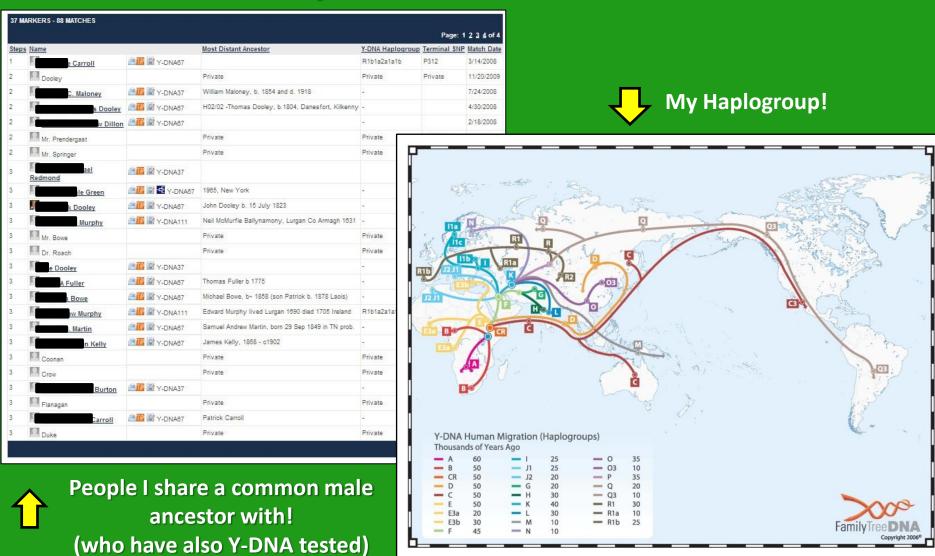




- The test typically looks at 37 or 67 bits (or Markers) on the Y chromosome.
- The company compares these markers to others on their database who have also taken the Y-DNA test
- The more of the markers you share with someone the closer your shared ancestor lived (e.g brothers would match at 37/37 or 67/67 markers)

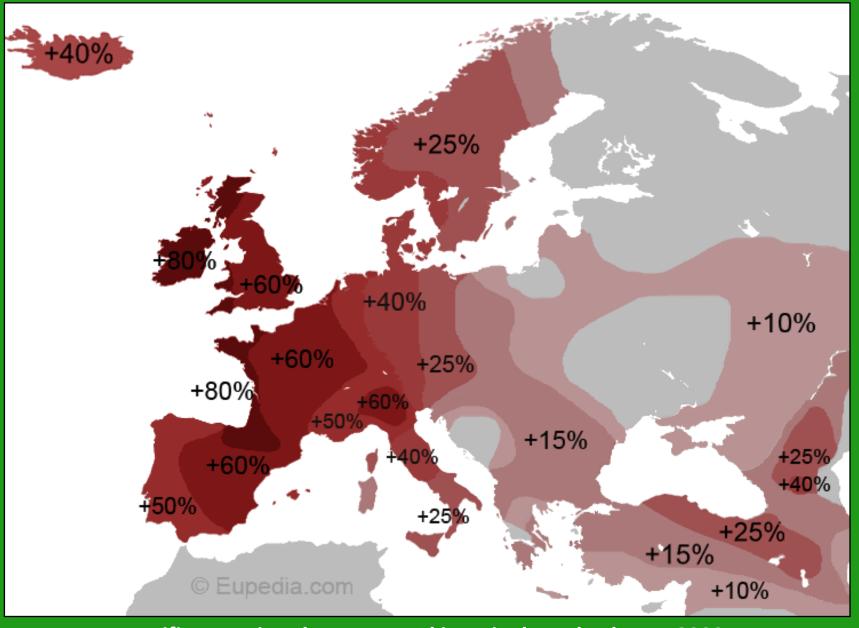


This is what your DNA test results will look like My Bowes Y-DNA results

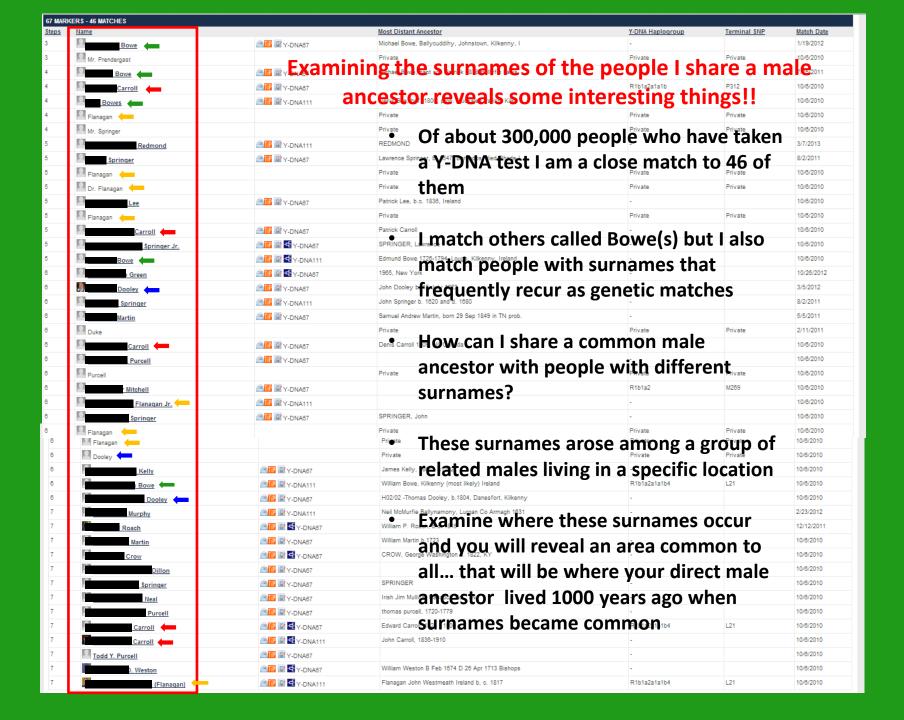




R1b is the most common haplogroup in Europe



Denotes a specific mutation that appeared in a single male about 18000 years ago



Classify surnames according to the point at which they first appear as a genetic match

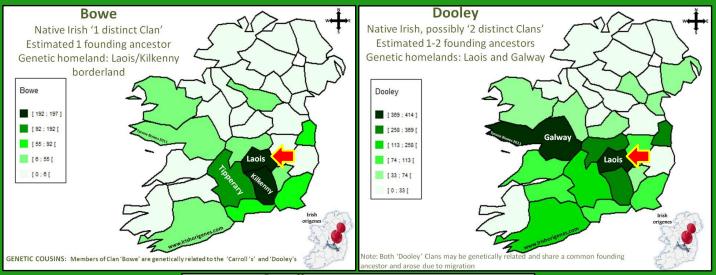
		67 marker										37 marker					
	exact	-1	-2	-3	-4	-5	-6	-7	exact	-1	-2	-3	-4				
Bowes	exact	-	- 2	-3 Bowe/Bowes (x7)	Carroll (x15)		Green (x3) Dooley (x8) Purcell/Pursel (x6) Mitchell (x2) Martin (x5) Kelly (x8) ¹	Crow (x5)	exact		-2 Fuller (x2)	-	Treacy/Tracy (x4) Ainsworth (x4) ¹ Smith (x20) ² Egan (x5) Ryan (x15) Wray/Ray (x5) Norman (x4) ¹ Bathurst (x2) Ferguson (x5) ² Raines/Rains (x5) Bird (x3) Rainey (x2) Powell (x3)				
TIMELINE	2000-1800AD	1800-1600	1600-1400	1400-1200	1200-1000	1000-800	800-600	600-400AD		_			(NO)				

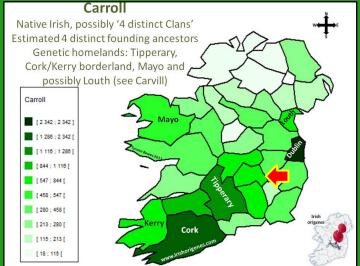
Figure 2: Reoccurring surname matches for test subject Bowes as revealed by commercial ancestral Y-DNA testing. Each Surname appears at the earliest point at which it occurs as a DNA match, for example the first match with a Bowe or Bowes occurs at 64 of 67 markers but not all Bowe/Bowes will match at that level. In brackets are the number of different individuals that occur as a match. Coloured font is indicative of the ethnicity associated with each surname; Irish, Norman/English, Scottish, black font indicates surnames with multiple possible ethnicities. Surnames in bold occur greater than 3 times. ¹Multiple individuals from the same close family tested, these are excluded from further analysis. ²The majority of these matches occur at the 12 marker level and hence the shared ancestry may be coincidental.

These (recurring) surnames will have arisen among a group of related individuals living in a specific location!

Plot where those surnames occur using census data and you'll reveal a common area of association (where ones direct male ancestor lived 1000 years ago)

Irish Origenes Surname Distribution Map Database





An ancestral link with County Laois is revealed

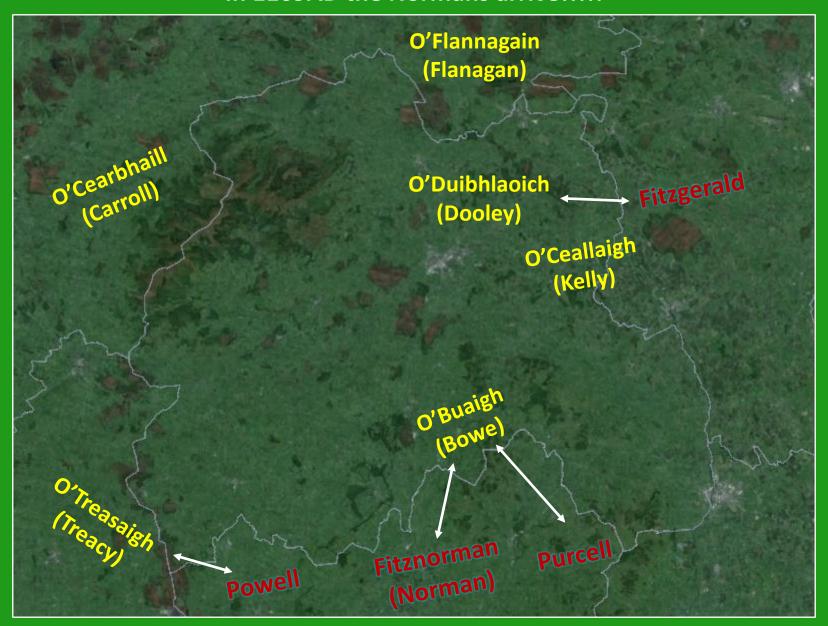
>4,500 surnames associated with Ireland on this database



What happened 1000 years ago?



In 1169AD the Normans arrive!!!!!



Adoptions and infidelities between neighbouring Gael and Normans over 100's of years

The surnames of the people with whom I share a common male ancestor are reflecting the relationships over hundreds if not thousands of years!

		67 marker										37 marker					
	exact	-1	-2	-3	-4	-5	-6	-7	exact	-1	-2	-3	-4				
Bowes	-	7		Bowe/Bowes (x7)	Carroll (x15)	Lee (x5)	Green (x3) Dooley (x8) Purcell/Pursel (x6) Mitchell (x2) Martin (x5) Kelly (x8) ¹	Crow (x5)	-		Fuller (x2)	1	Treacy/Tracy (x4) Ainsworth (x4) Smith (x20) Egan (x5) Ryan (x15) Wray/Ray (x5) Norman (x4) Bathurst (x2) Ferguson (x5) Rines/Rains (x5) Bird (x3) Rainey (x2) Powell (x3)				
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Irish Origenes 'Surnames of Ireland Map' shows where farmers with a particular surname cluster





I'm a scientist and I want more evidence to support the ancestral link of these Clans and Families as revealed in my DNA results with **County Laois and bordering Counties**

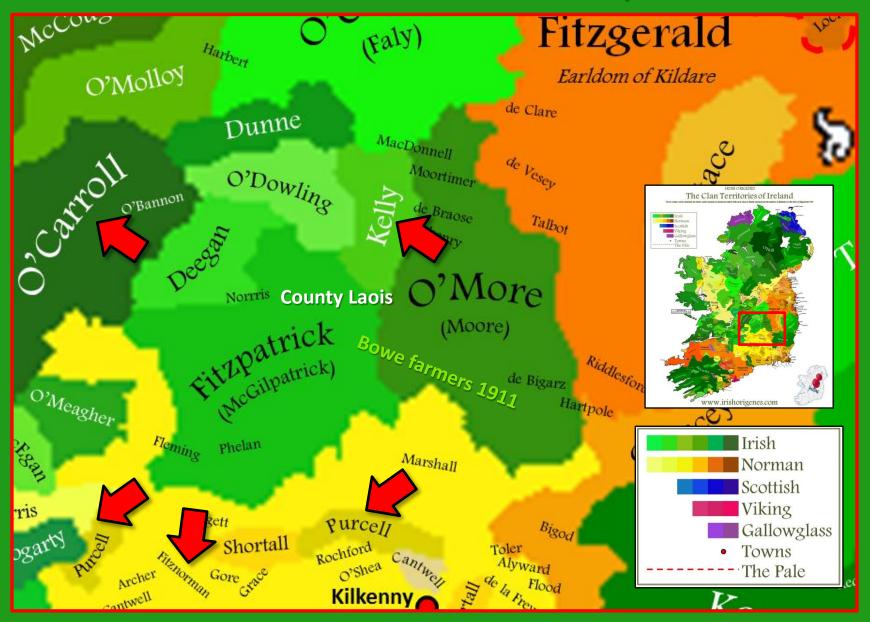
- Farmers and where they cluster
- Historical monuments i.e. Castles and Towerhouses historically (associated with these Clans and Families



- Placenames (townlands, crossroads, local placenames)
- **Historical records**
- DNA evidence (test people living in the pinpointed area)

The Irish Origenes Castles of Ireland Map 1040 1346 509 **O**1039 1068 🗪 534 338 1049 **County Laois** O 1128 334 0466 1207 O 699 **Bowe farmers 1911** 796 1018 917 270 Irish 332 Carroll'O Ballymooney Castle 53° 4'0.17"N 7°48'30.18"W Norman 333 Carroll'O 'Birr Castle' 53° 5'37.91"N 7°54'48.40"W 334 Carroll'O 52°58'19.04"N 7°47'5.13"W 'Dungar Castle' Norman/Irish/Planter 335 Carroll'O 'Emmel Castle' 52°54'46.03"N 8° 1'23.90"W Carroll'O 'Kinnity Castle' 53° 6'9.14"N 7°41'51.51"W Religious order 'O'Carroll's Castle' 53° 0'23.68"N 338 Carroll'O 'Rathmore Castle' 53° 1'54.97"N Viking 339 Carroll'O 'Kilfadda Castle' 53° 3'27.49"N 8° 7'10.69"W Gallowglass 340 Carroll'O 'Ballybrit Castle' 53° 0'39.90"N 341 Carroll'O 'Busherstown Castle' 52°53'37.00"N Scottish 342 Carroll'O 'Corolanty Castle' 7°55'44.86"W 53° 0'39.16"N 343 Carroll'O 'Cullenwaine Castle' 7°58'51.96"W 52°53'36.91"N 15th/16th Century Fort/Plantation Bawn 344 Carthy'Mc 'Rock of Cashel' 7°53'22.19"W 52°31'12.76"N

Castle locations were used to construct the Irish Origenes 'Clan Territories of Ireland Map'



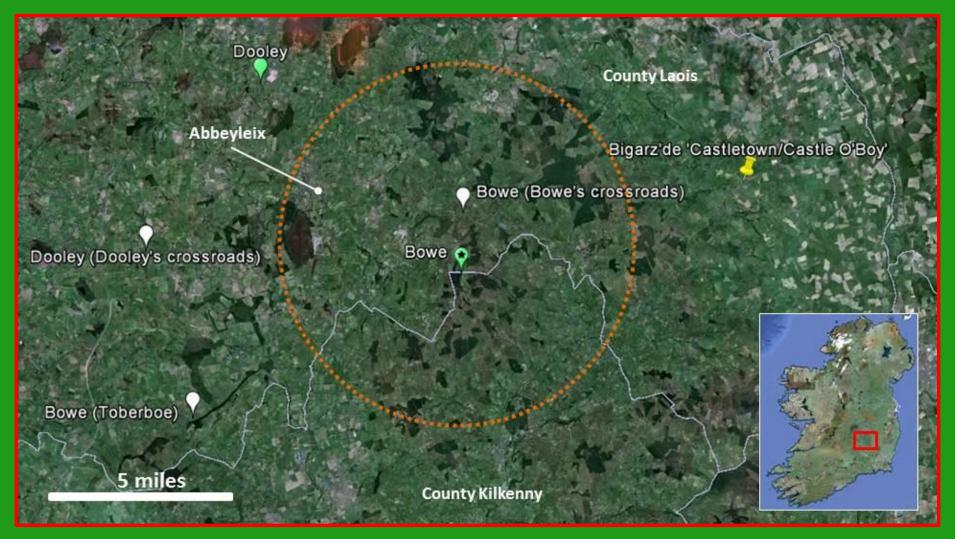
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Irish placenames hold a wealth of information regarding the Clans that first appeared there or the Norman families that settled there.



An examination of Placenames in County Laois reveals a Bowe crossroads!



Bowe's crossroads is found on early ordinance survey maps!

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historical references to my Bowes ancestors in Laois/Kilkenny/Tipperary borderlands

From the Tudor faints:

"163 (118). Pardon to Jordan Morreyse, of Croghan, county Tipperary, husbandman; especially for the death of **Phillip O'Bowe**, ploughman." Dated 6th April 1548 (page 104, fiants of Edward VI). "2035 (1631.) Pardon to ... **John O'Bow**, late of Brownestown, ..." dated 11 January 1572. page 261. "5370 (4286.) Pardon to ... **Phillip O Boe**, of Corristowne, ... co. Kilkenny." dated 4 November 1589. "6191 (5017.) Pardon to ... **Edm. Obowe** ... This pardon shall be of force only for persons born or residing int he province of Munster, or County of Kilkenny." dated 17 February 1598. pages 317-18. "6484 (5240.) Pardon to ... **Rich O Boe**, husb., ...". dated 28 March 1601. page 401.

From the "Calandar of Papal Registers:

Papal Letters vol. xv 1484-1492" the index lists three men surnamed "O Bogue (OBinyde, Oboe, Obuy)"

- 1 John, Canon of Aghmacart, to have rectory of Kildellig, number 688.
- 2 Patrick, priest of Ossory diocese, to have rectory of Rathsaran and vicarage of Erke, number 674 (dated 19 April 1491, states "Patrick Obinyde, priest, d. Ossory", was the illigitimate son of unmarried parents. Apparently he also had a family).
- 3 William, priest of Lismore diocese, to have vicarage of Rathdonan, number 358 (dated 25 February 1489)

Courtesy of Mr Adrian Martyn Medieval researcher, Galway City, Ireland



Α		67 marker										37 marker					
	exact	-1	-2	-3	-4	-5	-6	-7	exact	-1	-2	-3	-4				
Bowes	-	-	-	Bowe/Bowes (x7)	Carroll (x15) Springer (x6) ¹ Flanagan (x7)	Lee (x5)	Green (x3) Dooley (x8) PurcellPursel (x6) Mitchell (x2) Martin (x5) Kelly (x8) ¹	Crow (x5) Murphy (x3) Roach (x2)	-	-	Fuller (x2)		Treacy/Tracy (x4) Ainsworth (x4) ¹ Smith (x20) ² Egan (x5) Ryan (x15) Wray/Ray (x5) Norman (x4) ¹ Bathurst (x2) Ferguson (x5) ² Raines/Rains (x5) Bird (x3) Rainey (x2) Powel (x3)				

B The Cantreds of Ely O'Carroll poem by O'Heerin from 1420 describes the Kingdom of O'Carroll from the time of Brian Boru. It mentions 4 Clans that occur as a genetic match to Bowe's; O'Carroll's, Flanigan's, Hegan (Egan) and Dooley's

"Lords to whom stoop the nuts (a very odd expression)
Are the <u>O'Carrolls</u> of the Plain of Birra
King (Kings?) of Ely to the sweet Bloyma;
Most hospitable mansion in Ireland.

Eight tuathas (Cantreds) eight chiefs there are Under the King of Ely - land of cattle Brave the host in threatning (tuar) an incursion That yellow-waving-haired army.

O'Flanigan of the snowy hand Rules over all the Kinel Arga (1) Of the race of Teige, son of Kian of Crinna (1 1/2) He dwells at hospitable Ardlick Oilill.

Over the Clan Rooney of the flowery roads That sweet, cleared, smooth streamed country That fair bordered, wine festive cantred Rules Mag Corcran of the numerous tribe.

O'Hegan of Crioch Chein,
Is over the Clan Ionmhainen of smooth land
A cantred which showers a feast on every spot (2)
And a dew of honey on every cluster (pod).

The great cantred of the vigorous Clan Maonaigh
Is hereditary to <u>O'Dooley</u> (3)
This tribe are brave retainers
Placed at the breast of the clear streamed Bloyma.

A chief whose trees bear white nuts Is over the Clan Conligan of heavy fruit Twig of Biorra of Elyan tribe (4) Mac Guilfoyle of the fair-white mansion.

Hy Deki, the goodly cantred of hills,
The wide, fair-mansioned land, (do dluthaigh duibh)
A fruitful land which adhered to them
Is O'Banan's Patrimonial (ancestorial) inheritance (5)

Their country has been mightily peopled By the O'Meaghers of Crioch Keerin (6) Tribe of (at) the foot of Bearnan Eile (7) No shame to recount their exploits.

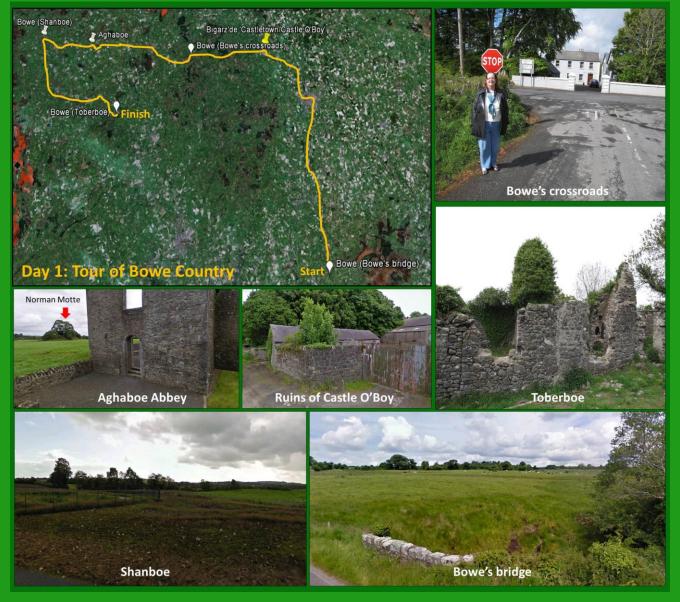
Tuath Faralt (8) of the cleared woods Is the inheritance of O'Hailchen, A fair mansioned plain of populous tribe, Like the land of Taillteann, dry, tho' streamy.



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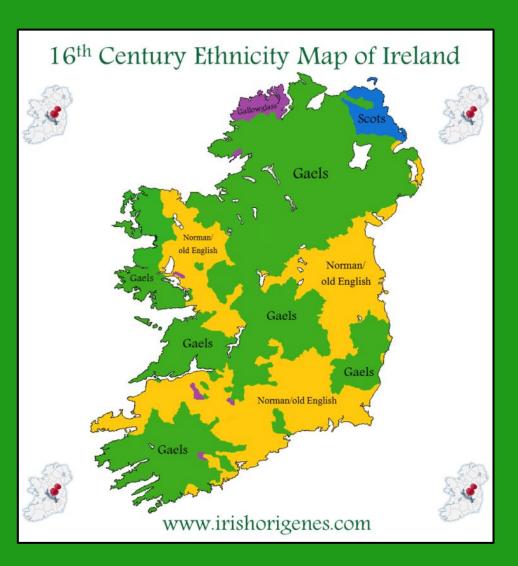
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Boosting Tourism Walk in your ancestors footsteps



I am a genetic match to Bowe males who live in County Laois

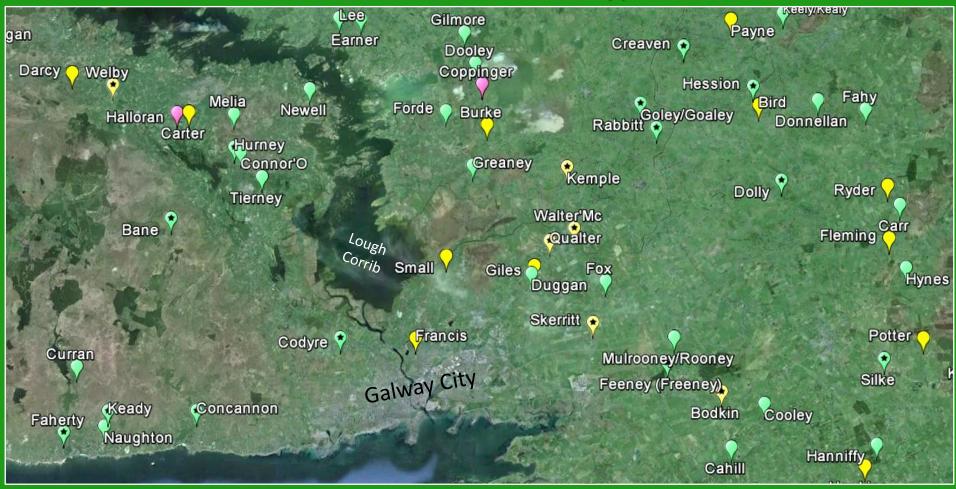
What will the DNA reveal about your Galway origins?



People with Irish ancestry
60% Gael (pre-Christian
Celtic tribes)
1-2% Viking
12-15% Norman
(English/Welsh)
2-5% Scots Gallowglass
20% 17th Century Plantation
Scots and English

Keep an open mind!!!!!!

Farmers with a particular surname still cluster close to the area where the surname first appeared!



Green pin = Gaelic Irish

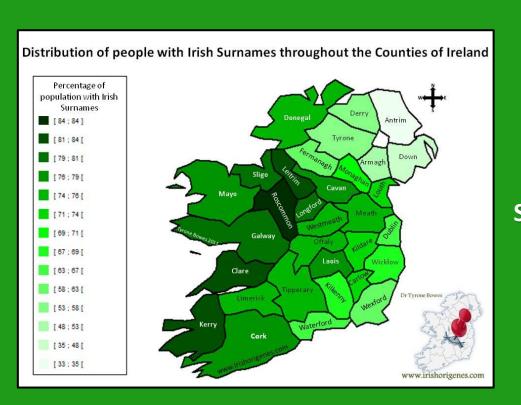
Yellow pin = Norman

Purple pin = Potential Viking surname

Starred pin = surname exclusive to that area

Upon DNA testing 60% of you will be Gaels

Themselves a heterogeneous mix of Prehistoric and 'Celtic' peoples



They gave the people of Ireland their distinctive

Language: (Irish/Gaelic)
Surnames: Beginning with Mac/Mc, O',
Gil/Kil, or Mul,
Clan system
Placenames



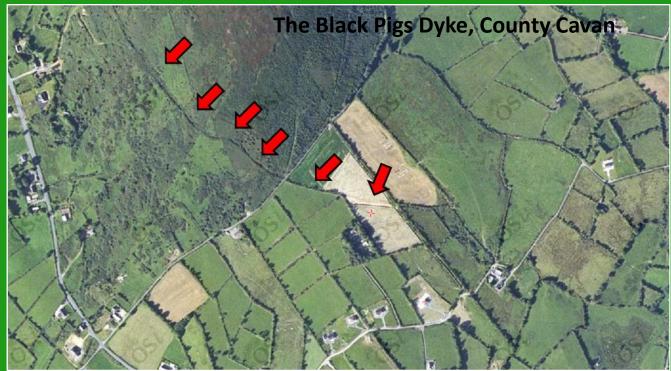
DNA Case Studies reflect distinctive Irish DNA groups



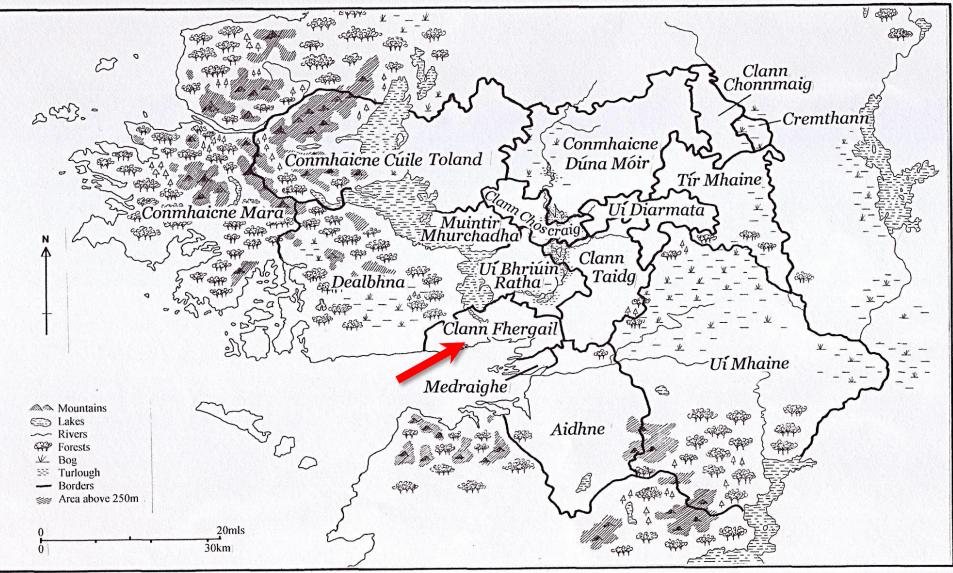




The Black Pigs Dyke 390–370 BC
Reflects a historical division between the Northern and Southern Irish?



Tribal groups of Pre-Norman Galway!

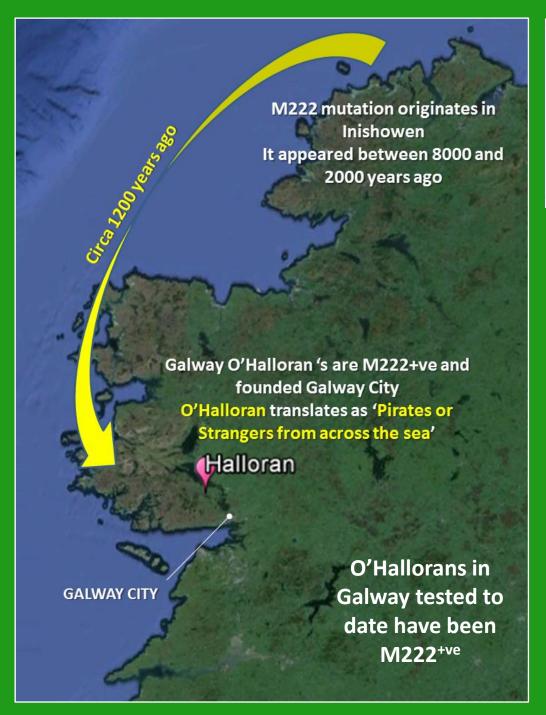


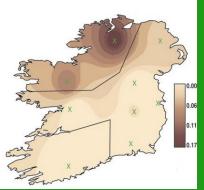
Source: The Tribes of Galway, Adrian Martyn 2014

Clann Fherghail; O'Halloran, O'Contully (Flood), O'Fergus

Will the DNA reflect differences in these tribal groups????

Preliminary data would indicate YES!





Niall of the nine hostages DNA marker

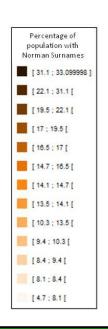
The O'Hallorans or strangers from across the sea were not Vikings but But 'Gaels' from the far north of Ireland who colonised Galway around 800AD

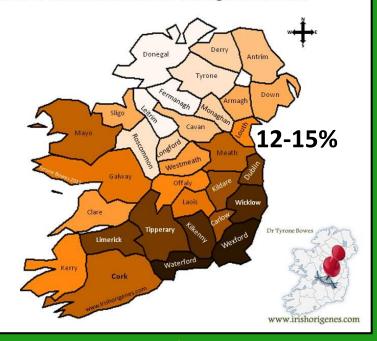
Who else are descended from the early colonisers; Tullys, Floods, Fergus?

Are there other DNA markers for other Galway 'tribal' groups?



Distribution of Norman Surnames throughout Ireland





Conquest and inter-marriage

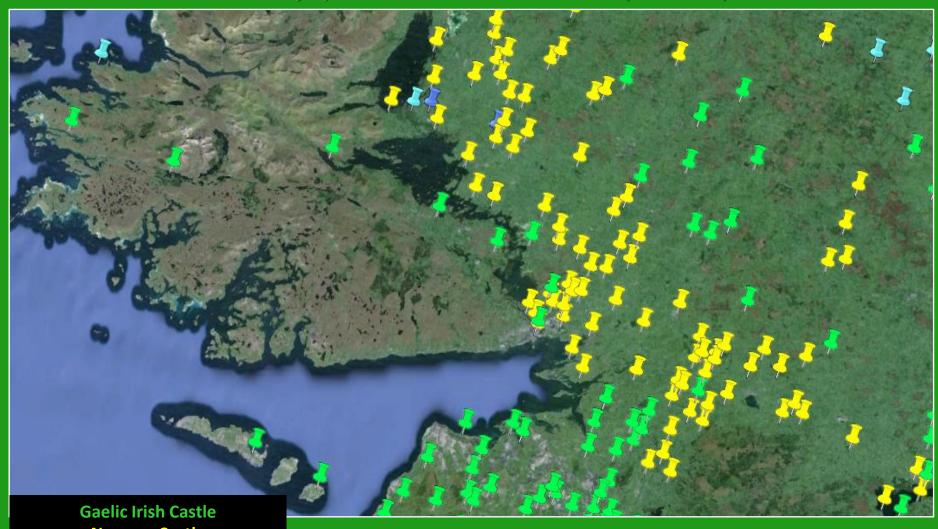


THE NORMANS

Arrived in 1169 AD
Conquered most of the Country
and brought with them their
Welsh, English, and Flemish
followers



Galway split between Gael and Gall (Norman)



Norman Castle
Scots-Gallowglass Castle
Gael/Norman/Gallowglass castle

Norman and Scots Gallowglass settlement in Galway



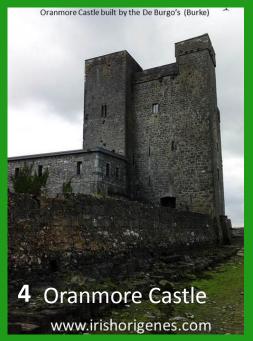
Galway City was surrounded on 3 sides by the Norman Burke Family









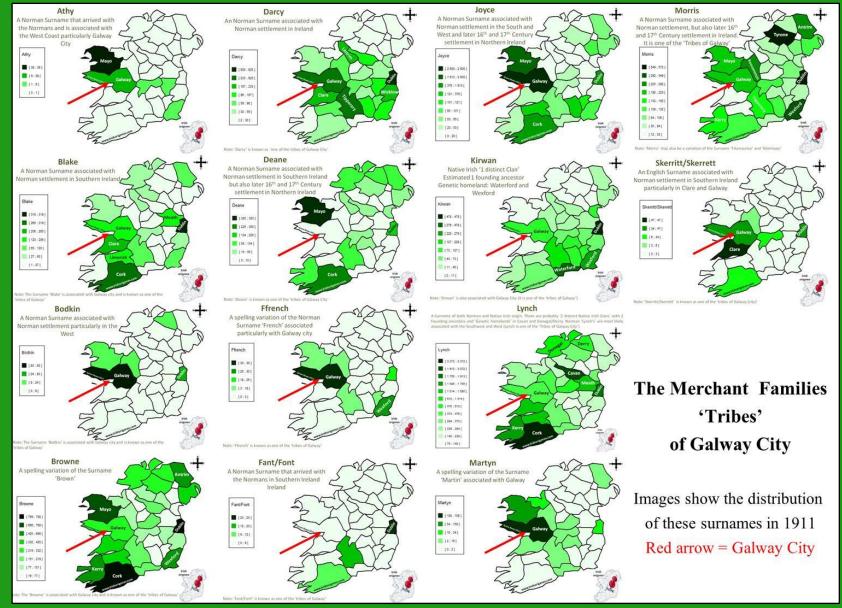


The Tribes

(Merchant Families of Galway Town)
Working Class Gaels and Gall on the make in medieval Ireland!

Surname	Ethnicity		
Martyn	Norman?		
Font	Norman		
Athy	Norman?		
Darcy	Irish?		
French	Norman		
Joyce	Welsh		
Morris	Norman?		
Blake	Welsh		
Deane	English		
Kirwan	Irish?		
Skerritt	Norman		
Bodkin	Norman?		
Lynch	Norman?		
Browne	Norman?		

Many of the surnames can still be found associated with Galway City



People Mr Martyn shares a common male ancestor with

Martyn Y-DNA results

<u>Steps</u>	Name		Most Distant Ancestor	Y-DNA Haplogroup	Terminal SNP	Match Date
0	n Jahnke	<u>₽</u> P-DNA67	Johann FW Jahnke, b.1845, Elwershagen, Schivelbein	R1b1a2a1a1a4a	L47	9/12/2011
0	Martin 🛑	<u>₽</u> P-DNA67	Daniel Martin born Galway, died 1847 Dublin, Irela	R1b1a2a1a1b4	L21	6/13/2011
0	Campbell	<u>₽</u> P-DNA67	Andrew Moll b1785	-		3/26/2010
0	Mabrey		Private	Private	Private	10/11/2007
0	Martin 🛑	⚠ ✓ Y-DNA37		-		6/26/2003
1	Horan 🛑	<u>₽</u> P-DNA37	Jeremiah Horan, b. 1828 and d. 1870?	-		6/17/2013
1	Crotty Jr.	₽₩ Y-DNA67	Thomas Crotty, 1827-1885 Shanagarry, Co. Cork	-		2/14/2013
1	Duffy (₽₩ Y-DNA37	Patrick J. Duffy b. 1803 -1811 d.1879	-		2/6/2013
1	Gunning	<u>₽</u>	John Gunning, 1830-1891	-		4/30/2012
1	Coffey	₽₩ Y-DNA37	Patrick Coffey,b ABT 1794 & d 1863, Bandon Cork	-		4/20/2012
1	Raftery (Private	Private	Private	1/21/2009
1	Moore (Private	Private	Private	12/17/2008
1	Moore 4		Private	Private	Private	1/28/2008
1	Kavanagh (₽ P Y-DNA37	John Kavanagh, 1812, Dublin, Ireland	-		9/12/2007
1	Martins (<u>₽</u>	Tomas Varela, b. 1720 Minho, Portugal	R1b1a2a1a1a4	L48	1/15/2007
1	Gollehon (₽₩ Y-DNA37	Robert Gollehon b.1780 d. 1843	-		10/5/2006
1	Enright	₽₩ Y-DNA67		R1b1a2	M269	10/5/2006
1	e McGuire	₽ Y-DNA25	Richard McGuire 1787-1870s Rowan Co. NC	-		2/13/2006
1	<u>Sheridan</u>	₽₩ Y-DNA12		-		2/9/2006
1	Powers		Private	Private	Private	9/1/2004
1	<u>Downey</u>	₽ P-DNA67	Downey	R1b1	P25	10/16/2003

Red arrows = other Martins
Green arrows = Gaelic Irish surnames

DNA matches are to Gaelic Irish surnames which cluster along the course of the Shannon



Gaelic Irish Martyns

The DNA shows evidence of Gaelic Irish Martyns settling in Spain and Portugal as a result of Galway towns trade links

The origin of the Tribes and their historical impact is being rediscovered using commercial ancestral Y-DNA testing

Surname	Ethnicity	Ethicity DNA	Other DNA Evidence
Martyn	Norman?	IRISH	DNA reveals evidence of trade with continental Europe (especially Spain and Portugal)
Font	Norman	?	?
Athy	Norman?	?	Ş
Darcy	Irish?	?	,
French	Norman	?	Ş
Joyce	Welsh	?	Ş
Morris	Norman?	?	Ş
Blake	Welsh	?	Ş
Deane	English	?	Ş
Kirwan	Irish?	?	Ş
Skerritt	Norman	?	Ş
Bodkin	Norman?	?	ý
Lynch	Norman?	?	Ş
Browne	Norman?	?	?

Irish Origenes website (www.irishorigenes.com) contains the resources you need to Pinpoint an Irish origin



Inish Onigenes

use your DNA to rediscover your Irish heritage







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RESEARCH TOPICS

Surnames - The Science



Approximately 66% of the present population of the Island of Ireland are descendants of 'Native Irish Gaels' who...

USEFUL LINKS

- The National Archives of Ireland useful resources webpage
- Planning a visit to Northern Ireland then explore Discover Northern Ireland 2012

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STEP 1: Order a DNA test

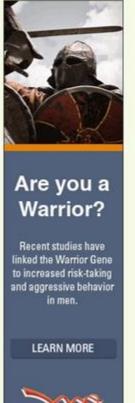


- Click on this link at the Irish Origenes website
- Order 37 marker Ychromosome DNA test



USE YOUR DNA TO REDISCOVER YOUR IRISH HERITAGE

A commercial 37 marker Y chromosome DNA test will potentially provide one with the names of many hundreds of individuals with whom one shares a common male ancestor, but what often perplexes people is how one can match many individuals with different surnames? The answer is quite simple. Roughly 1,200 years ago one's direct medieval male ancestor, the first for example to call himself 'Bowes' was living in close proximity to others with whom he was





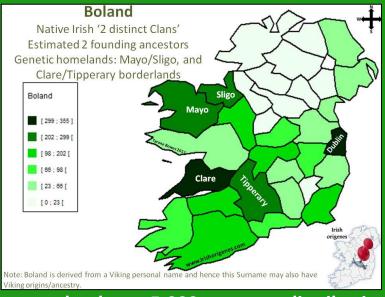
There may be FREE DNA test kits available



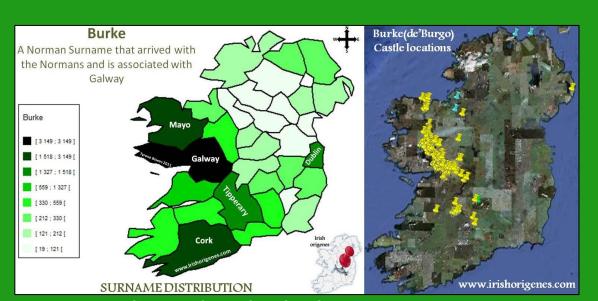
You can start with a 12 marker Y-DNA test kit

Y-DNA12 (\$59)

Irish Origenes Open Access Databases (www.irishorigenes.com)

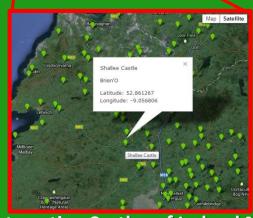


Surnames database: 5,000 surname distribution maps



THE DATABASES

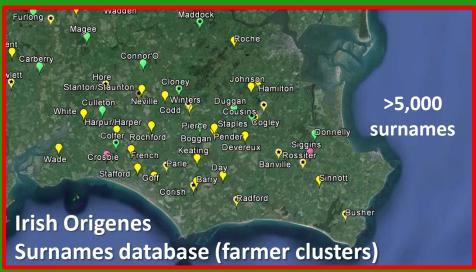
SUNNING DATABASES



Interactive Castles of Ireland Map

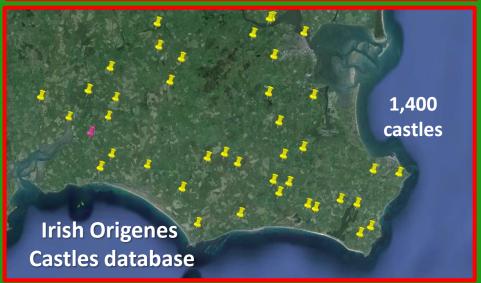
Clans and Castles database: 400 maps

Irish Origenes databases



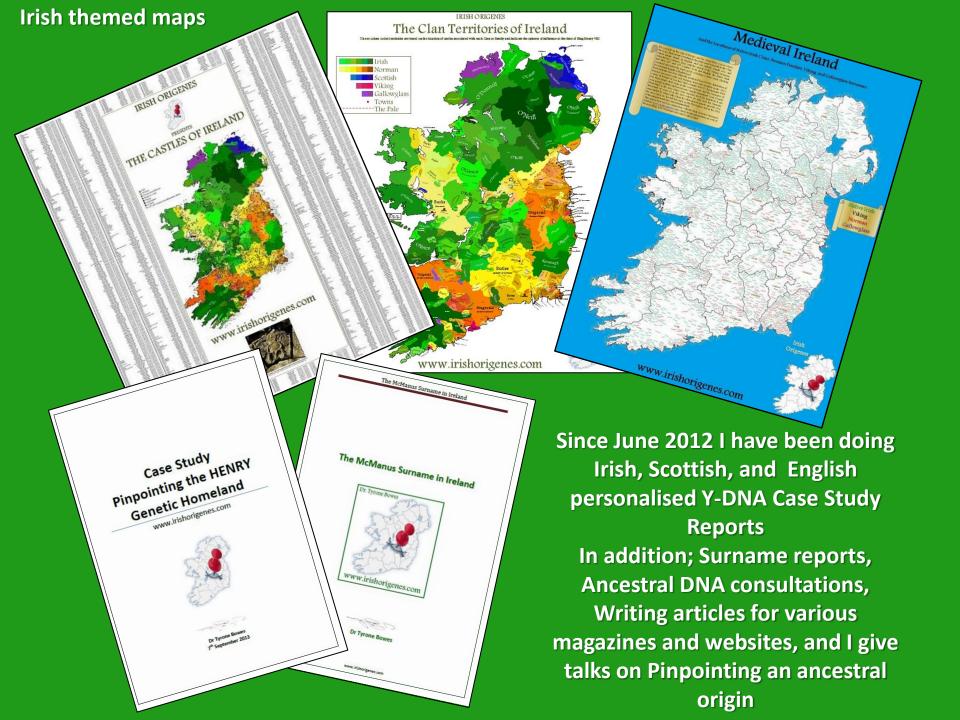






These databases allow me to pinpoint an origin for my customers using the results of a commercial ancestral Y-DNA test





ARE YOU TRYING TO MAKE SENSE OF YOUR Y-DNA TEST RESULTS?

CLICK TERE

TO VIEW CASESTUDIES OR TO GROERYOUR OWN CASE STUDY AND PINPOINT YOUR GENETIC HOMELAND

Scottish Origenes

use your DNA to rediscover your Scottish heritage



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ETHNICITY MAP OF

SCOTLAND The Genetic Diversi Are you a

Warrior?

Recent studies have leiked the Werrior Gene is identified in the control of the contro

DO25

STEP 1: Order a DNA test

 Click on this link at the Scottish Origenes website

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OR TO ORDER YOUR OWN CASE
STUDY AND PINPOINT YOUR

GENETIC HOMELAND

RESENTATION

AT FAMILY TREE

DNA

 Order a 37 marke Chromosome DN



CASE STUDIES
50% Irish Case Studies
45% Scottish Case Studies
5% English Case Studies

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IN 6 SIMPLE STEPS



Dr Tyrone Bowes

HOME

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Are you a Warrior?

Recent studies have linked the Warrior Gene to increased risk-taking and aggressive behavio in men.

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Keep an open mind as you never know where your DNA will take you!

Thank you for your time Any questions?

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