

# CRIME SCENE MANAGEMENT

By

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**CLUES TEAMS, HYDERABAD CITY POLICE**

# Crime



>Dependency  
< Conviction

**RATE OF  
CONVICTION**

**EYE WITNESS**

**EVIDENCE**

**FACTORS  
INFLUENCING**

**INCREASE IN  
AQUITTAL RATE**

# Substantial Evidence

(Men may lie but Materials may not)

**RATE OF  
CONVICTION**

**SUBSTANTIAL  
(INDIRECT)**

**EVIDENCE**

**ESTABLISH  
FACT OF ACT**

**MINIMUM  
INFLUENCE**

# LAW OF EXCHANGE OF MATERIALS

## Locard Principle



- Every contact leaves a trace
- You take something away and leave something behind every place you go, including a crime scene

*"Everywhere you go, you take something with you, and you leave something behind" is the premise behind Locard's theory.*

# PHYSICAL EVIDENCE

**S O C**

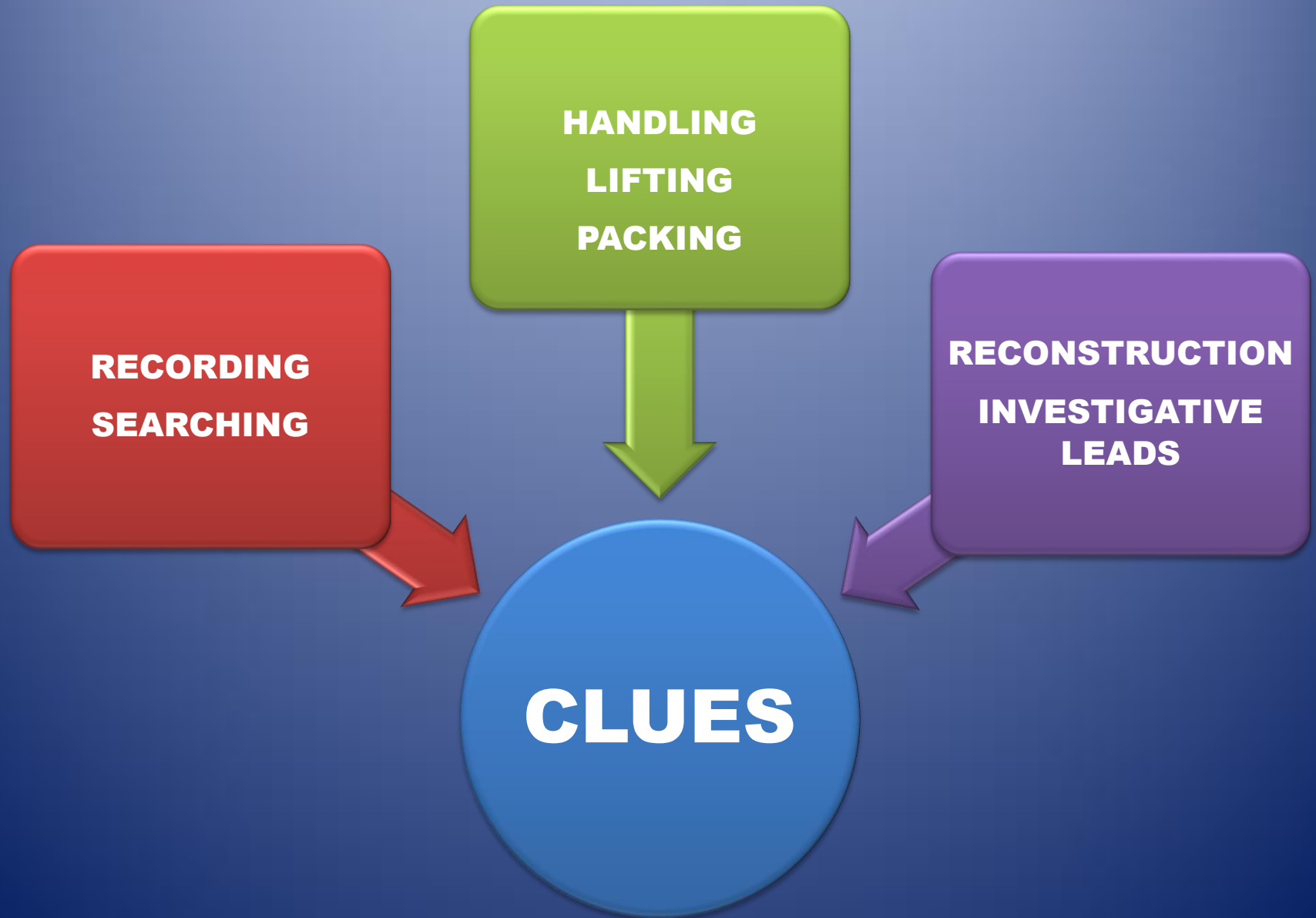
**INDOOR**

**OUTDOOR**

**MOBILE**



# OBJECTIVES



# SOC HYPOTHETICAL SEARCH METHODS

- ❑ **Quadrant or zone** search- Crime scene divided into quadrants & each quadrant is searched
- ❑ **Spiral Method**: starts at an outer point & gradually moves toward the center
- ❑ **Grid method**: Crime scene is divided into a grid and each grid segment is searched
- ❑ **Strip or line**: Crime scene divided into strips & each strip is searched
- ❑ **Wheel method**

# RECORDING SOC

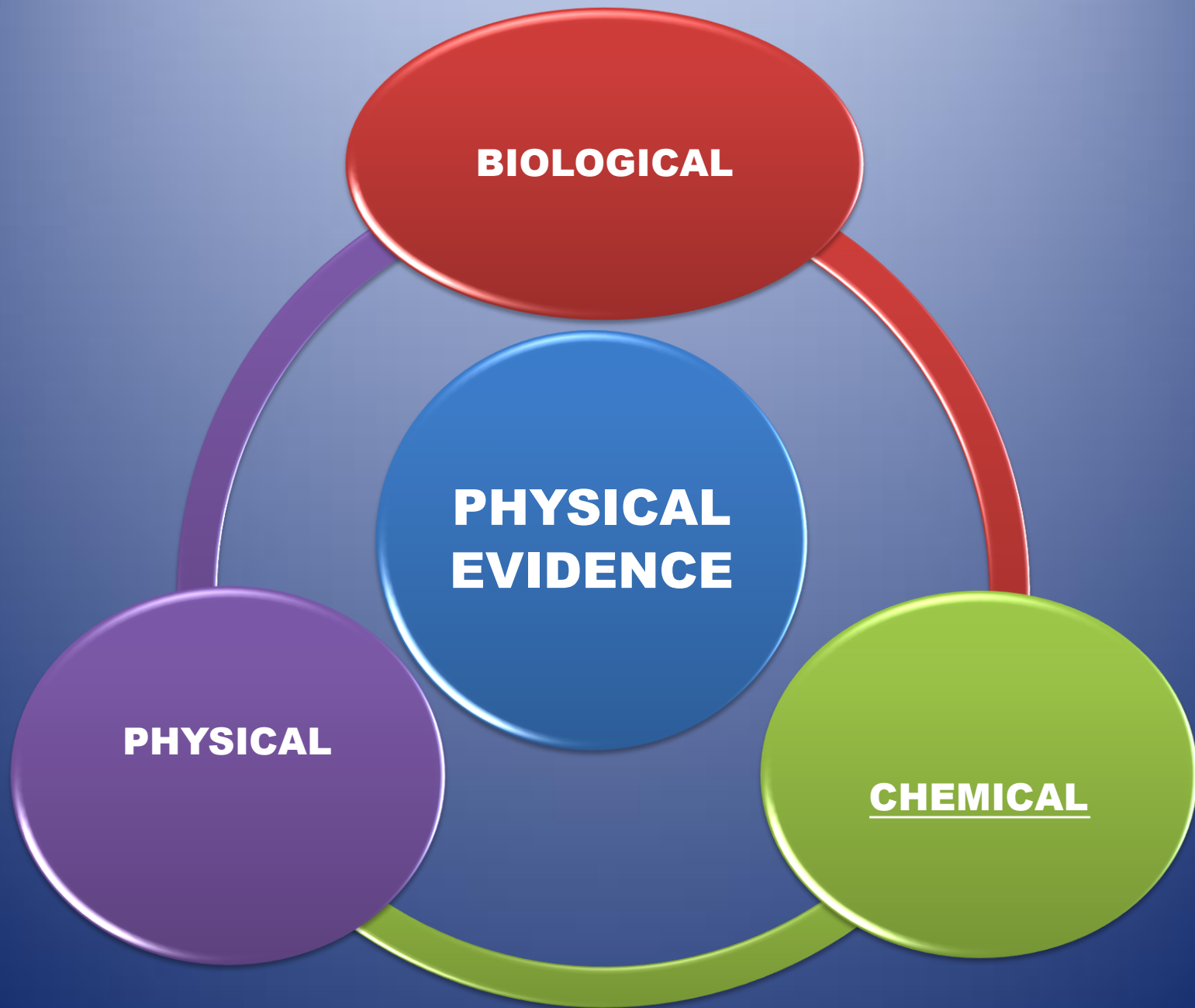
smartdraw.bmp





# HD RECORDING FOR MINUTE DETAILS





# Applications of X CAT



# DETECTION OF UNKNOWN SUBSTANCE



**NDPS ACT- POPY STRAW**









# DETECTION KITS FOR NDPS/DRUGS



ARCOTICS  
DETECTION KIT  
GLUES TEAM  
HYDERABAD CITY POLICE



# Applications of X CAT



| Drug                             | Drug Street Name                       | Approximate Detection Time |               |
|----------------------------------|----------------------------------------|----------------------------|---------------|
|                                  |                                        | Min                        | Max           |
| Amphetamine (AMP)                | speed, amp, black beauties             | 2 to 7 hours               | 2 - 4 days    |
| Cocaine (COC)                    | coke, snow, blow, candy, crack         | 1 to 4 hours               | 2 - 4 days    |
| Ecstasy (MDMA)                   | E, XTC, X                              | 2 to 7 hours               | 2 - 4 days    |
| Meth amphetamines (MET)          | crystal meth, meth, speed, glass       | 2 to 7 hours               | 2 - 4 days    |
| Opiates (OPI)                    | heroin, morphine                       | 2 hours                    | 2 - 3 days    |
| Phencyclidine (PCP)              | Angel Dust, rocket fuel                | 4 to 6 hours               | 7 - 14 days   |
| Marijuana (THC)                  | pot, grass, weed, doobie, joint, roach | 2 hours                    | up to 40 days |
| Benzodiazepines (BZO)            | downers                                | 2-7 hours                  | 1-4 days      |
| Barbiturates (BAR)               | downers, barbs, red devils             | 2-4 hours                  | 1-3 weeks     |
| Methadone (MTD)                  | amdne, chocolate chip cookies, fizzies | 3-8 hours                  | 1-3 days      |
| Tri-cyclic Antidepressants (TCA) |                                        | 8-12 hours                 | 2-7 days      |
| Oxycodone (OXY)                  | Os, Ox, cotton, blue                   | 1-3 hours                  | 1-2 days      |

# HOOKAH CENTERS





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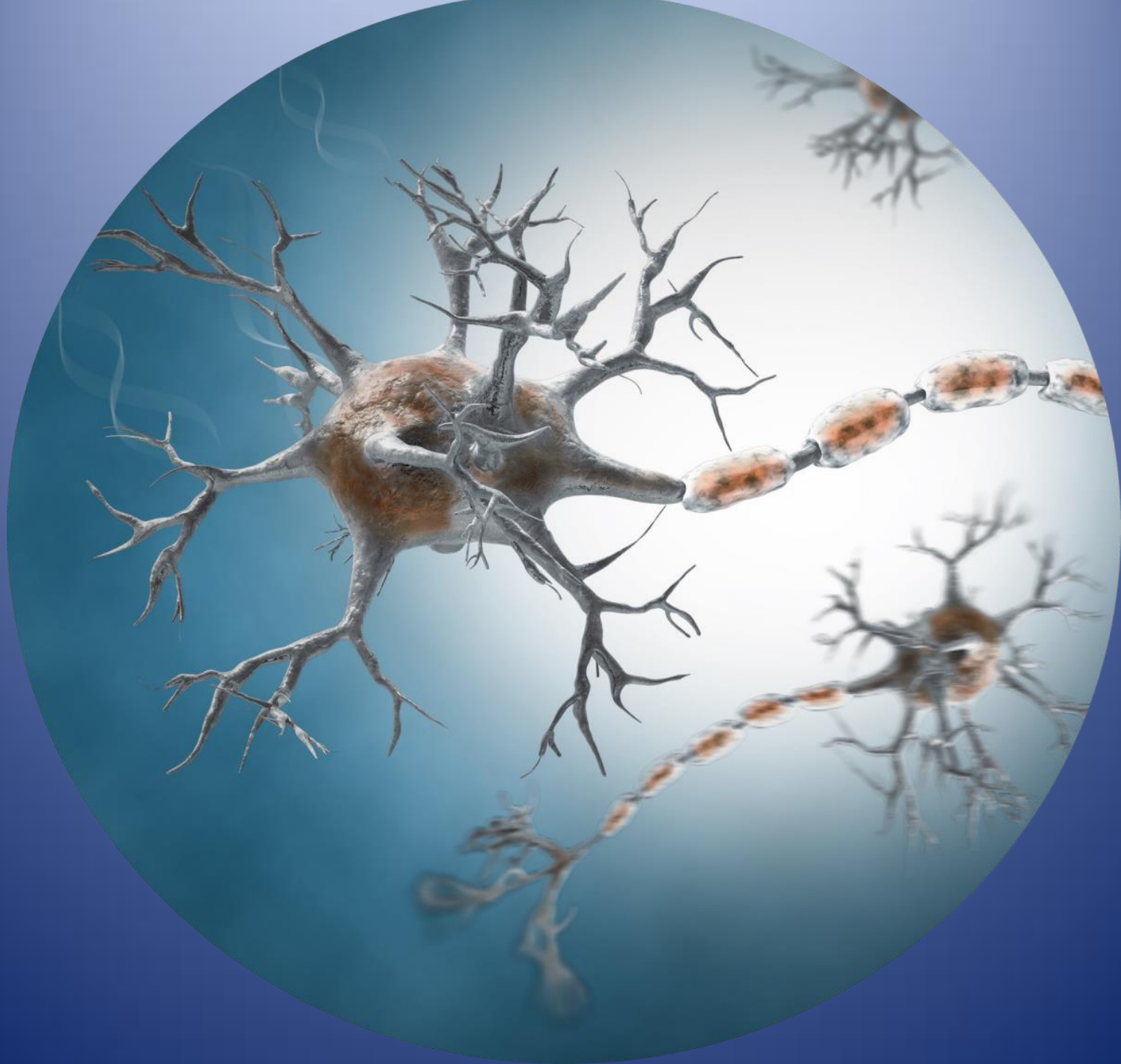


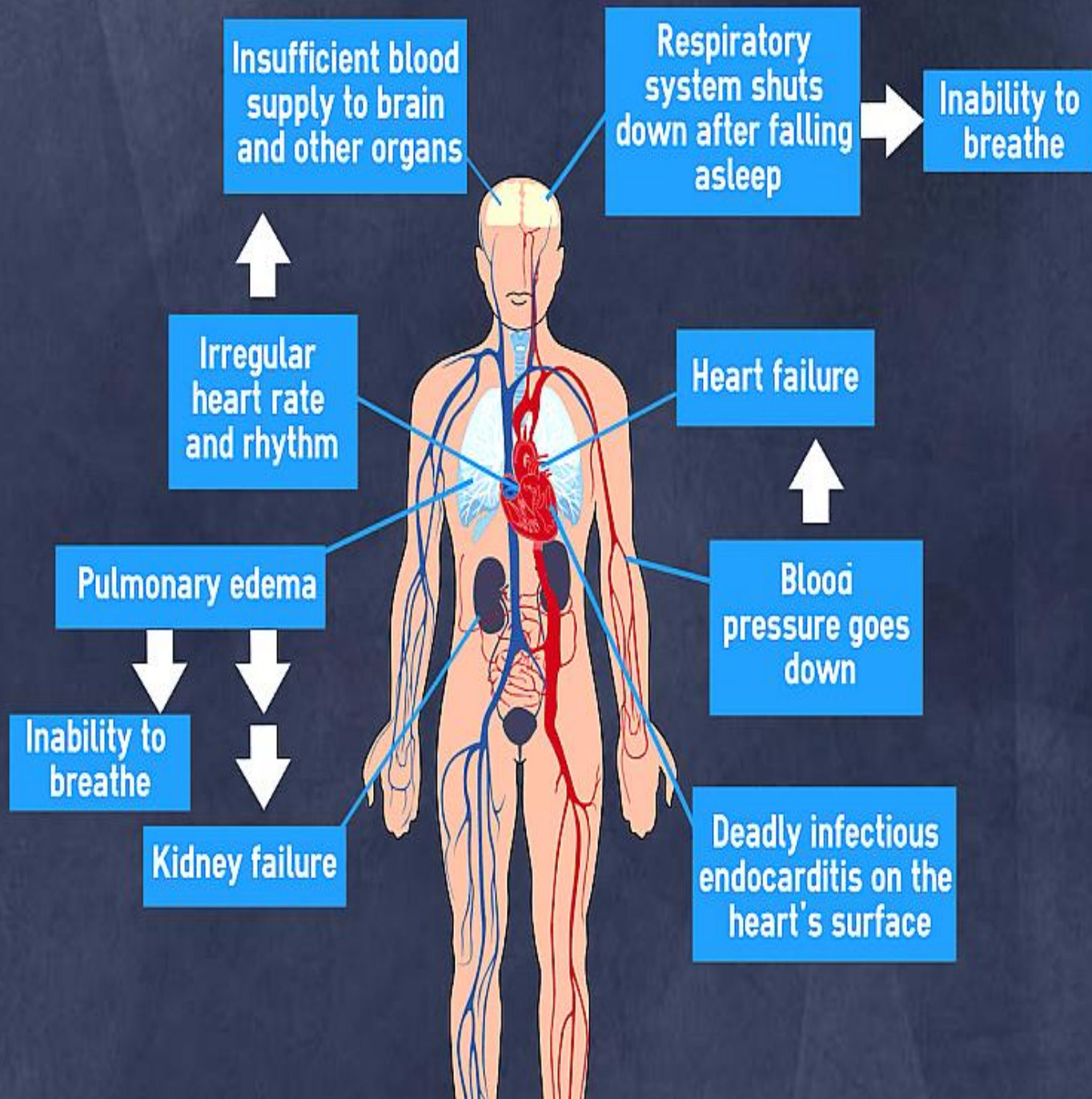
Image ID: 136504282 | www.depositphotos.com



Drug dependency





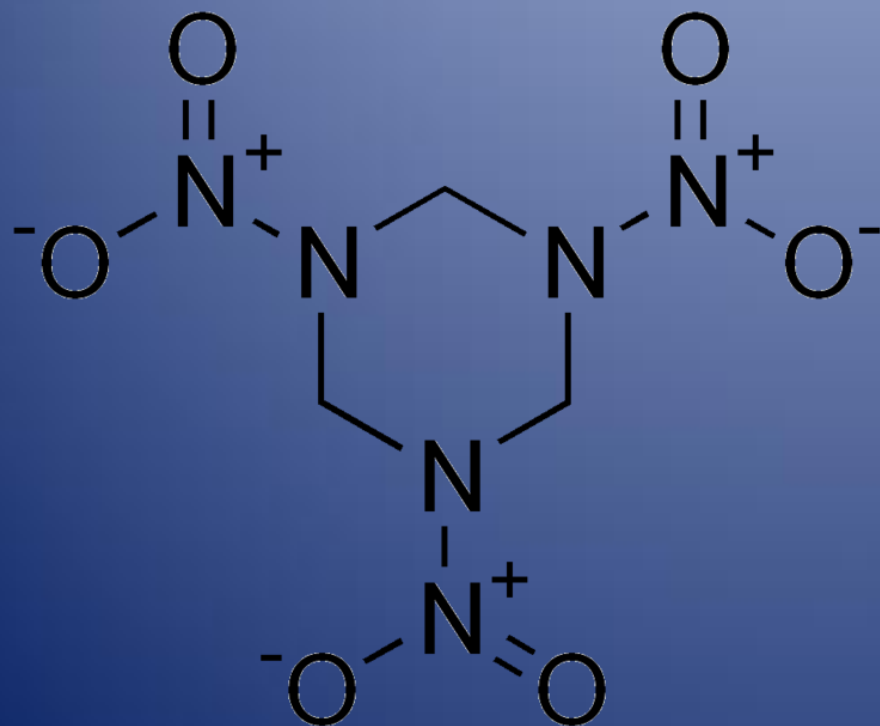


# CHEMICAL POISONS



# EXPLOSIVE SUBSTANCES





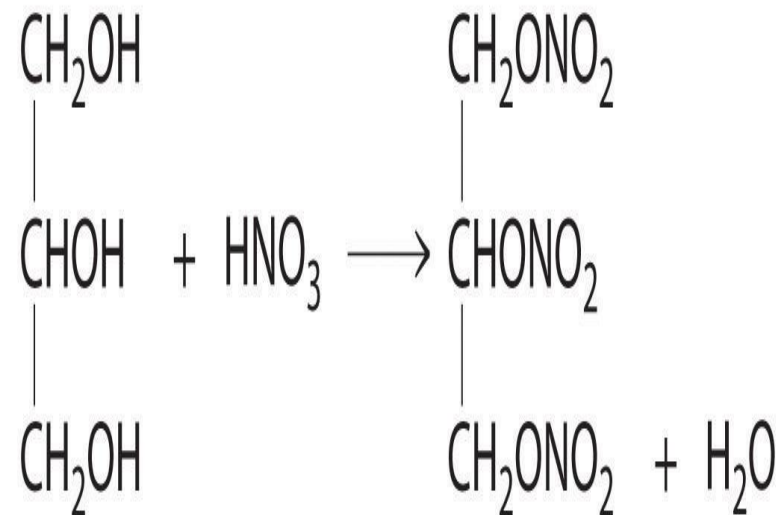
RDX

..... stands for .....

**Cyclotrimethylenetrinitramine**



Abbreviations.com



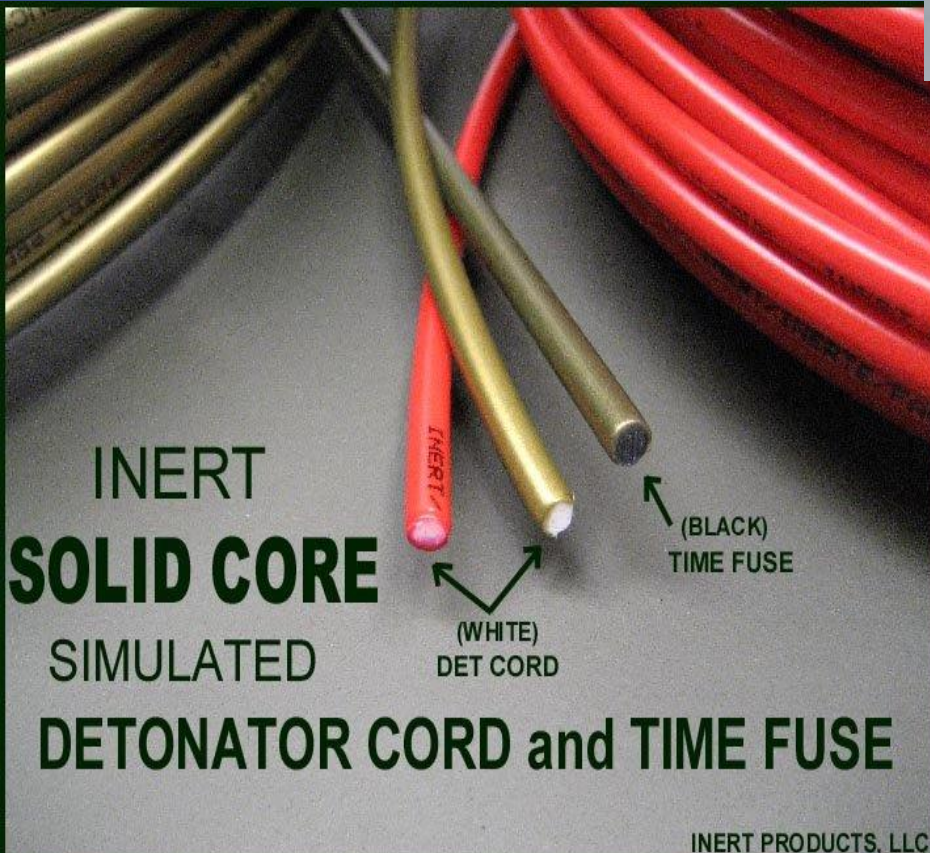
Glycerol

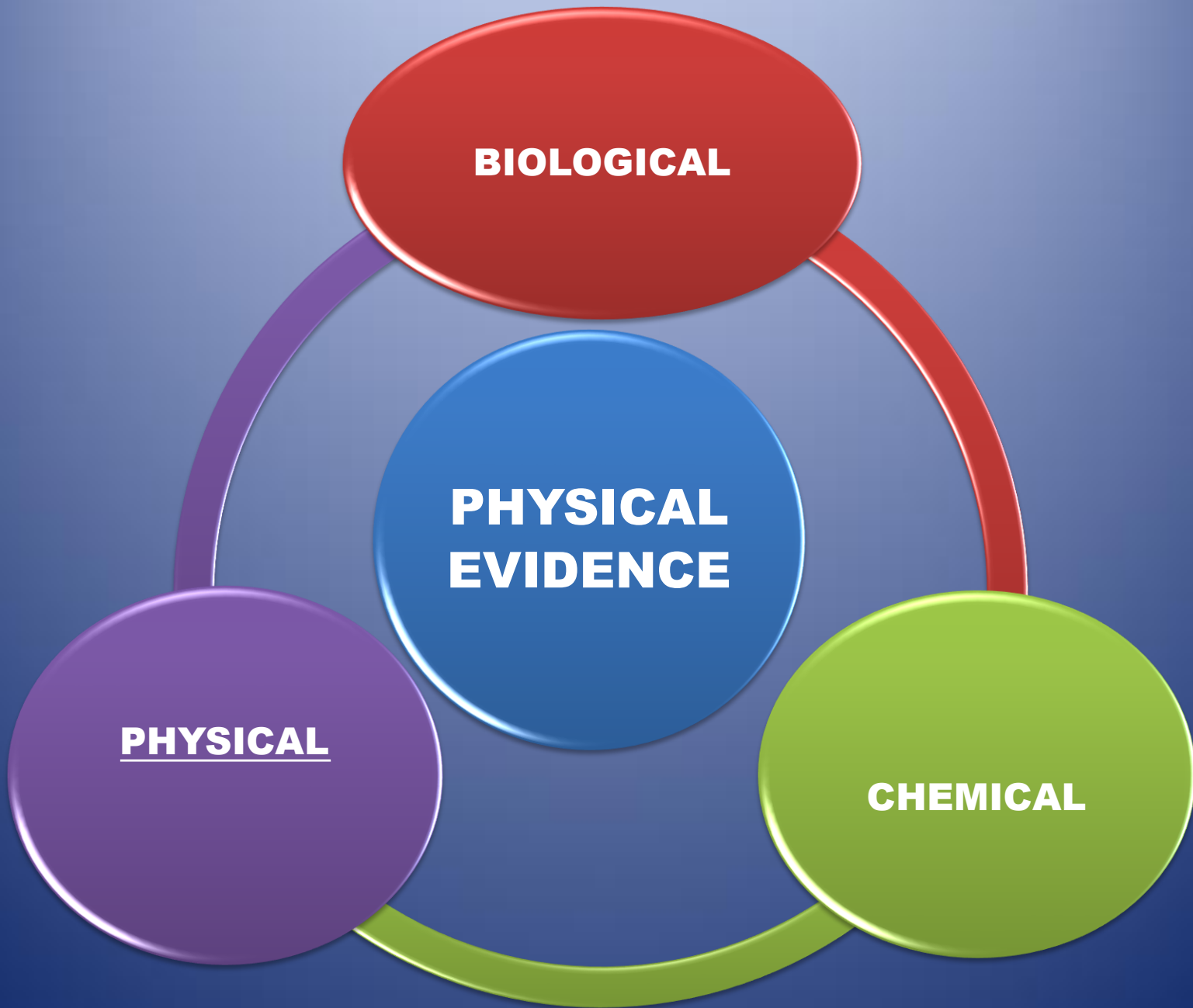
Nitroglycerin



# EXPLOSIVE SUBSTANCE

# HOW **DANGEROUS** IS **PETN**





# AMMUNITION



*7.62x39 AK-47 Brass  
Case*

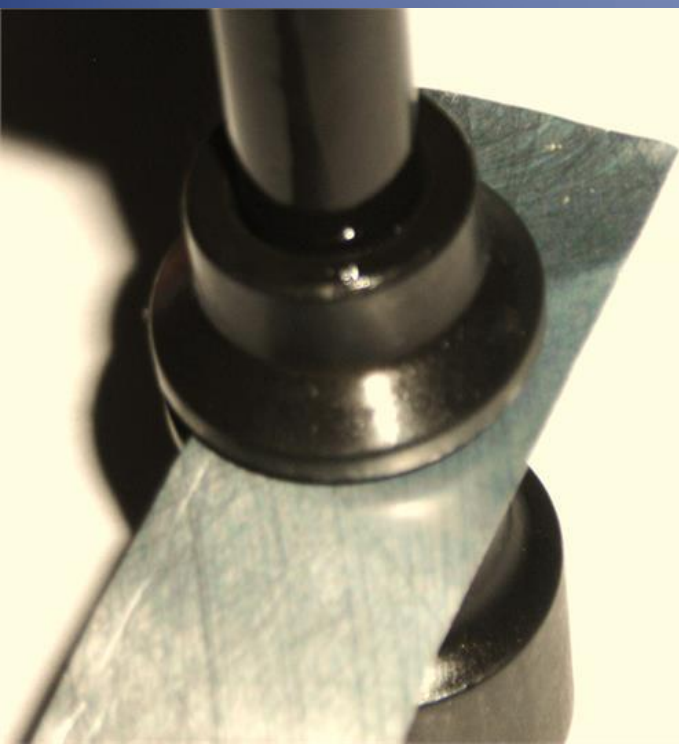
# EXPLOSIVE SUBSTANCE







# EXPLOSIVE SUBSTANCE



# Hand Writings/ Signatures Control Samples: Standards Specimens



# Clues Team- Equipment



# **DIGITAL/ELECTRONIC EVIDENCE AS PHYSICAL EVIDENCE**

- **MOBILE PHONES**
- **DESKTOPS**
- **LAPTOPS**
- **DVR**
- **ELECTRONIC GADGETS**

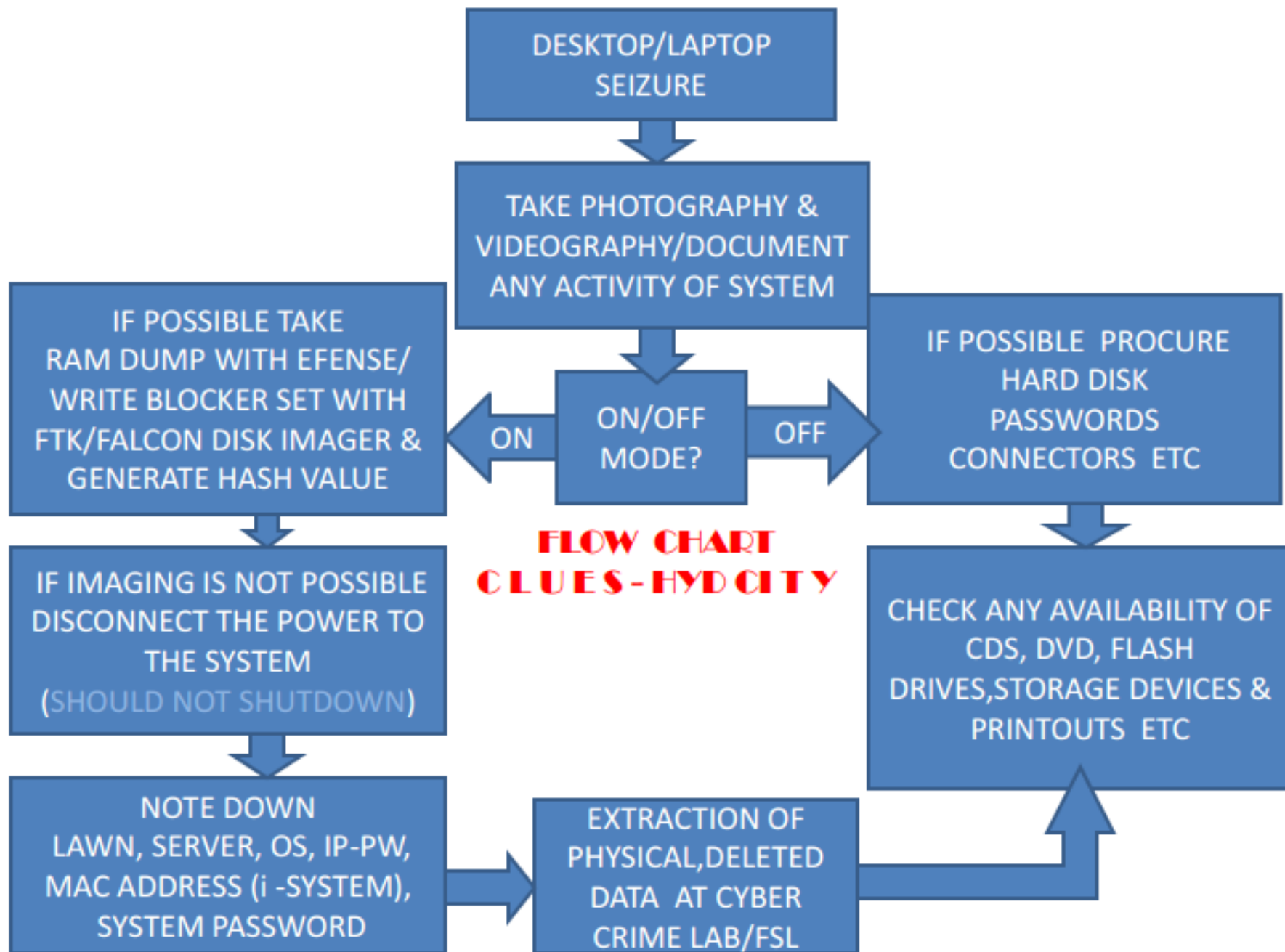
**SIM card Securely stores the service subscriber key having 15 digits.**

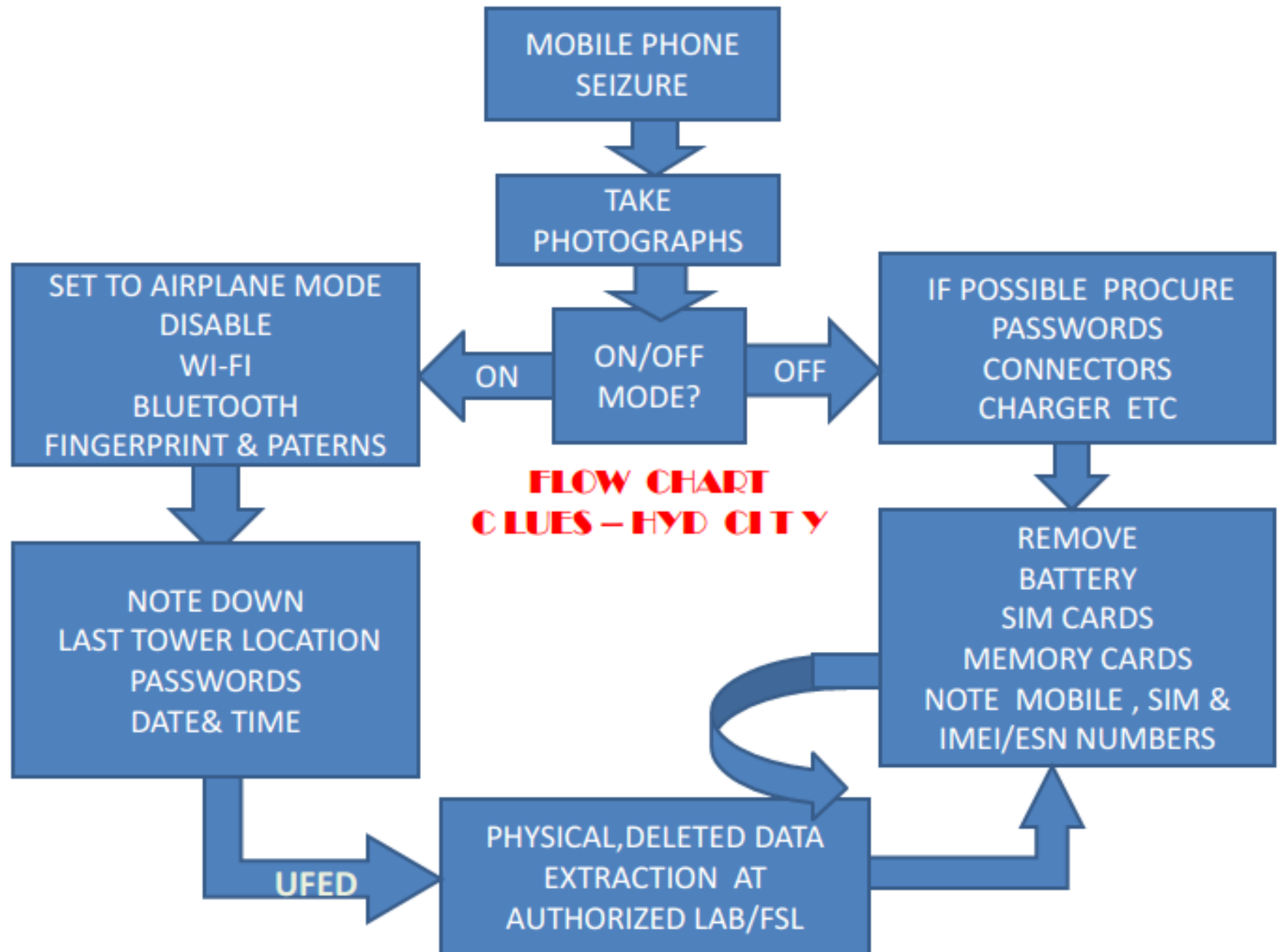
**The digits of the key are :**

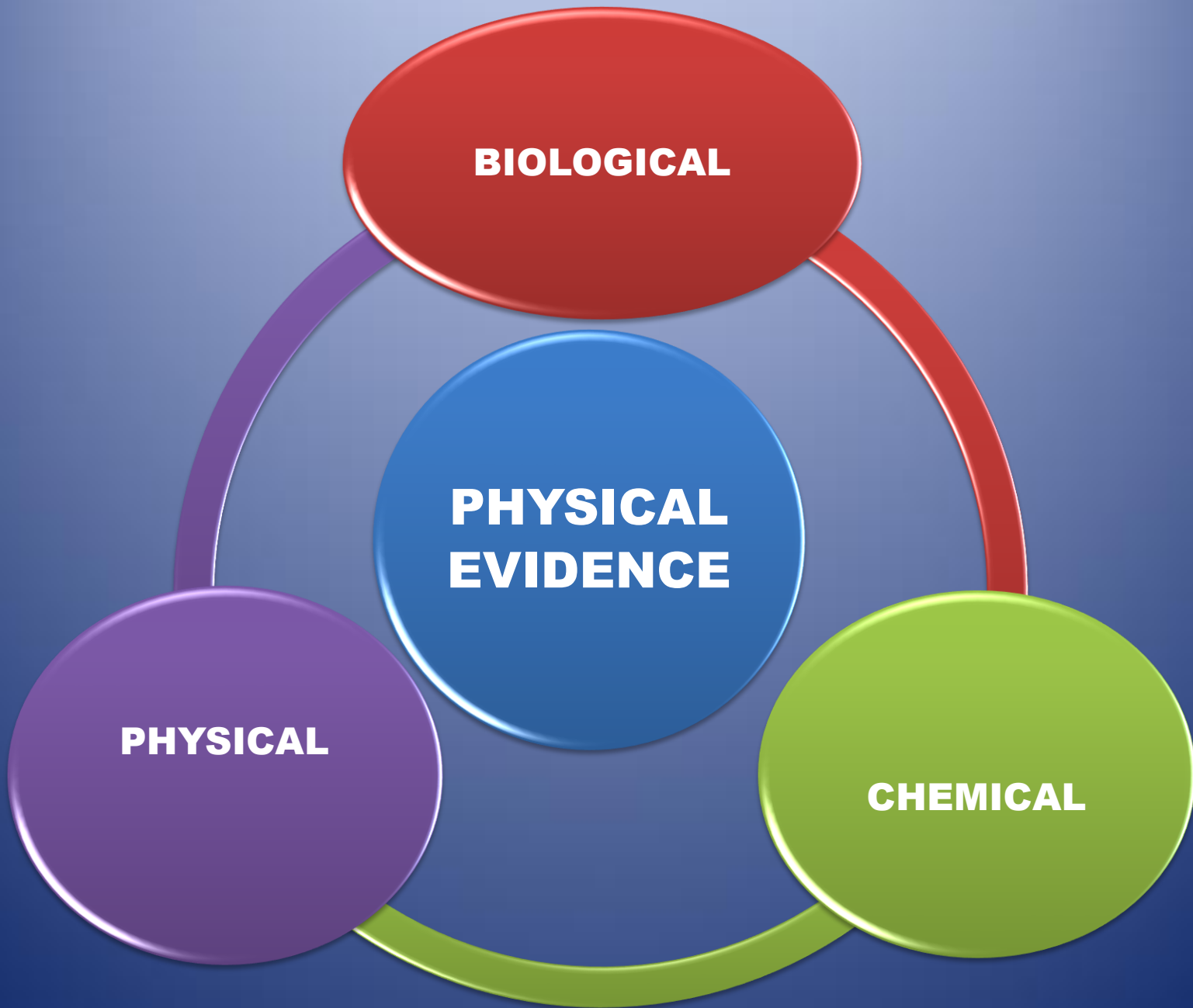
First 3 digits – Mobile country code

Second 2 digits – Mobile network code

Third 10 digits – Mobile station identification number





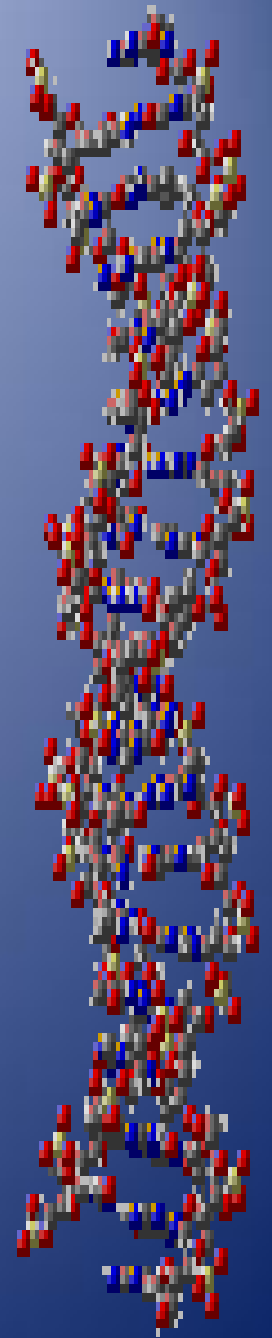


HLP

**PHYSICAL  
EVIDENCE**



**BIOLOGICAL  
TYPE**



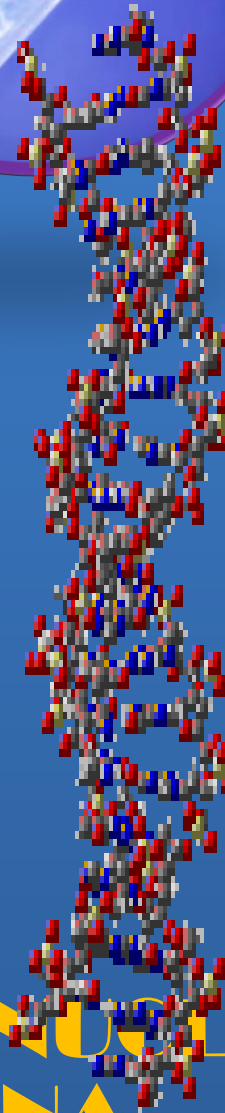
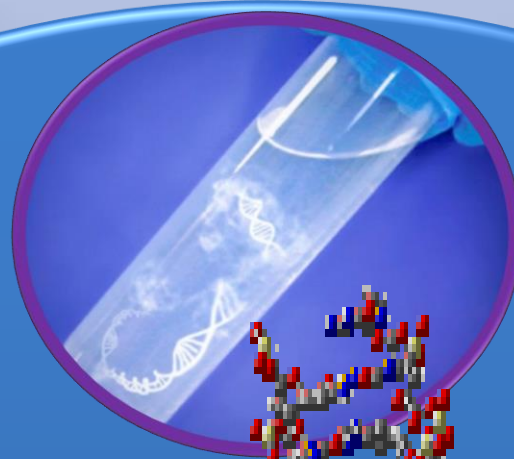


DNA profiling Applications



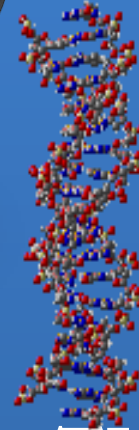
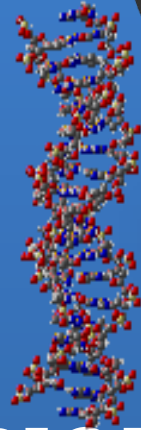
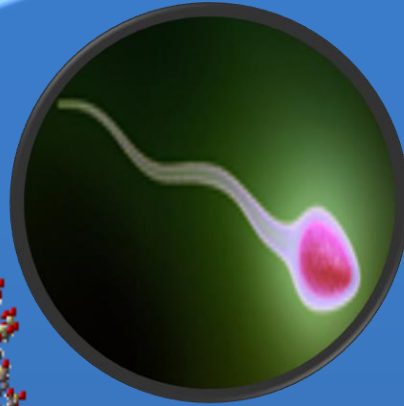
Forensic Applications

HLP



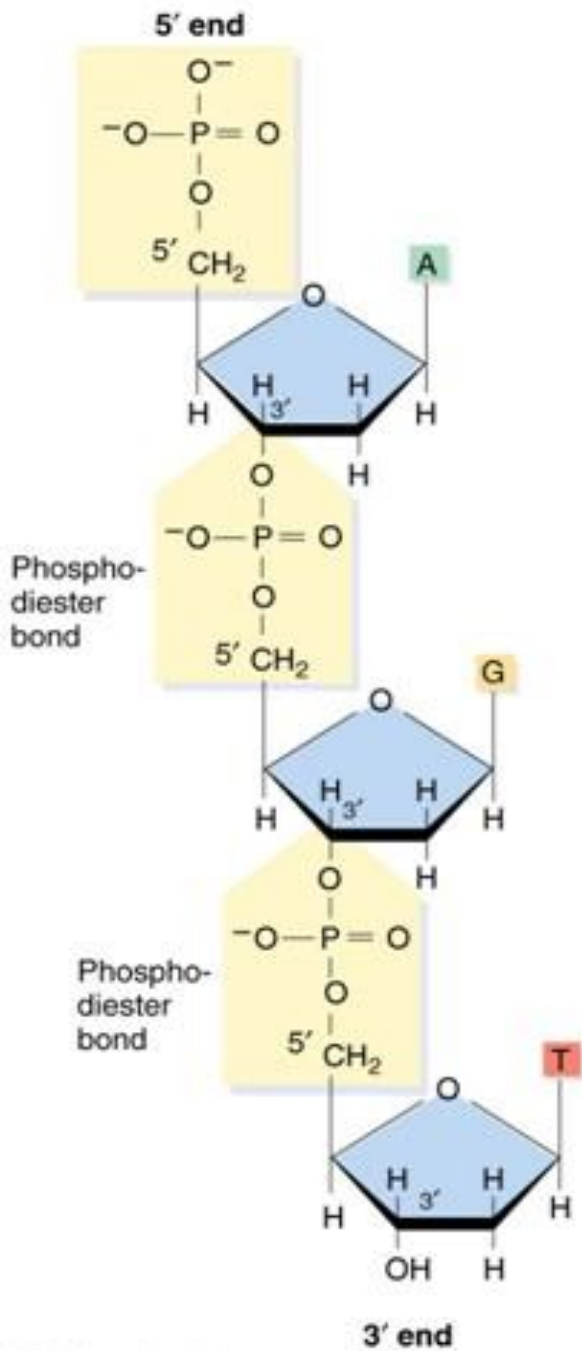
DEOXYRIBONUCLEIC ACID  
DNA

HLP



BIOLOGICAL TYPE

b) DNA polynucleotide chain



# How does DNA differ among humans?

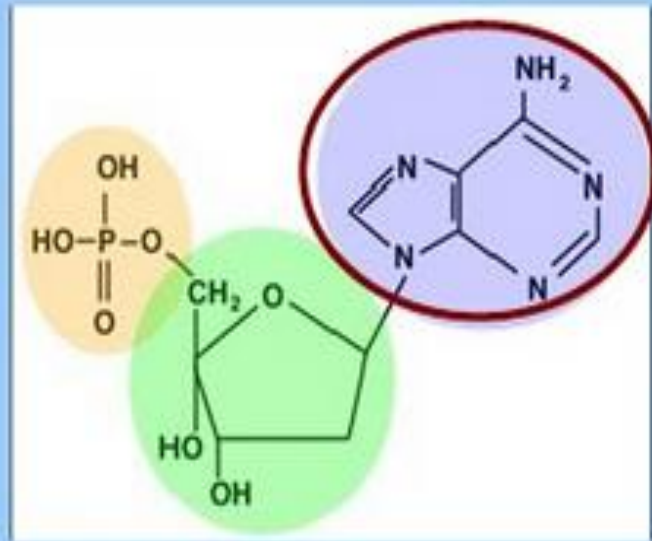
DNA is a sequence of 4 possible letters

A G C T

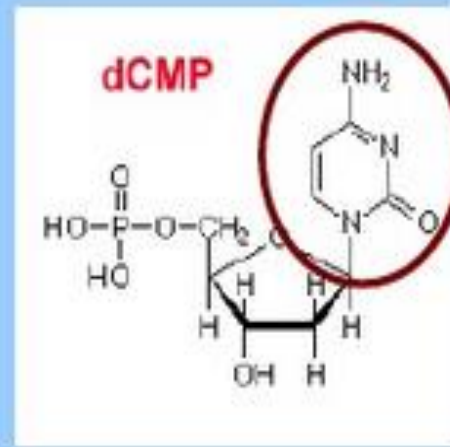
Of the 3 billion letters, 99.8% of the sequence in all humans is identical.

**There are several ways the sequence can be different.**

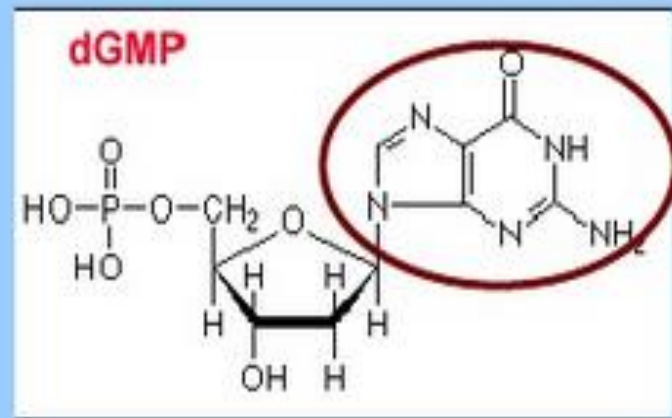
# The 4 Bases



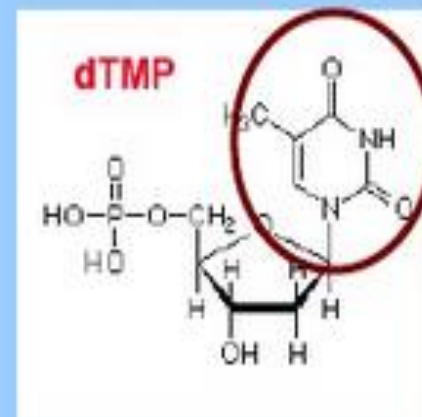
**A**  
Adenine



**C**  
Cytosine

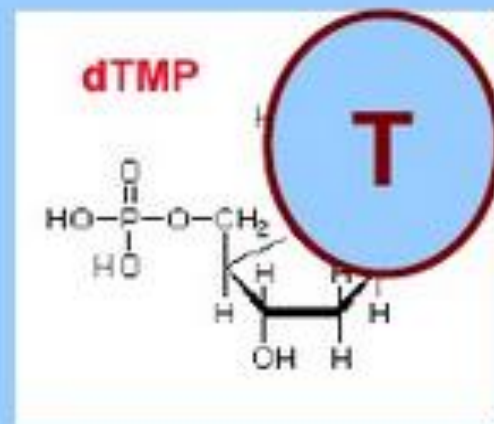
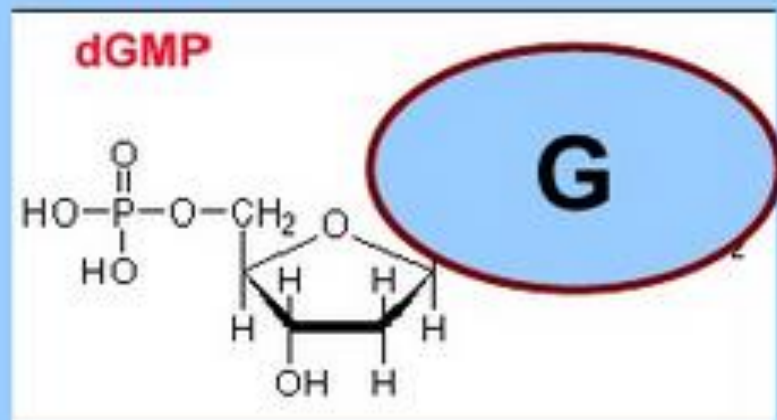
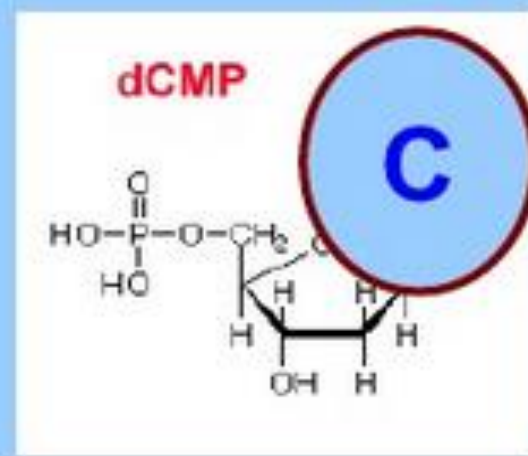
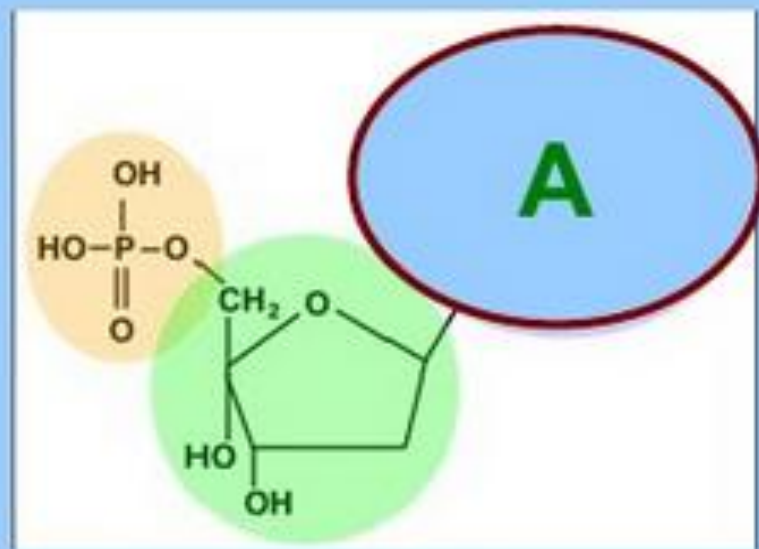


**G**  
Guanine



**T**  
Thymine

# The 4 Bases

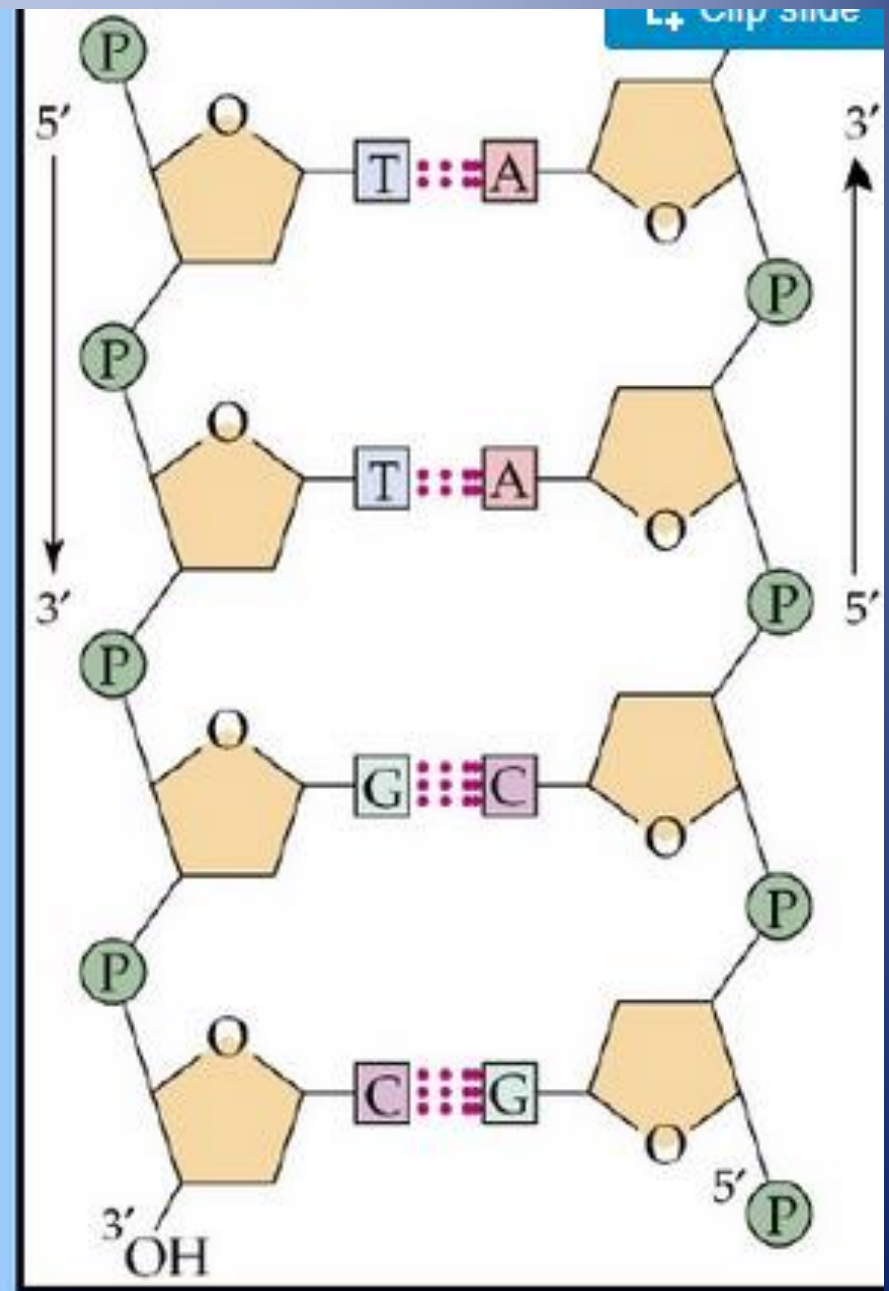


# The 4 Bases

The bases pair up  
to form the rungs  
of the ladder.

A pairs with T

G pairs with C



# Forensic DNA Analysis

## **Collection of Evidence**

### Types of Unknown Samples:

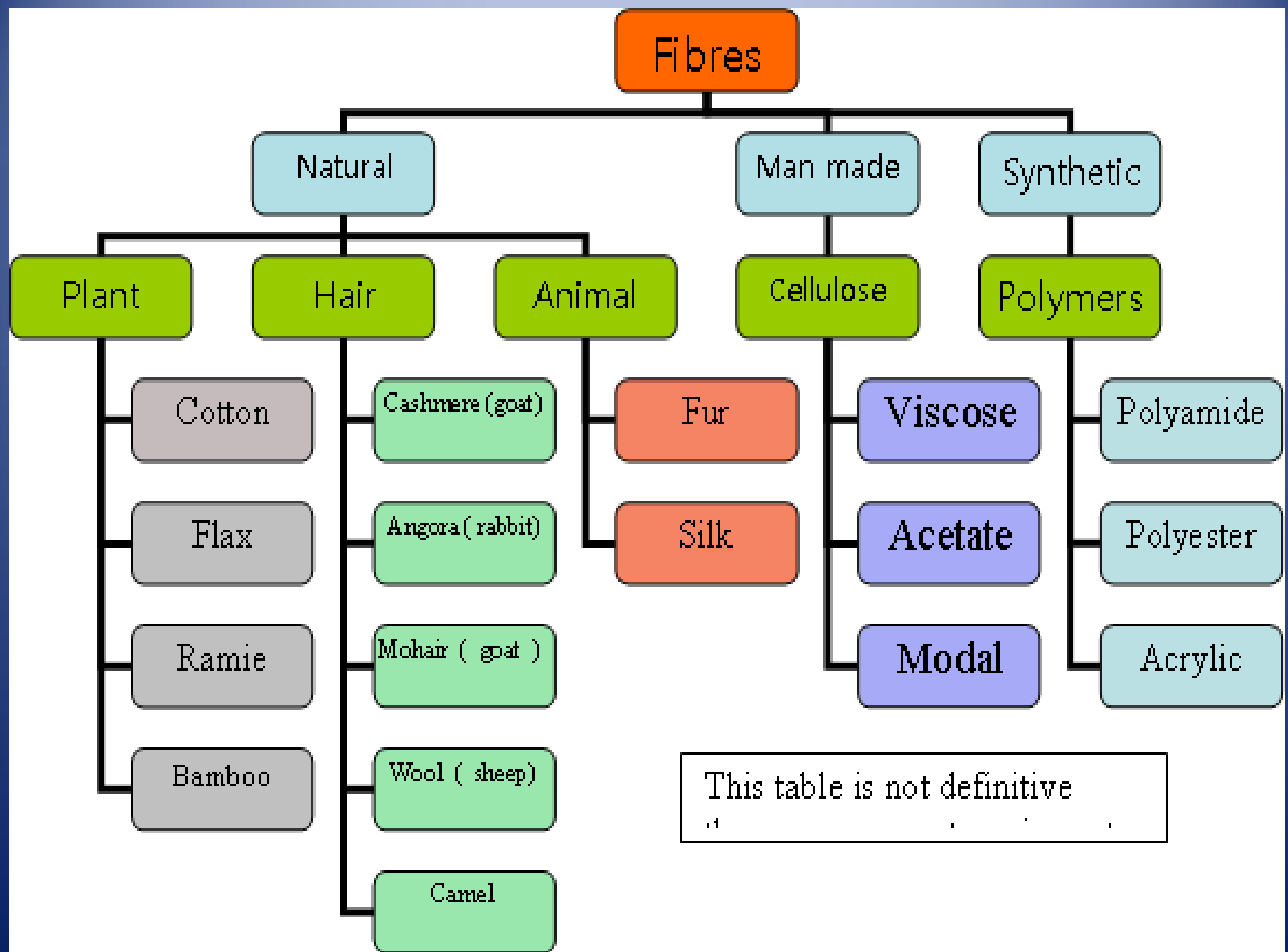
- Blood, Semen, Stains, Saliva
- Hair, Tissue, Bones, Teeth

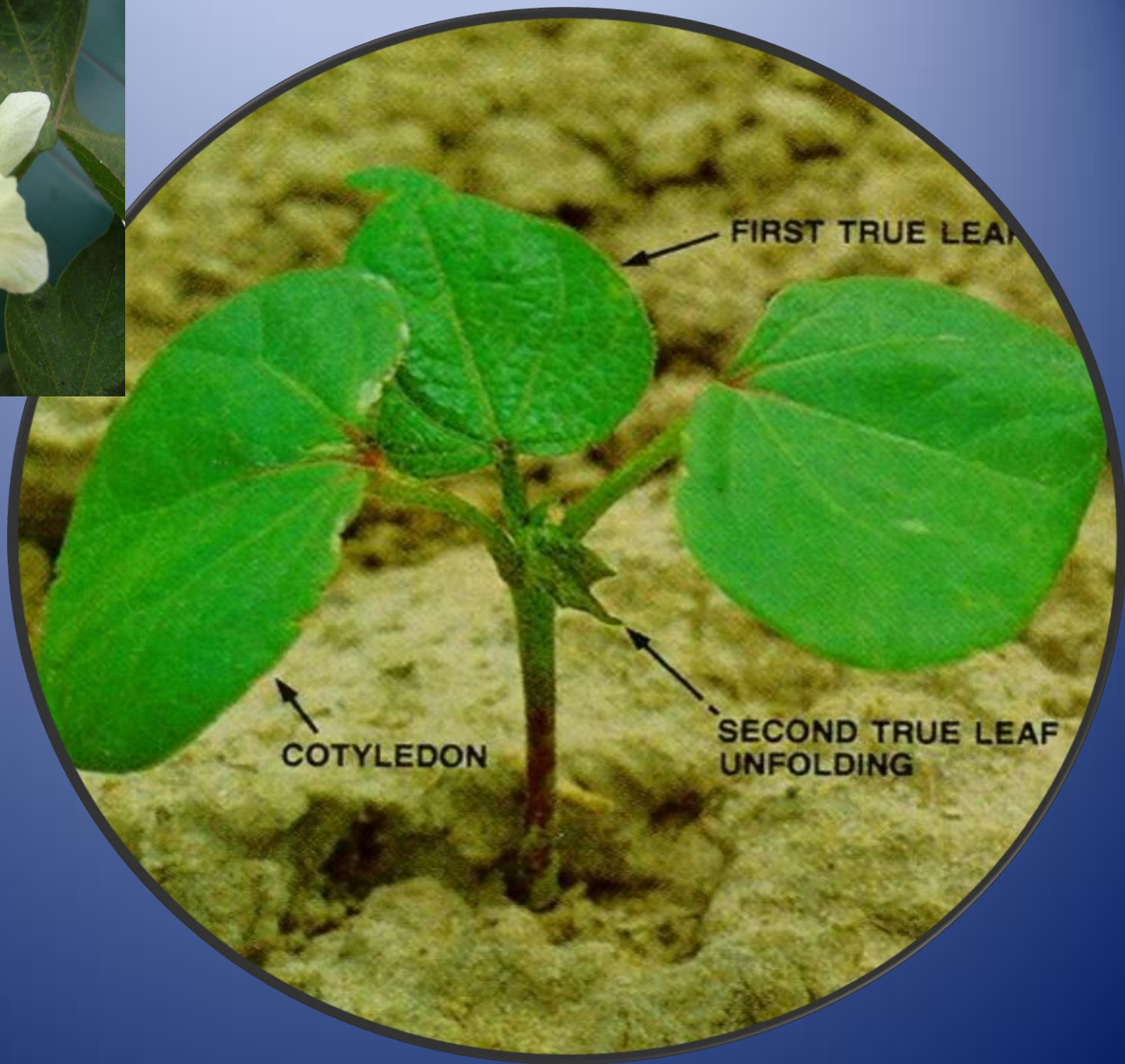
### Types of Known Samples:

- Blood or buccal swabs from suspect or victim or other known person

# Forensic DNA Analysis

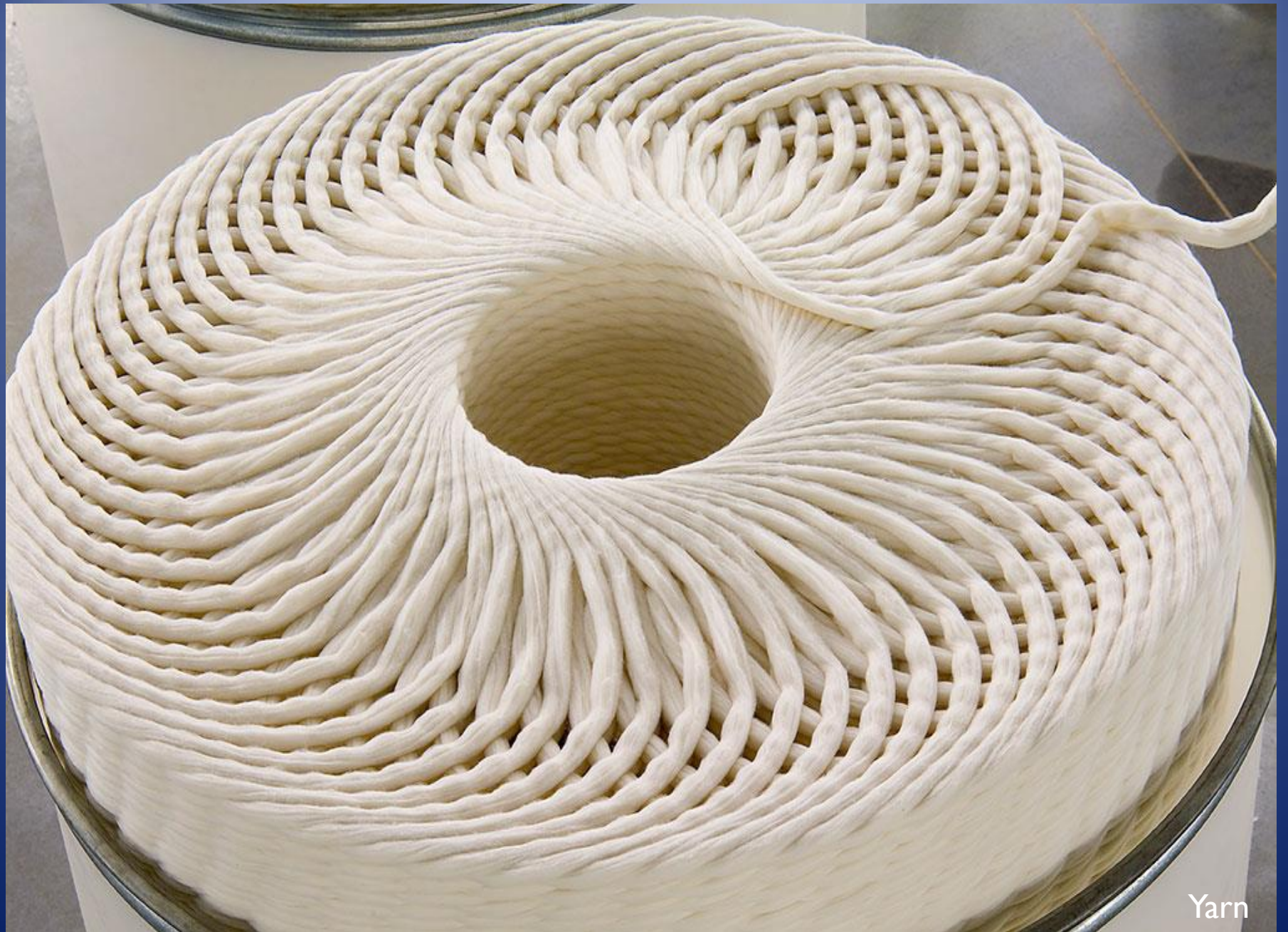
|             | TPOX  | CSF1PO | D5S818 | D8S1179 |
|-------------|-------|--------|--------|---------|
| Blood stain | 7,9   | 10,13  | 7,15   | 8,8     |
| Suspect 1   | 8,9   | 10,10  | 9,10   | 11,12   |
| Suspect 2   | 10,11 | 9,13   | 8,14   | 9,12    |
| Suspect 3   | 7,9   | 10,13  | 7,15   | 8,8     |











Yarn



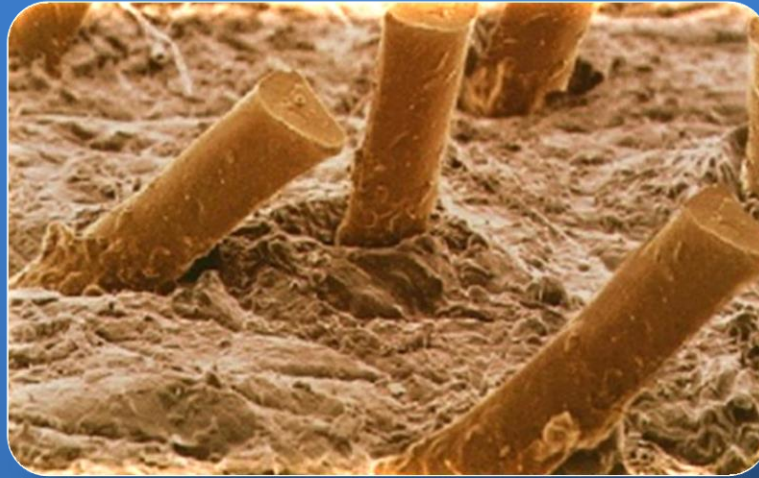


HLP



**HAIR AS PHYSICAL  
EVIDENCE  
BIOLOGICAL**

HLP



**BIOLOGICAL TYPE**

HLP

**TEXTURE OF HAIR**

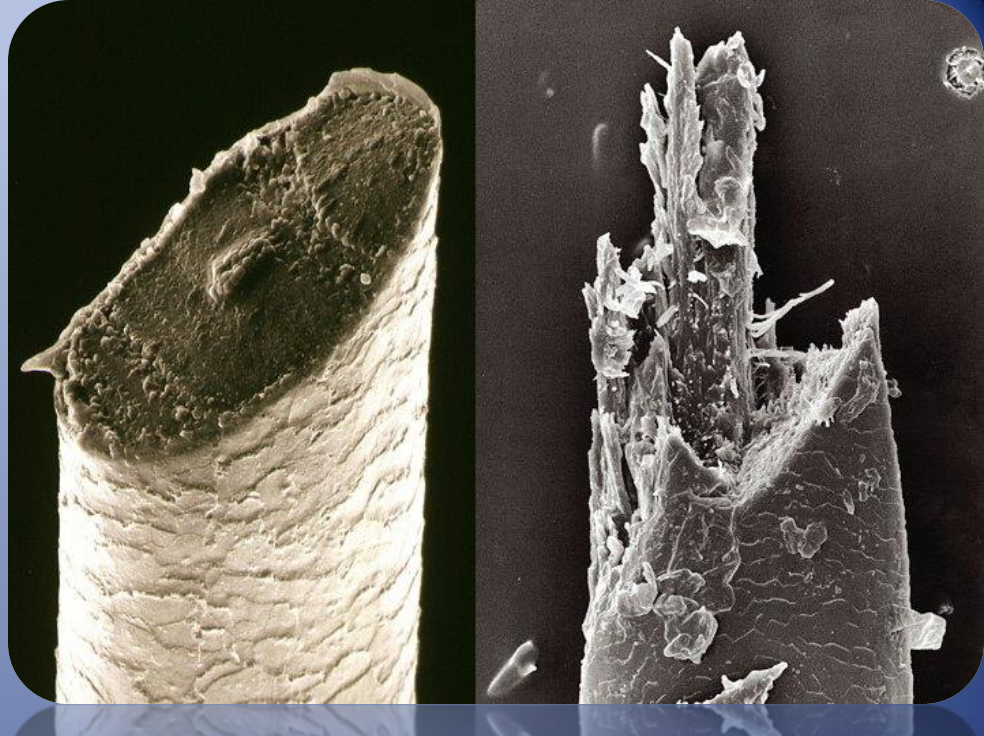
**CROSS SECTIONAL  
SHAPE REVEALS**

**FLAT** – **CURLED HAIR**  
**FELLOW**

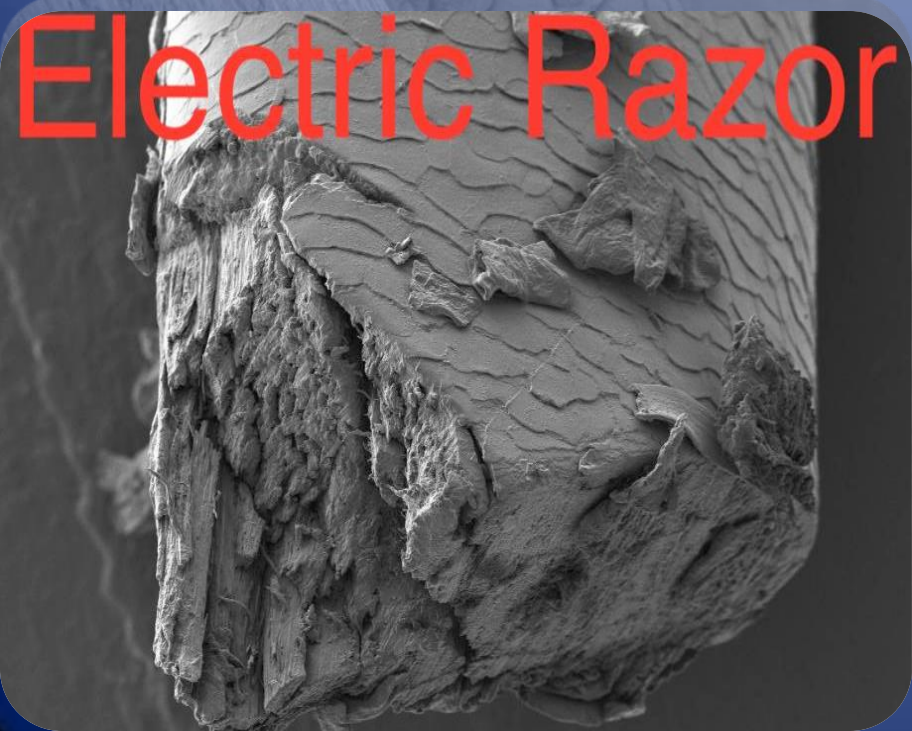
**ROUND** – **STRAIT HAIR**  
**FELLOW**

**OVAL** – **WAVY HAIR**  
**FELLOW**

Gillette Fusion



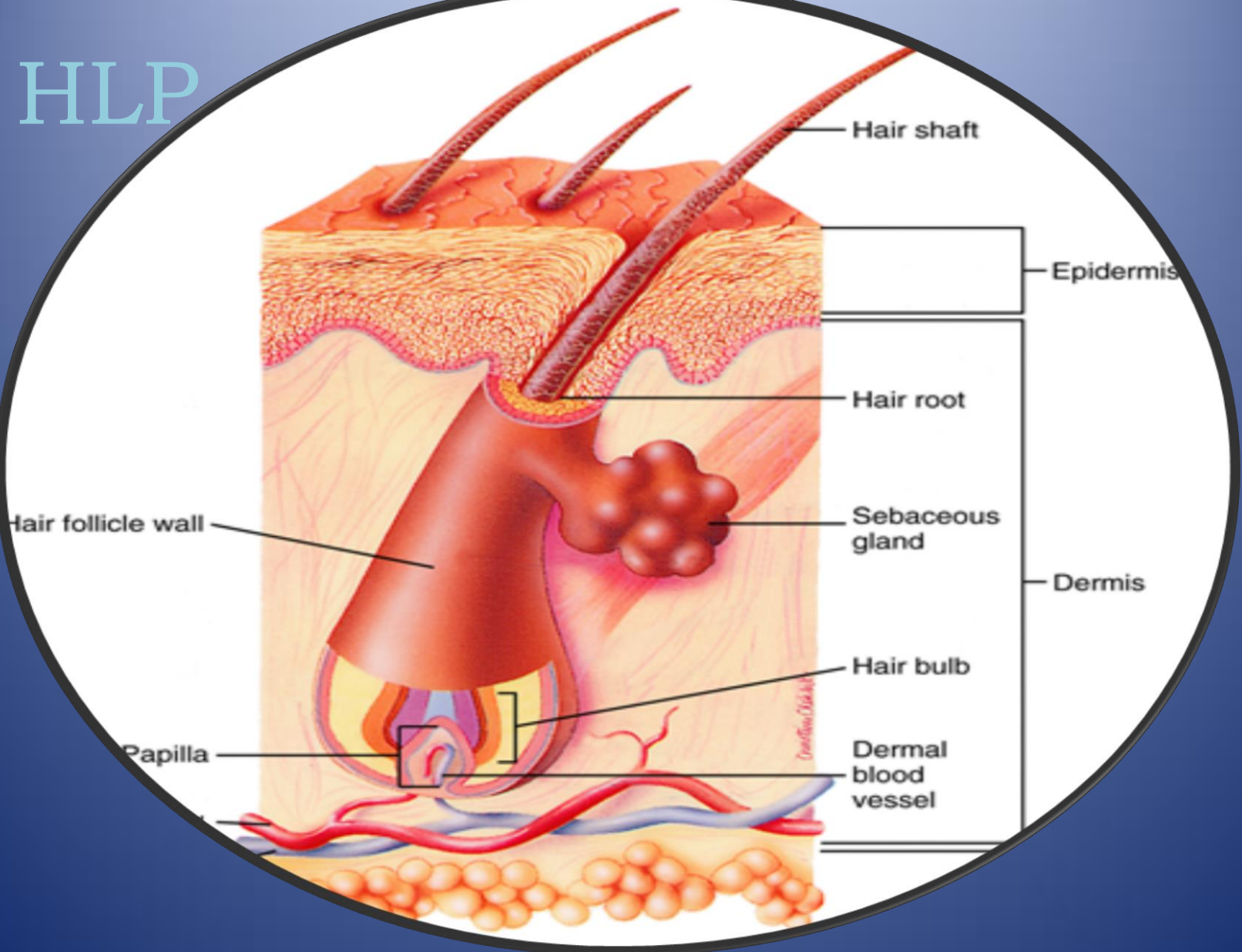
Electric Razor



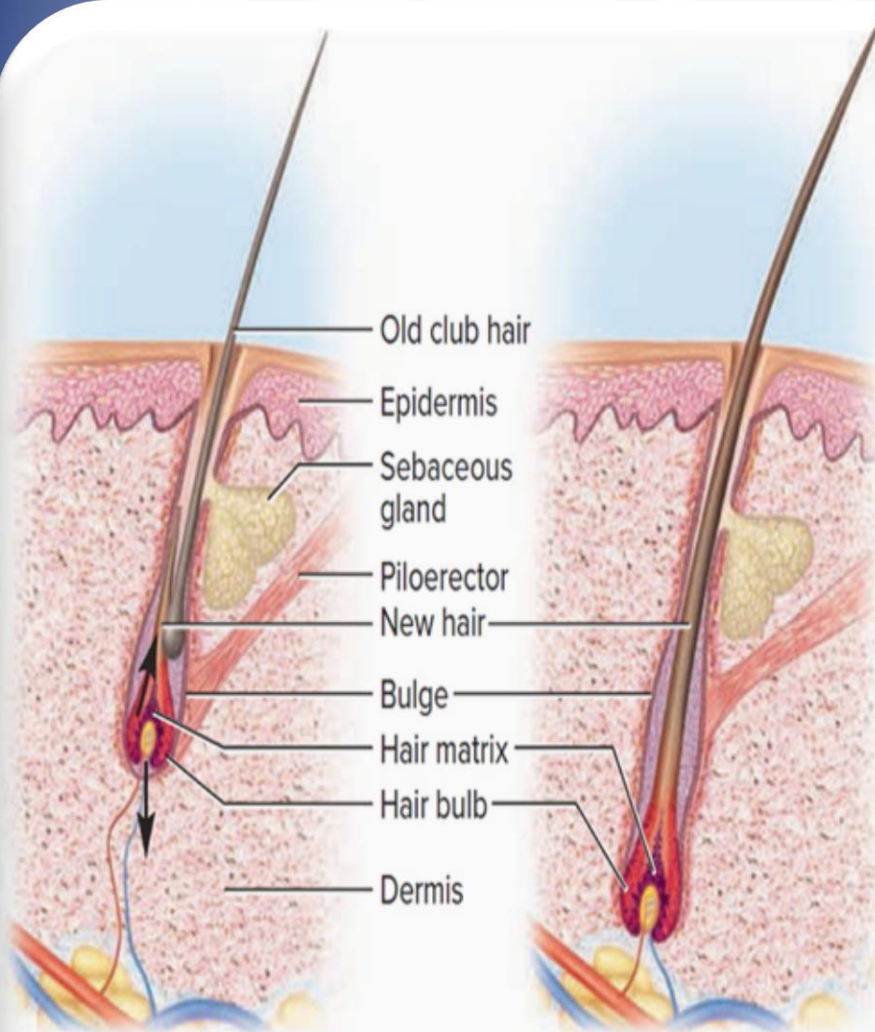
Straight Razor



HLP



**ROOTED HAIR SAMPLES**

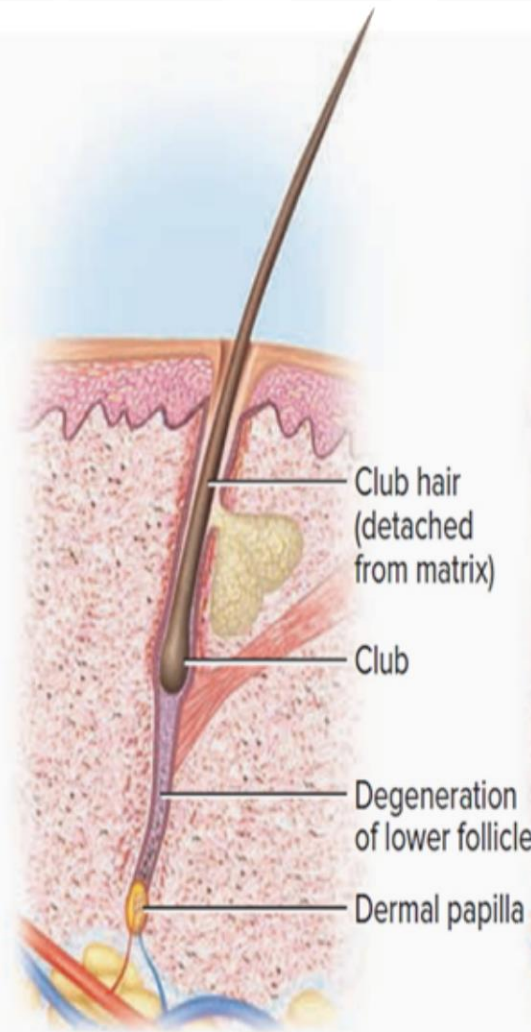


### 1 Anagen (early)

(Growing phase, 6–8 years)

Stem cells multiply and follicle grows deeper into dermis; hair matrix cells multiply and keratinize, causing hair to grow upward; old club hair may persist temporarily alongside newly growing hair.

### Anagen (mature)



### 2 Catagen

(Degenerative phase, 2–3 weeks)

Hair growth ceases; hair bulb keratinizes and forms club hair; lower follicle degenerates.



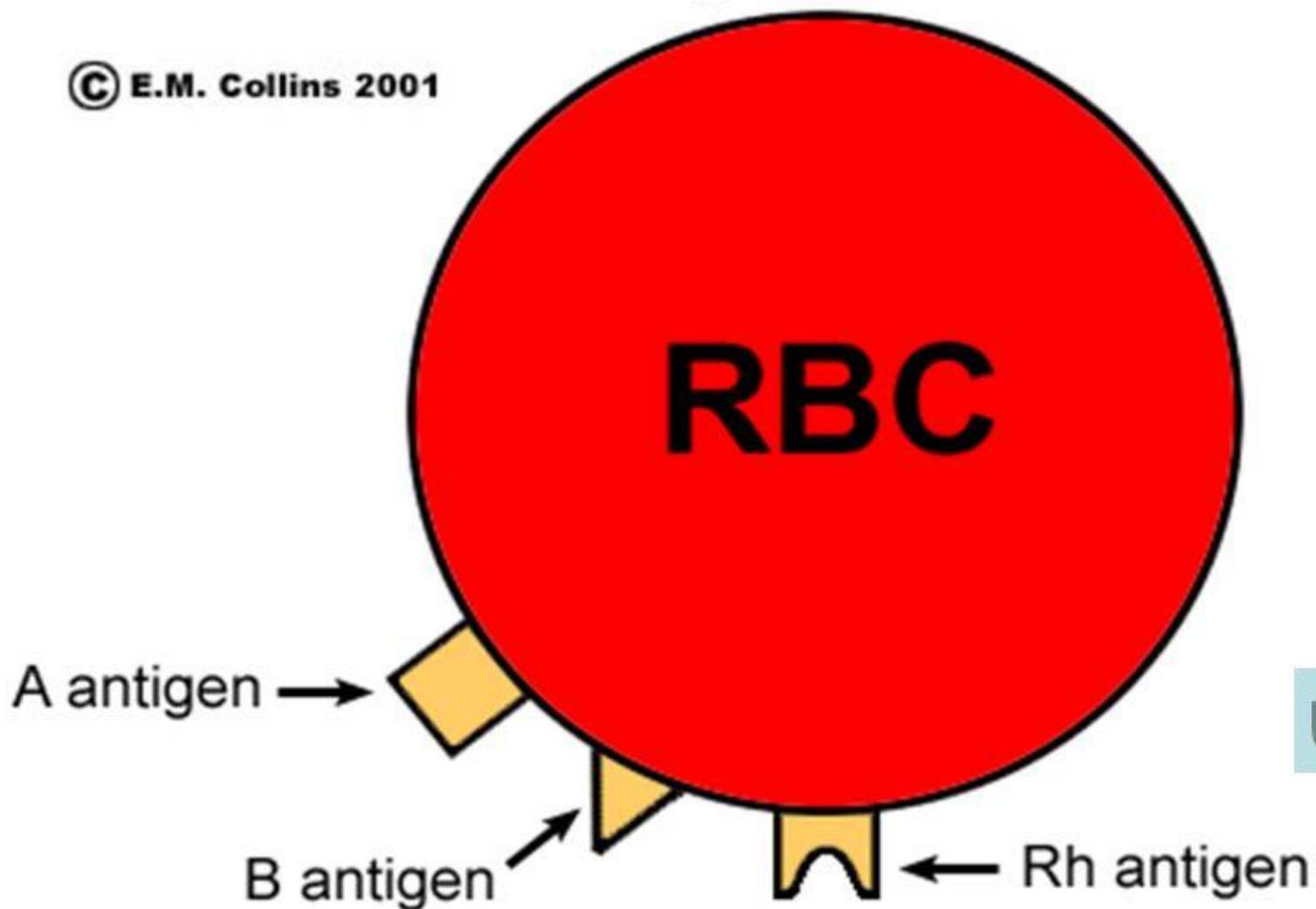
### 3 Telogen

(Resting phase, 1–3 months)

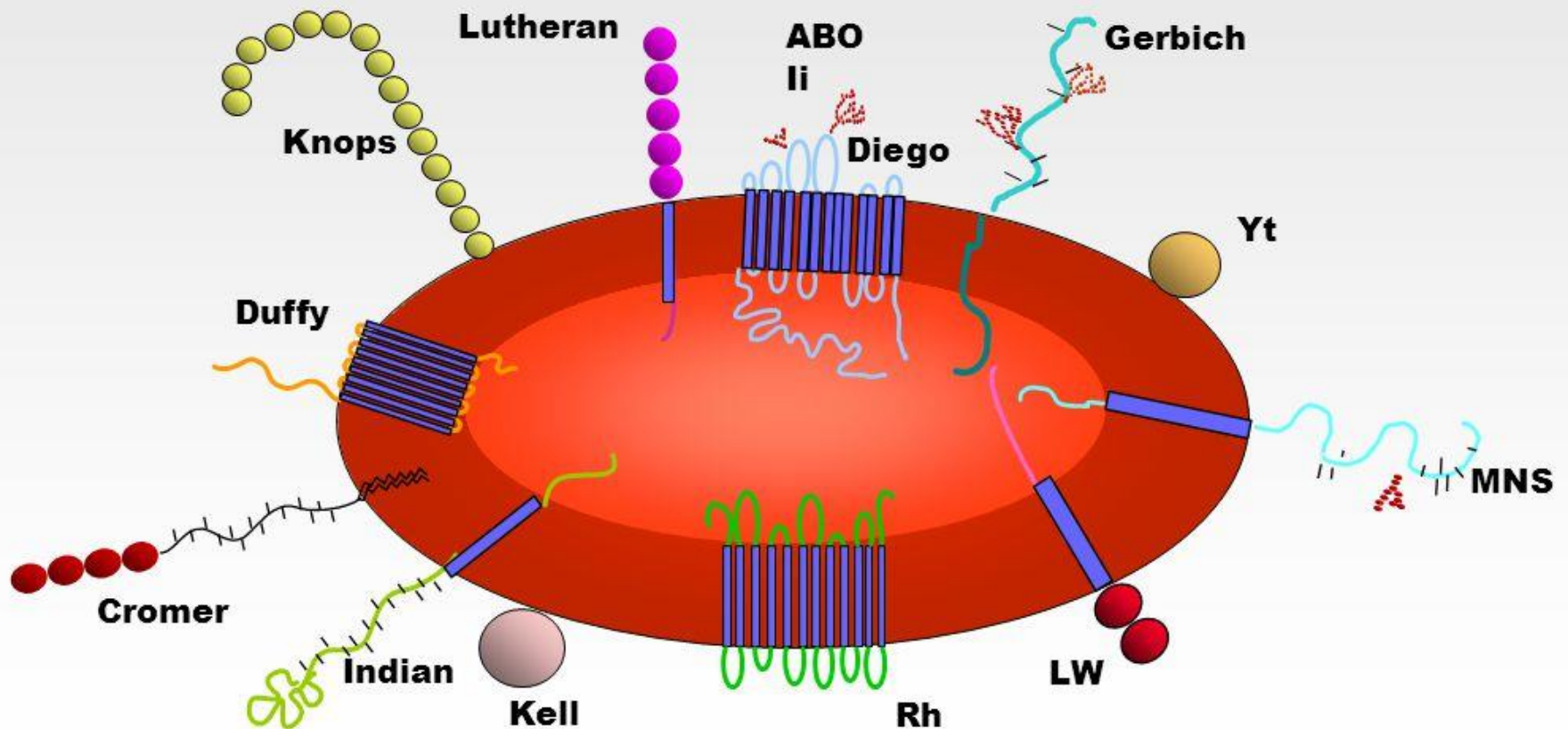
Dermal papilla has ascended to level of bulge; club hair falls out, usually in telogen or next anagen.

# Remember RBC Has Antigens

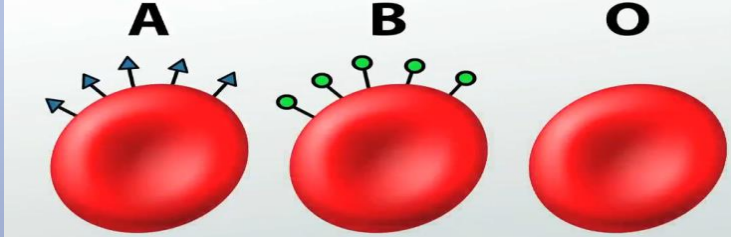
© E.M. Collins 2001



# Blood groups on the RBC



RBC



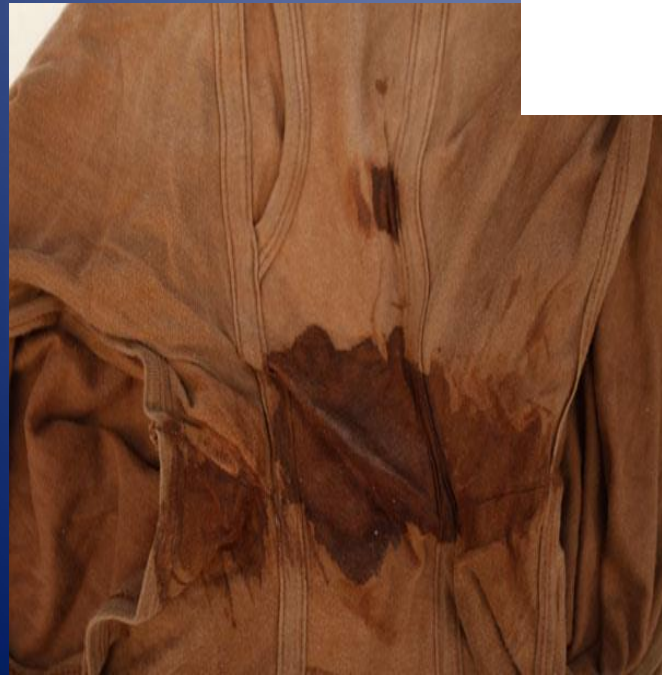
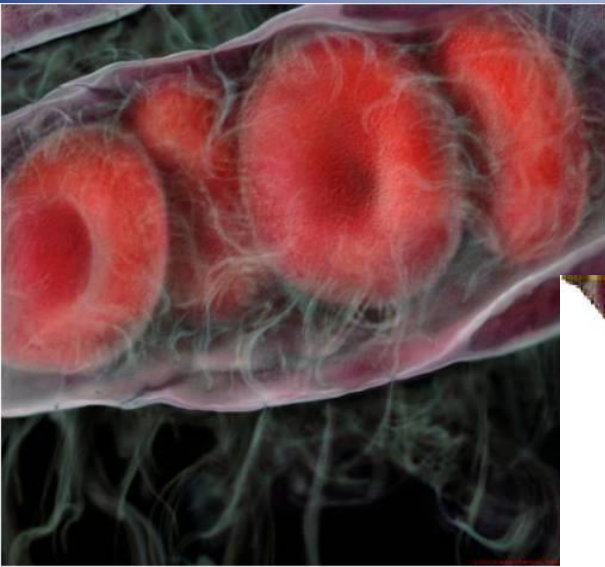
|                            | Group A       | Group B       | Group AB                 | Group O                   |
|----------------------------|---------------|---------------|--------------------------|---------------------------|
| Red blood cell type        |               |               |                          |                           |
| Antibodies in Plasma       | <br>Anti-B    | <br>Anti-A    | None                     | <br><br>Anti-B and Anti-A |
| Antigens in Red Blood Cell | <br>A antigen | <br>B antigen | <br><br>A and B antigens | None                      |

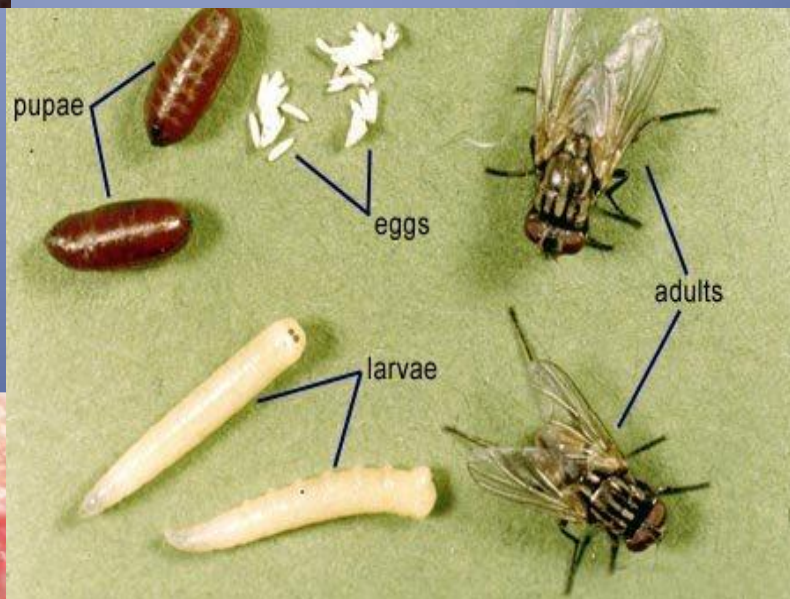


# DNA profiling Applications

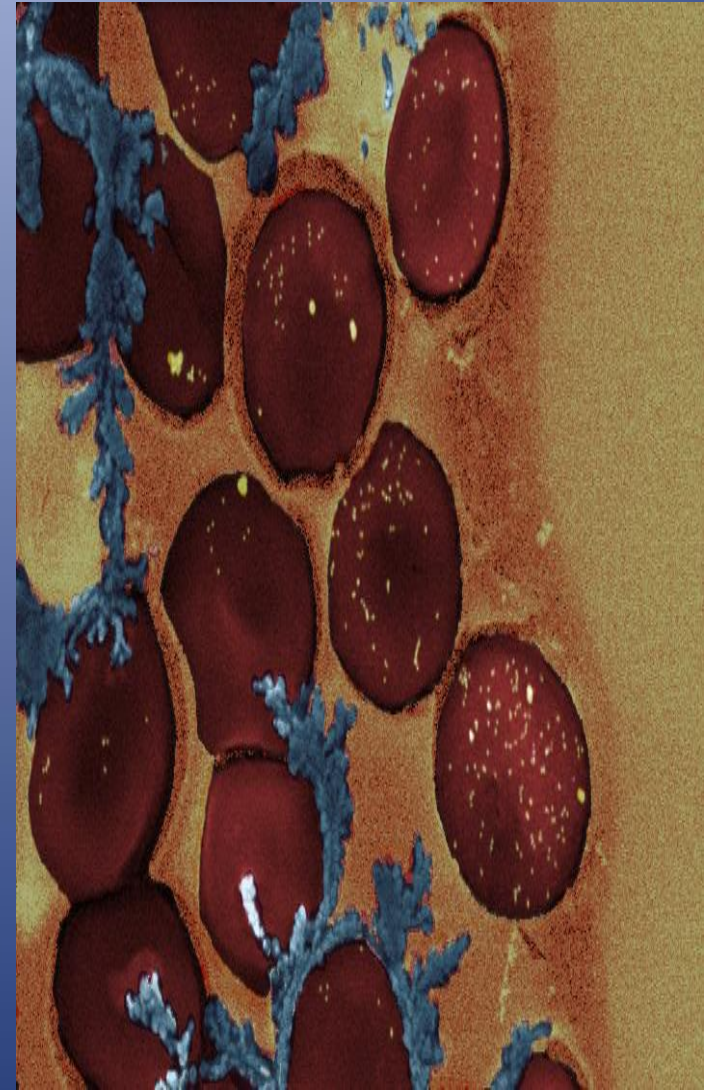


# CONTAMINATED STAINS





# BLOOD CLOTTING IMAGE ELECTRONIC MICROSCOPE



# CLUES HYDERABAD



# CLUES



# OBJECTIVES



# CLUES HYDERABAD

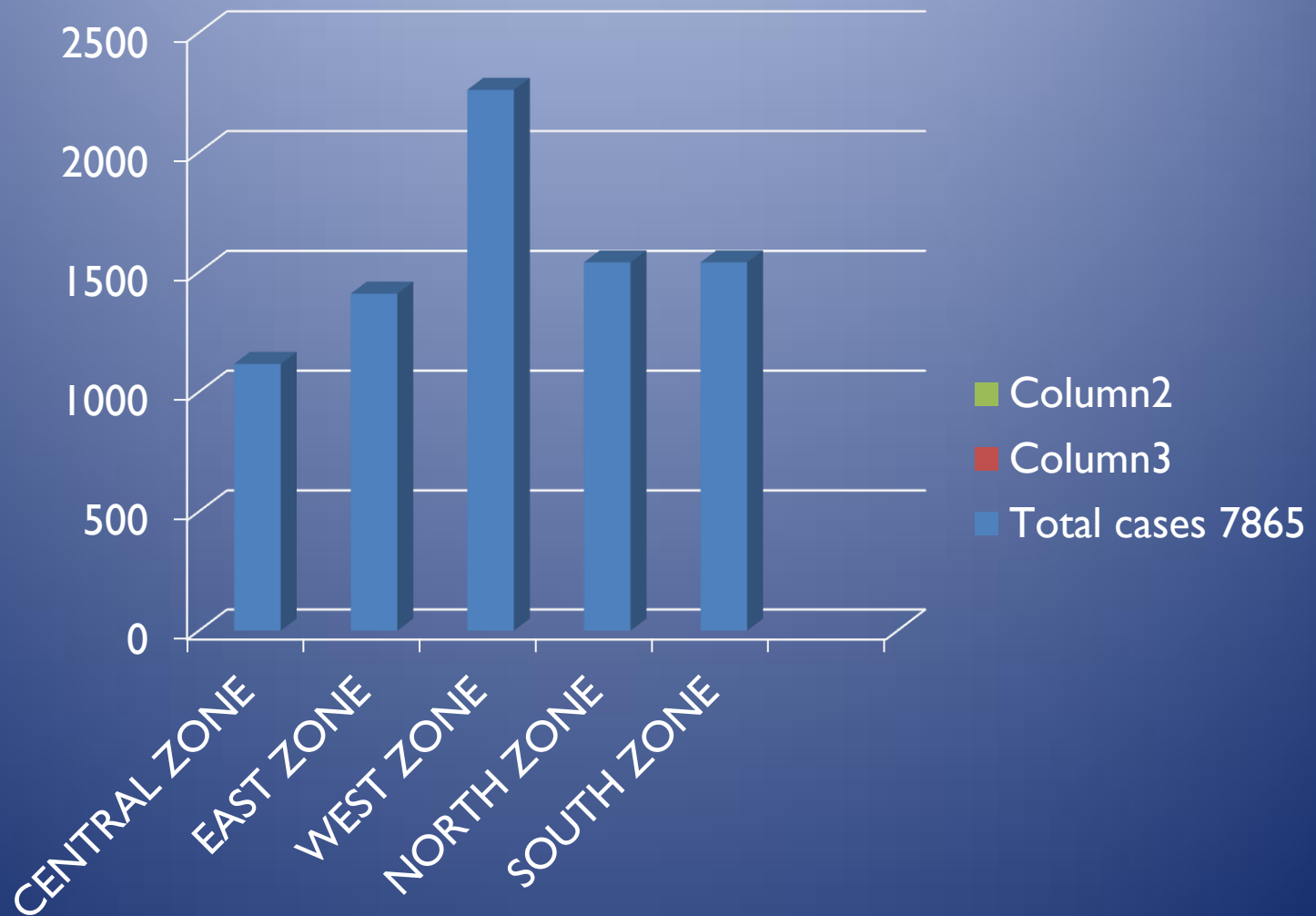


# Training on HLP & Letter of Advise

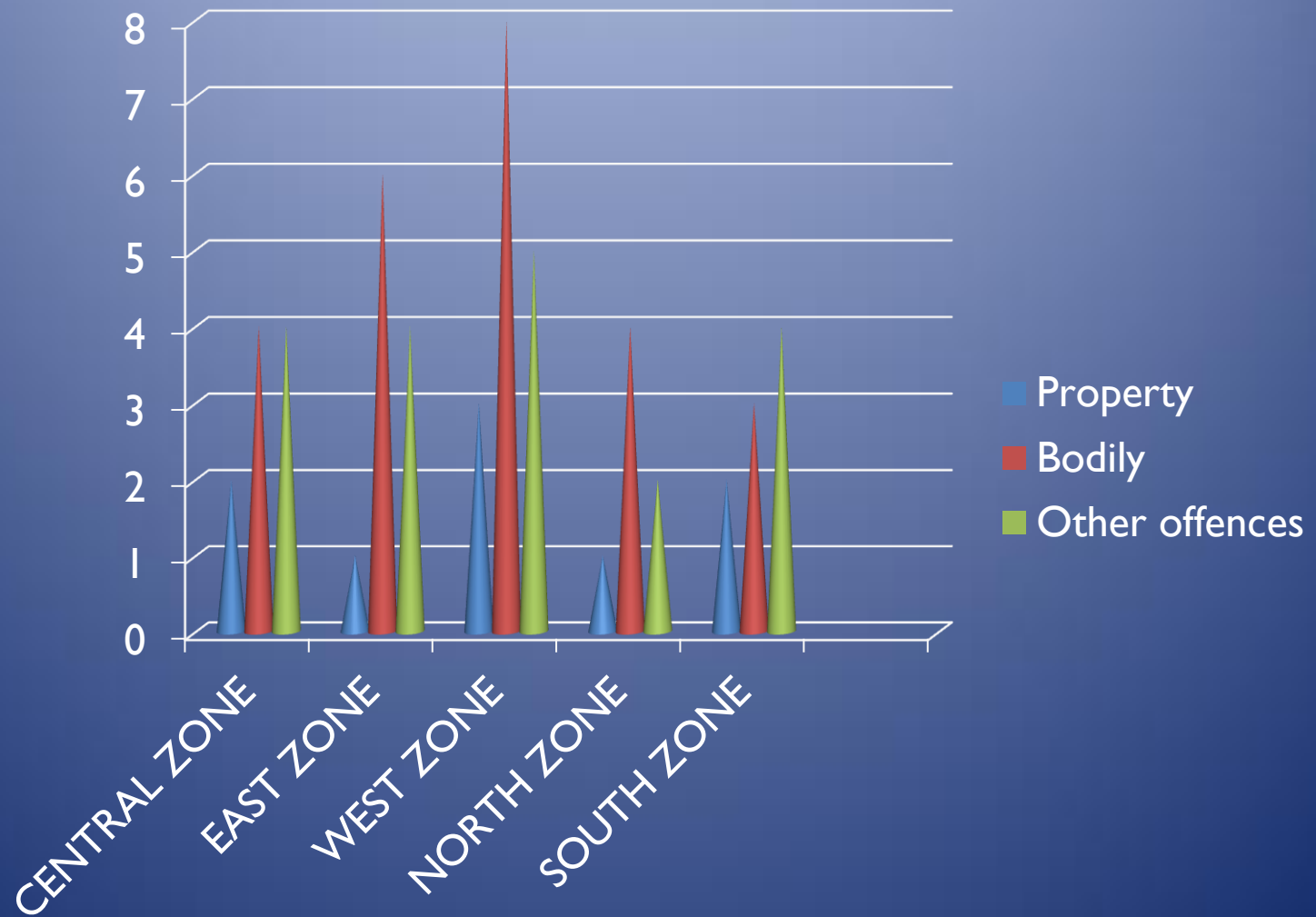


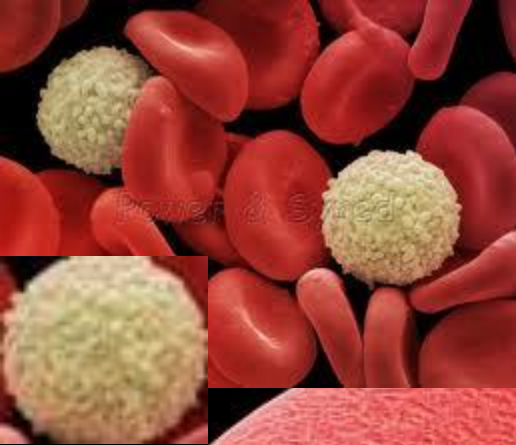


# MONTHLY STATUS REPORTS



# DAILY STATUS REPORTS





THANQ...

