

# VISION FOR THE FUTURE



CURRENT GLOBAL POSITION:

SURGICALLY ON PAR WITH :

USCA NORTH AMERICA

GBFRDE EUROPE

KRJPVN THE REST OF THE  
WORLD

PAKISTAN  
CAN  
ERADICATE  
HAIR LOSS

# HAIR LOSS PREVENTION



# CUBA





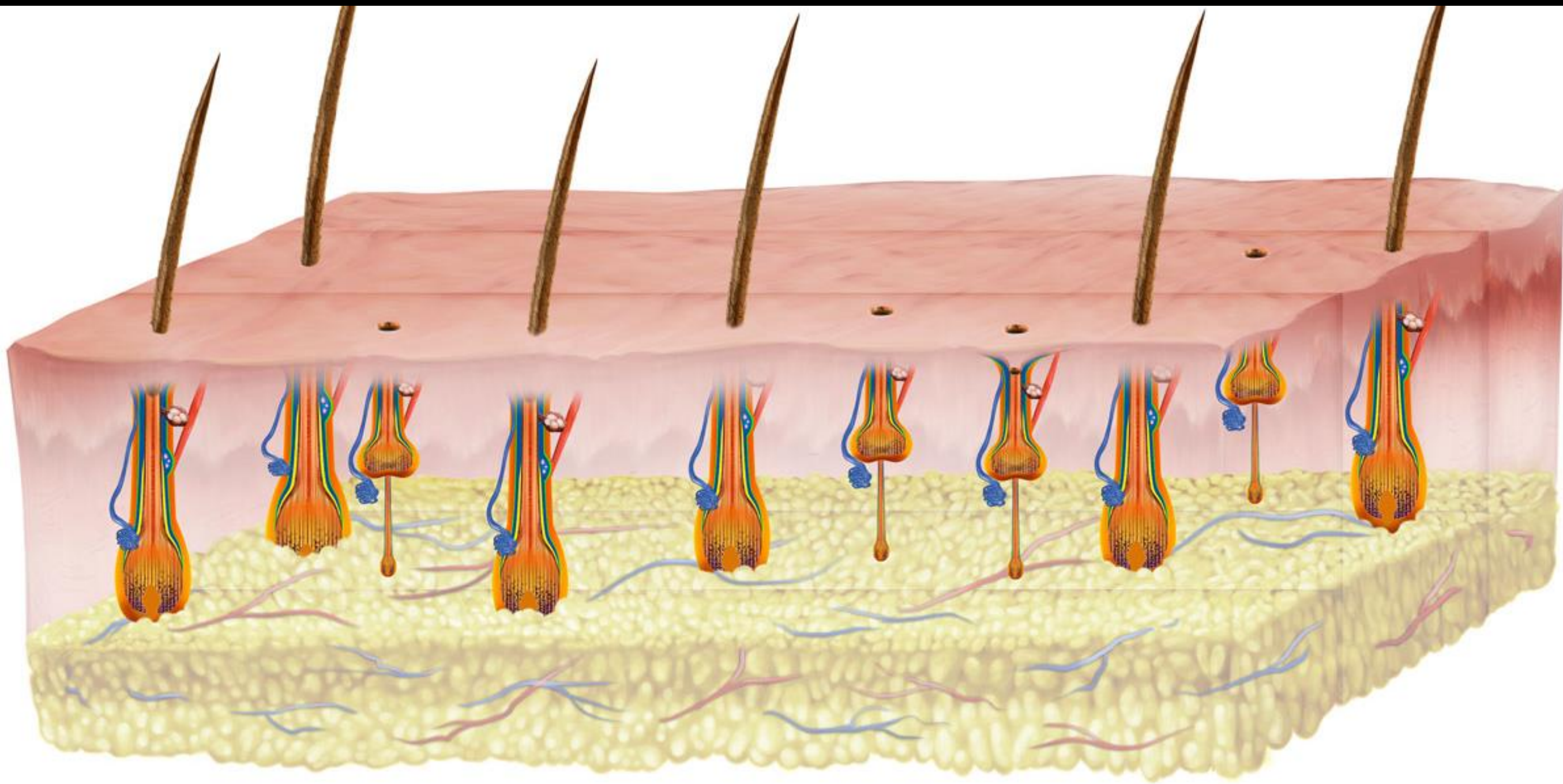
# CUBA

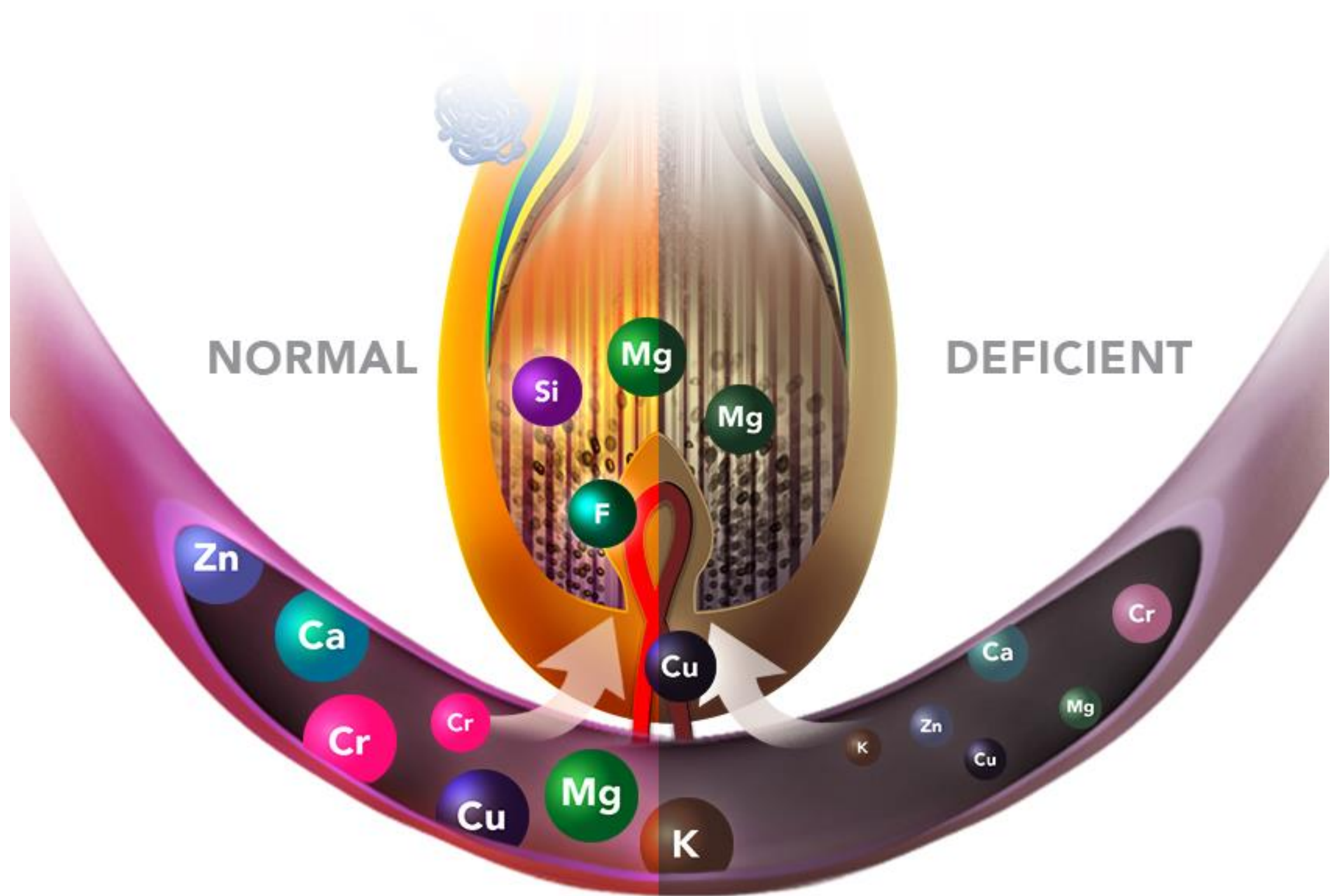
- Old - fashioned house calls
- Vaccines
- Prevention as priority



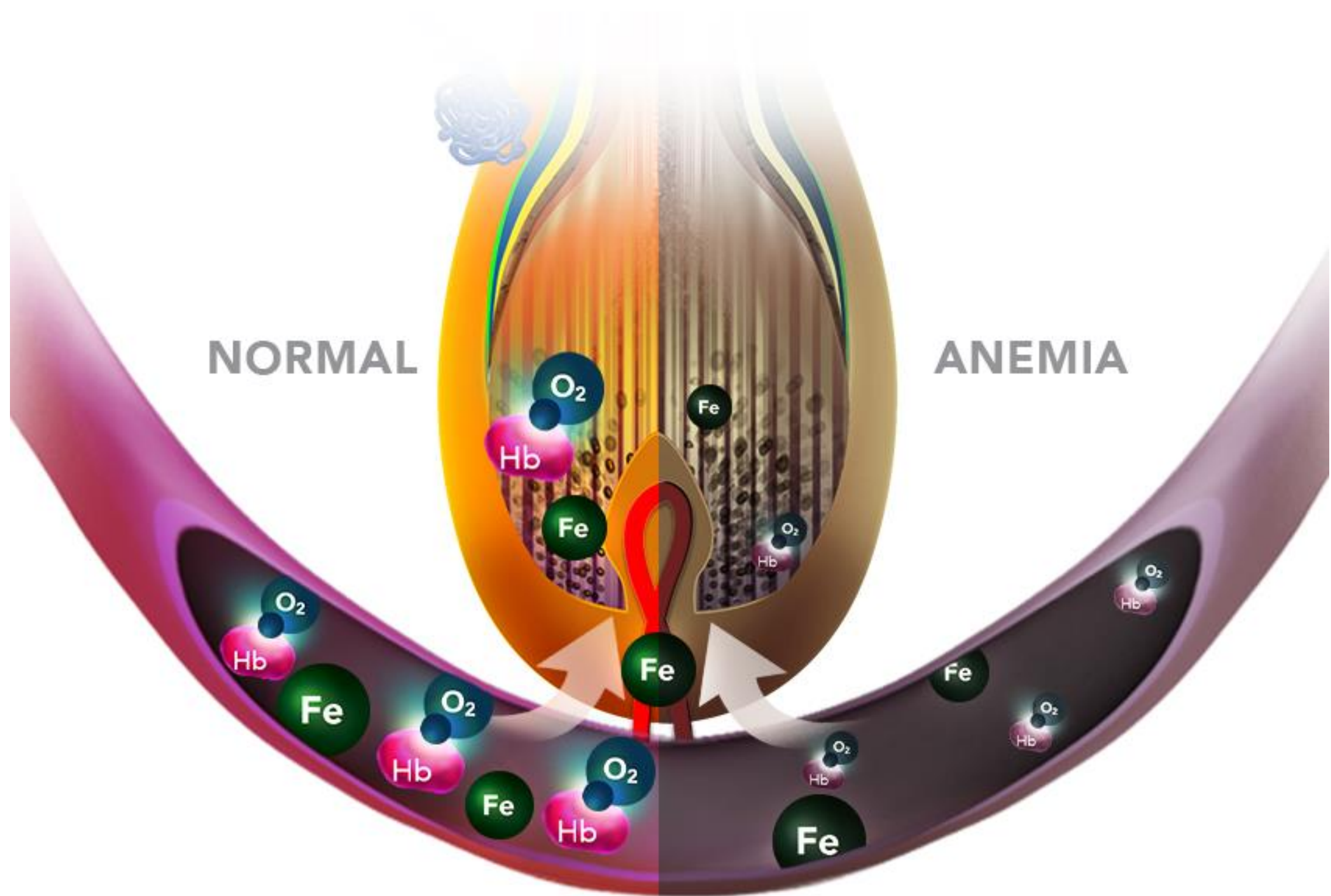


# TELOGEN EFFLUVIUM

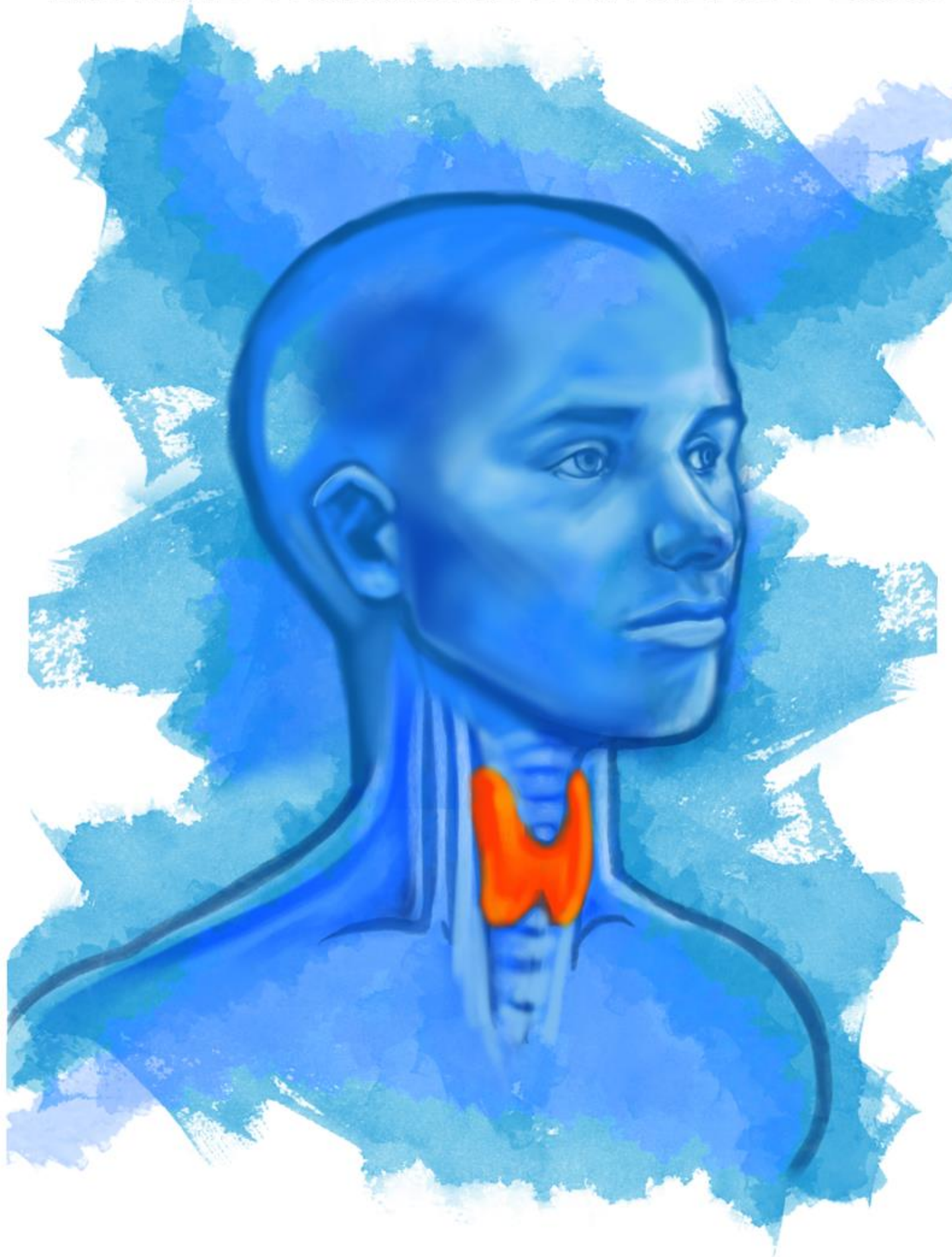








# THYROID HORMONE DEFICIENCY LOSS

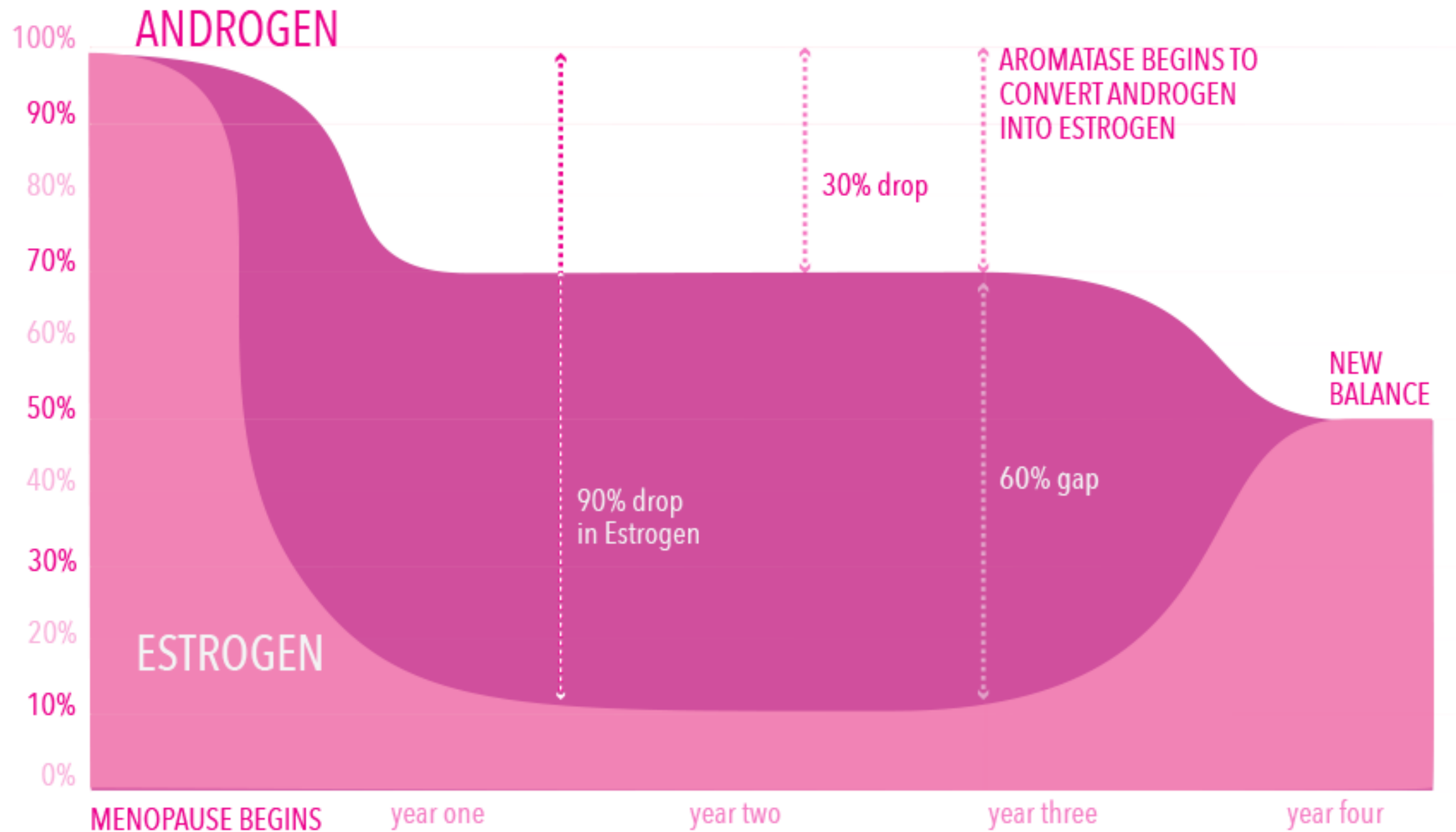






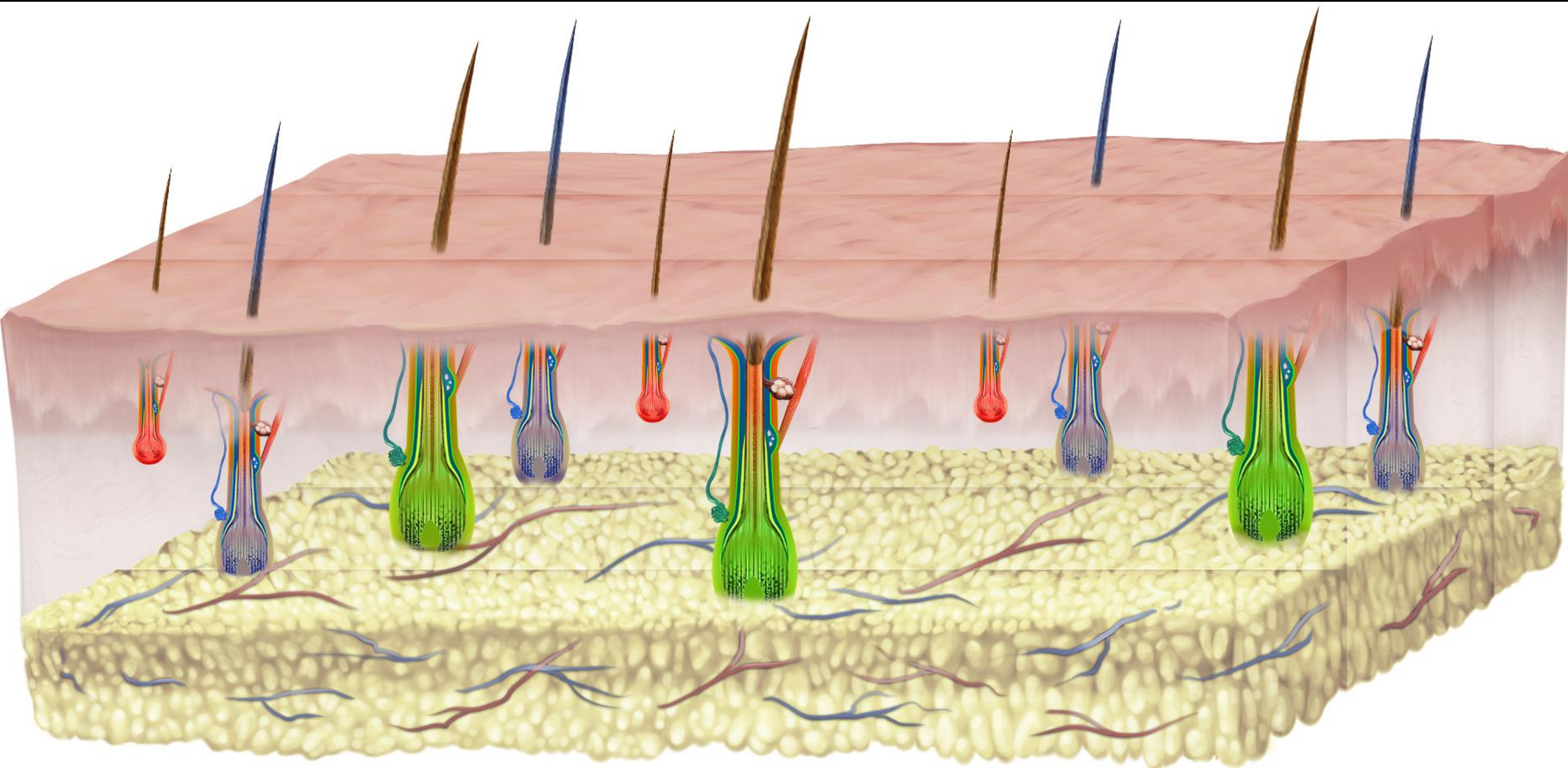
**SUBSTITUTING  
MEDICINES  
WISELY**

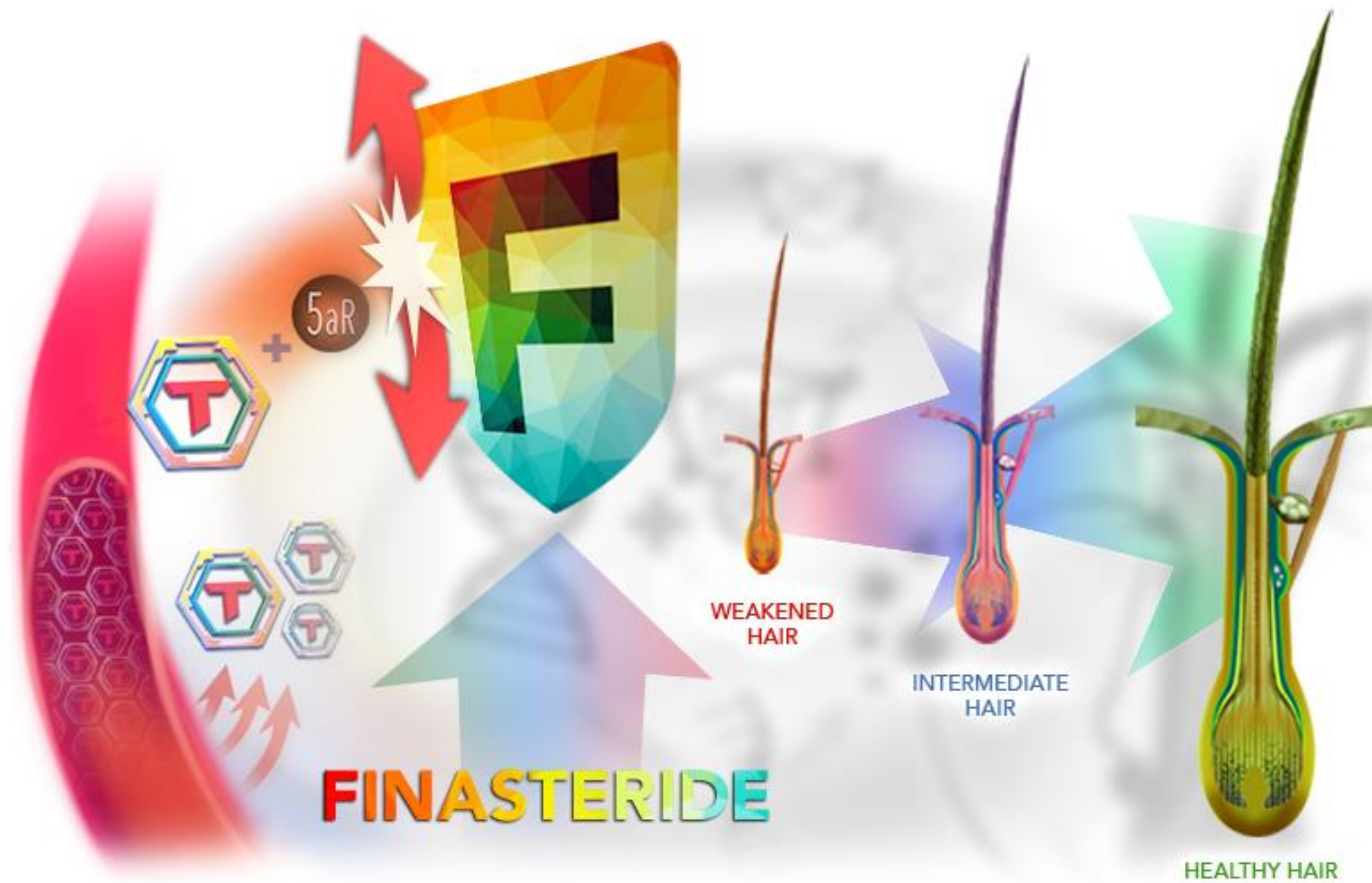
# MENOPAUSAL HAIR LOSS





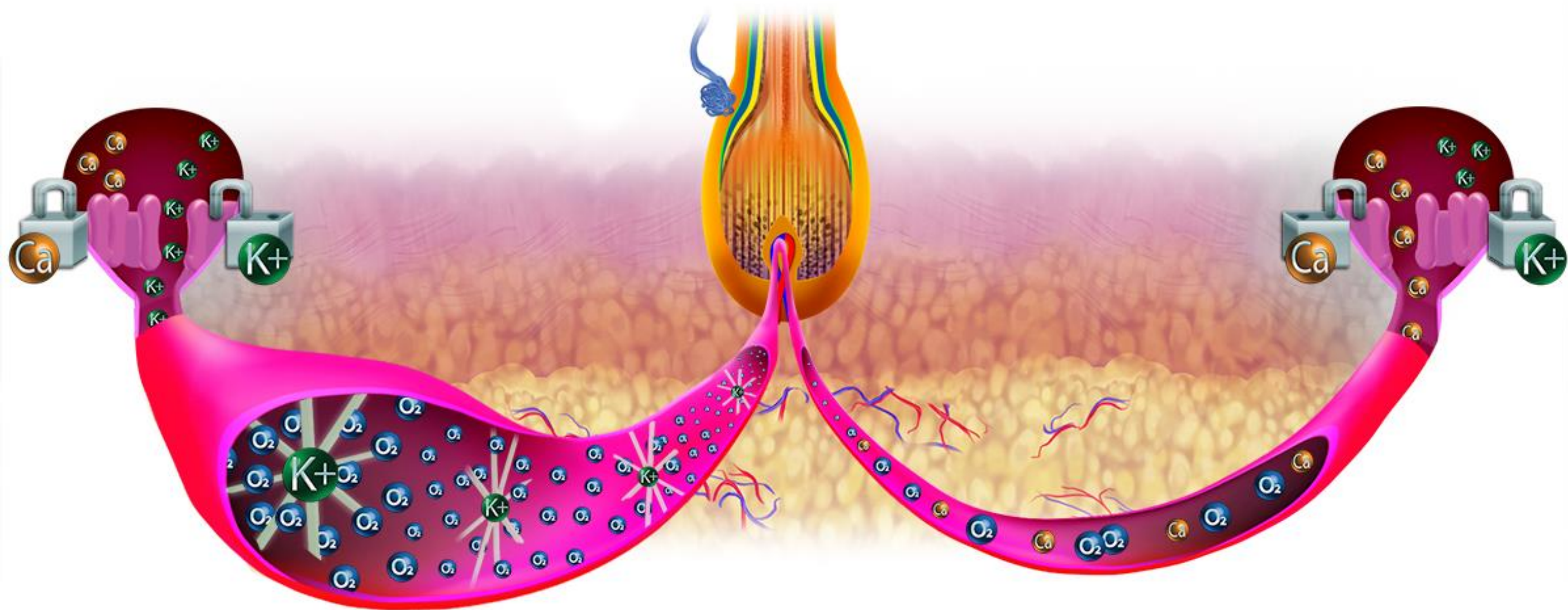
# PROGRESSIVE MINIATURIZATION







# MINOXIDIL



# HAIR LOSS RESEARCH



PAKISTAN:  
A LOT OF ROOM TO  
GROW

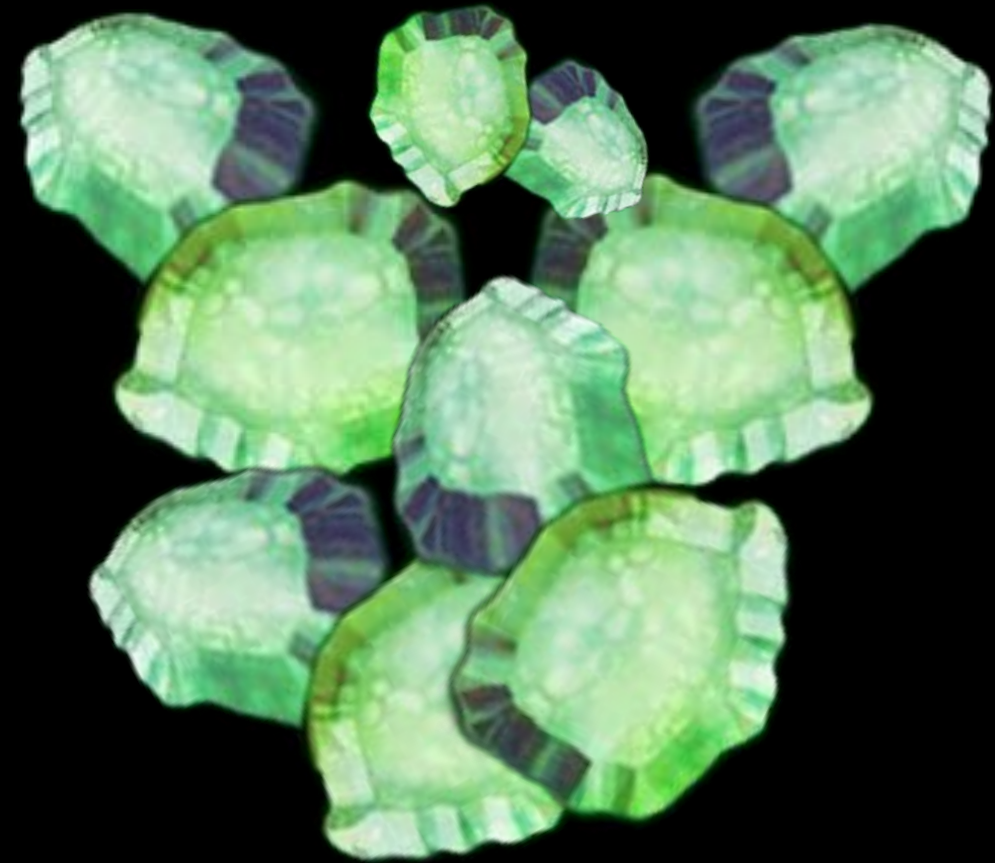
# GLOBAL RESEARCH FOCUS:



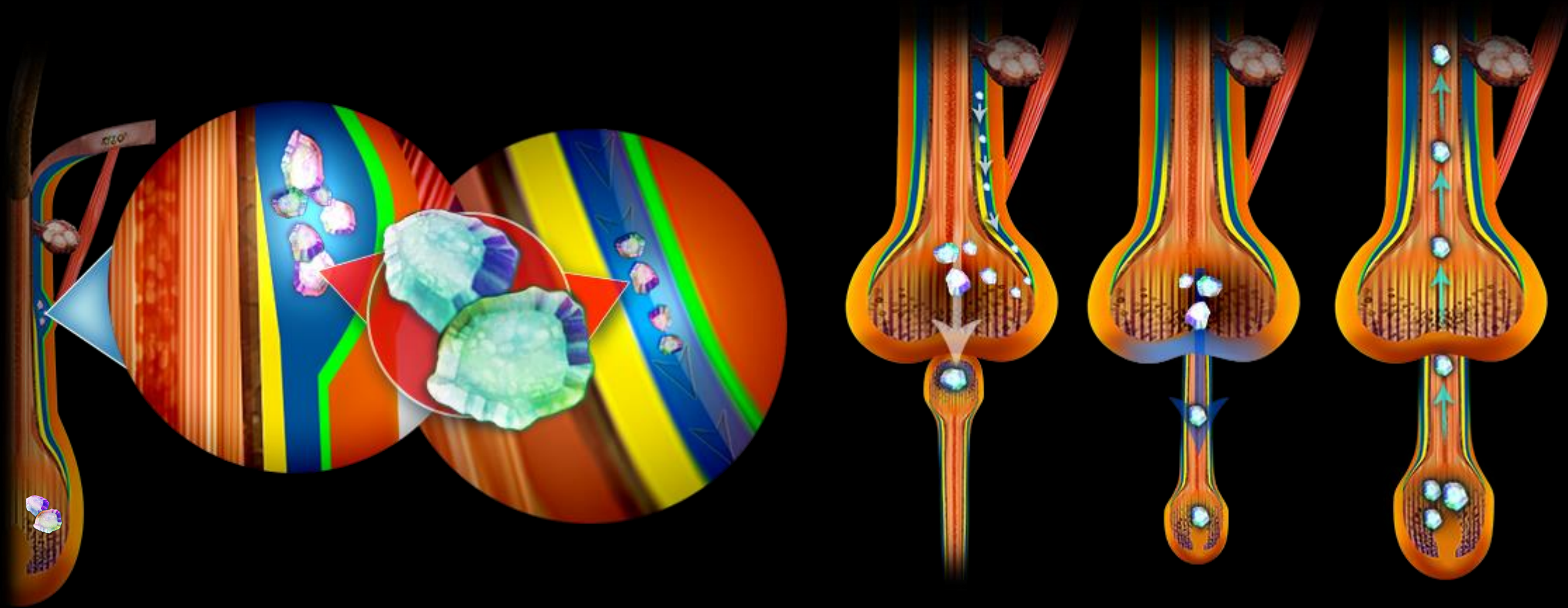


# PLURIPOTENT STEM CELLS

- Nestin expressing hair associated pluripotent stem cells in bulge and dermal papilla
- In culture differentiation begins
- It can repair spinal cord and
- Sciatic nerve damage
- Can produce cardiac muscle cells
- Melanocytes
- Elongation of Hair shaft
- Used for regenerative Medicine



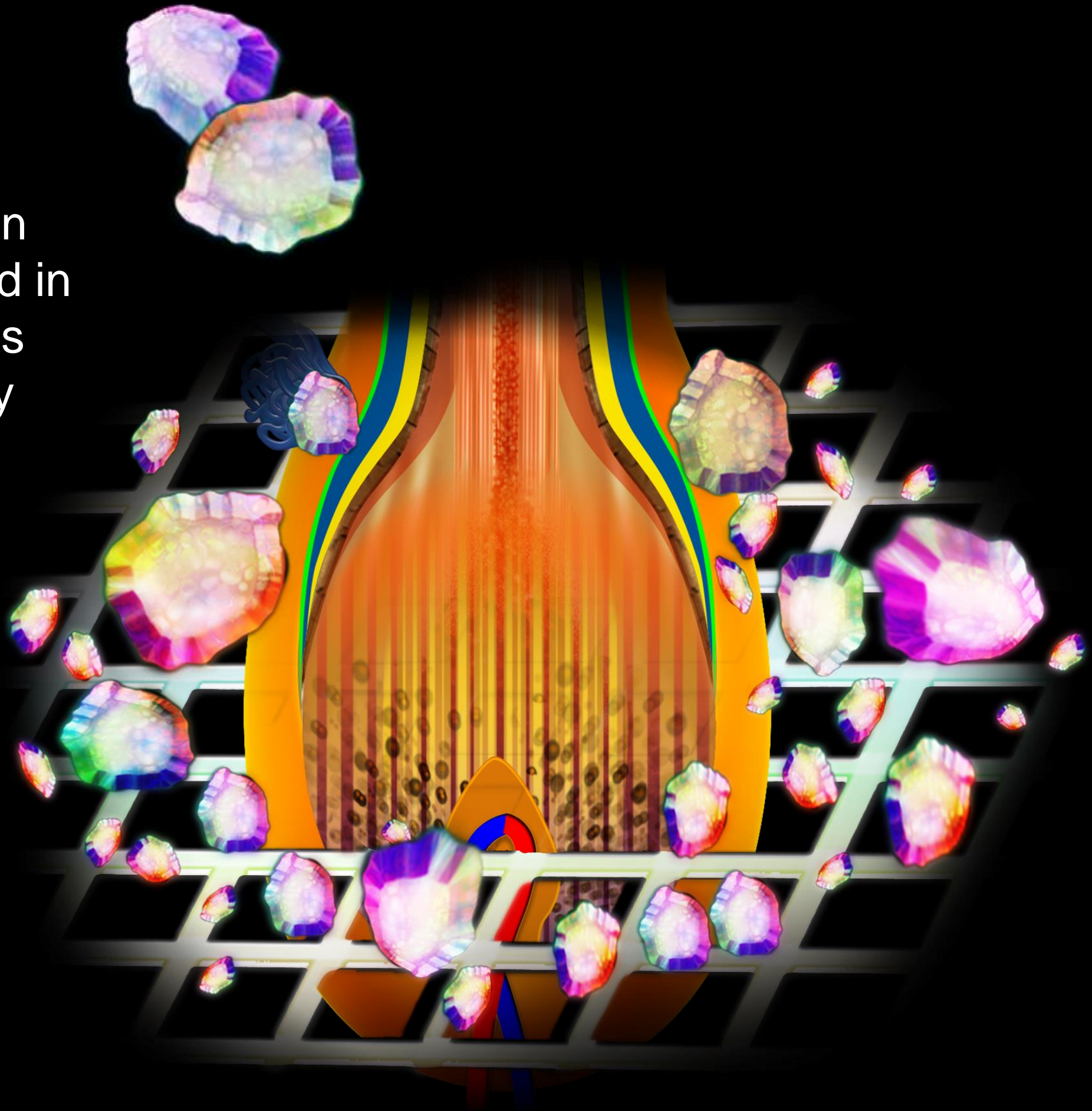
# PLURIPOTENT STEM CELLS





# HOX-C8

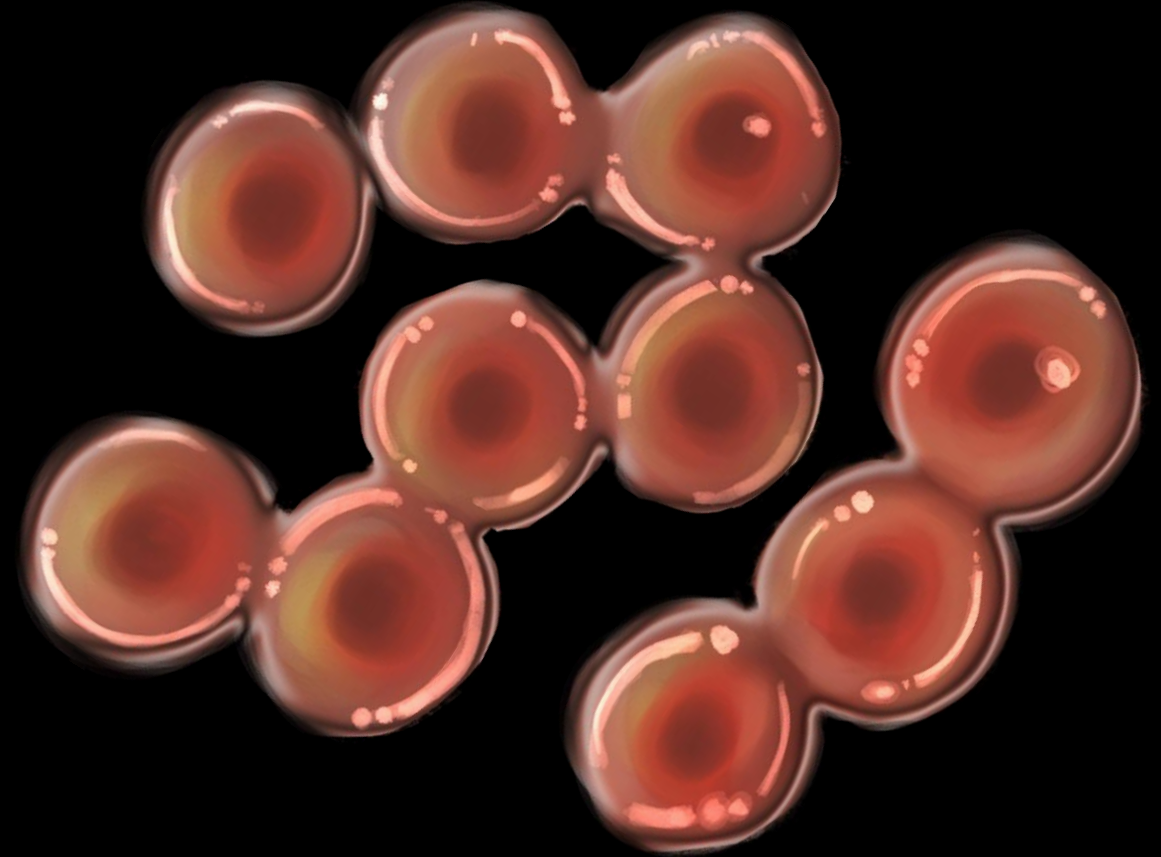
- Homeobox protein Hox-c8 expressed in dermal papilla has inductive capacity allowing for hair regrowth



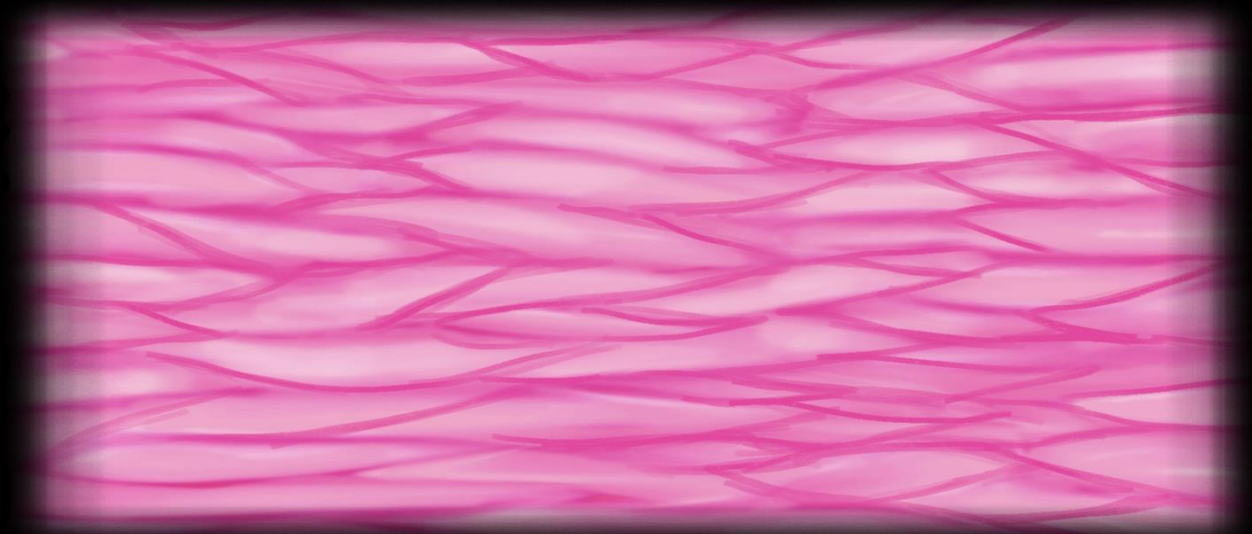
# 2D CULTURE VS 3D CULTURE

- 3 D culture of human scalp DP
- Placed between epidermis and dermis
- Up regulation of secreted frizzled protein
- Alkaline phosphatase
- Activin A ( Most important )
- Wnt/beta-catenin signalling a DP signature pathway

3D Cellular Culture



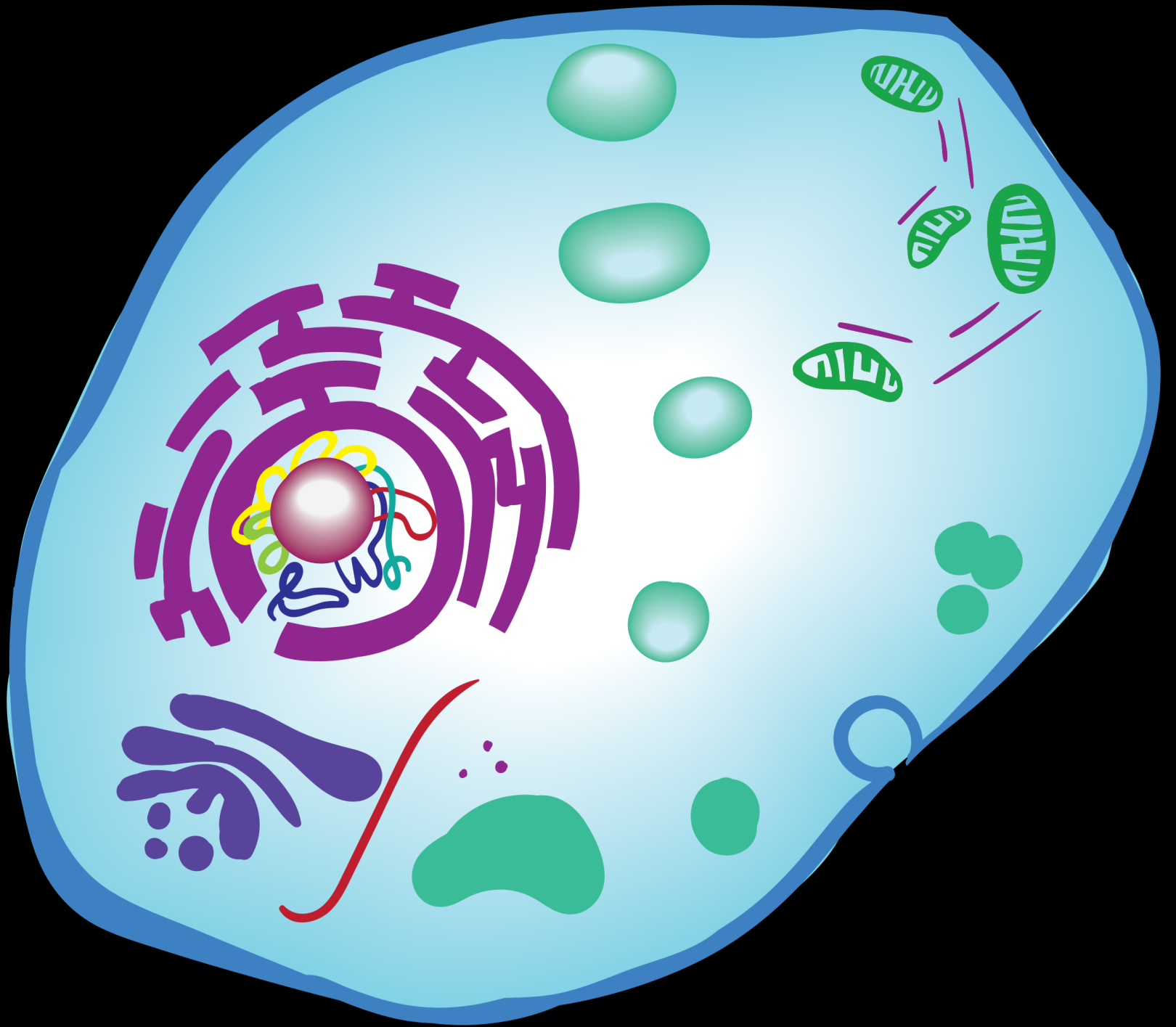
2D Cellular Culture





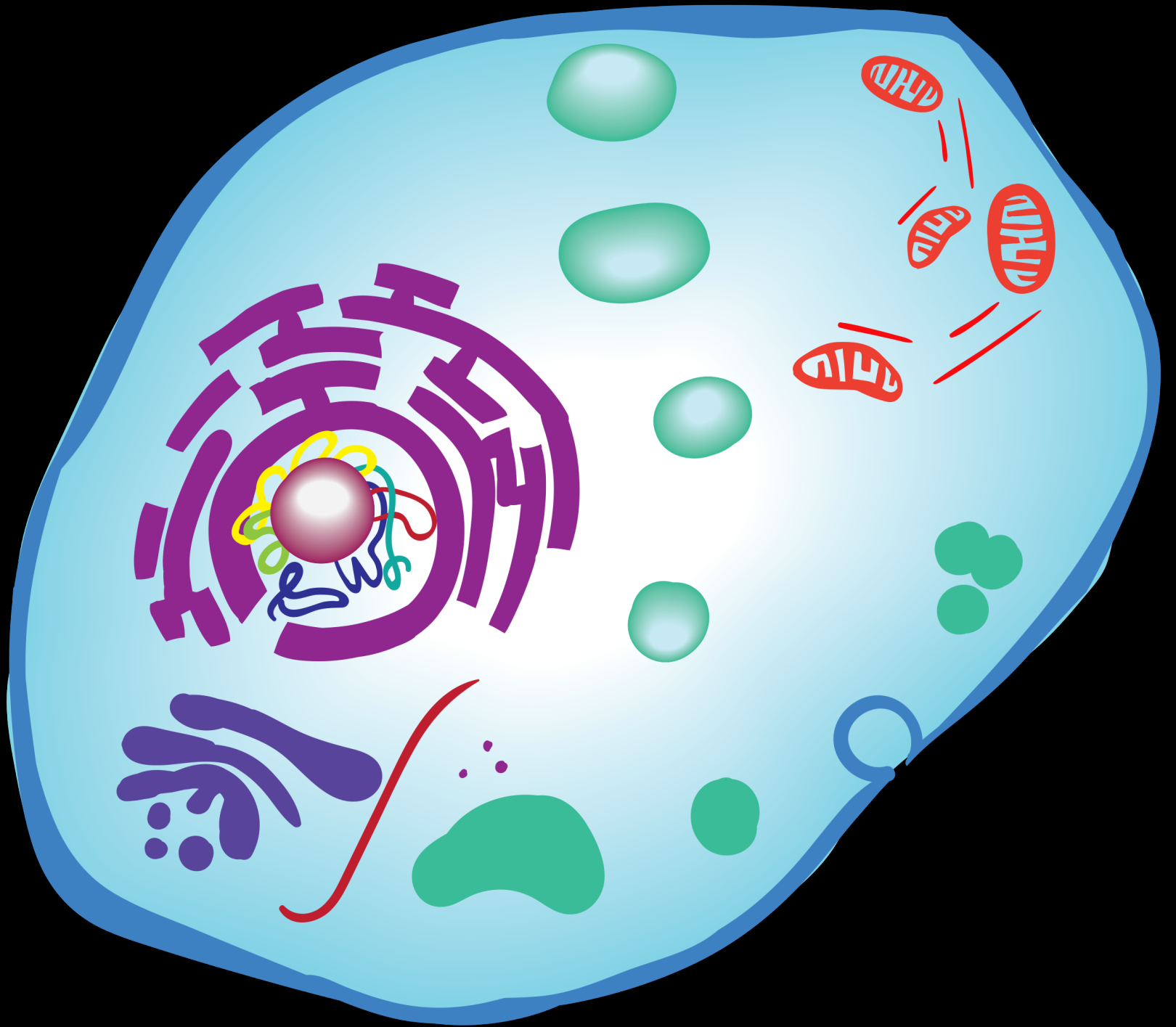
# AUTOPHAGY

- Is a process of cellular recycling commonly observed during stress. It enable the cell to survive and lives for longer period of time .
- LC38 expression is highest in Anagen Phase



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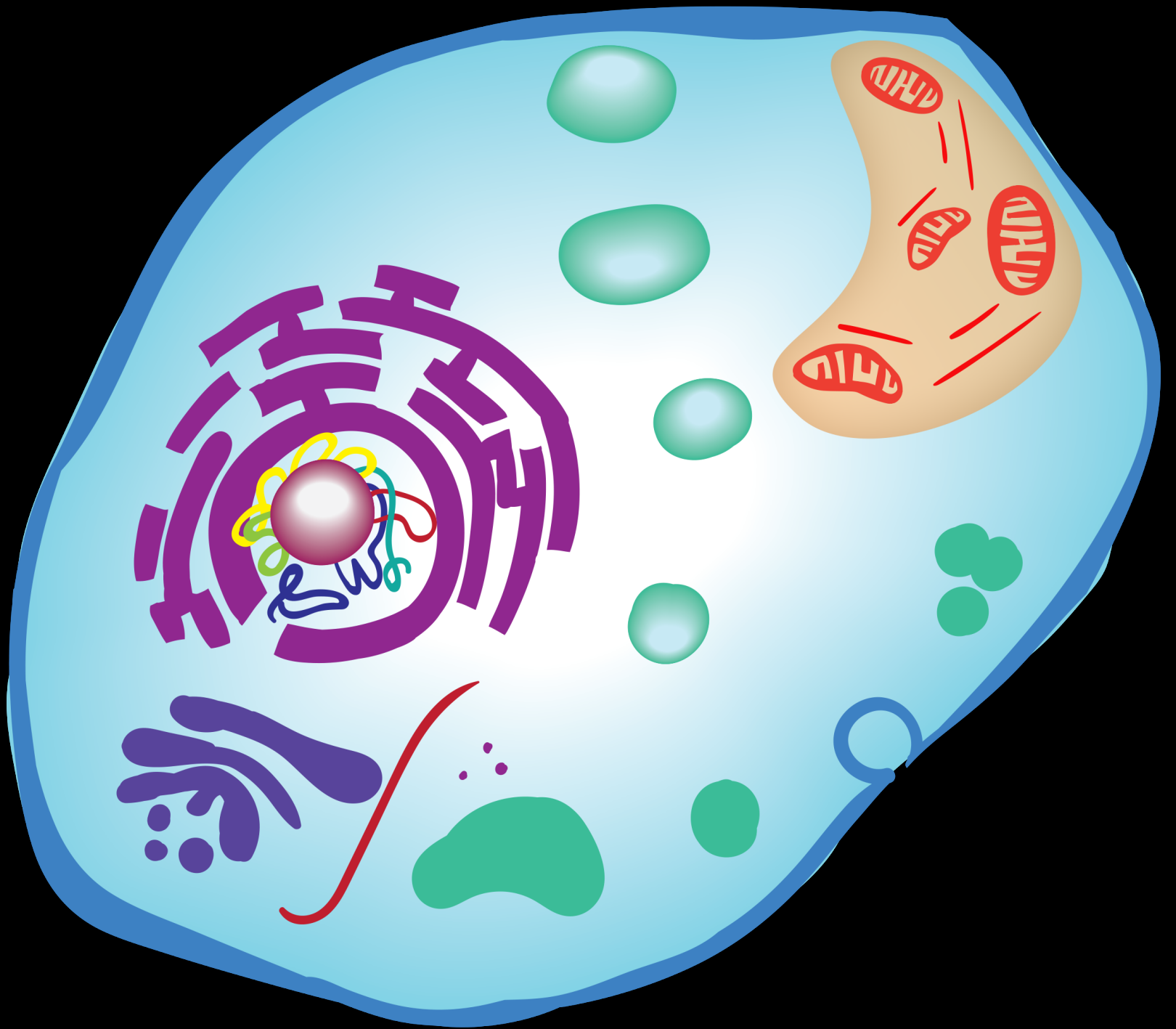
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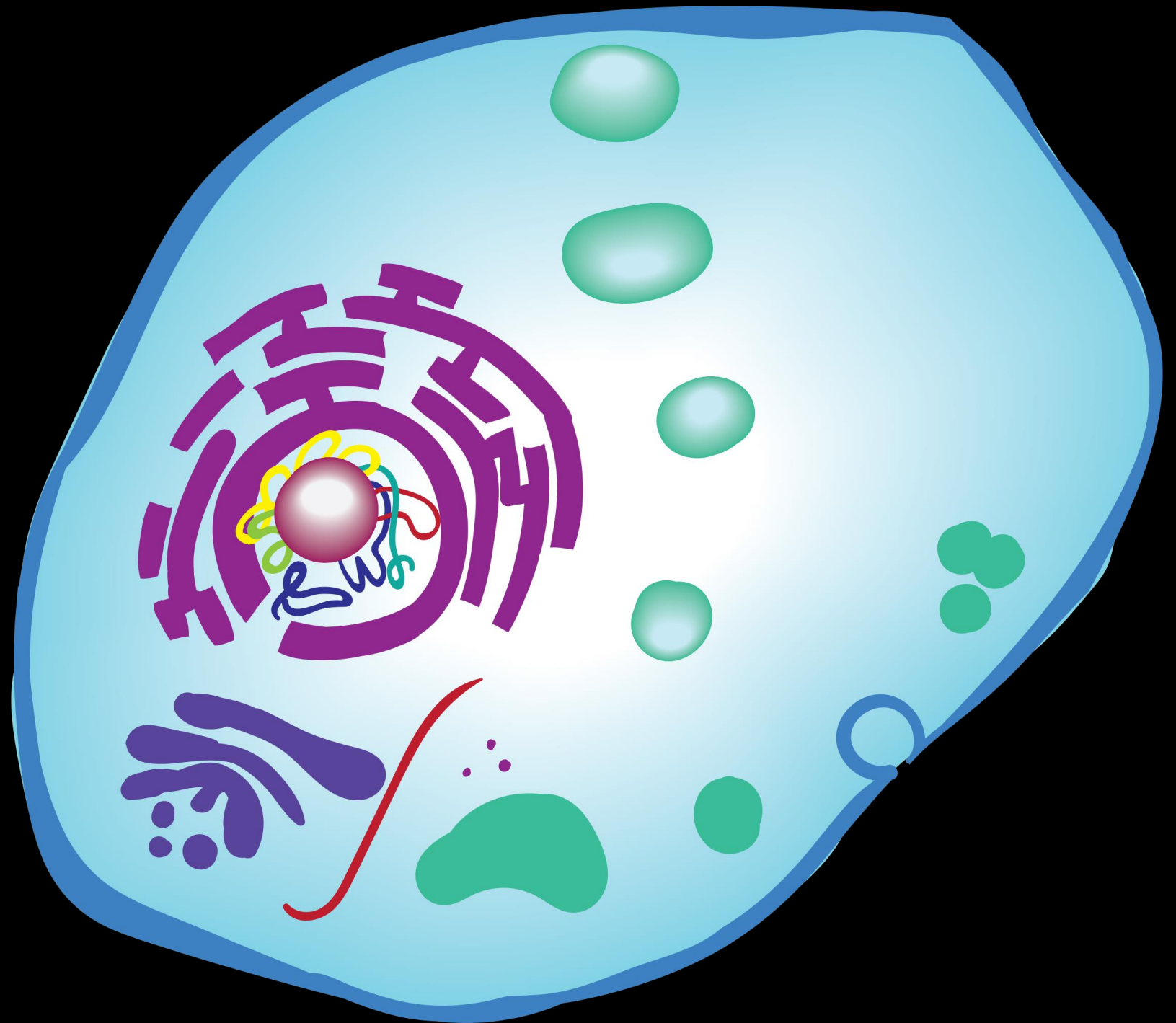
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UNITY

LEARN FROM ONE ANOTHER

FAITH

PRIORITIZE YOUR SERVICE



# WHAT IS BEST FOR THE CLIENT?

- Don't get caught in your BIAS
- Let your preferred methods reflect the BEST methods available

DISCIPLINE

VOCATION AS DUTY



