

DNA
DEOXYRIBO
NUCLEIC ACID

GATEWAY TO THE PAST

*WORLD'S LARGEST
ADDRESS BOOK*

*YOUR PAGE IN THE
HISTORY OF
HUMANITY*

IT'S NOT FREE

IT TAKES RESEARCH

GROUP MEMBERSHIP

HIGHLY ACCURATE

EVOLVING RESEARCH

LIMITATIONS

FAMILY HISTORY

WHO ARE THE USERS OF DNA?

200,000 BC TO PRESENT - SCIENCE

1500 AD TO PRESENT - GENEALOGISTS

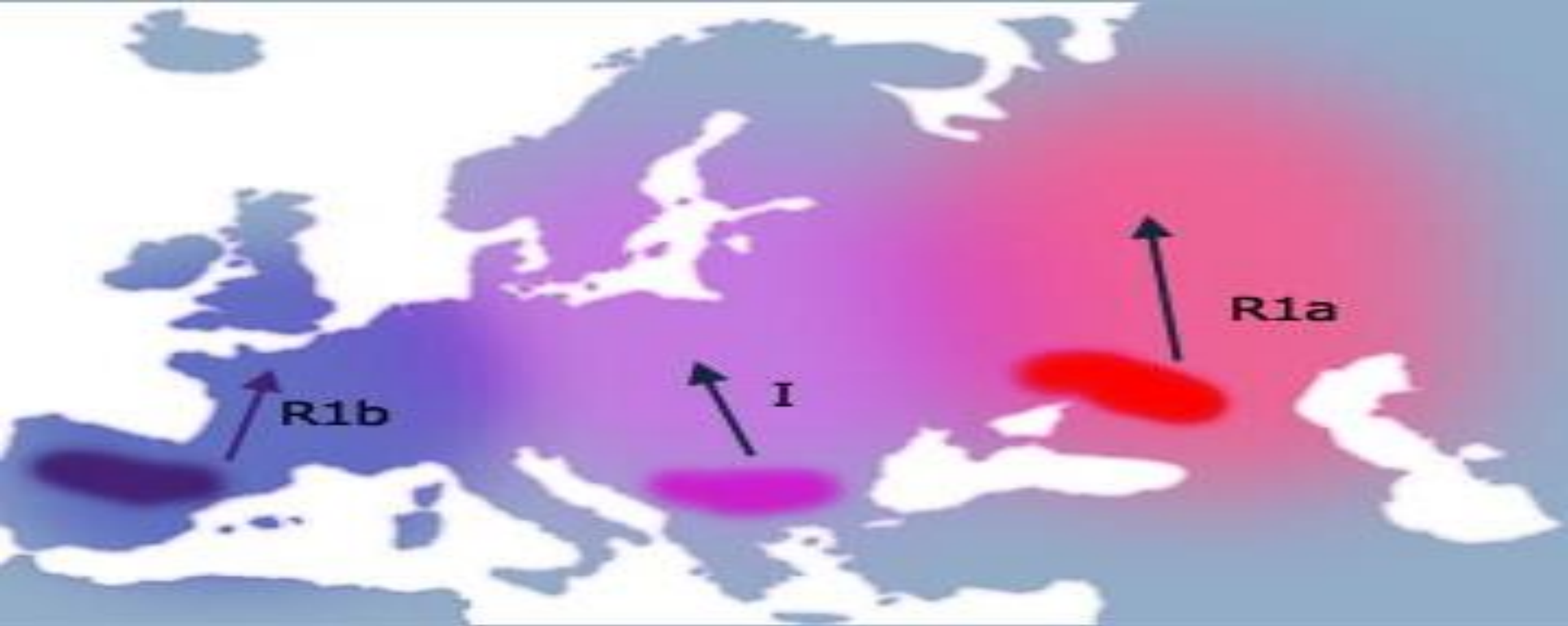
OTZI (5500) -- CROATIAN (1590)

HAPLOGROUP

THE POPULATION OF EARTH -DNA

*TRACING THE MOVEMENT OF
HUMANITY ACROSS THE GLOBE
FOR OVER A 150,000 YEAR PERIOD.*

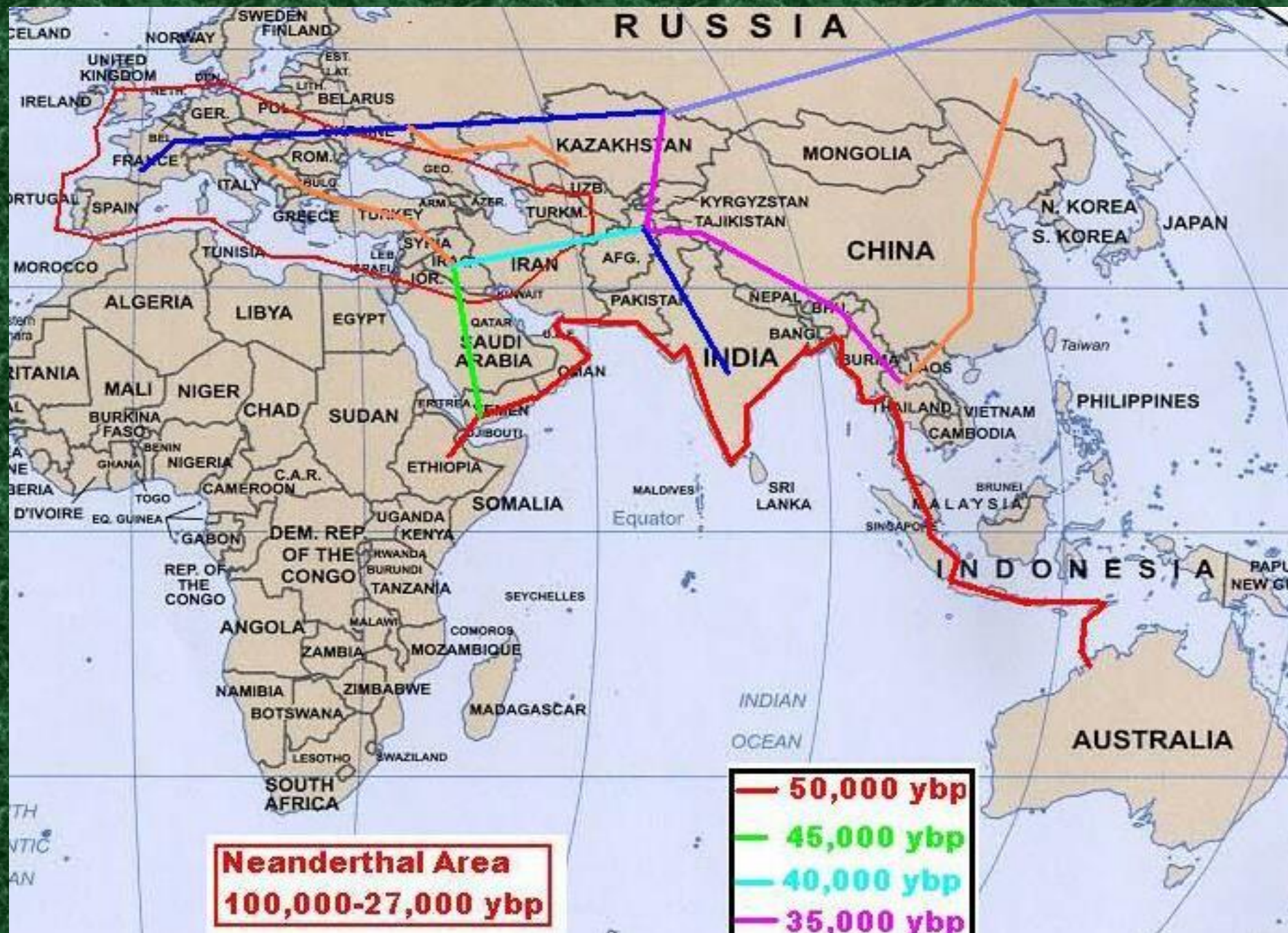
*Tracing how the human body and mind
changed due to environment.*



ICE AGE REFUGIA

LAST GLACIAL MAXIMUM

25,000 YEARS BP





Y-DNA Human Migration (Haplogroups)
Thousands of Years Ago

A	60	I	25	O	35
B	50	J1	25	O3	10
CR	50	J2	20	P	35
D	50	G	20	Q	20
C	50	H	30	Q3	10
E	50	K	40	R1	30
E3a	20	L	30	R1a	10
E3b	30	M	10	R1b	25
F	45	N	10		

DNA SUCCESS BY CONTINENT (ímho)

<i>ASIA</i>	<i>35%</i>
<i>AFRICA</i>	<i>05%</i>
<i>AUSTRALIA</i>	<i>20%</i>
<i>ANTARTICA</i>	<i>-20%</i>
<i>EUROPE</i>	<i>40%</i>
<i>SOUTH AMERICA</i>	<i>20 %</i>
<i>NORTH AMERICA</i>	<i>45%</i>

WHY A DIFFERENCE?

*Migration, Wars, War Lords,
Slavery, Famine, Drought, Historic
Records, Cemeteries, Libraries,
Unknown people, No Names,
Royalty, Empires, Temujin (1 in 200),
Niall (1 in 12)*

DNA ARRIVALS - NA

<i>Native Americans</i>	<i>18,000 BC</i>
<i>Conquistadores & Spain</i>	<i>1475 - 1840</i>
<i>Scots, Irish, Protestants, English, French,</i> <i>1550 - 1835</i>	
<i>Ireland - Famine</i>	<i>1845 - 1875</i>
<i>Various European, China,</i>	<i>1885 - 1916</i>
<i>Italy,</i>	<i>1910 - 1938</i>
<i>Mexico, Puerto Rico, CUBA,</i>	<i>1920 - 1955</i>

DNA



ANTHROPOLOGY

GENEALOGY

DNA GATEWAYS

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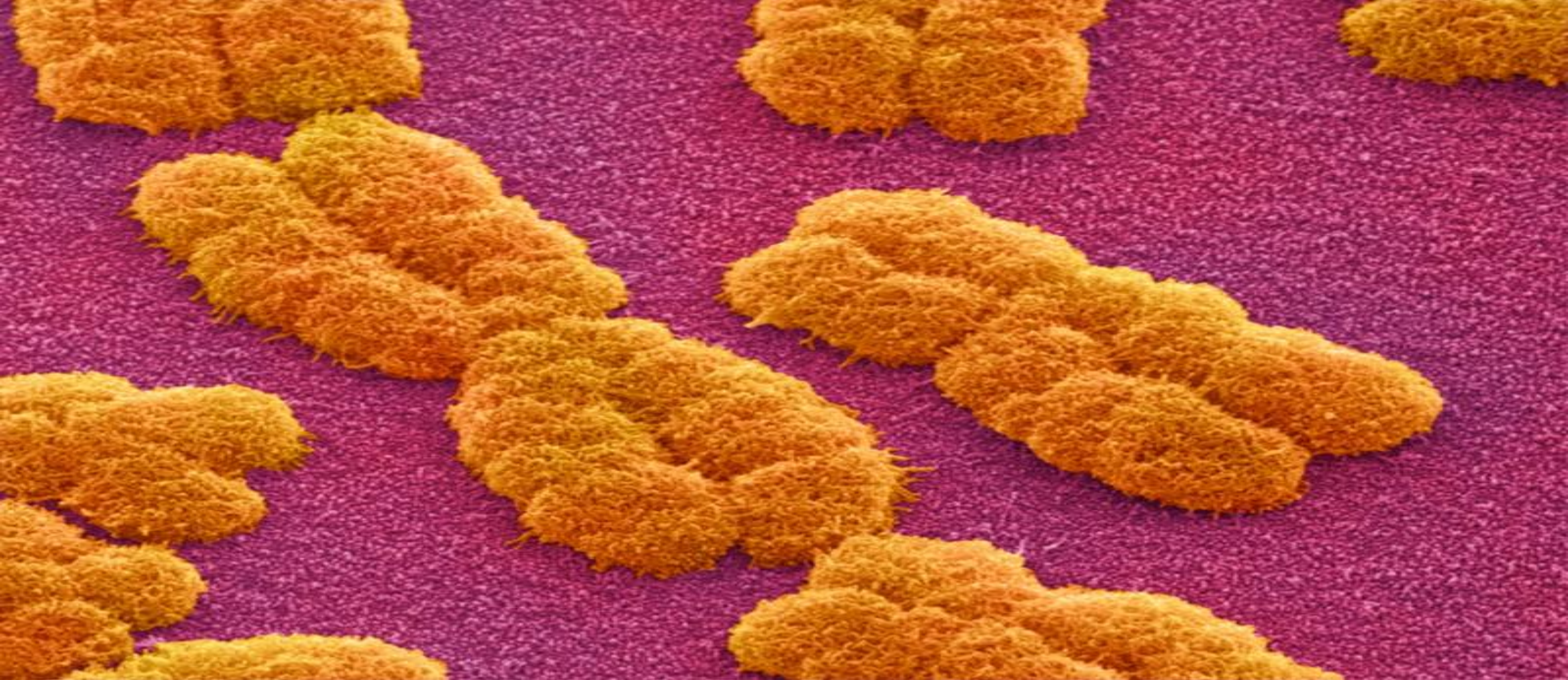
M
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W

DNA

DNA (de-oxy-ribo-nucleic acid) is a type of macromolecule known as a nucleic acid. It is shaped like a twisted double helix and is composed of long strands of alternating sugars and phosphate groups, along with nitrogenous bases (adenine, thymine, guanine and cytosine).

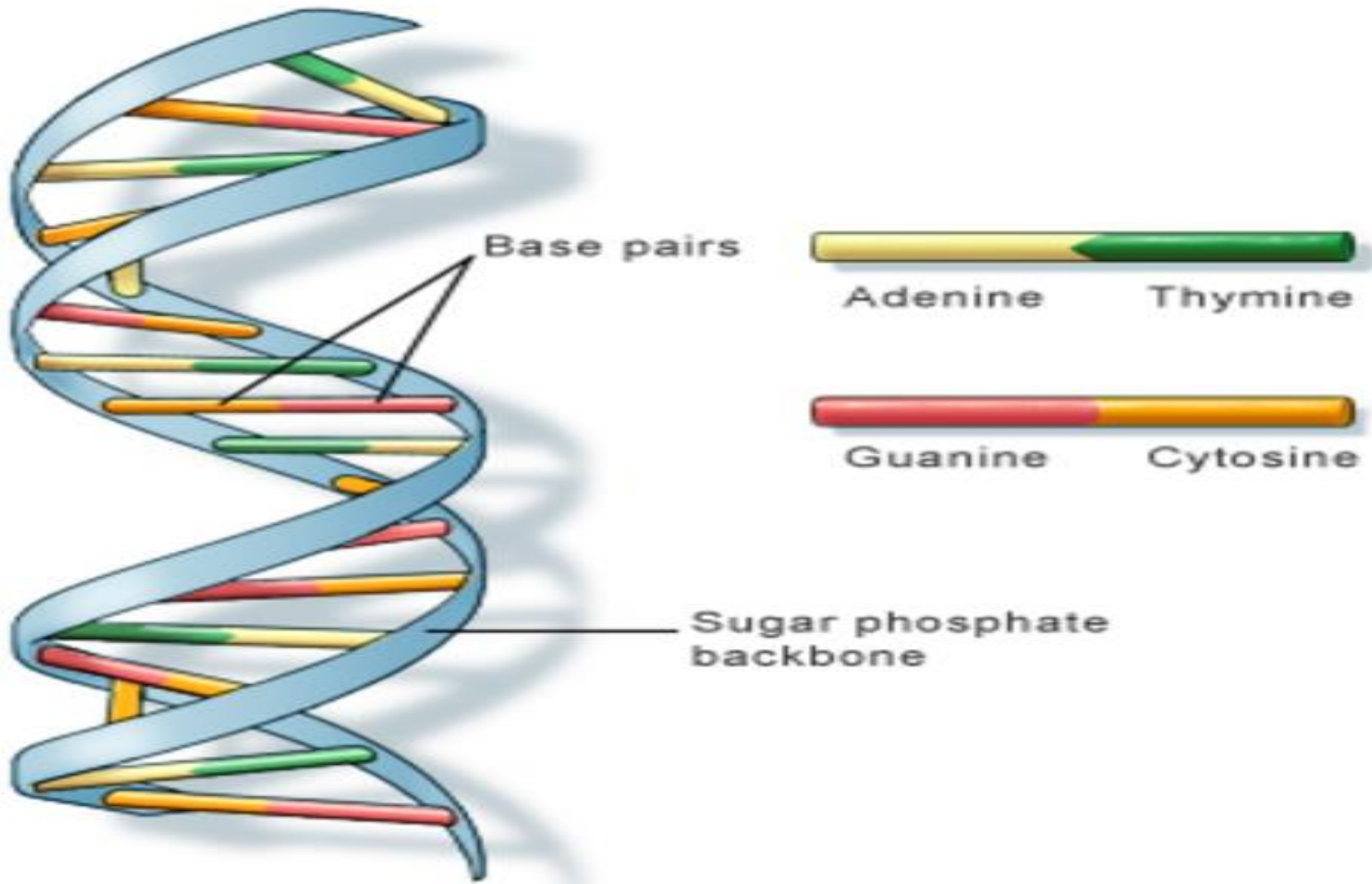


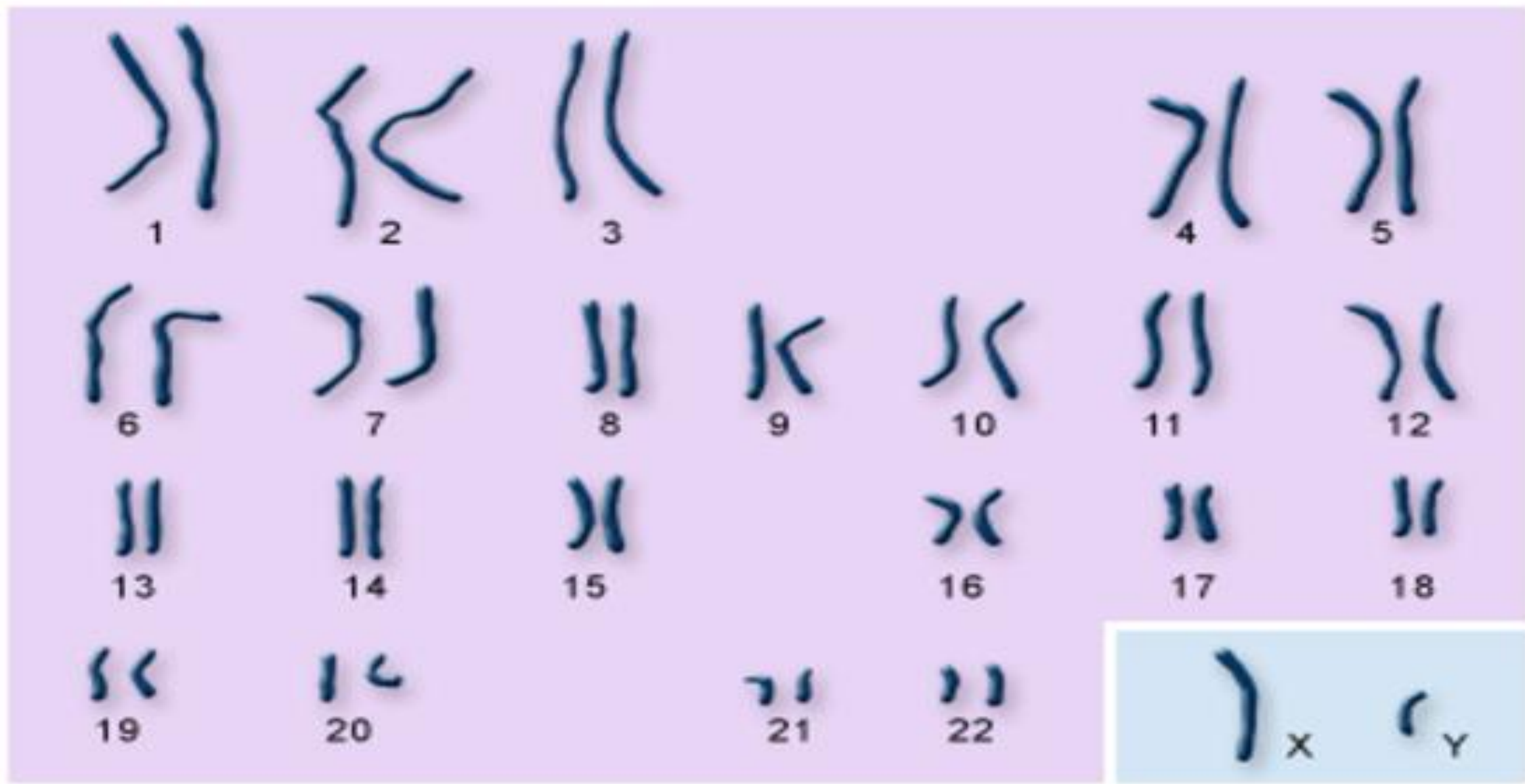


Human chromosomes imaged by a scanning electron microscope. Credit: Power and Syred/SPL

DNA LEXICON

- ❖ *CELLS - 75 TRILLION PER PERSON +-*
- ❖ *GENES - 35,000 PER PERSON*
- ❖ *TMRC A (TIME TO MOST RECENT COMMON ANCESTOR)*





autosomes

sex chromosomes

THE BOTTOM LINE - YOUR DNA
FAMILY HISTORY

Worlds most complex address book

SEX CHROMOSOME X X FEMALE

SEX CHROMOSOME X Y MALE

*X Y MALE DNA PASSES DOWN BETWEEN
FATHERS AND SONS - THEIR UNIQUE
ADDRESS IS SHARED -- PATERNAL
MALES ARE LINKED*

*X X FEMALE DNA IS PASSED DOWN TO
CHILDREN AS WELL AND CREATES
LINKS TO MATERNAL GRANDMOTHERS
BACK FIVE GENERATIONS*

*FAMILY LINEAGE IS TRACED USING
MALE DNA ADDRESSES*

The four types of nitrogen bases found in nucleotides are:

(A) adenine

(T) thymine

(G) guanine

(C) cytosine .

The order, or sequence, of these bases determines what biological instructions are contained in a strand of DNA. For example, the sequence ATCGTT might instruct for blue eyes, while ATCGCT might instruct for brown.

The complete DNA instruction book, or genome, for a human contains about 3 billion bases and about 30,000 genes each with 23 pairs of chromosomes.

AGTTTCGGCCACGACCCCGGGTTAAATTTCTTGGAAACAGAAATGTCATAGAGGGTGAAGAAACCCCGTCTTGAACCCGGGCGTACGAA
TGCTTCGGGAGCGGTCCCCATCTAAGTGCCTTGGAAACGGGACGTCATAGAGGGTGAAGAAATCCCGTATGGGATGGGGTGTCCGCG
CTGGCGCGGTGCCTTCCGAGTTCCCTGGAAACGGGACGCCACAGAGGGTGAAGAGCCCCGTATGGTTGGACACTAAGCCTGTGTGA
CGCTTTGGCGTTAGCAGCAGTCCAAAGTTCTTTGGAAACAGGACGTCAGAGAGGGTGAAGAAATCCCGTATGTGGTTGCTAGCTATCC
CGCTTTGGCTTTGGCAGCGGTCCAAAGTTCCCTTGGAAACAGGACGTCACAGAGGGTGAAGAAATCCCGTACGTGGTCCGCTAGCTATT
TGTTTTTGGGTGTCCGCCGGCCTAAGTCCCTTGGAAACAGGGCGTCATAGAGGGTGAAGAAATCCCGTATGTGGCCGGAAAGGTAC
GCAGCGGTCCAAAGTTCCTTGGAAACAGGACGTCACAGAGGGTGAAGAAATCCCGTACGTGGTCCGCTAGCCTTTACCGTGTAAAGCCC
CTGGGCAGCGGCCGGTCTAAGTTCCTTGGAAACAGGACGTCATAGAGGGTGAAGAAATCCCGTATGCGACCGGCTTGCACCCCGTCA
TGCTTTGGGTAGCCACCGGTCTAAGTCCCTTGGAAACGGGGTGTCAACAGAGGGTGAAGAAATCCCGTATGTGACCGGAAGGGCGC
GTTTTGGGTACCGCCCCGGTCTAAATTTCTTGGAAACAGAAATGTCAGAGAGGGTGAAGAAATCCCGTCTTGGACCGGCGGTAGGGCC
CGCTTTGGAGTTGGCTGCAGCCTAAGTTCCTTGGAAACAGGTCATCATAGAGGGTGAAGAAATCCCGTATGTGGTTGCATGCCTTCC
TTTAGGCAGCCGCCGGTCTAAGTTCCTTGGAAACAGGACGTCATAGAGGGTGAAGAAATCCCGTATGTGACCGGCTCTGGCACCTTA
TGCTTTGGCATTGGTTGTGGTCTAAGTTCCTTGGAAACAGGACGTCACAGAGGGTGAAGAAATCCCGTACGTGGCCCGCCAACTTCC
TTTTGGTTAGGTGCCTTCTGAGTTCCTTGGAAACGGGACGCCACAGAGAGGGTGAAGAGCCCCGTACGGTTGGACACCGAGCCTCTA
CTGGCGCGGTGCCTTCCGAGTTCCCTGGAAACGGGACGCCACAGAGGGTGAAGAGCCCCGTATGGTCCGGACACCAAGCCTGTGTGA
TTGGTGAGGCACCTTCTGAGTCCCTTGGAAACAGGGCGCCATAGAGGGTGAAGAGCCCCGTATAGTCCGGATGCCGATCCAATGTAA
AACTTCGGGTAGGACCCAGTCTATGTTCCCTTGGAAACAGGACGTCATAGAGGGTGAAGAAATCCCGTTCATGACTGGATGTTCCCTA
ATCTTCGGTGATGGCGCTGTCCCTAAGTTCCTTGGAAACAGGATGACATAGAGGGTGAAGATCCCGGTGCCCTGGGTGGCTGTCCATC
TTTTGGCGCGGTGCCTTCCGAGTTCCCTGGAAACGGGACGCCCTTACAGGGTGAAGAGCCCCGTACGGTTGGACACCAAGCCTCTG
TTTGGGTGAAACGCCAGTCTAAGTTCCTTGGAAACAGGACGTCATAGAGGGTGAAGAAATCCCGTATGTGACTGGAAATGTTAACTC
GATGCTTTGGCGTTGGCGGCGGTCTAAGTTCCTTGGAAACAGGACATCCGACAGAGGGTGAAGAAATCCCGTACGTGGGCGCCTGCCTT
GGTGCTTTGGTGTGGTGGCGGTCTAAGTTCCTTGGAAACAGGACATCCGACAGAGGGTGAAGAAATCCCGTTTGTGGTCCGATGCCTT
TTTAGGCAGCCGCCGGTCTAAGTTCCTTGGAAACAGGACGTCATAGAGGGTGAAGAAATCCCGTATGTGACCGGCTCAGGCACCTTC
TTTGGGGAAAGCCGCTGTCTAAGTTCCTTGGAAACAGGACGTCATAGAGGGTGAAGAAATCCCGTATGTGACAGGAAATGGCACCC
GGTGCTTTGGCATTGGCGGCGGTCTAAGTTCCTTGGAAACAGGACATCCGACAGAGGGTGAAGAAATCCCGTACGTGGGCGCCTGCCTT
CTGGGCAGCGAGCCGGTCTAAGTCTCTTGGAAACAGGGCGTTCATAGAGGGTGAAGAAATCCCGTATGCGACCGGCGCGCACCCCTC
TGCTTCTGAGTGGCCACCGACCTAAGTTCCTTGGAAACAGGACGTCATAGAGGGTGAAGAAATCCCGTATGCGGTCCGGAAAGGCGCT
CGCTTTGGCTTTGGCAGCGGTCCAAAGTTCCTTGGAAACAGGACGTCACAGAGGGTGAAGAAATCCCGTACGTGGTCCGCTAGCTATT
ATACTTCGGGGGTGGCCACCGGTGTAAGTCCCTTGGAAACAGGGCGTTCATAGAGGGTGAAGAAATCCCGTCTTGCACCGCGATCCCTC

So?

WANT TO USE DNA?

THE PROCESS

DNA - GENEALOGY

- 1. SELECT A COMPANY*
- 2. SELECT DETAIL*
- 3. SUPPLY YOUR DNA*
- 4. 4 WEEK WINE
SUPPLY*

5. *RECEIVE YOUR RESULTS*

6. *APPLY YOUR RESULTS*

7. *SHARE THE NEWS*

SELECT A COMPANY

FAMILY TREE DNA

ANCESTRY

23 and ME

SELECT DETAIL LEVEL

READ / STUDY THE THREE CO'S

LEVELS ARE 12 - 25 - 37 - 67 - 111 - 500 (MARKERS)

COST \$79 - \$500 THESE ARE Y-DNA TESTS.

OFFER BOTH mtDNA AND Y-DNA?

USE OF YOUR RESULT TO FIND RELATIVES

SEND IN YOUR DNA

COMPANY SENDS KIT

RUB YOUR CHEEK

SEAL AND SEND

FIVE TO EIGHT WEEKS -- WINE

YOUR RESULTS ARRIVE



S.No.	Primer	Chr. number	S.No.	Primer	Chr. number	S.No	Primer	Chr. number
1.	RM8085	1	21.	RM8215	5	41.	RM22688	8
2.	RM12061	1	22.	RM18360	5	42.	RM23060	8
3.	RM10047	1	23.	RM18384	5	43.	RM23099	8
4.	RM10916	1	24.	RM1386	5	44.	RM23679	9
5.	RM11096	1	25.	RM18926	5	45.	RM23778	9
6.	RM6321	1	26.	RM18959	5	46.	RM5899	9
7.	RM12292	1	27.	RM20037	6	47.	RM23996	9
8.	RM6842	2	28.	RM19771	6	48.	RM5708	10
9.	RM12941	2	29.	RM6734	6	49.	RM6364	10
10.	RM7288	2	30.	RM19985	6	50.	RM7217	10
11.	RM12353	2	31.	RM2966	7	51.	RM26616	10
12.	RM7215	2	32.	RM1365	7	52.	RM5708	10
13.	RM6374	3	33.	RM21961	7	53.	RM26868	11
14.	RM17377	4	34.	RM22175	7	54.	RM26459	11
15.	RM3474	4	35.	RM20775	7	55.	RM5923	11
16.	RM17710	5	36.	RM20834	7	56.	RM27879	12
17.	RM18004	5	37.	RM21136	7			
18.	RM19183	5	38.	RM6369	8			
19.	RM19221	5	39.	RM22273	8			
20.	RM5844	5	40.	RM22905	8			

Chr.- Chromosome

APPLY THE RESULTS

YOUR HAPLOGROUP IS DEFINED

COMPARISONS COME FROM WHERE?

A GENERATION IS TWENTY FIVE YEARS

DNA RESULT EFFECTIVE FOR 600 YEARS

WHY NOT LONGER?