O núcleo da célula

SAÚDE

Cientistas identificam 509 genes comuns a depressão e ansiedade

Ao analisar dados de mais de 2 milhões de pessoas, estudo confirma ligação genética entre os dois transtornos de saúde mental

2 min de leitura

REDAÇÃO GALILEU

16 ABR 2021 - 13H49 | ATUALIZADO EM 16 ABR 2021 - 16H26

Com uma melhor compreensão da estrutura genética, **tratamentos** mais eficazes podem vir a ser desenvolvidos. “Esperamos que este estudo ajude a identificar medicamentos existentes que possam ser redirecionados para melhor atingir a base genética da depressão e da ansiedade”, comenta o pesquisador Eske Derks.

Ácidos nucléicos

DNA

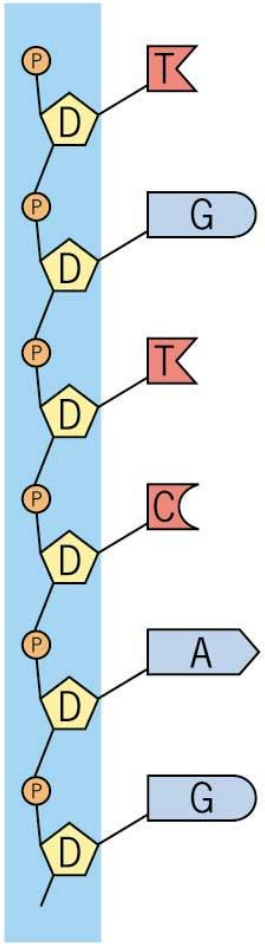
Dupla fita

RNA

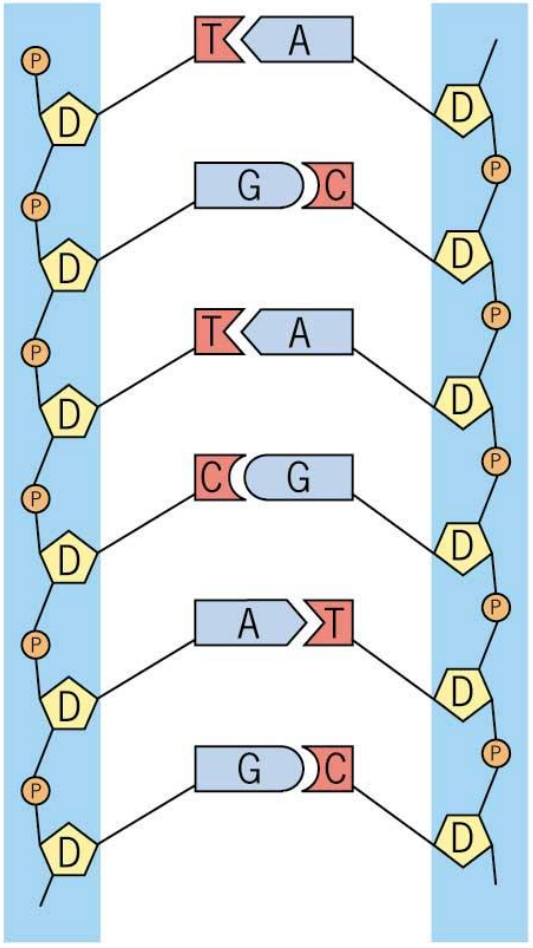
Fita simples

Esquemas de molécula de DNA, no plano e retorcida

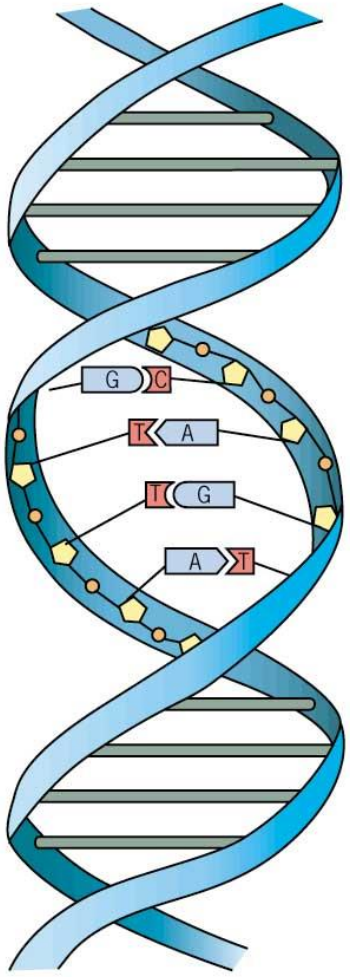
P = Fosfato D = Desoxirribose



Cadeia de nucleotídeos



Duas cadeias pareadas, no plano

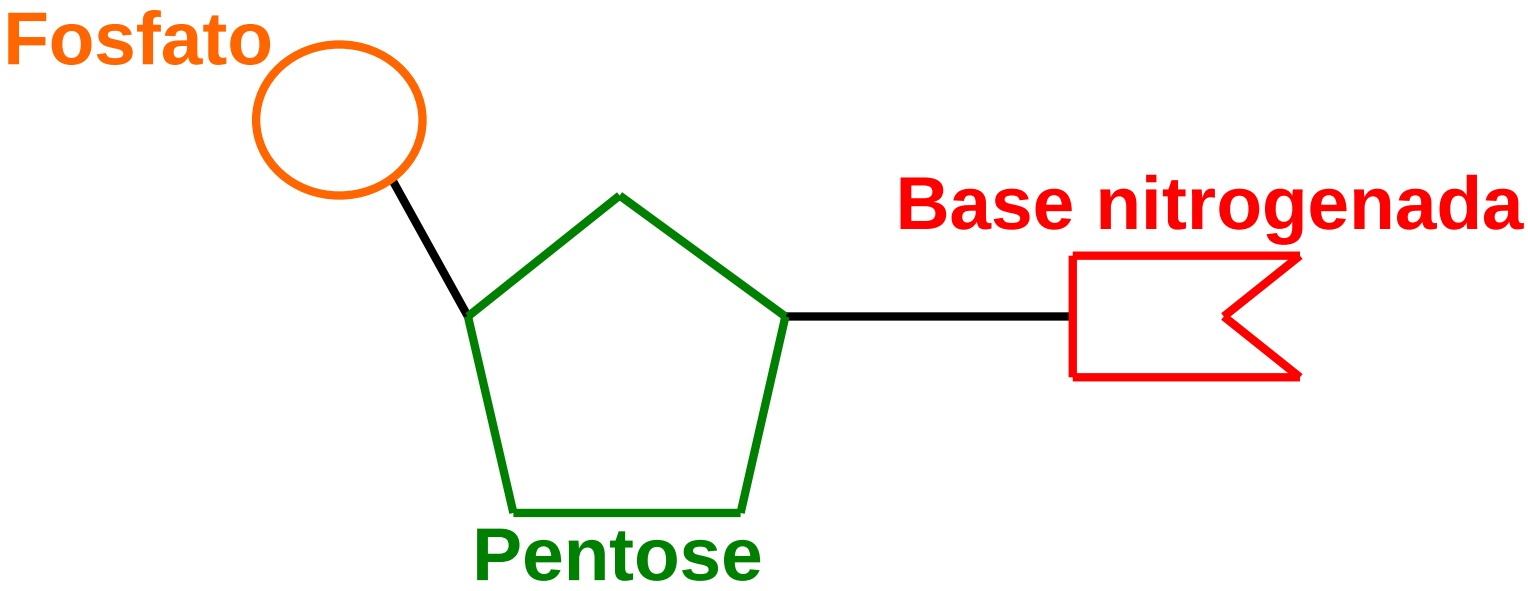


Dupla-hélice

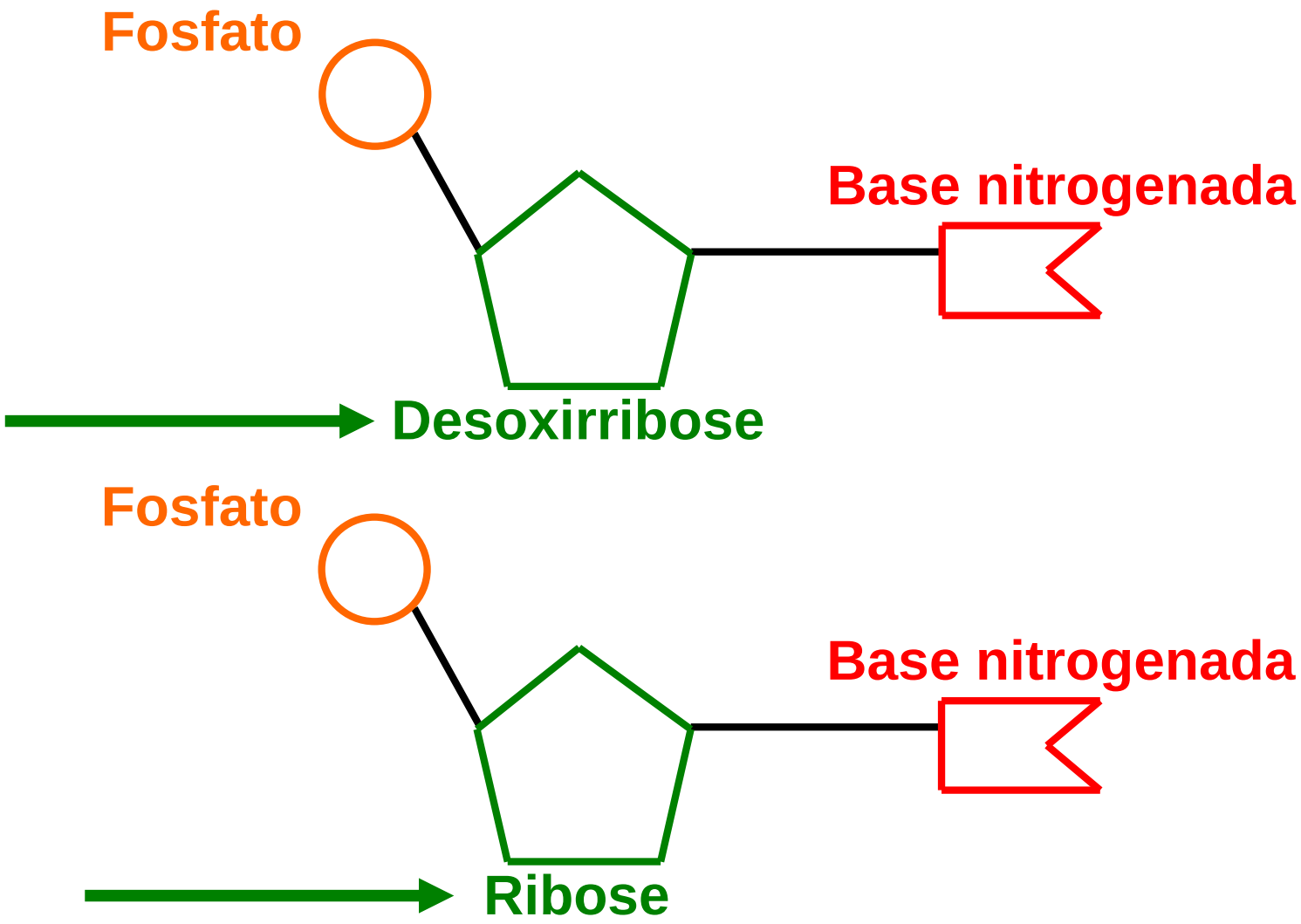
Dupla-hélice

Ácidos nucléicos

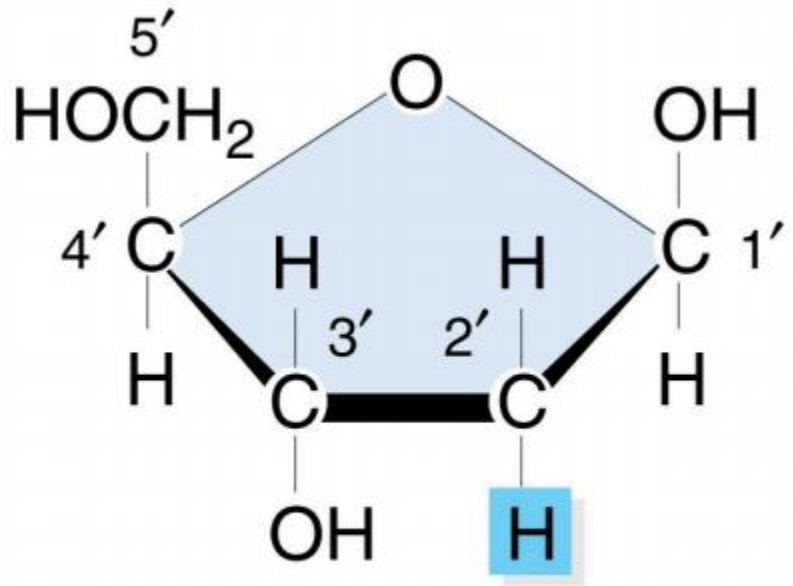
Nucleotídeos



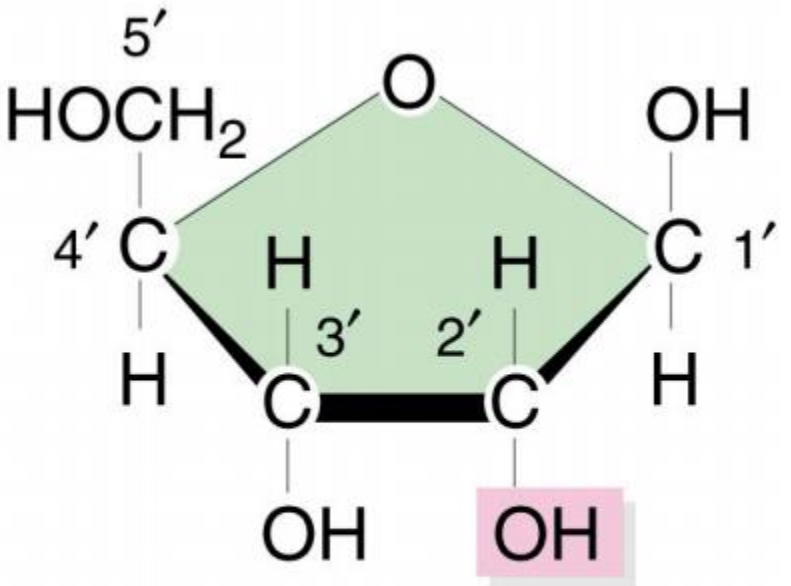
Pentoses do DNA e RNA



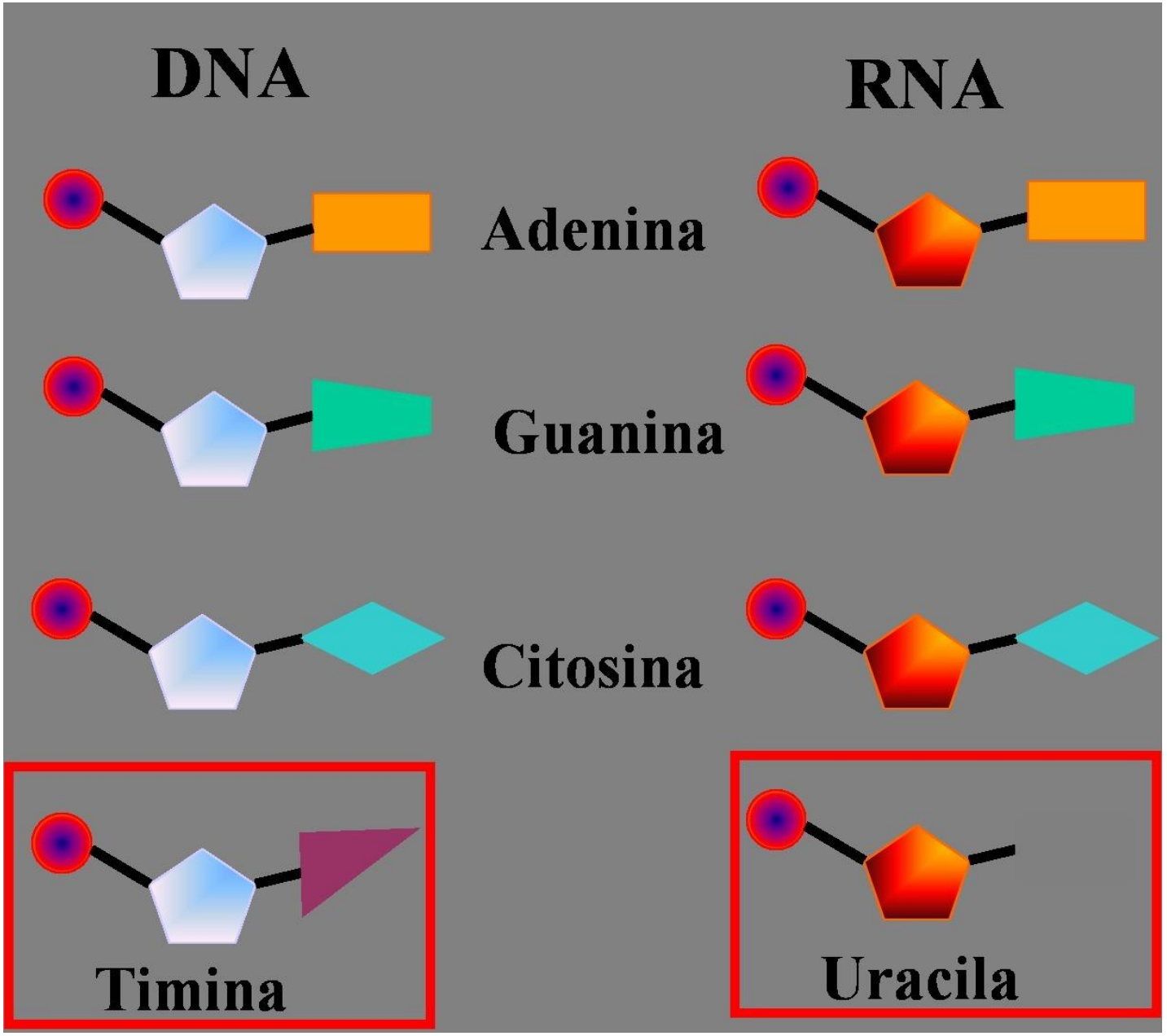
Pentoses dos ácidos nucléicos DNA e RNA



Deoxyribose



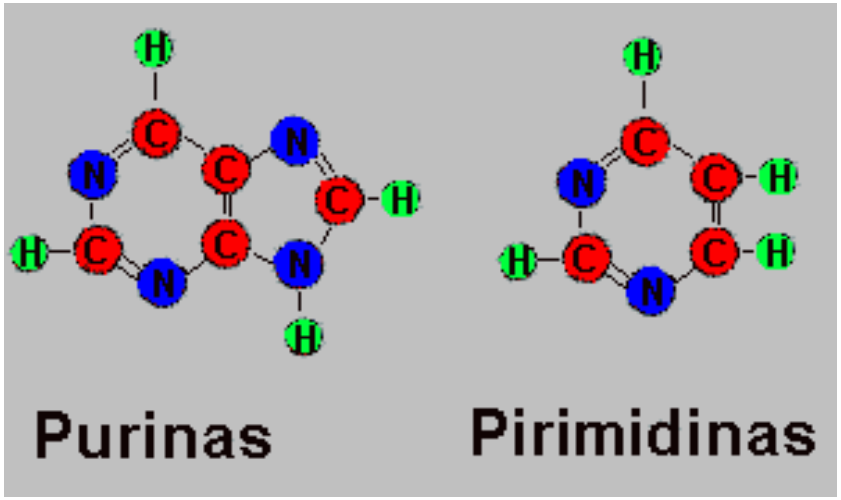
Ribose


DNA
RNA
Adenina
Guanina
Citosina
Timina
Uracila

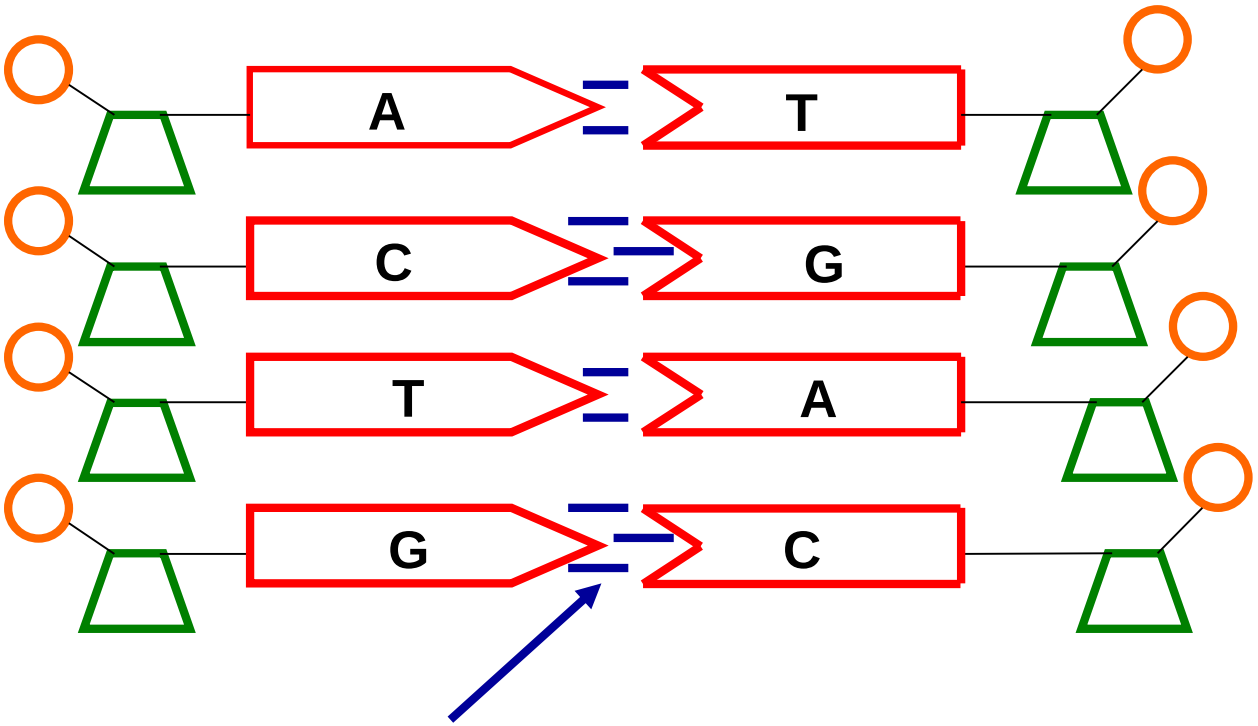
Classificação das bases nitrogenadas

- Púricas: Adenina e guanina

- Pirimídicas: Timina, citosina e uracila

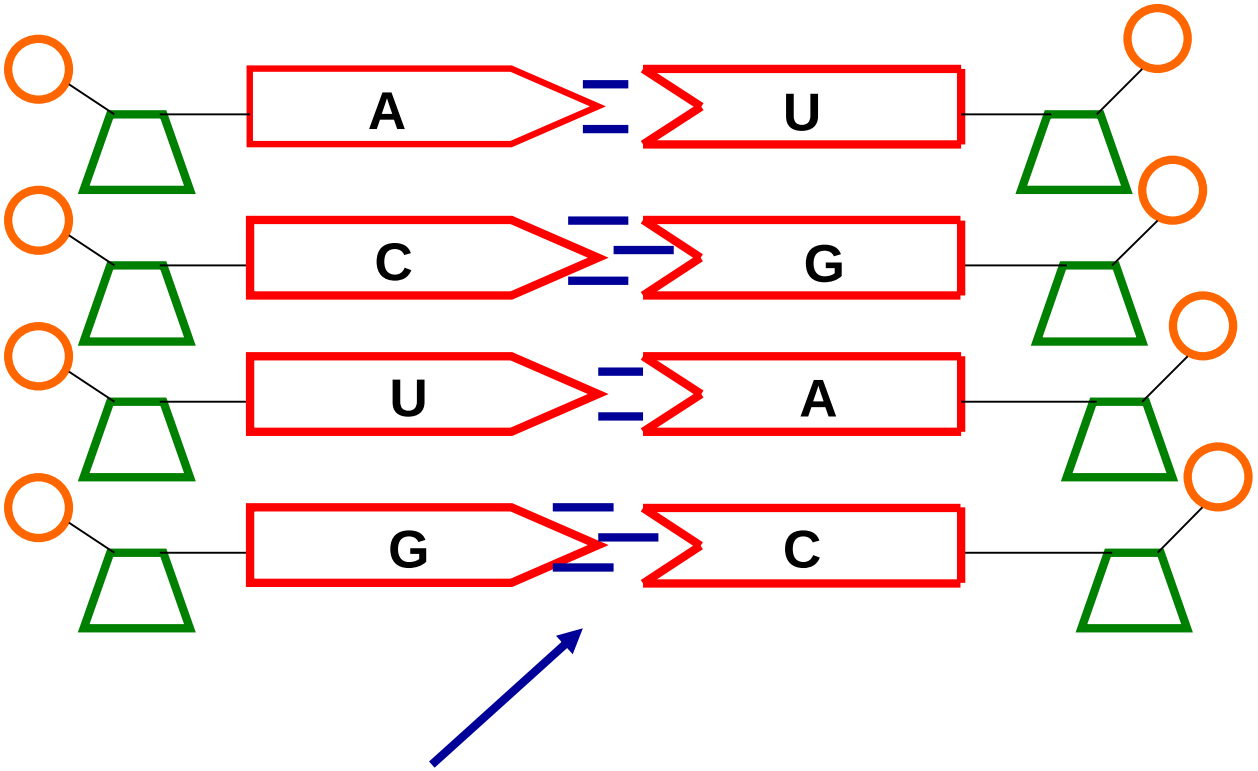


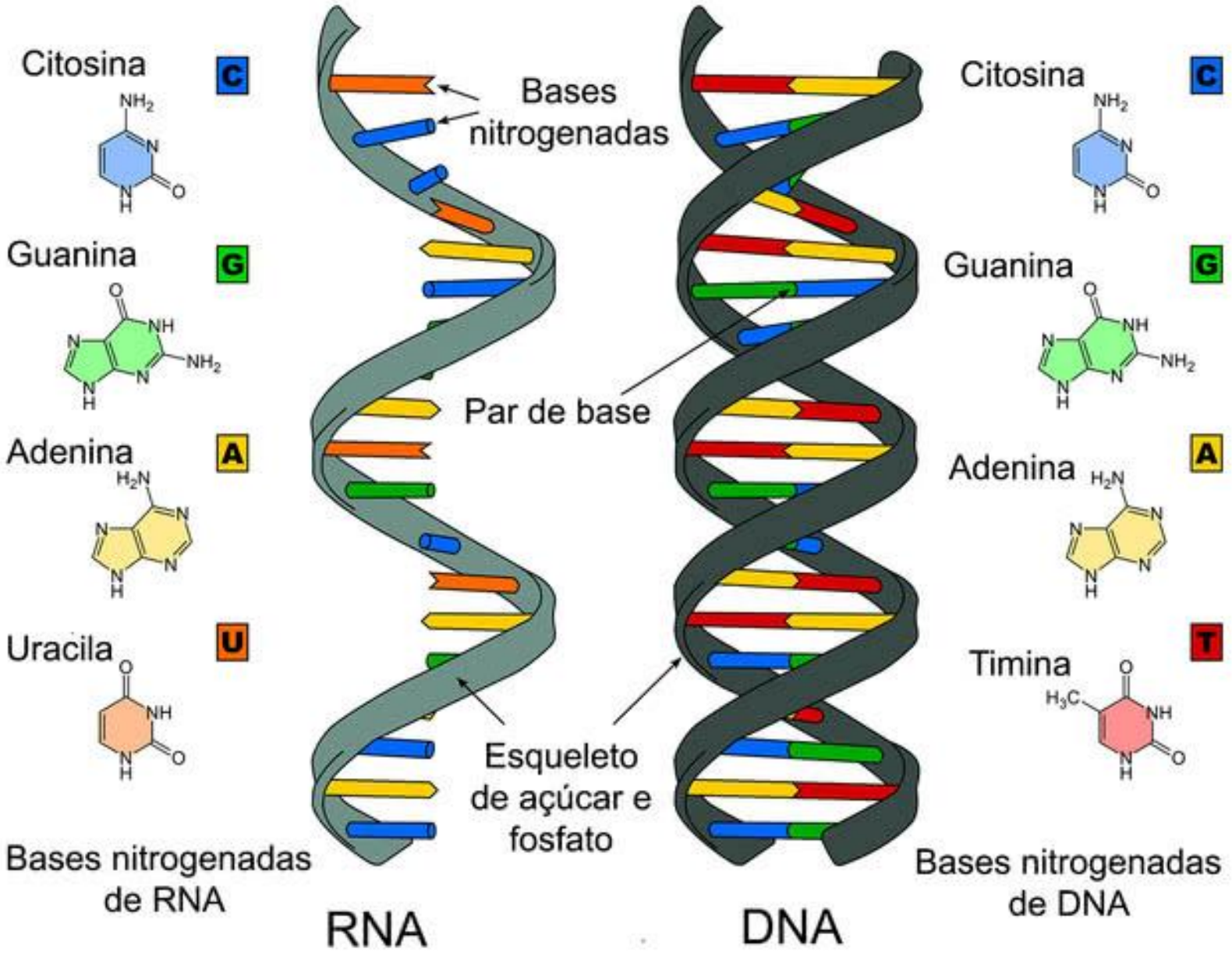
Bases nitrogenadas do DNA

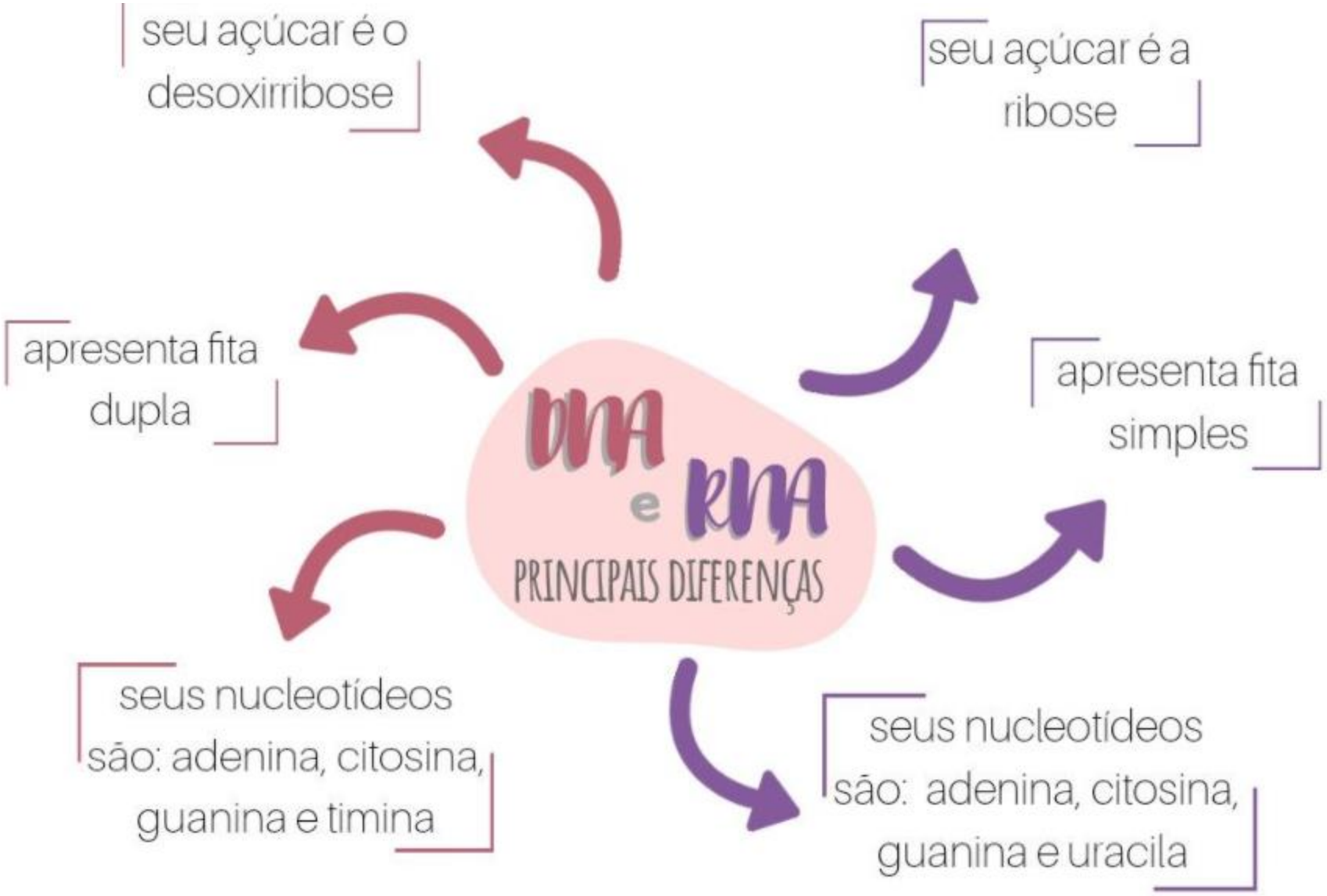


Se eu tenho 30% de A em um DNA, quanto eu tenho de T, C e G?

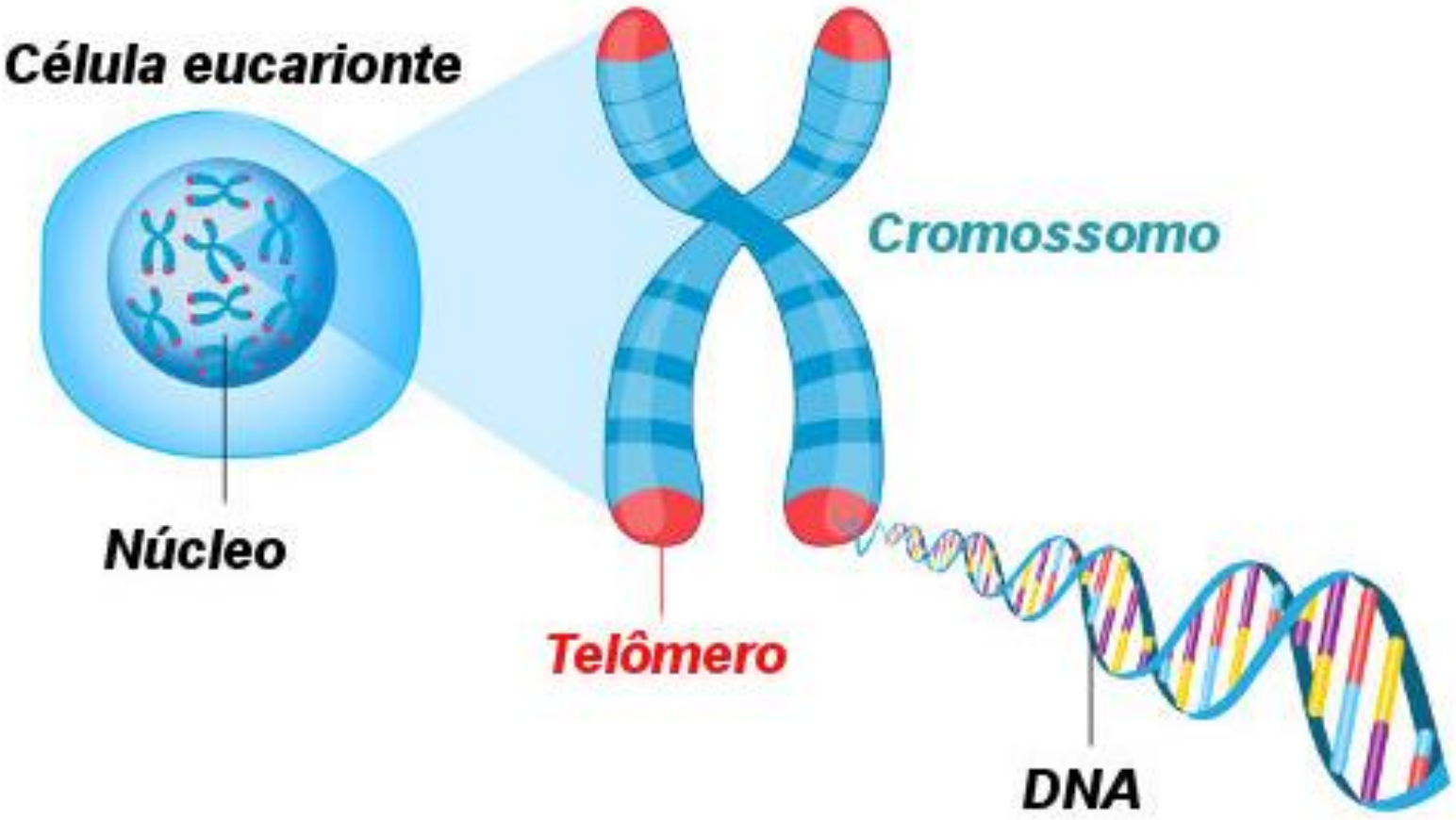
Bases nitrogenadas do RNA



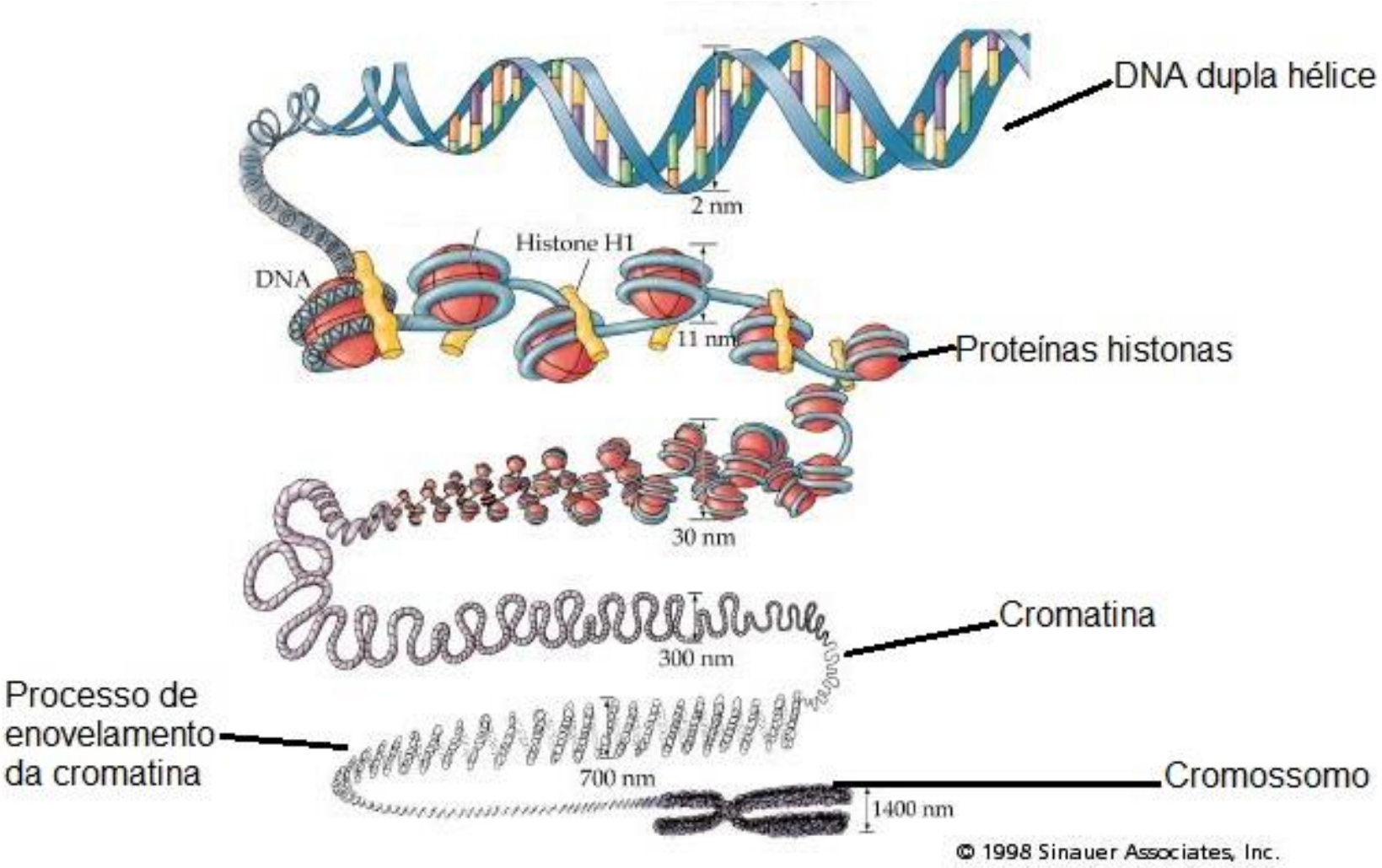

Citosina
C
Guanina
G
Adenina
A
Uracila
U
Bases nitrogenadas de RNA
Bases nitrogenadas
Par de base
Esqueleto de açúcar e fosfato
RNA
DNA
Citosina
C
Guanina
G
Adenina
A
Timina
T
Bases nitrogenadas de DNA


seu açúcar é o desoxirribose
seu açúcar é a ribose
apresenta fita dupla
apresenta fita simples
DNA e RNA
PRINCIPAIS DIFERENÇAS
seus nucleotídeos são: adenina, citosina, guanina e timina
seus nucleotídeos são: adenina, citosina, guanina e uracila

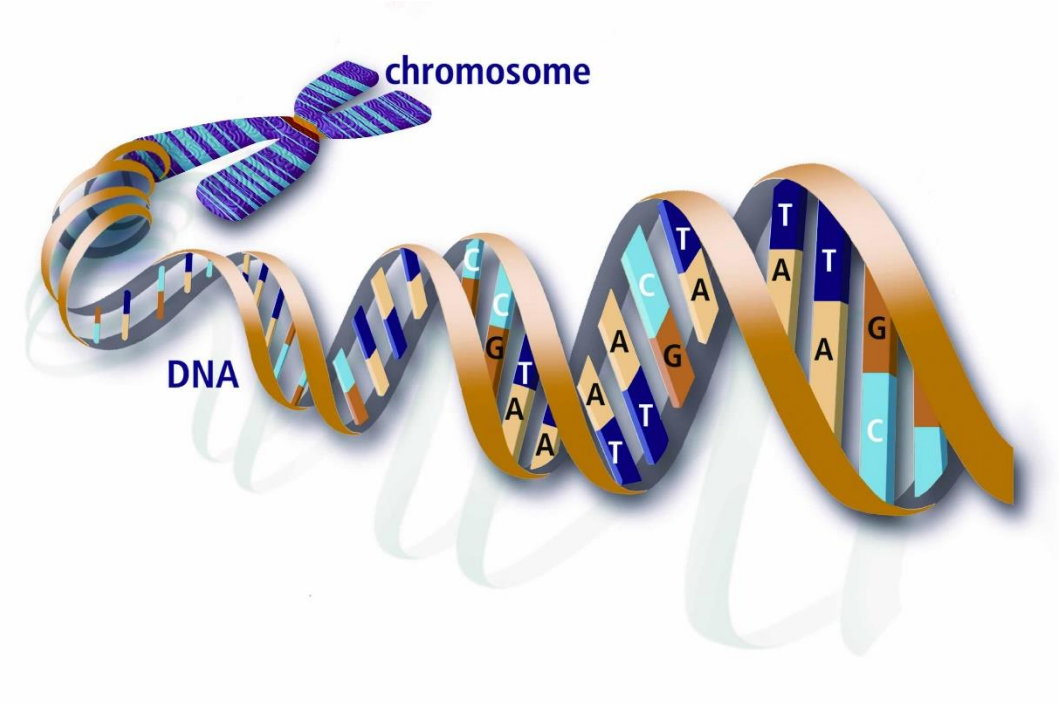
Núcleo e cromossomos

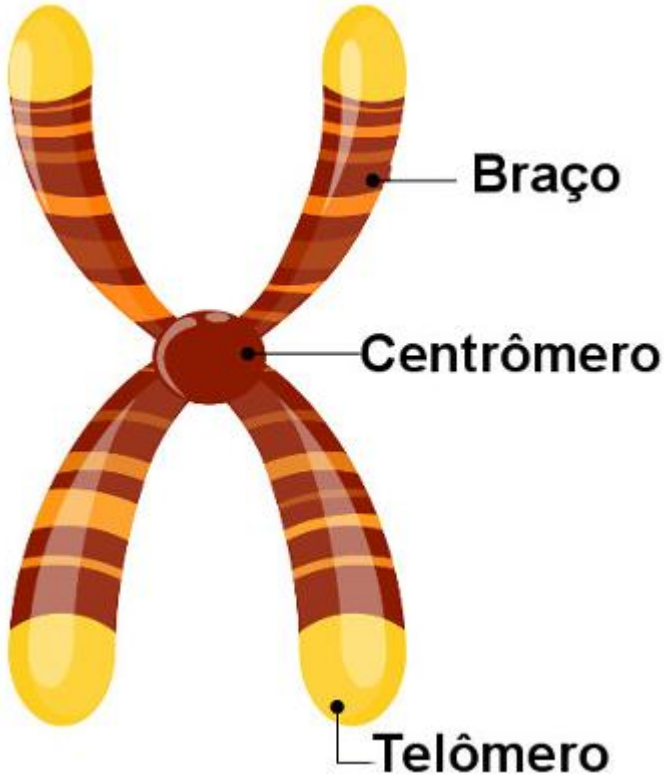


Núcleo e cromossomos



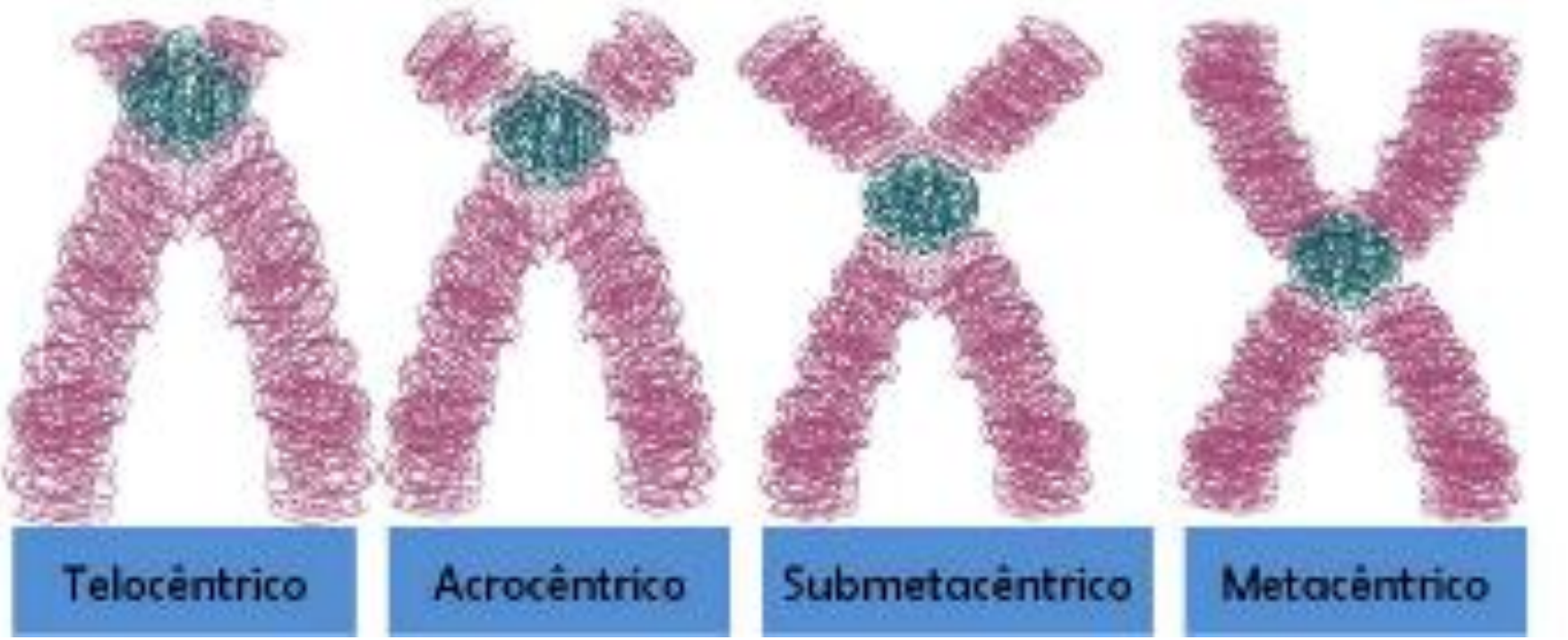
Núcleo e cromossomos



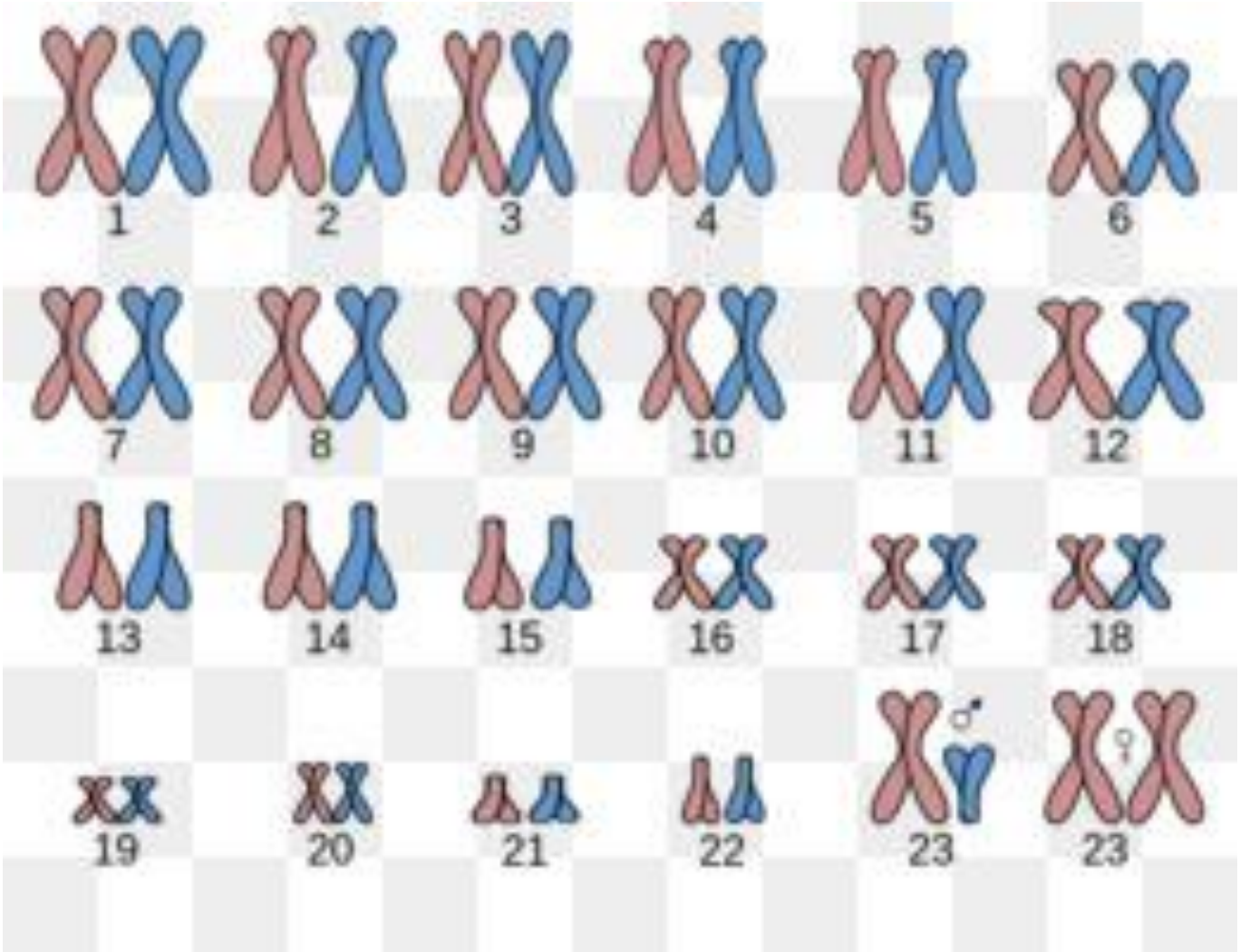


A bióloga Elizabeth Blackburn foi uma das ganhadoras do Prêmio Nobel de fisiologia/medicina em 2009 por causa das descobertas que fez sobre os telômeros e sua relação com o envelhecimento.

Tipos de cromossomos

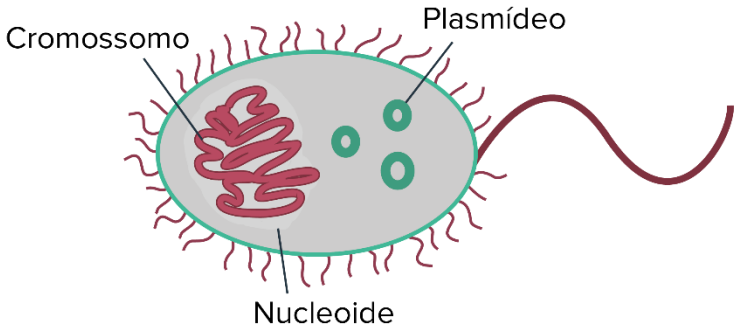


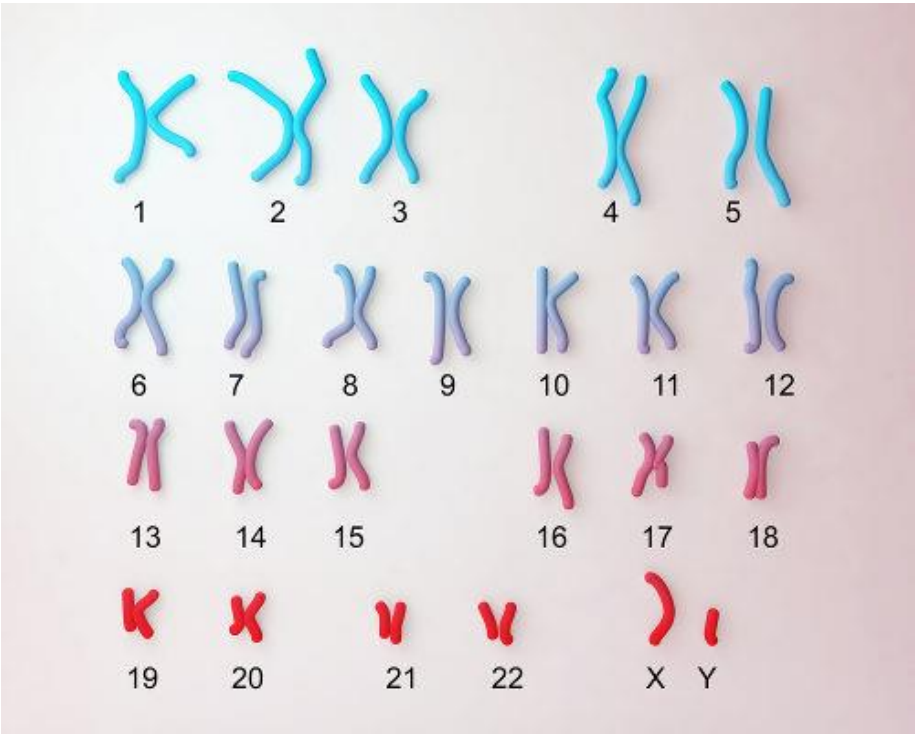
Número de cromossomos



Você sabia que:

- As bactérias tem cromossomos circulares e os eucariontes lineares?





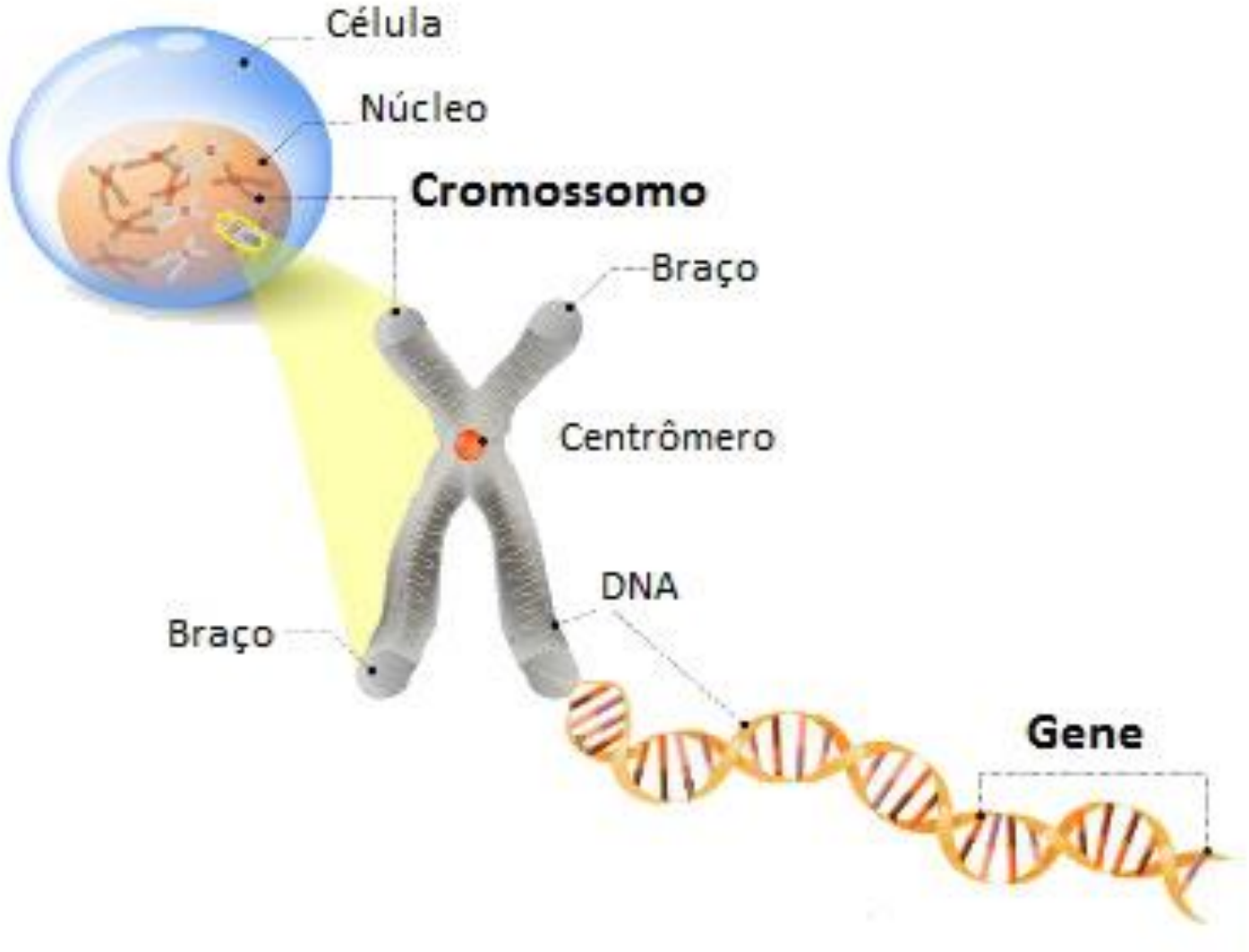
Você sabia que:

- Os números de cromossomos variam entre os organismos?

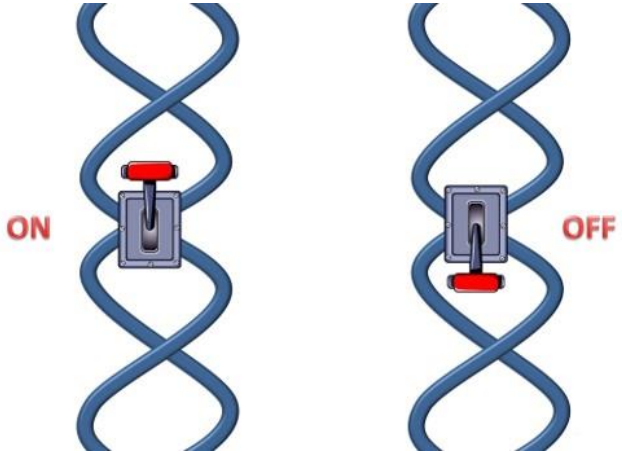
Humanos – 46 cromossomos

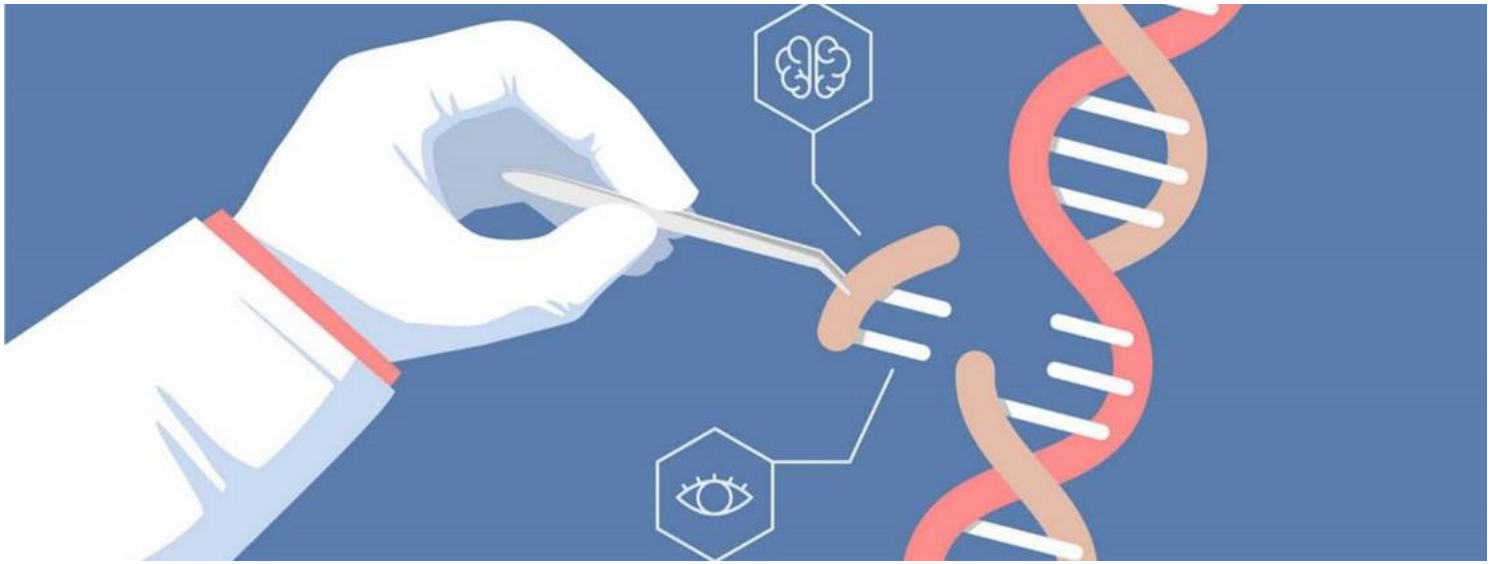
Gato – 38 cromossomos

Gene

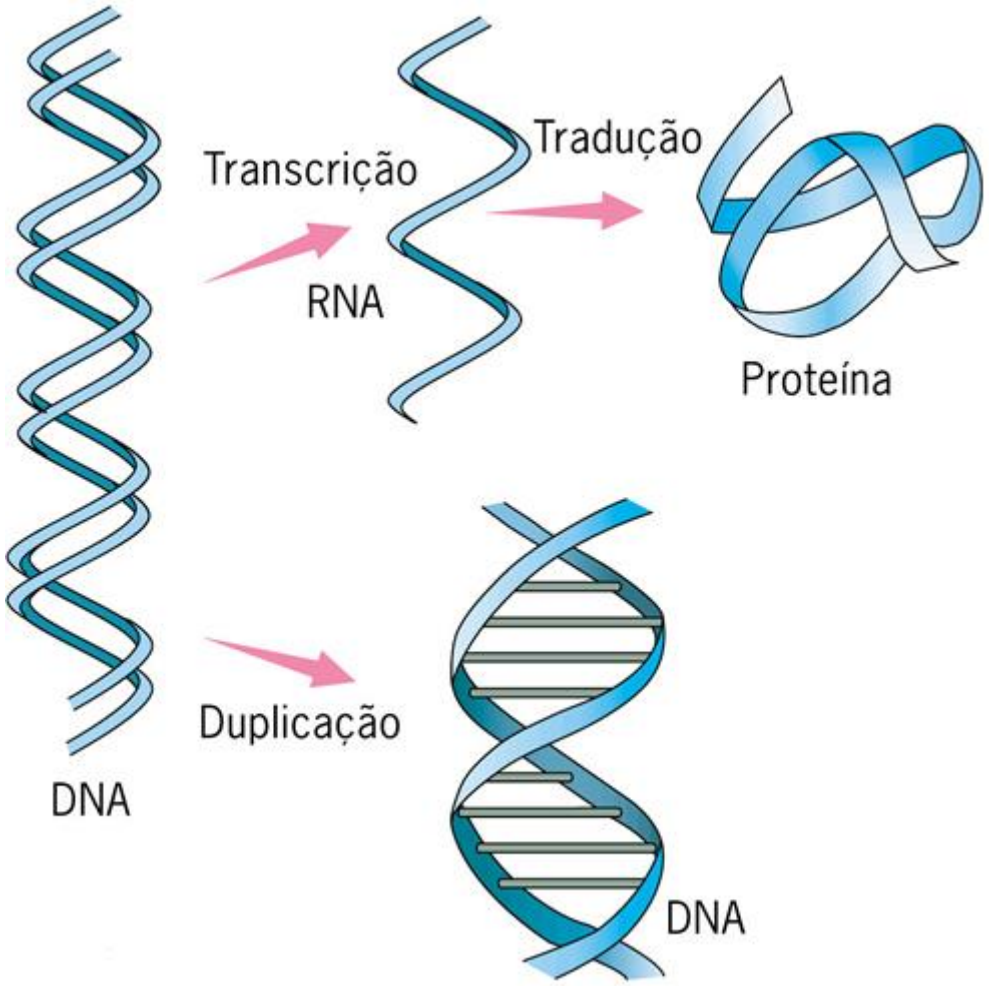


Gene



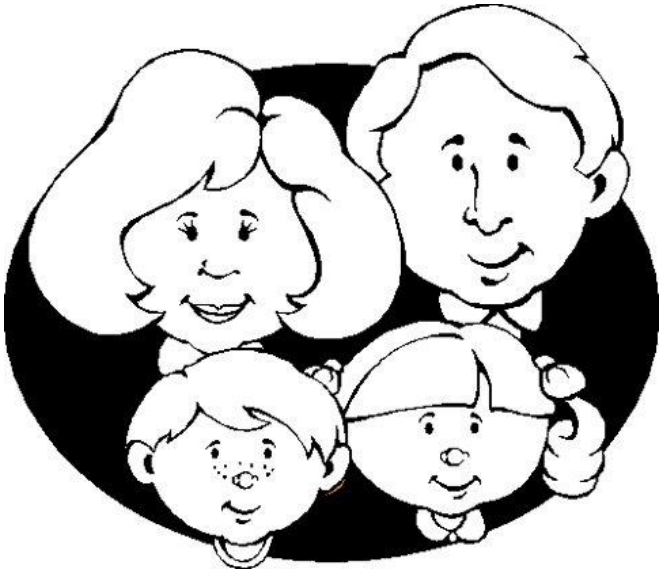


Princípio básico da biologia

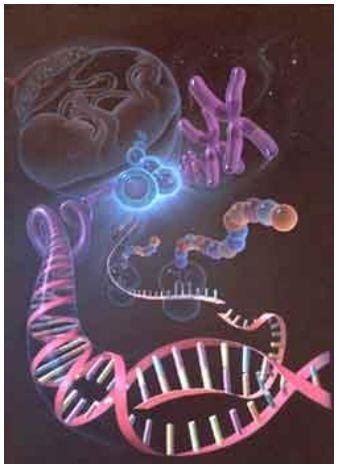


Duplicação do DNA

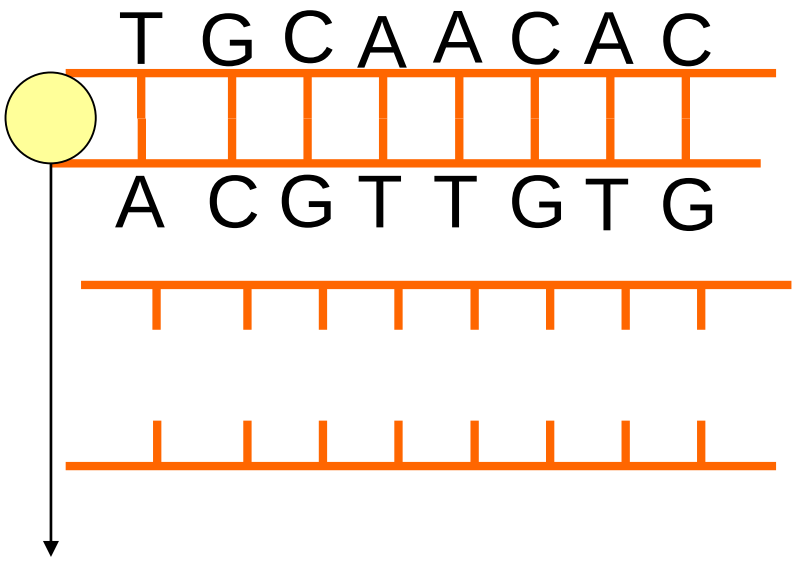
- Onde ocorre?
- Quando ocorre?
- Porque é tão importante?



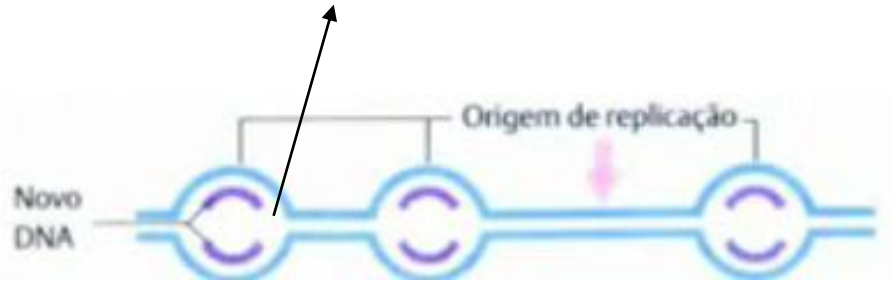
Duplicação do DNA



- Rompimento das ligações de hidrogênio



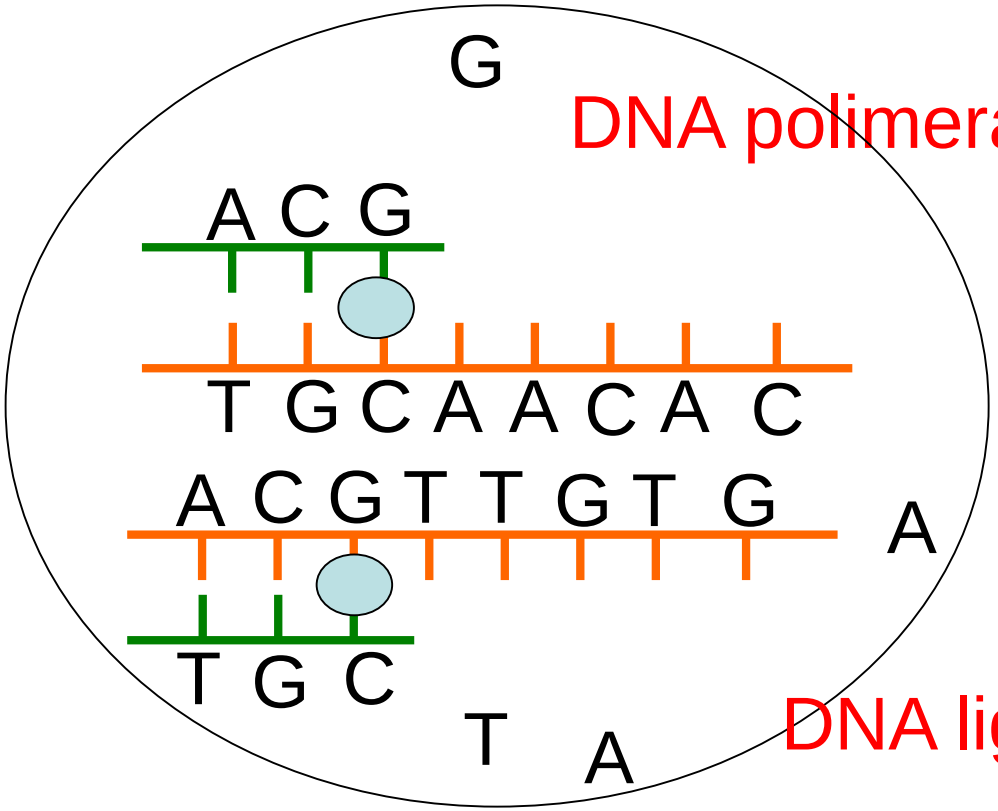
Helicase



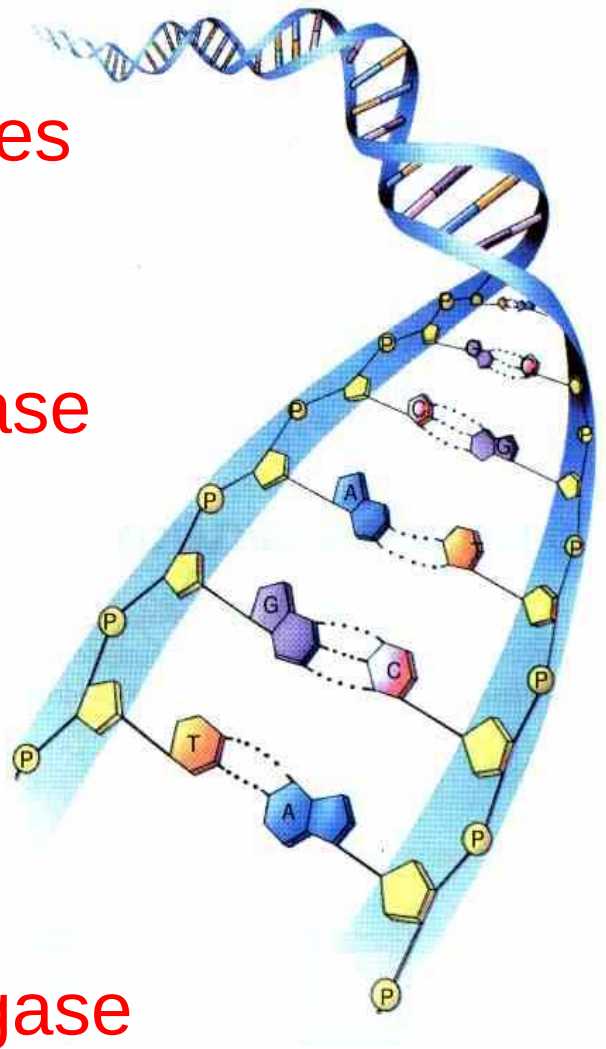
Replicação bidirecional

Duplicação do DNA

- Encaixe de nucleotídeos livres



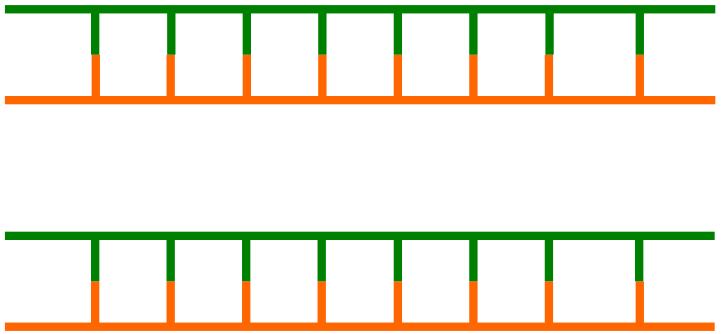
DNA polimerase

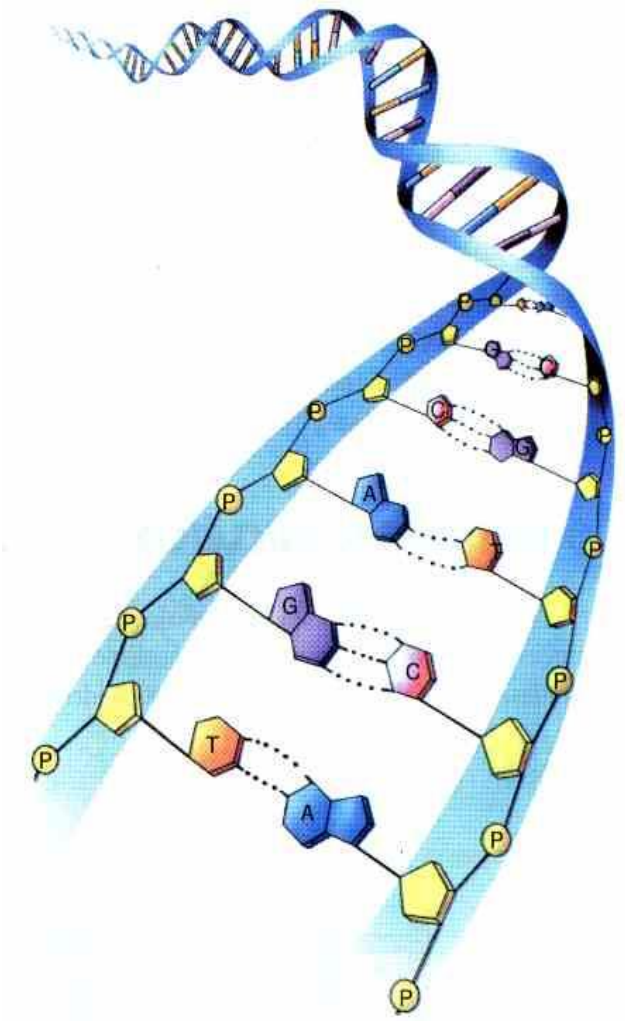


DNA ligase

Duplicação do DNA

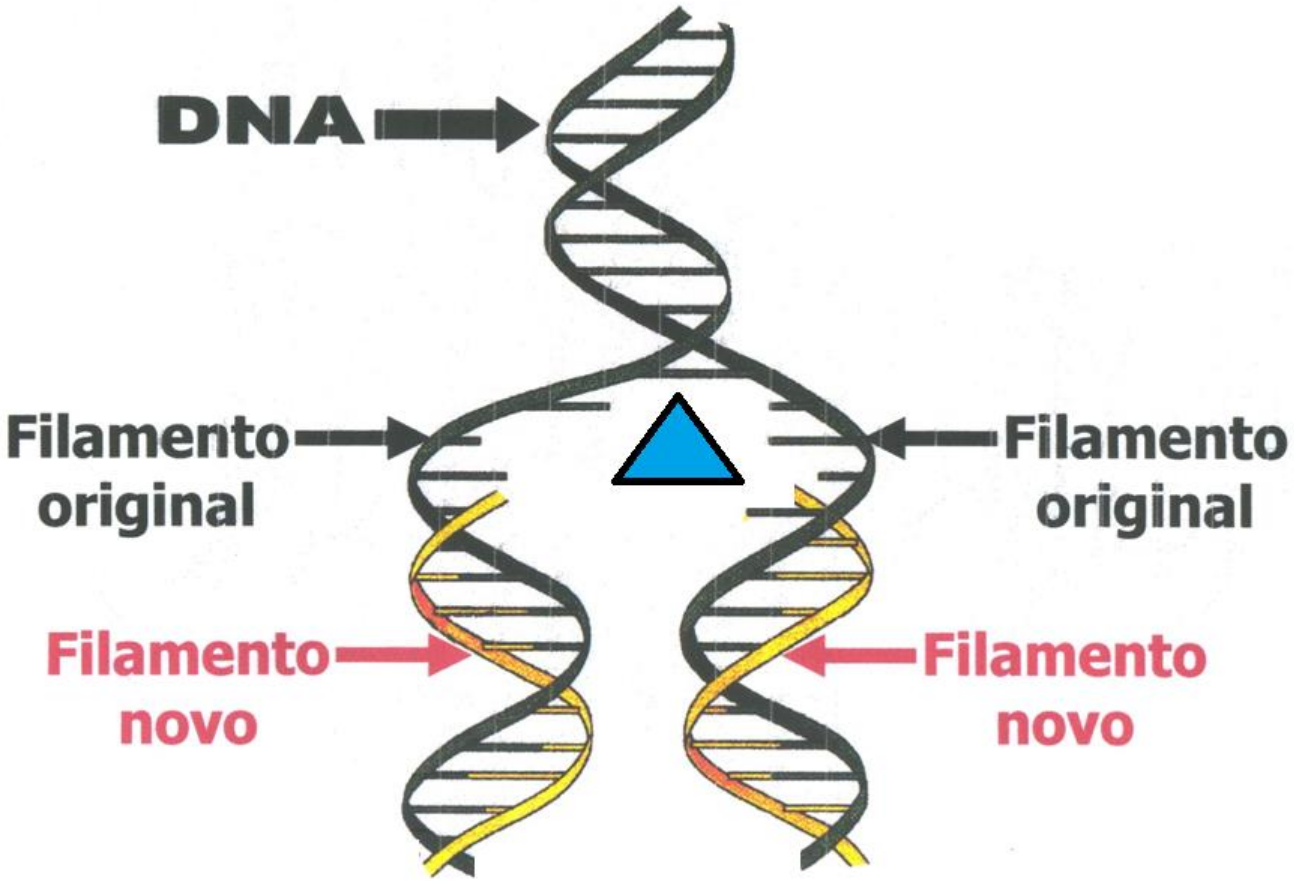
- Formação de duas moléculas novas de DNA





Processo semiconservativo

Duplicação do DNA




O que um cromossomo disse para o outro?
Oh! Cromossomos felizes!
kkkkkkkkk