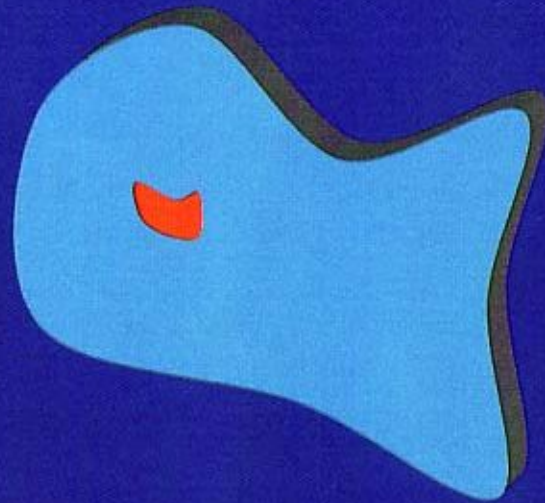


DNA

- DNA stands for
 - Deoxyribonucleic Acid
- Where does DNA come from?
 - 1/2 is inherited from your mother
 - 1/2 is inherited from your father
- “Blue print” that tells your body how to grow and develop
- There are two areas of DNA
 - Common
 - Different (highly variable)

Where can DNA be found?

Cell



Cell Types

Blood

Tissue

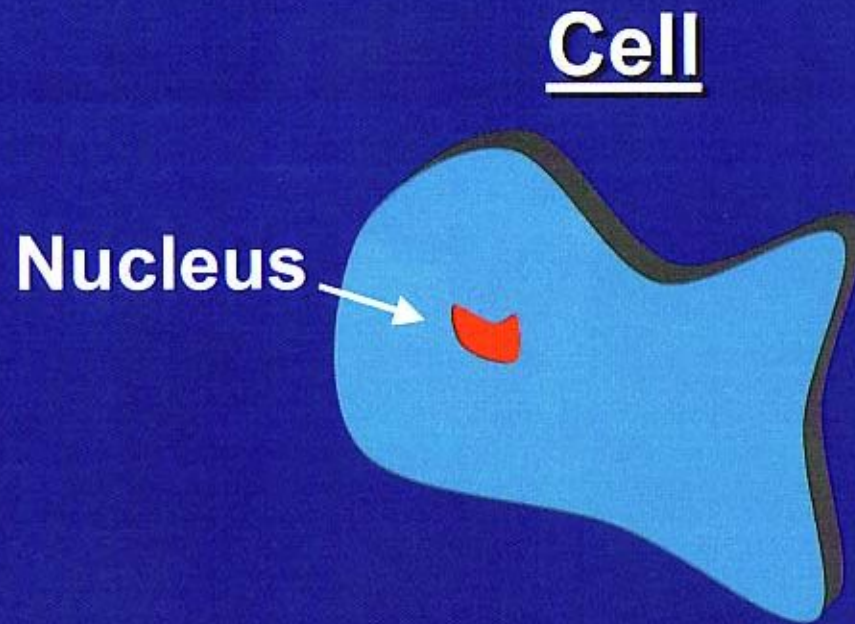
SAME

Teeth

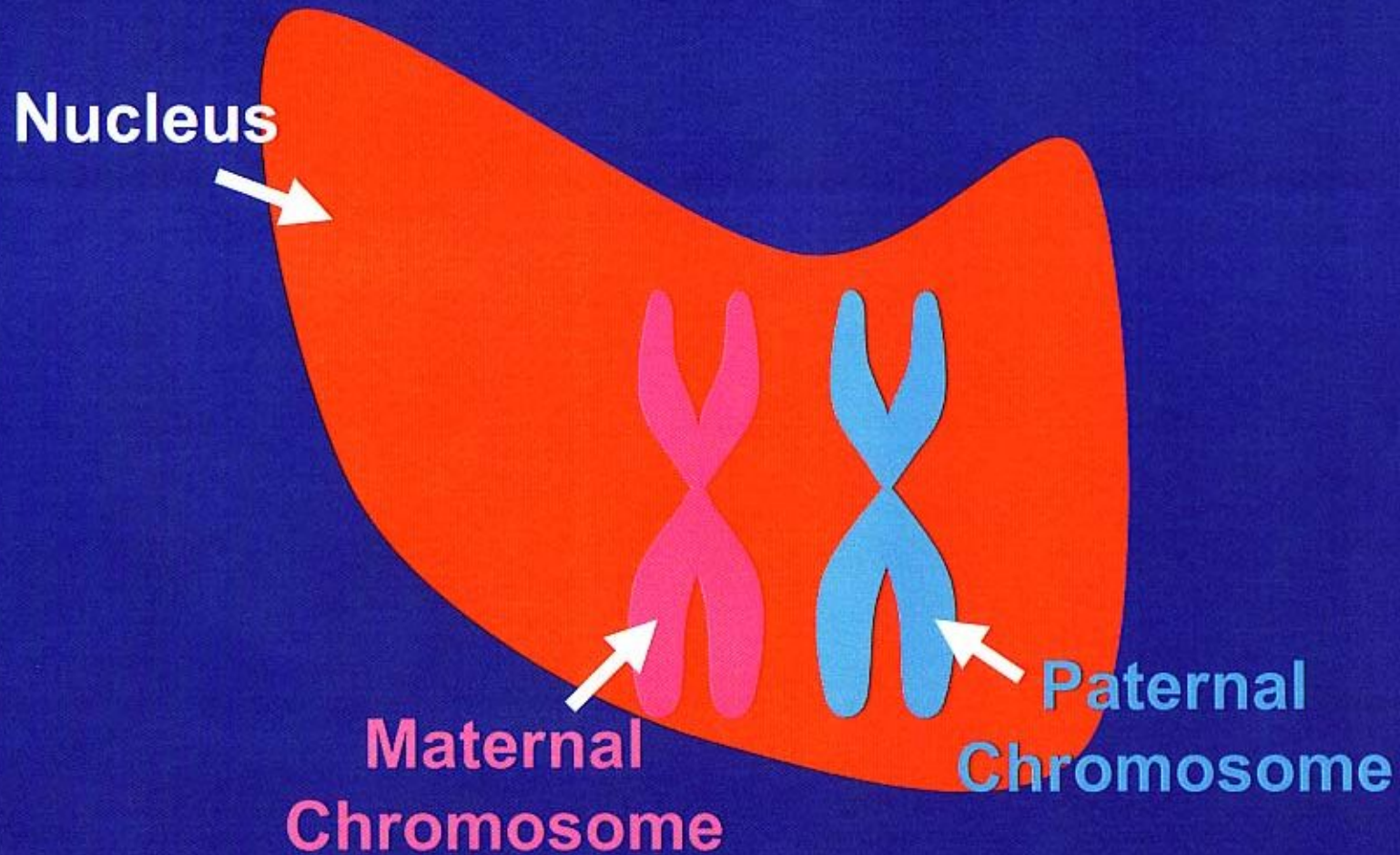
Hair Roots

Bones

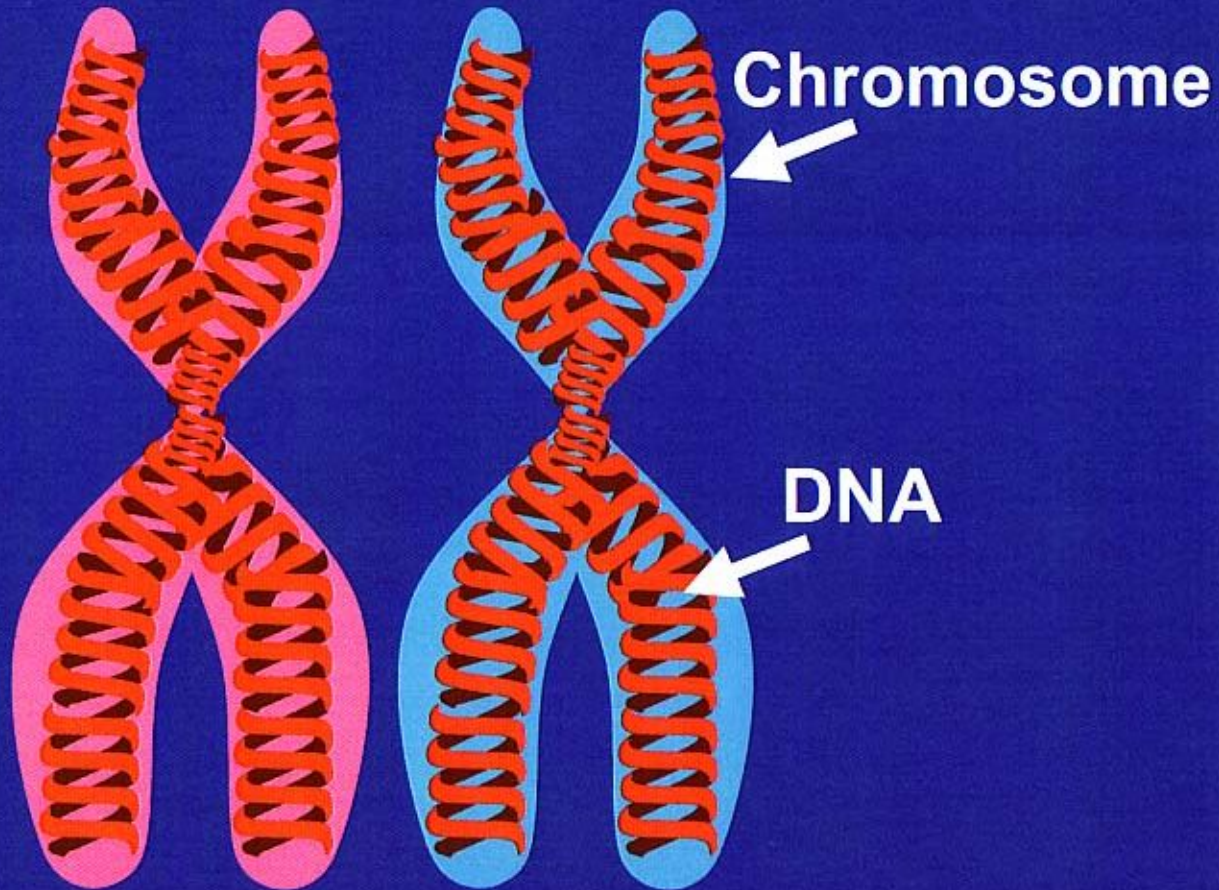
Where does DNA come from?



Where does DNA come from?

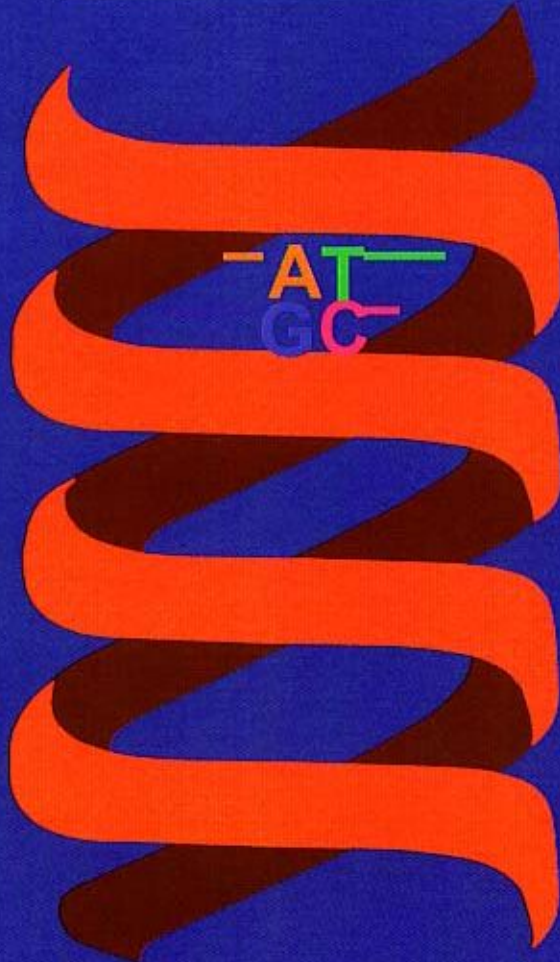


Where does DNA come from?



DNA- What it looks like

Double Helix



Units

A = Adenine

T = Thymine

G = Guanine

C = Cytosine

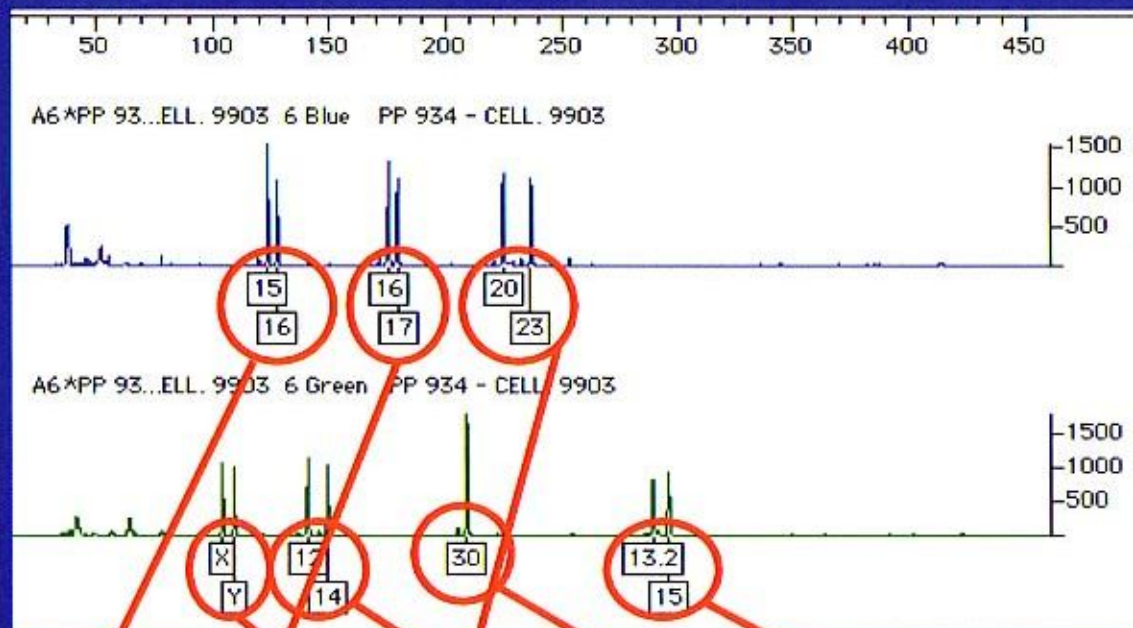
STR

Short Tandem Repeat

— [AGAT] [AGAT] [AGAT] [AGAT] — **4 Allele**

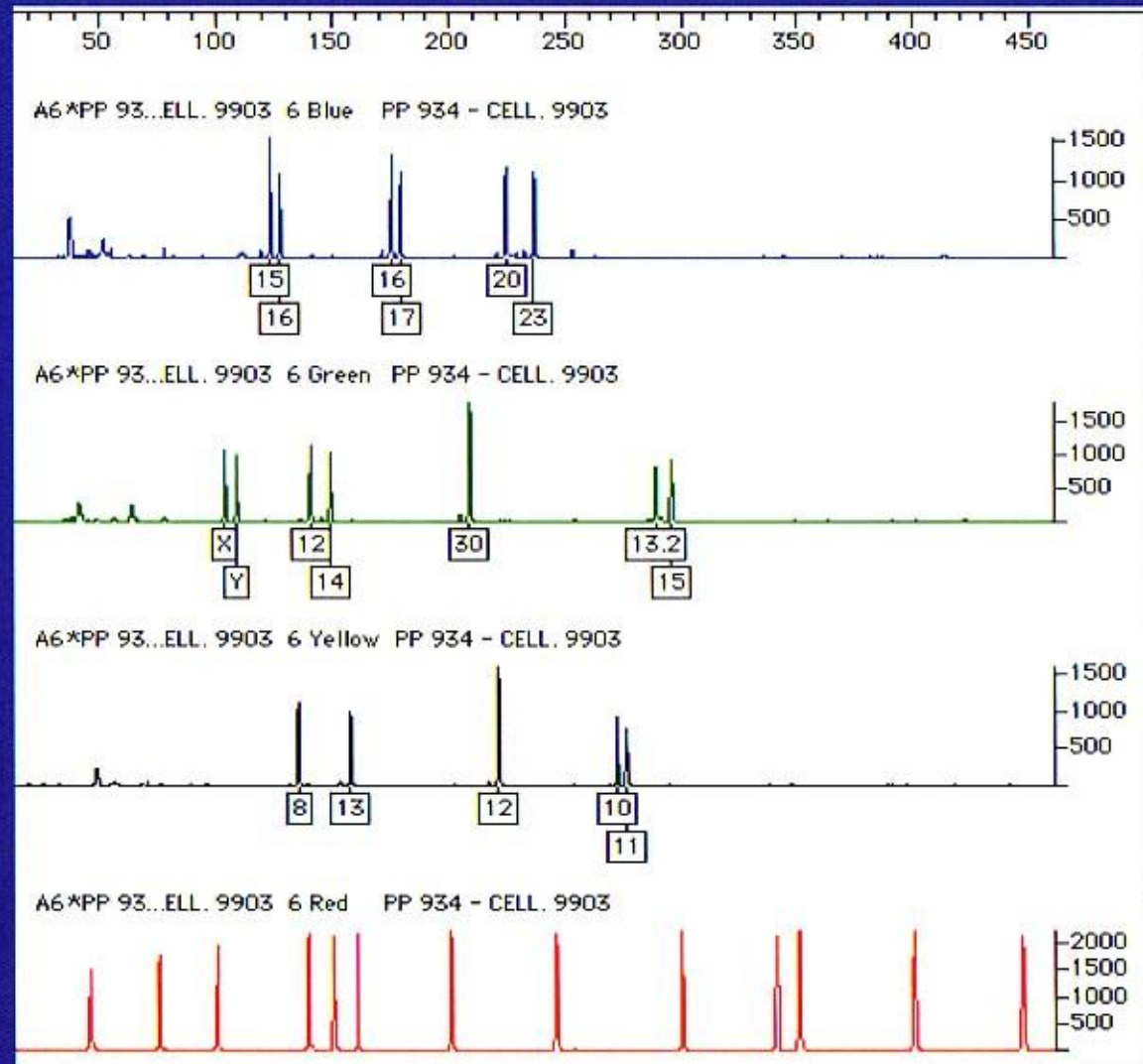
— [AGAT] [AGAT] [AGAT] [AGAT] [AGAT] [AGAT] — **6 Allele**

DNA Type =4,6

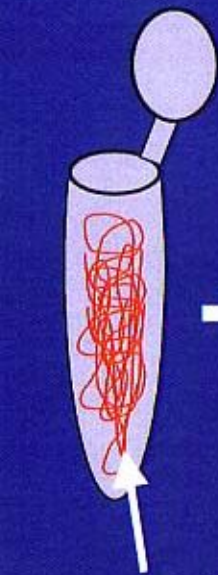


D3S1358	VWA	FGA	AMEL	D8S1179	D21S11	D18S51
15,16	16,17	20,23	X,Y	12,14	30,30	13.2,15

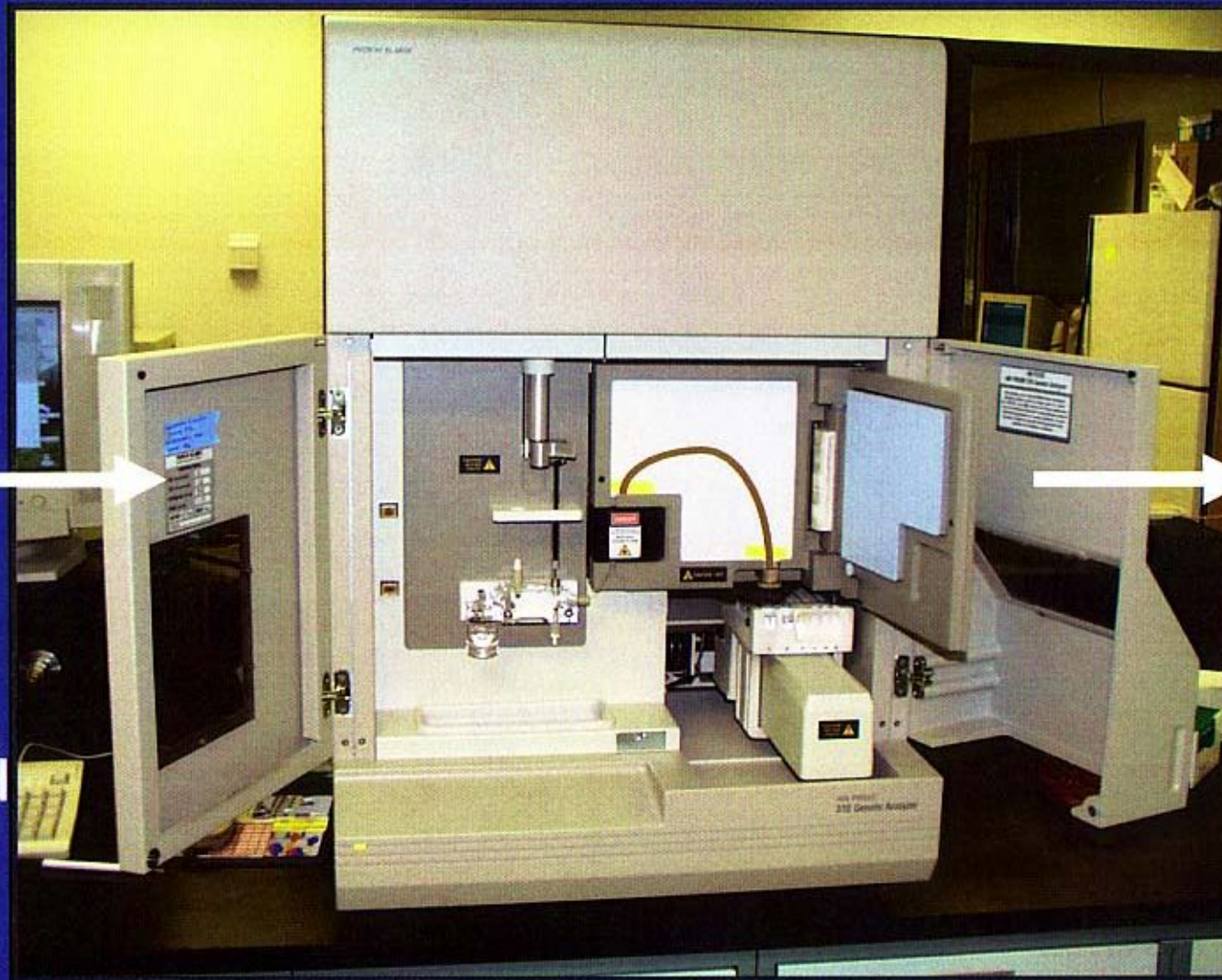
Data Analysis



Analysis of amplified DNA



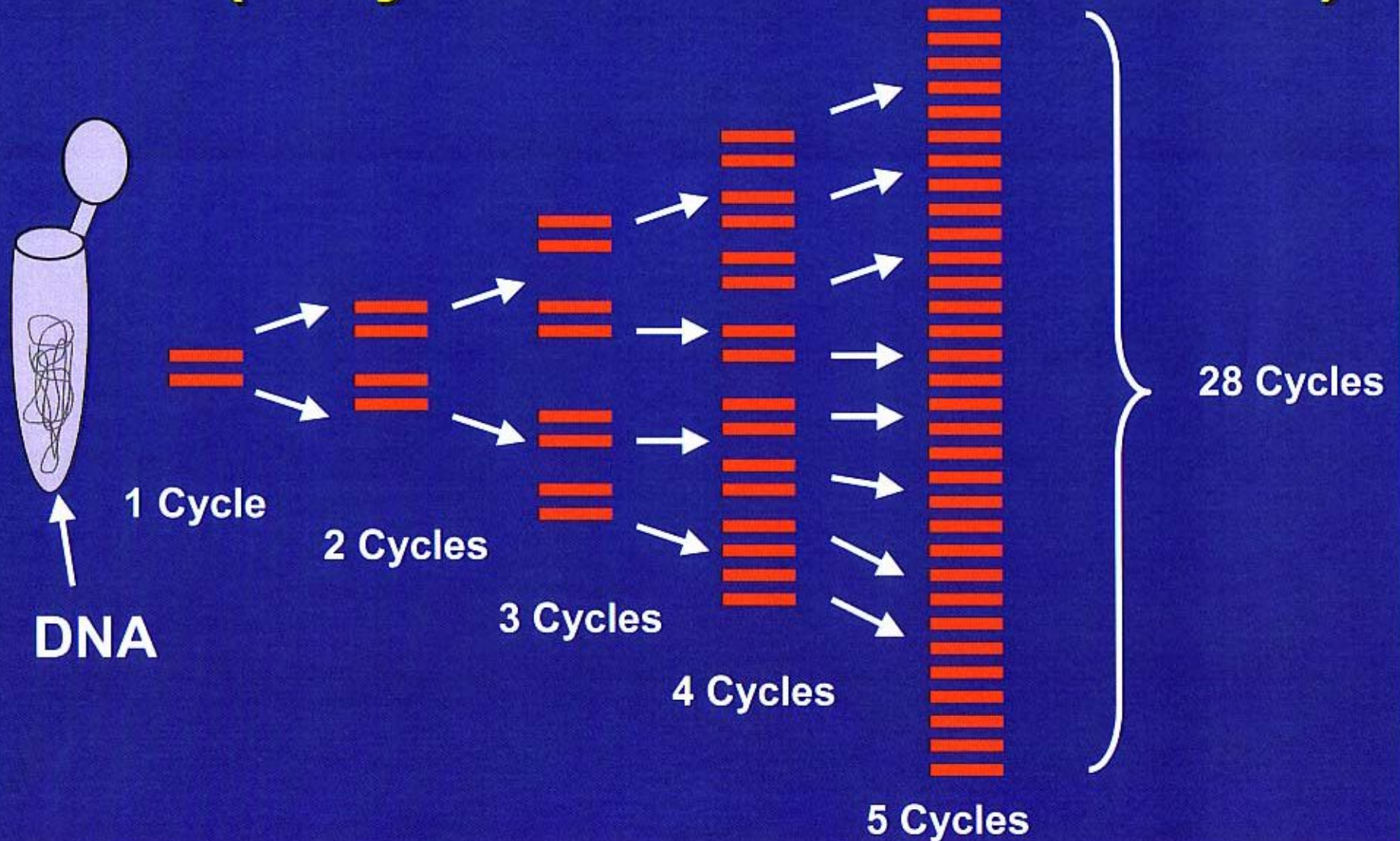
Amplified
DNA



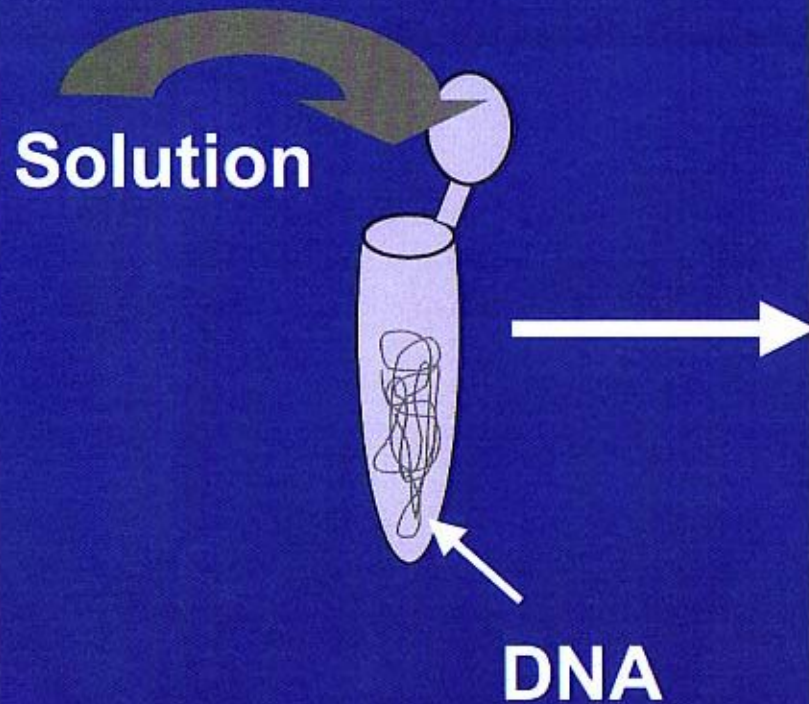
Data

Amplification

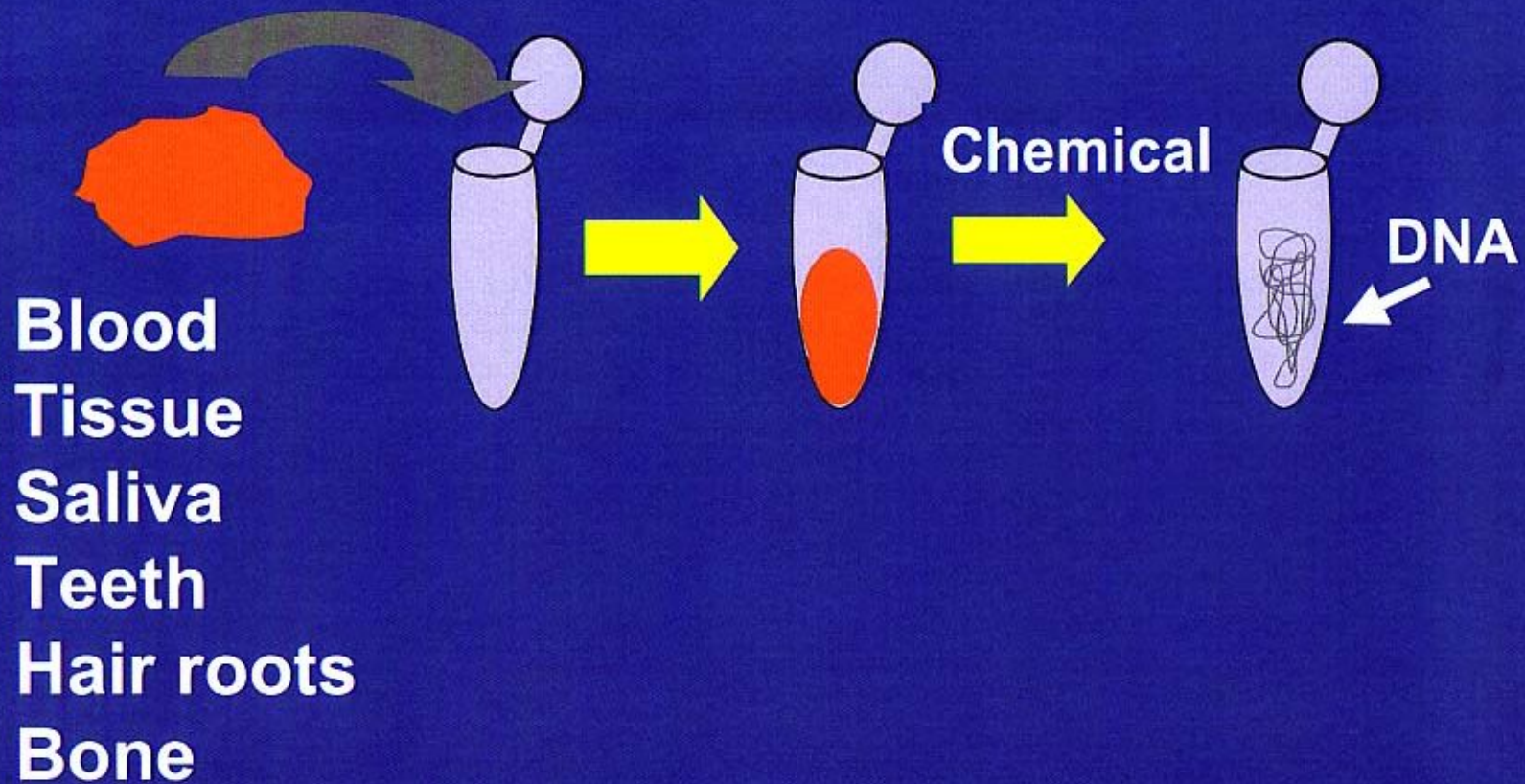
PCR (Polymerase Chain Reaction)



Amplification (making copies)



Isolation of DNA



Parentage

<i>Area of DNA</i>	<i>Mother</i>	<i>Sample</i>	<i>Father</i>
D3S1358	16,18	15,16	15,18
VWA	17,20	16,17	15,16
FGA	22,23	20,23	20,20
AMEL	X,X	X,Y	X,Y
D8S1179	10,12	12,14	11,14
D21S11	27,30	30,30	28,30
D18S51	12,13.2	13.2,15	15,15