

*A family of matched parent-child HLA haplotypes:  
A case study from Bahrain*

*GCC Forensics Conference & Exhibition  
14.Nov.2019*

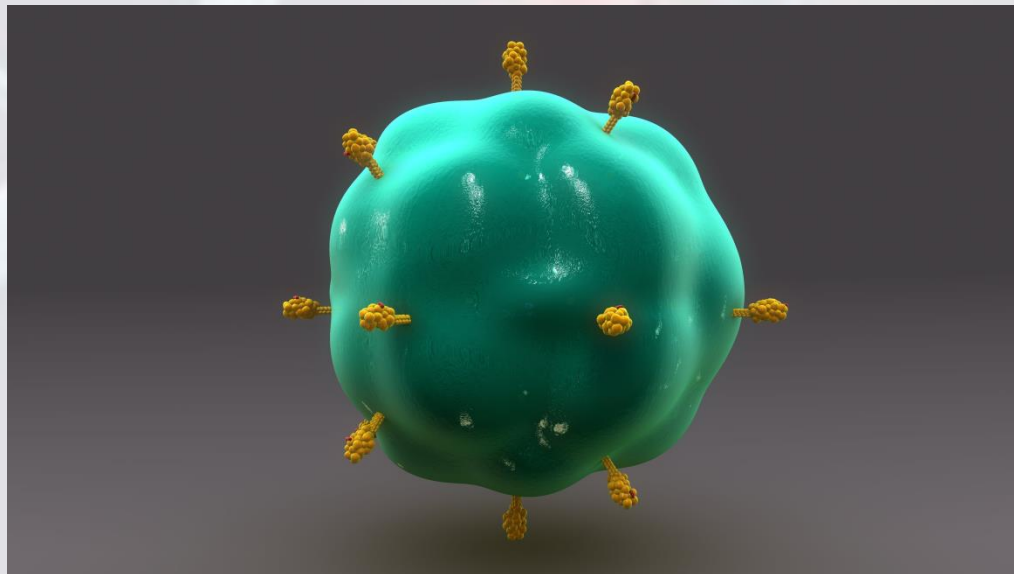
*Mariam Fida, MD, PhD  
Director | PGD  
Consultant | Medical Genetics*



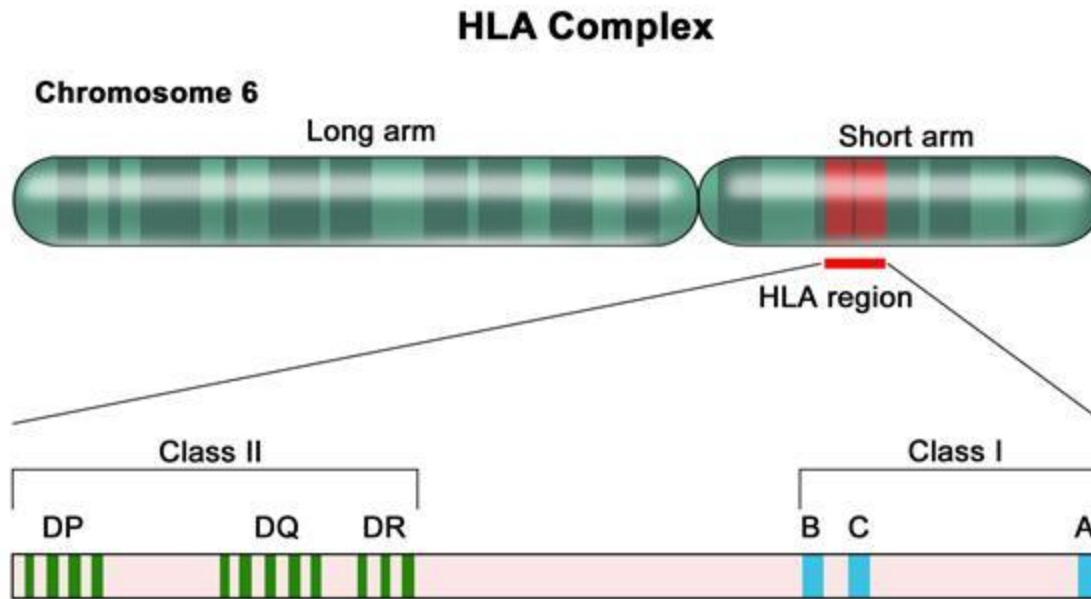
DrMariamPGD

# *HLA Typing*

Match patient & donors for bone marrow,  
cord blood or organ transplants

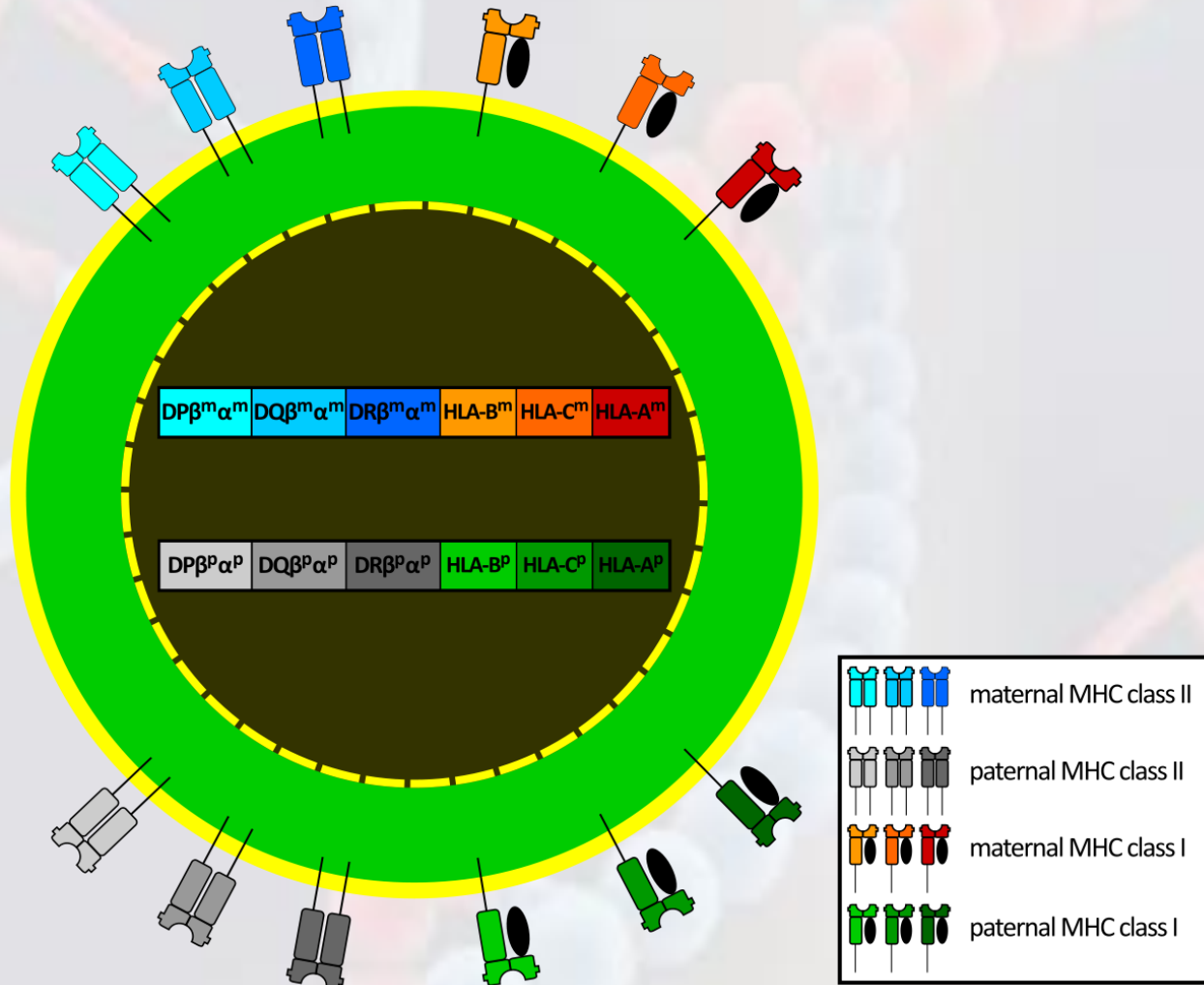


# HLA Complex

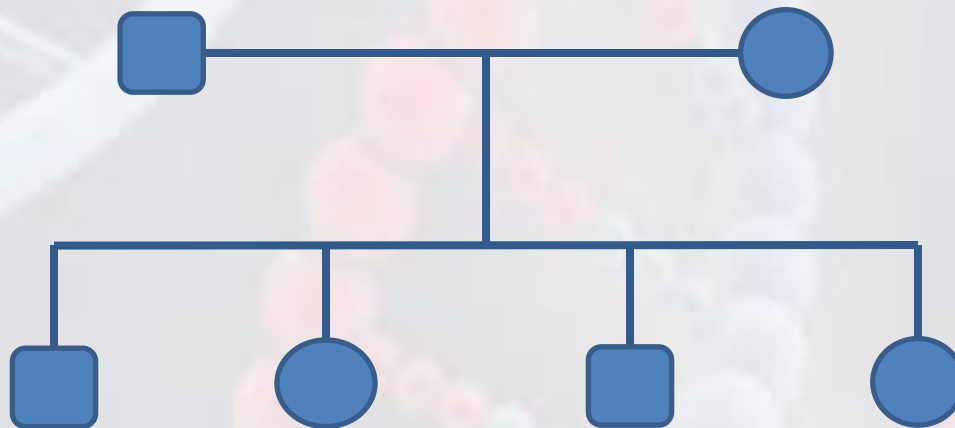


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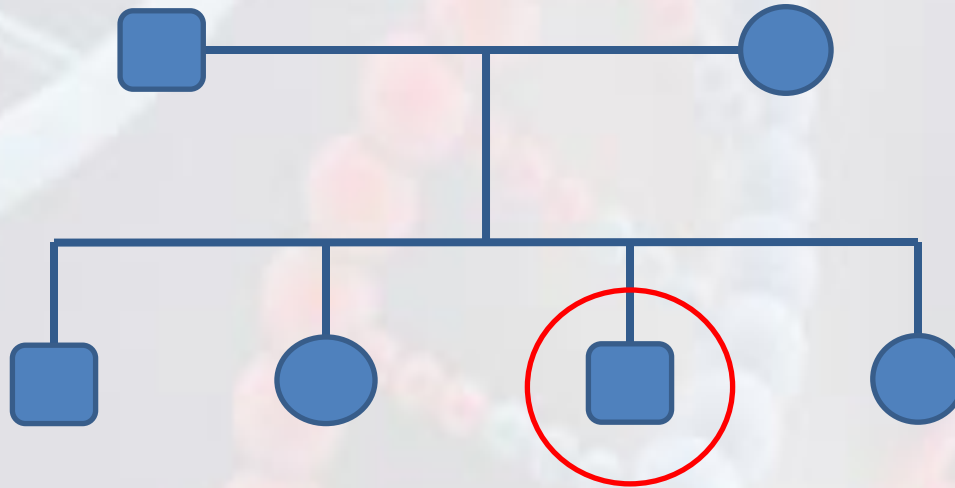
# HLA Typing



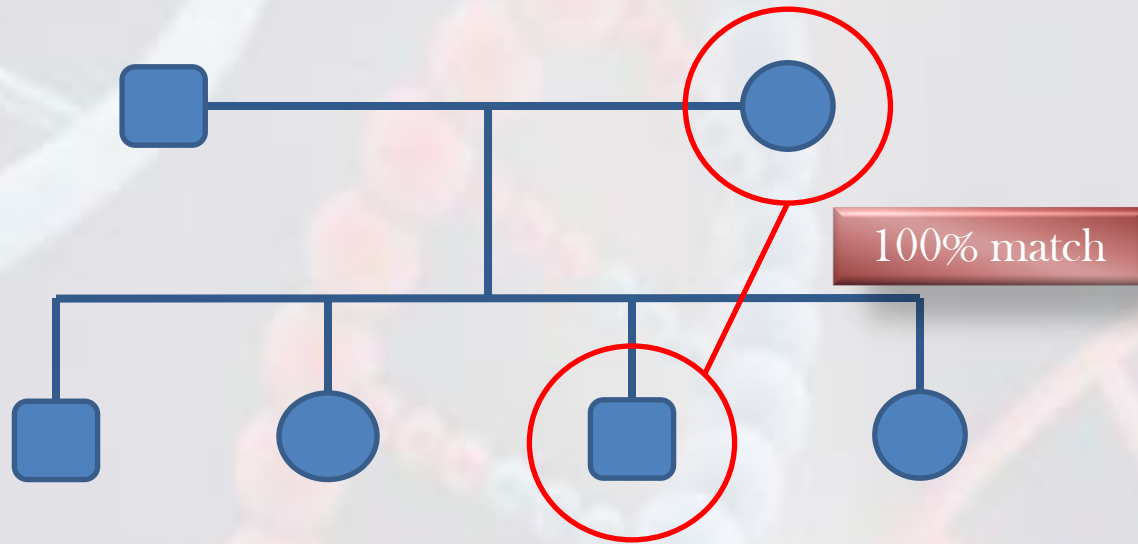
## *Relatives of patient*



# *Relatives of patient*

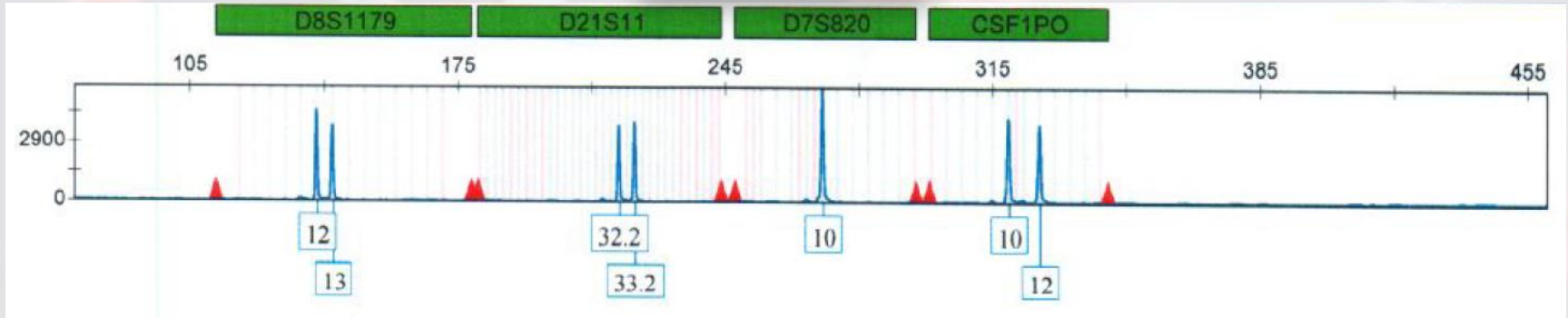


# *Relatives of patient*

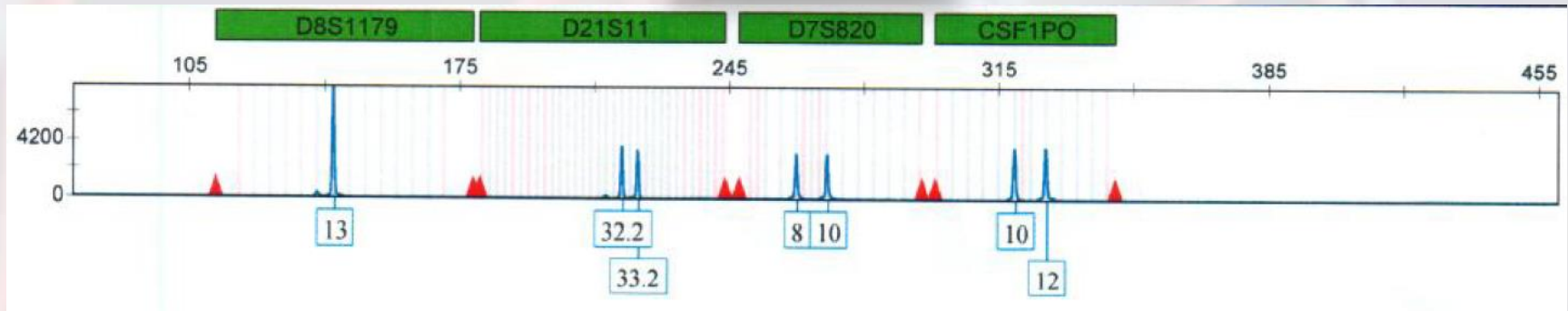


# Human Identification Test

Mother



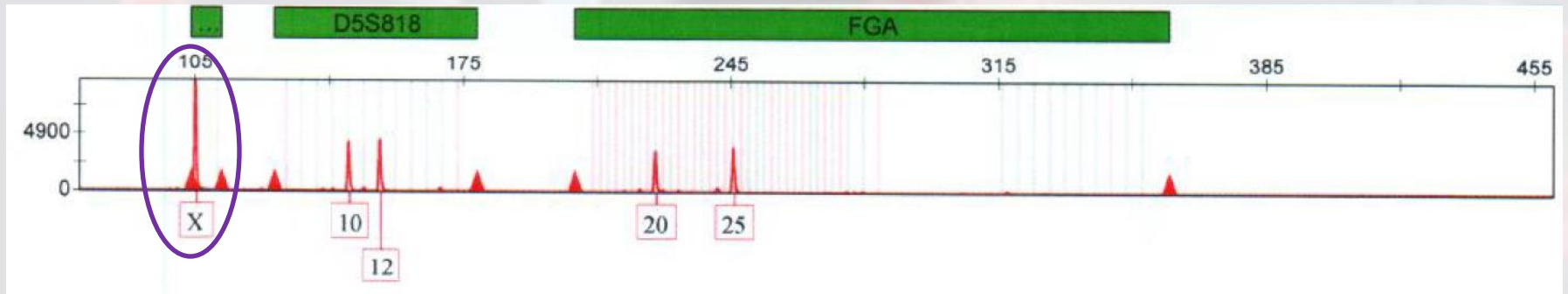
Son



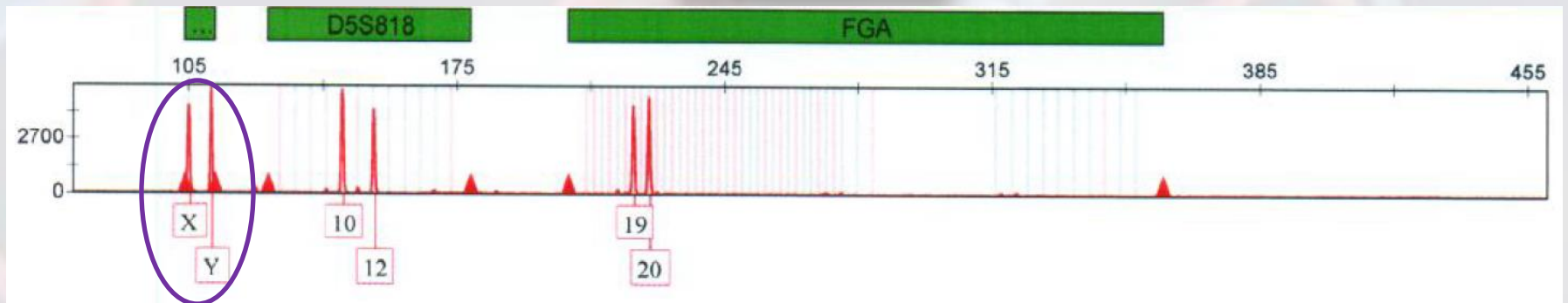


# Human Identification Test

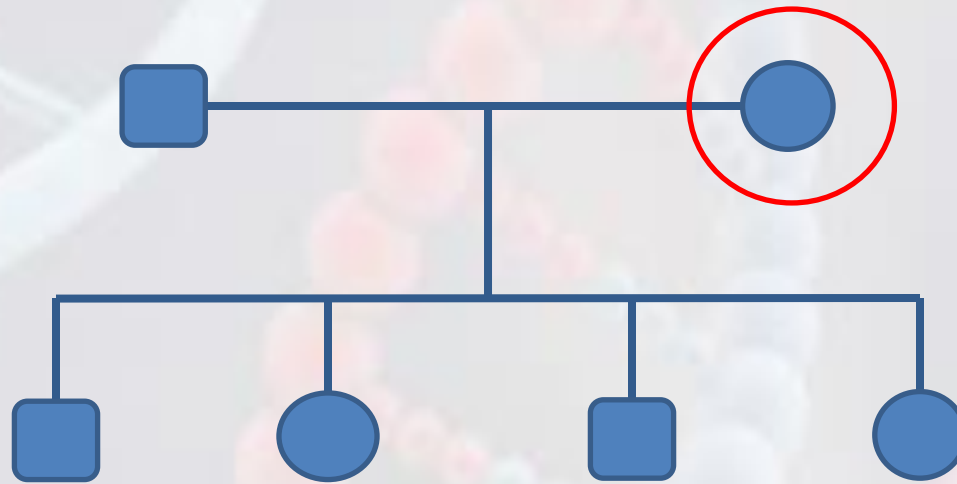
Mother



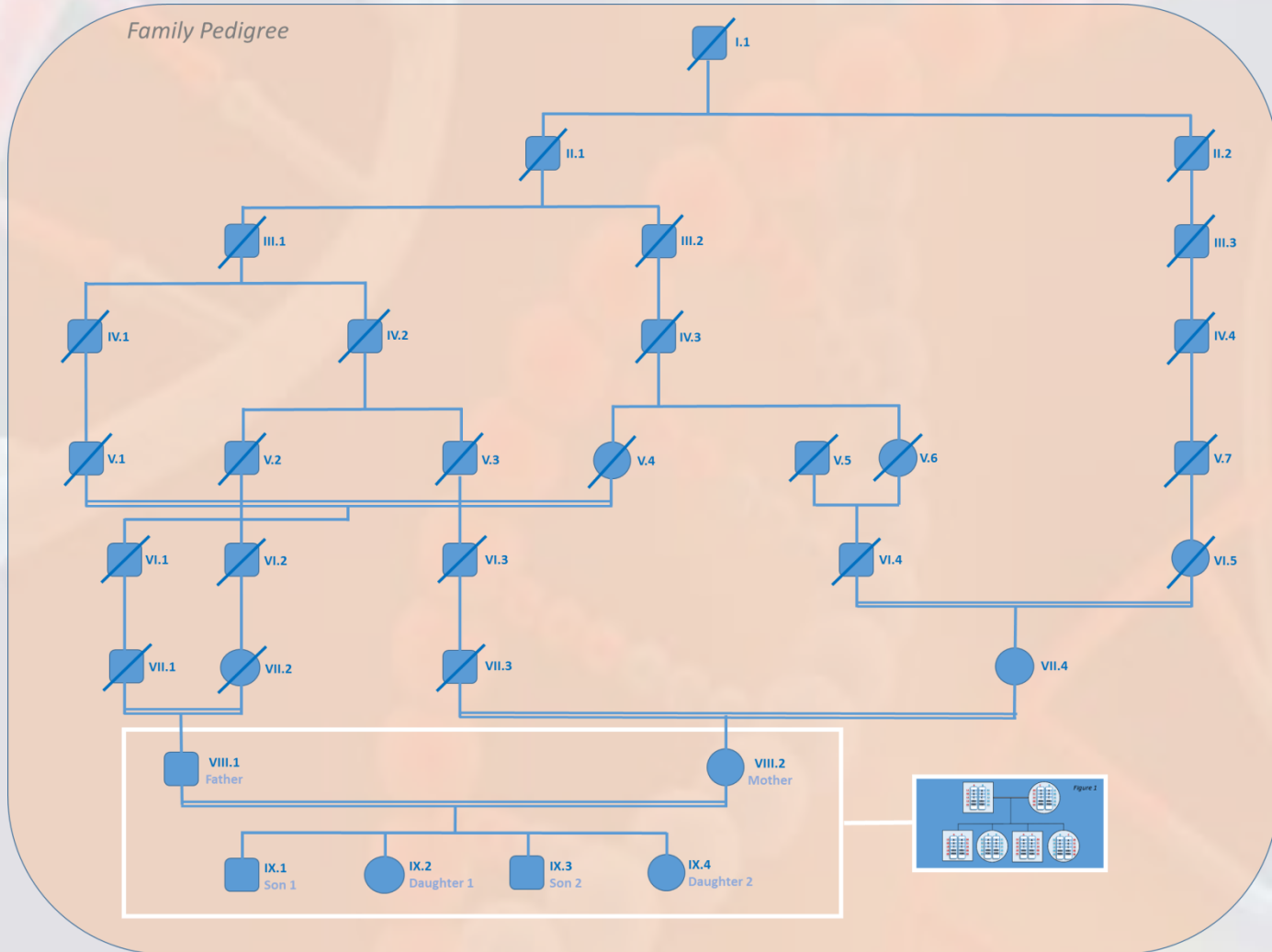
Son



# Consanguinity

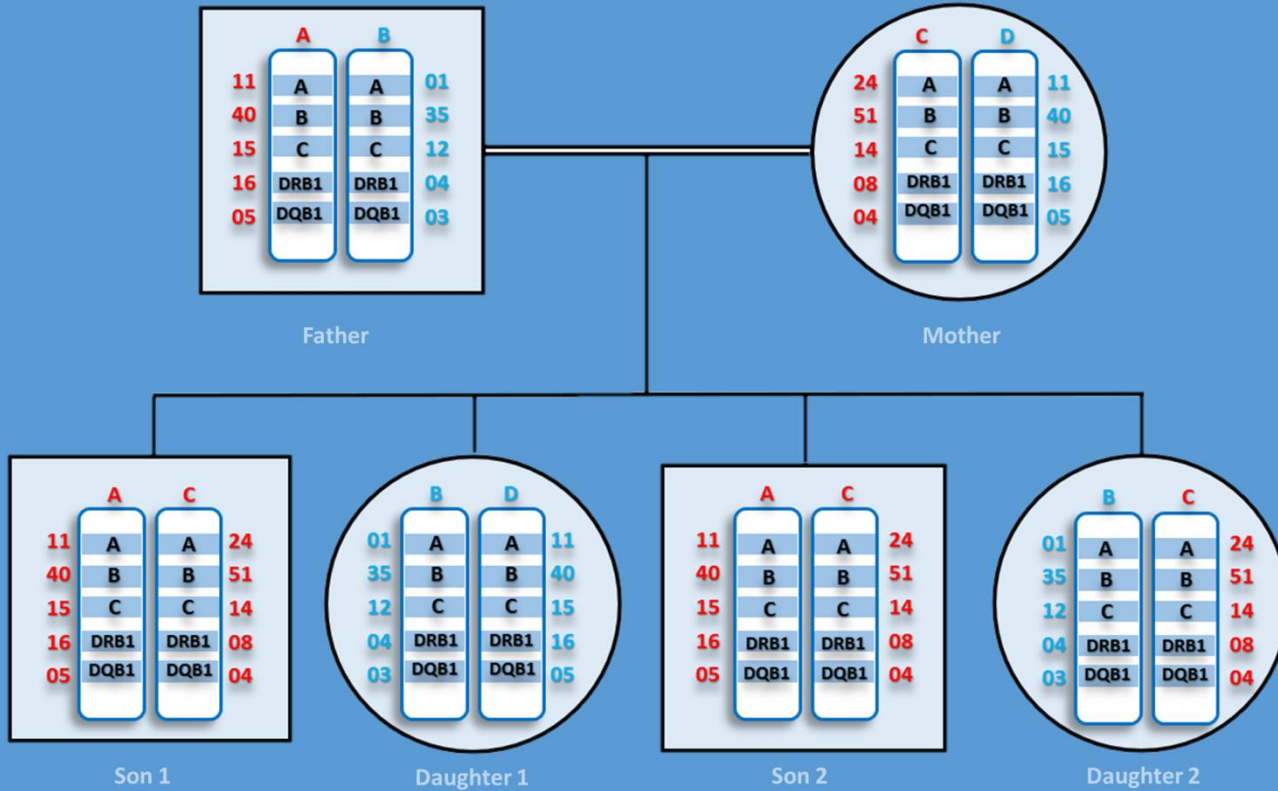


# Extended family pedigree



# Family Haplotypes

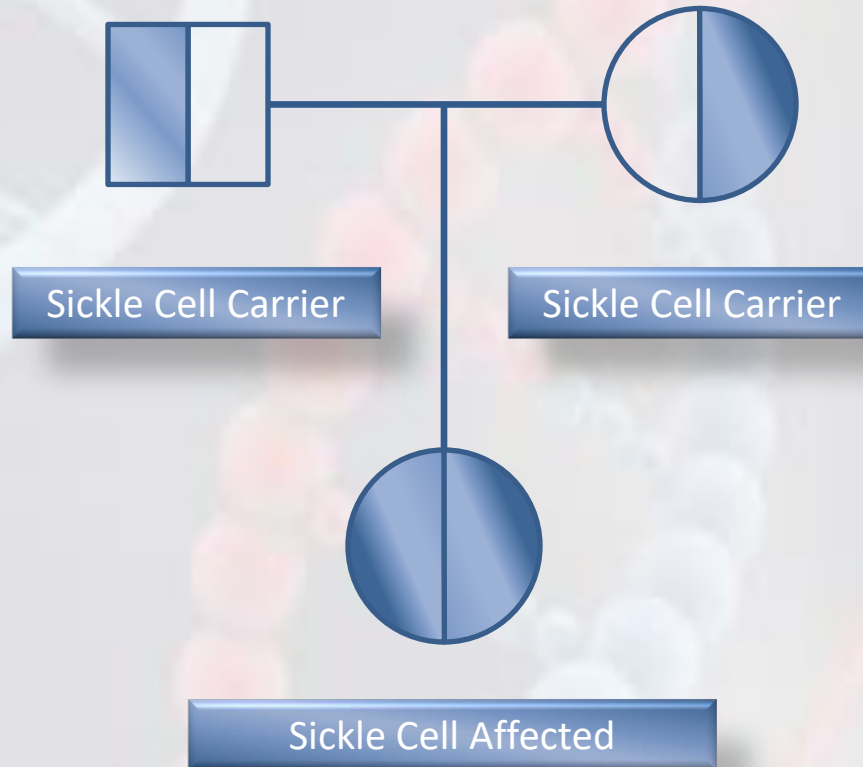
Figure 1





*Conclusion*

# *Sickle Cell Disease*



# PGT

SCID

Sickle Cell Disease

Polycystic Kidney Disease

Hemophilia

A test performed to analyze the DNA from oocytes or embryos for HLA-typing or for determining genetic abnormalities

Down Syndrome

Colon Cancer

Breast Cancer

Phenylketonuria

$\beta$ -Thalassemia

↓G6PD

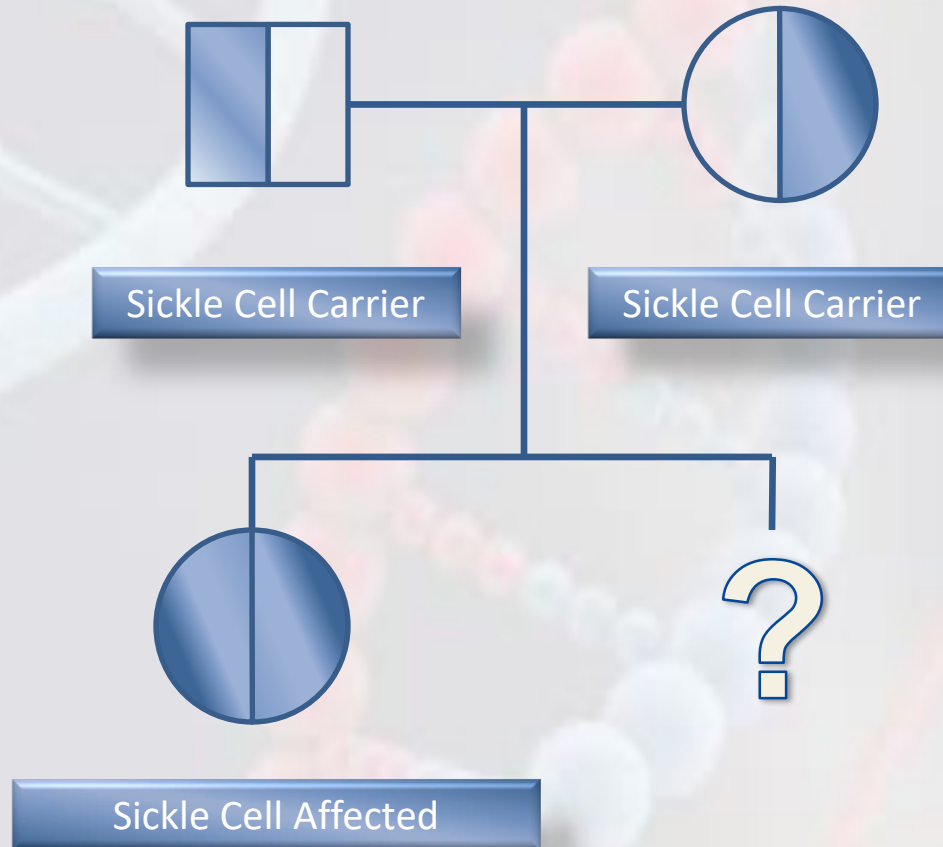
Fragile X

Spinal Muscular Atrophy

Cystic Fibrosis

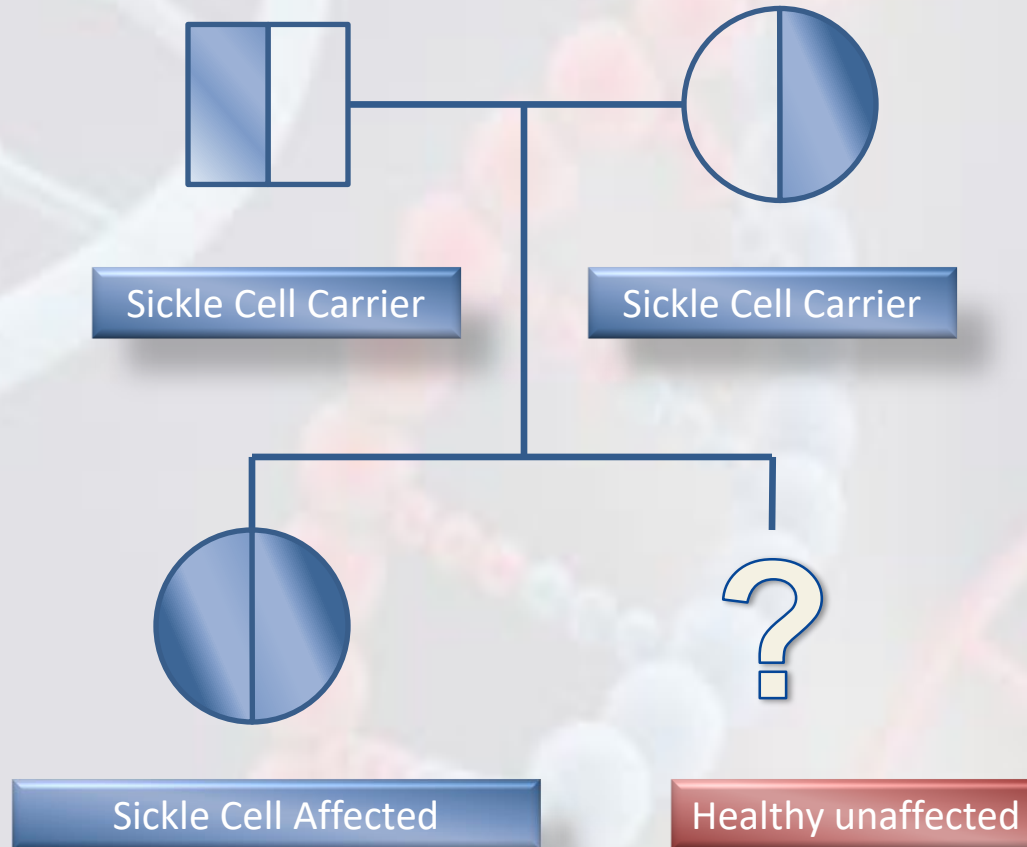
$\alpha$ -Thalassemia

# Sickle Cell Disease

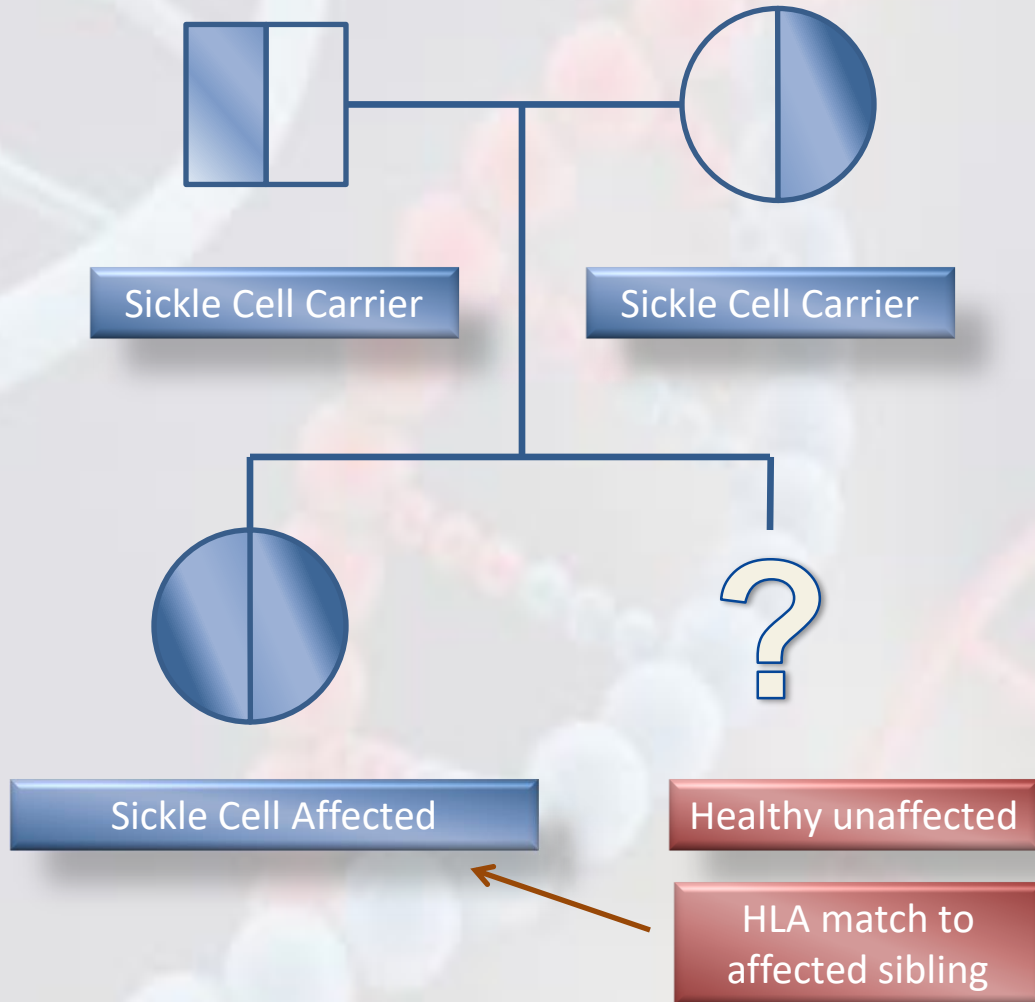




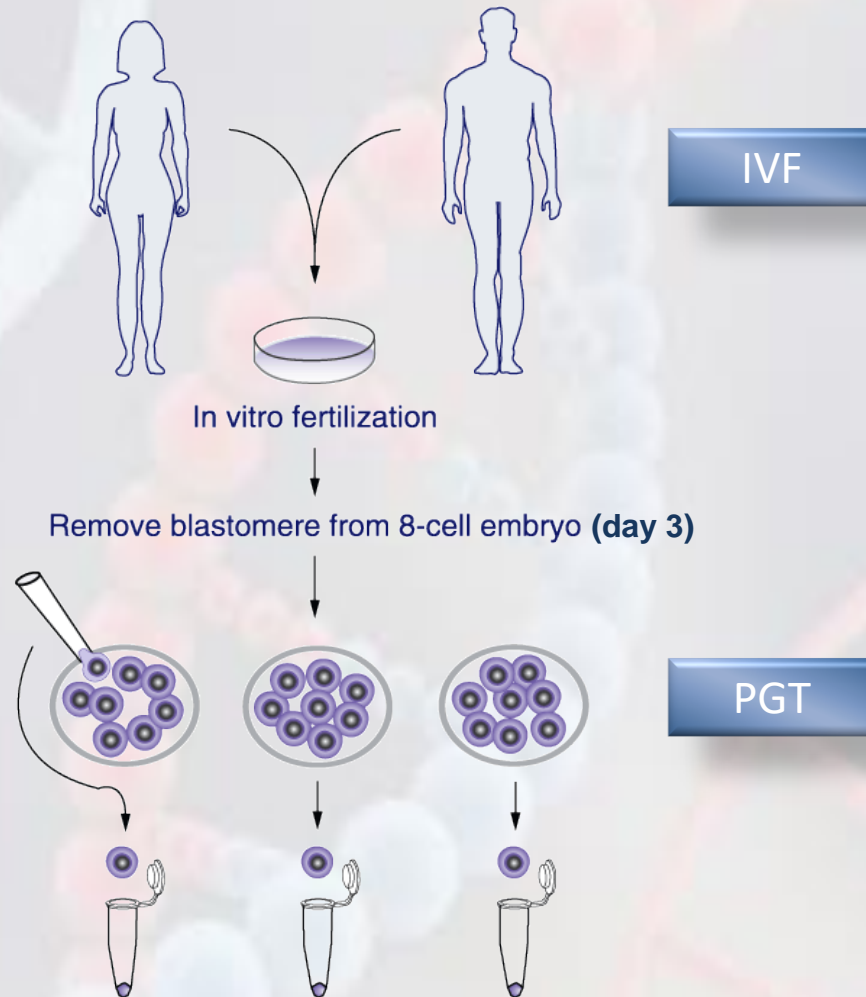
# *Sickle Cell Disease*



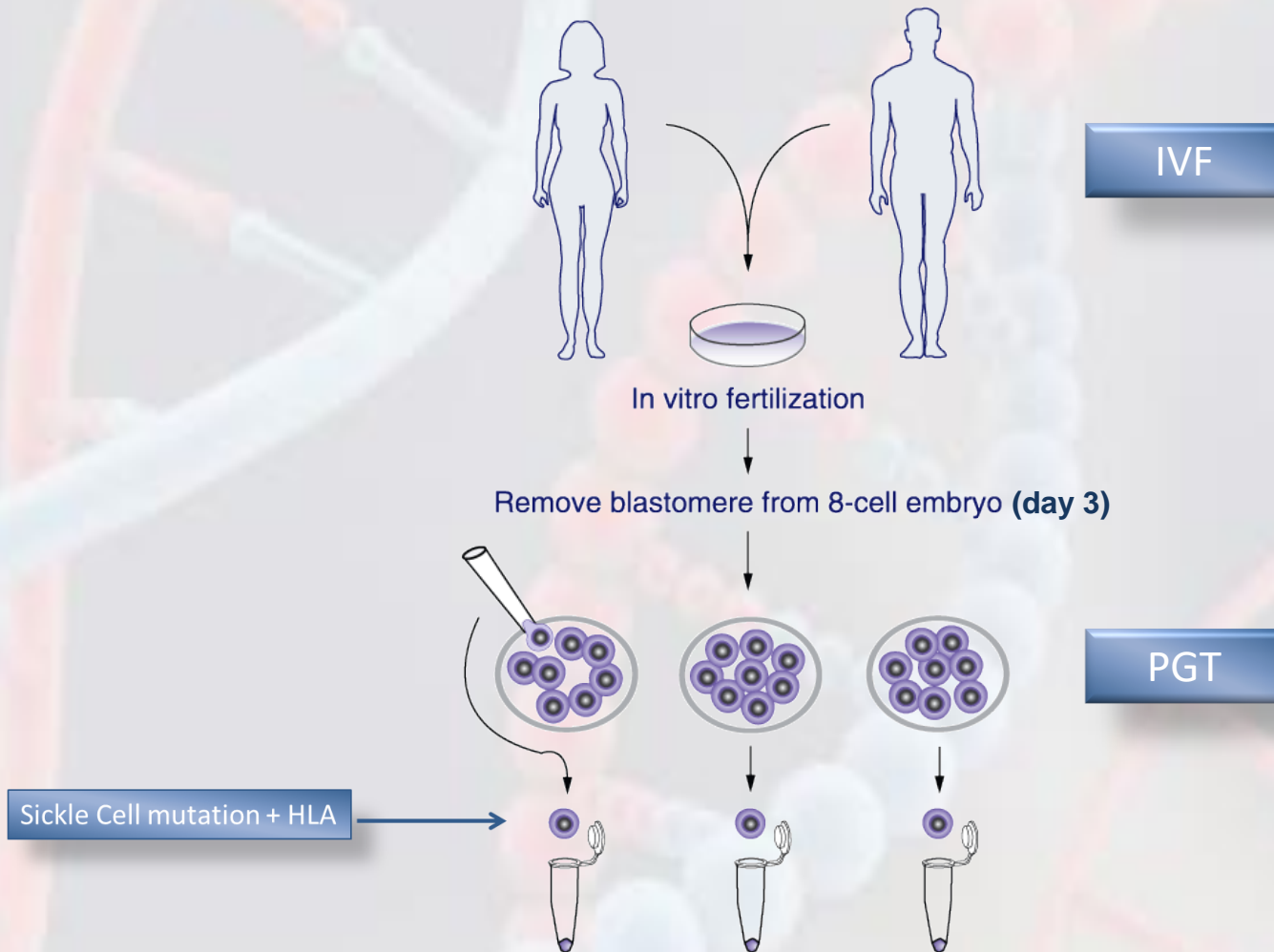
# Sickle Cell Disease



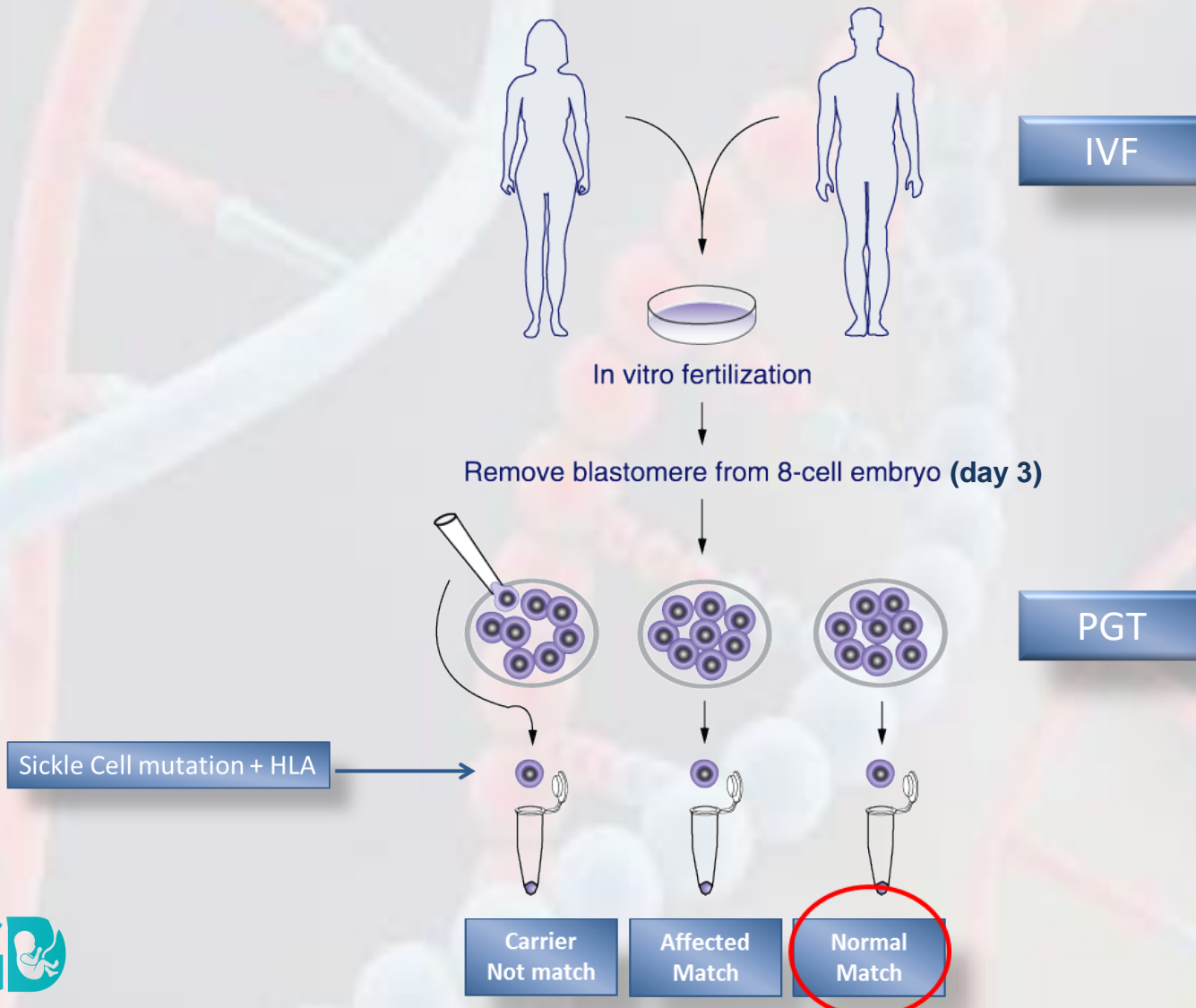
# PGT-M



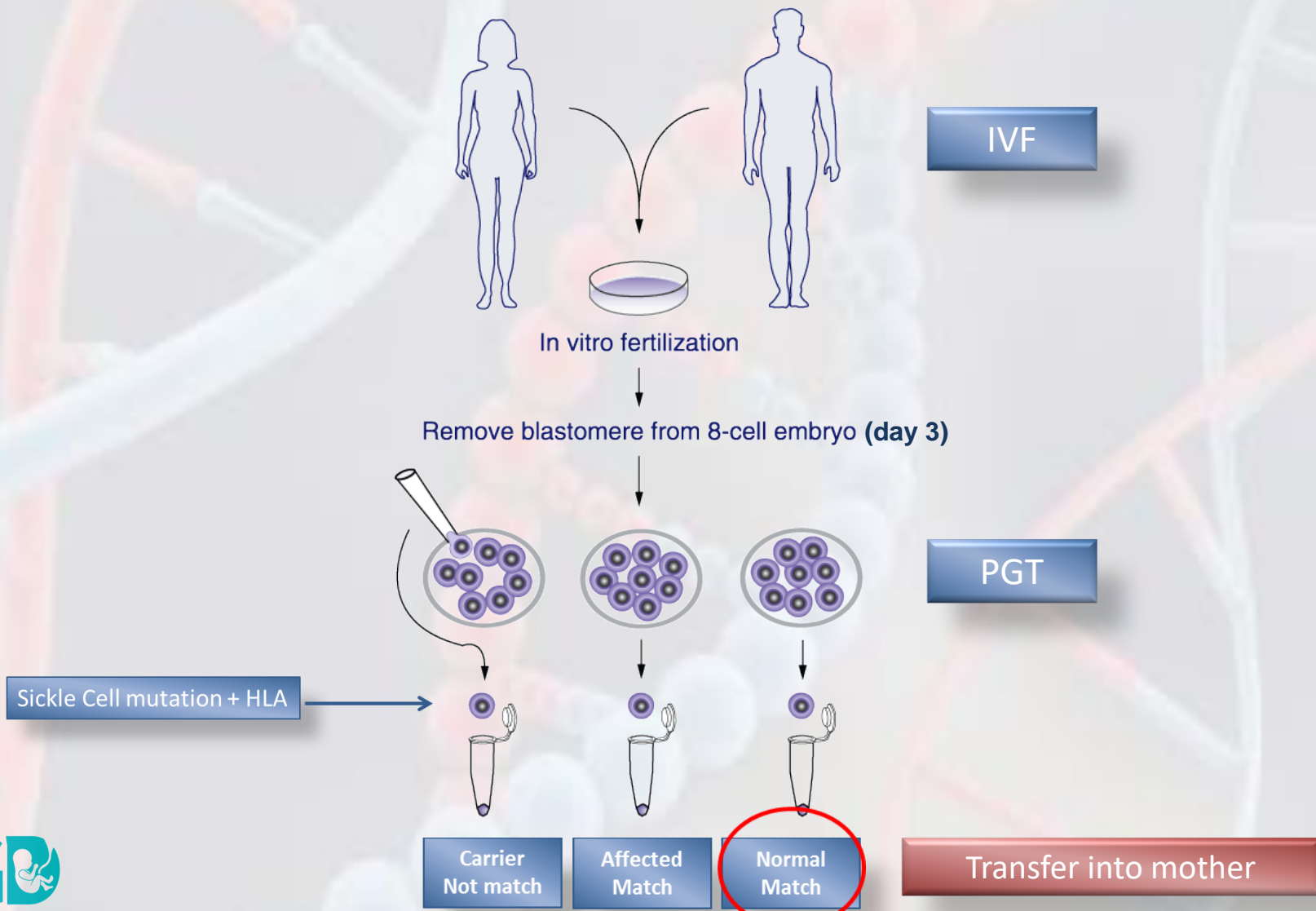
# PGT-M



# PGT-M



# PGT-M



# Acknowledgment

## PGT Team

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*Ferdinand Webnda*  
*Arnold A. Villanueva*



Thank you!



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