

Biologia

Intensivo

Frente 1

SÍNTESE PROTEICA (AULA 7)

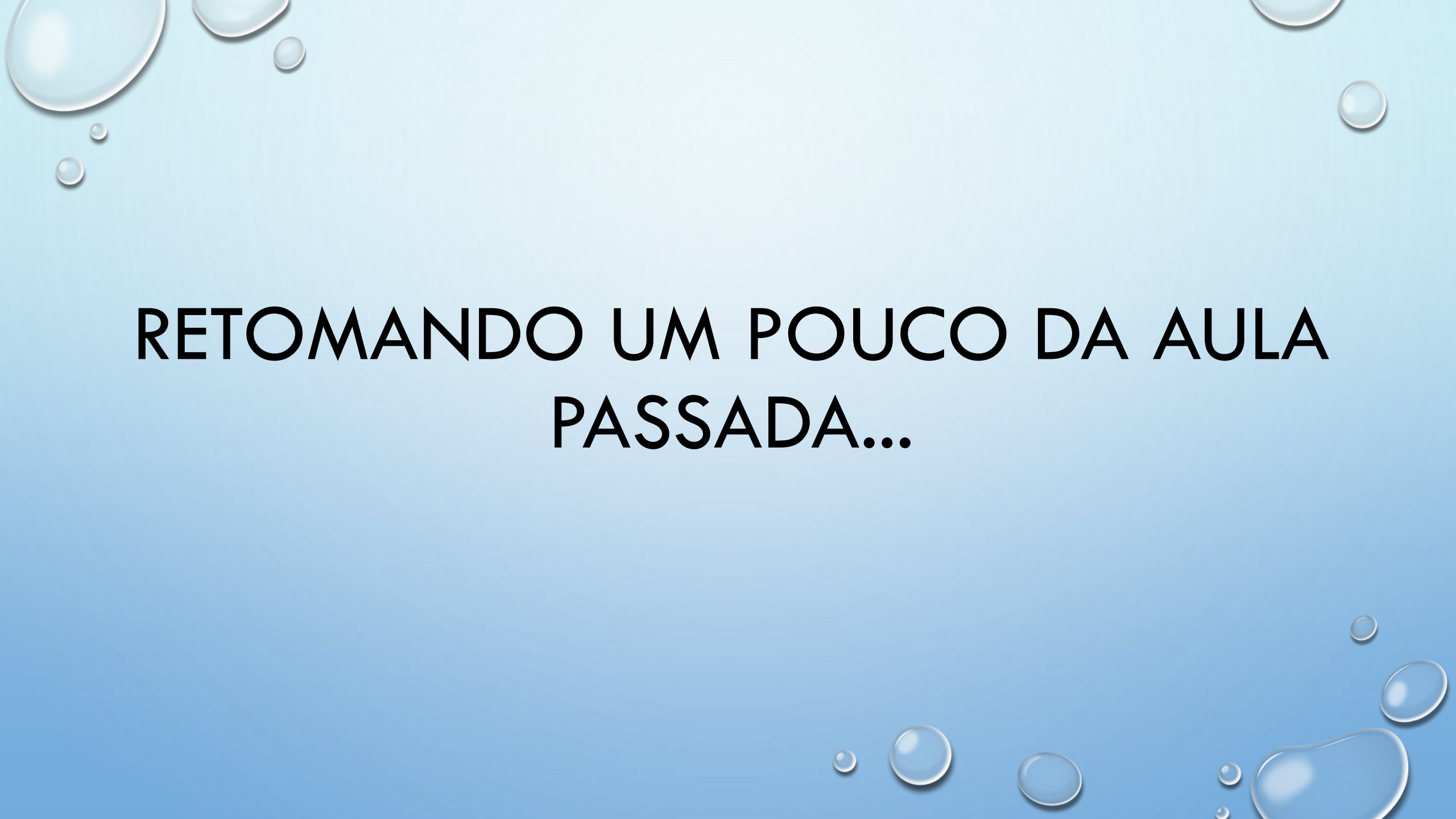
TRANSCRIÇÃO E TRADUÇÃO

Jimmy
jsnikaido@gmail.com

O QUE TEM PRA HOJE?

Menu

- TRADUÇÃO
- TRANSCRIÇÃO

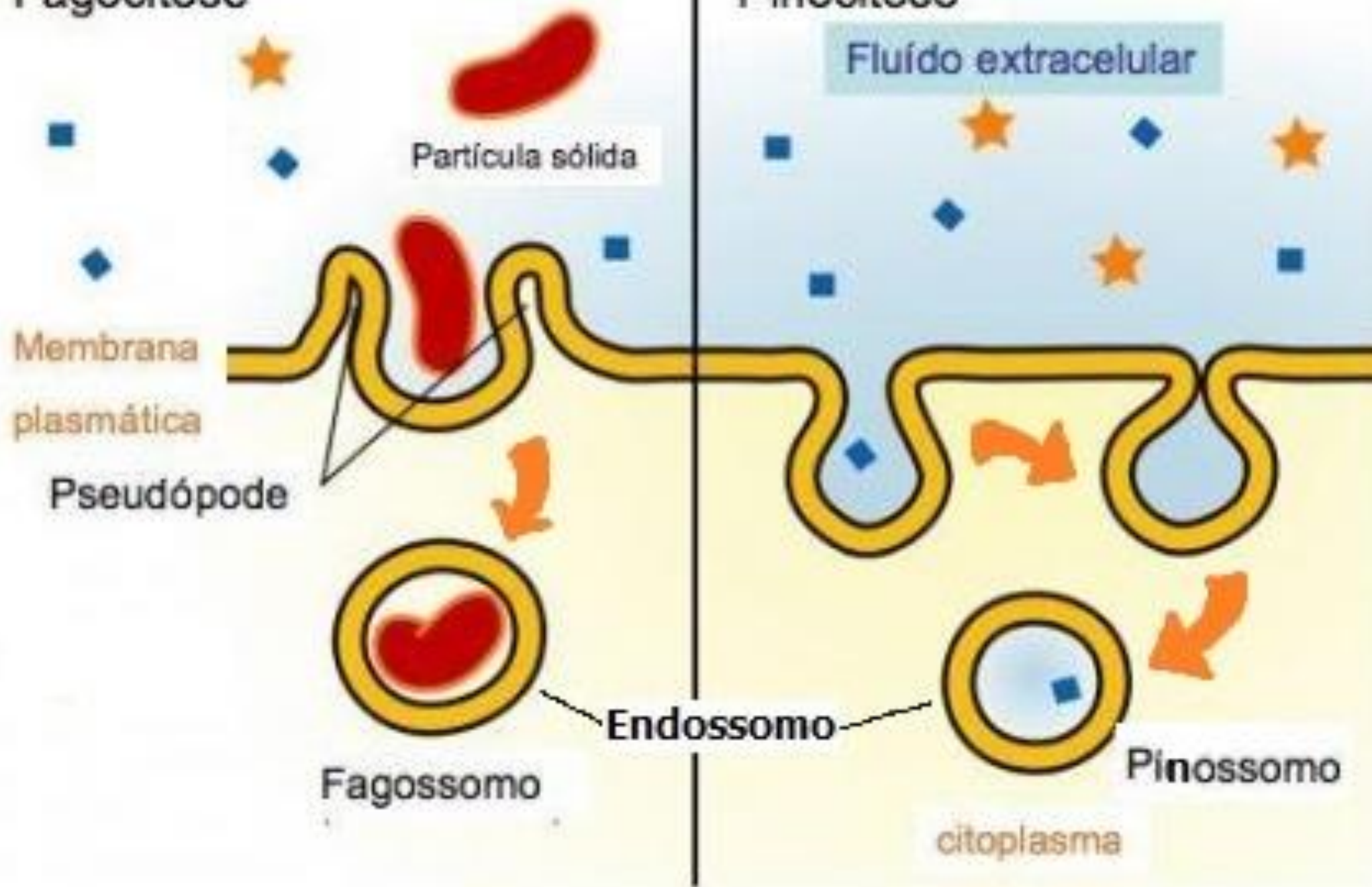
The background is a light blue gradient. In the top-left and bottom-right corners, there are several realistic water droplets of various sizes, some overlapping, with highlights and shadows giving them a 3D appearance.

**RETOMANDO UM POUCO DA AULA
PASSADA...**

Endocitose

Fagocitose

Pinocitose

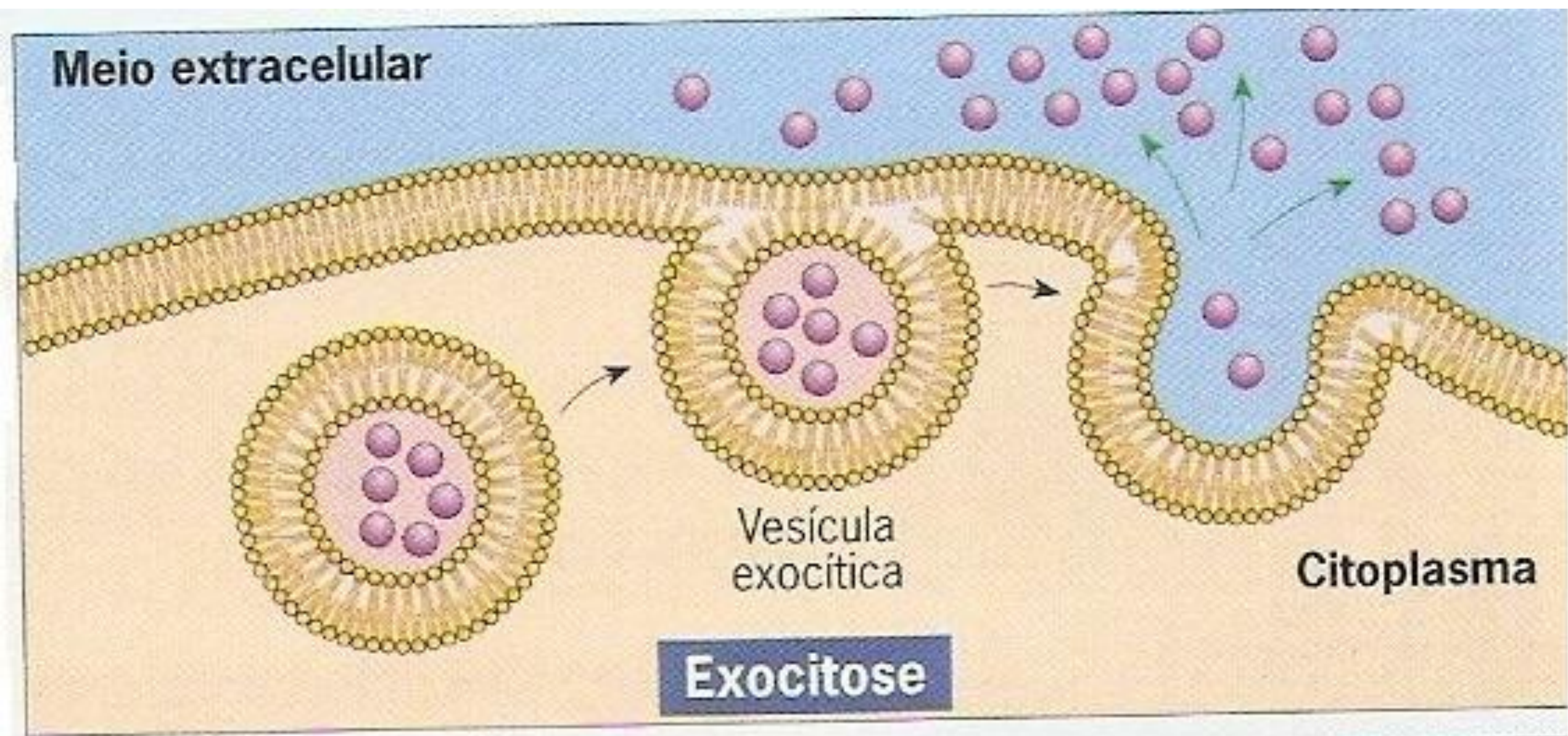


Meio extracelular

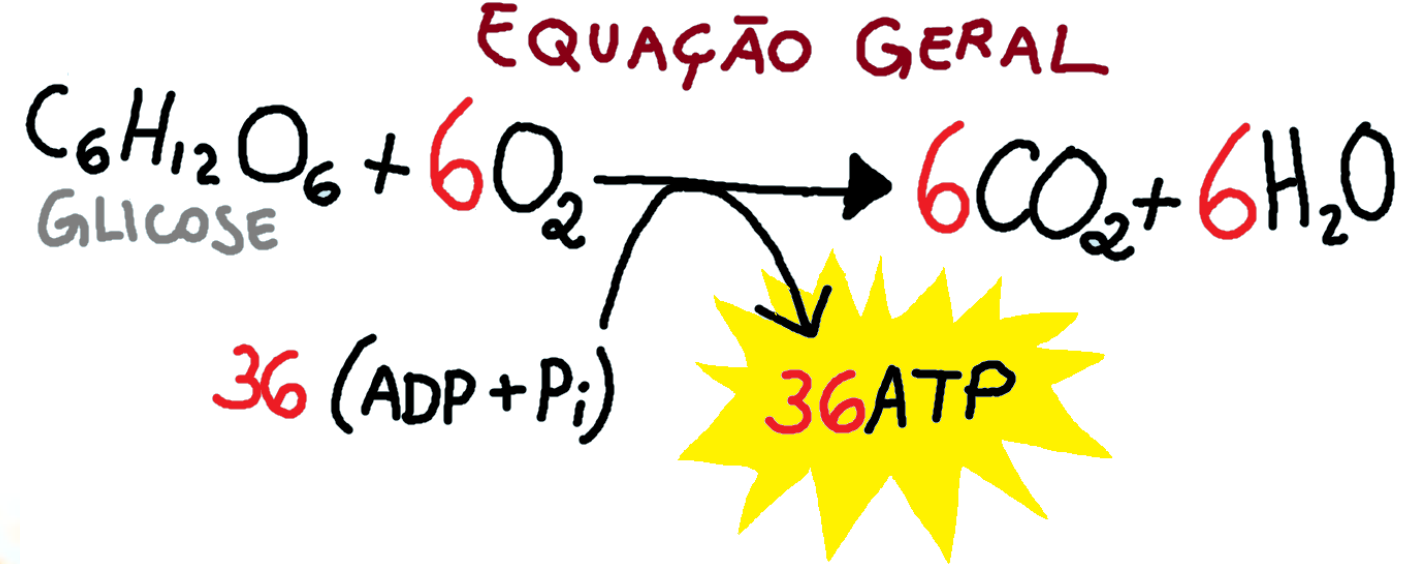
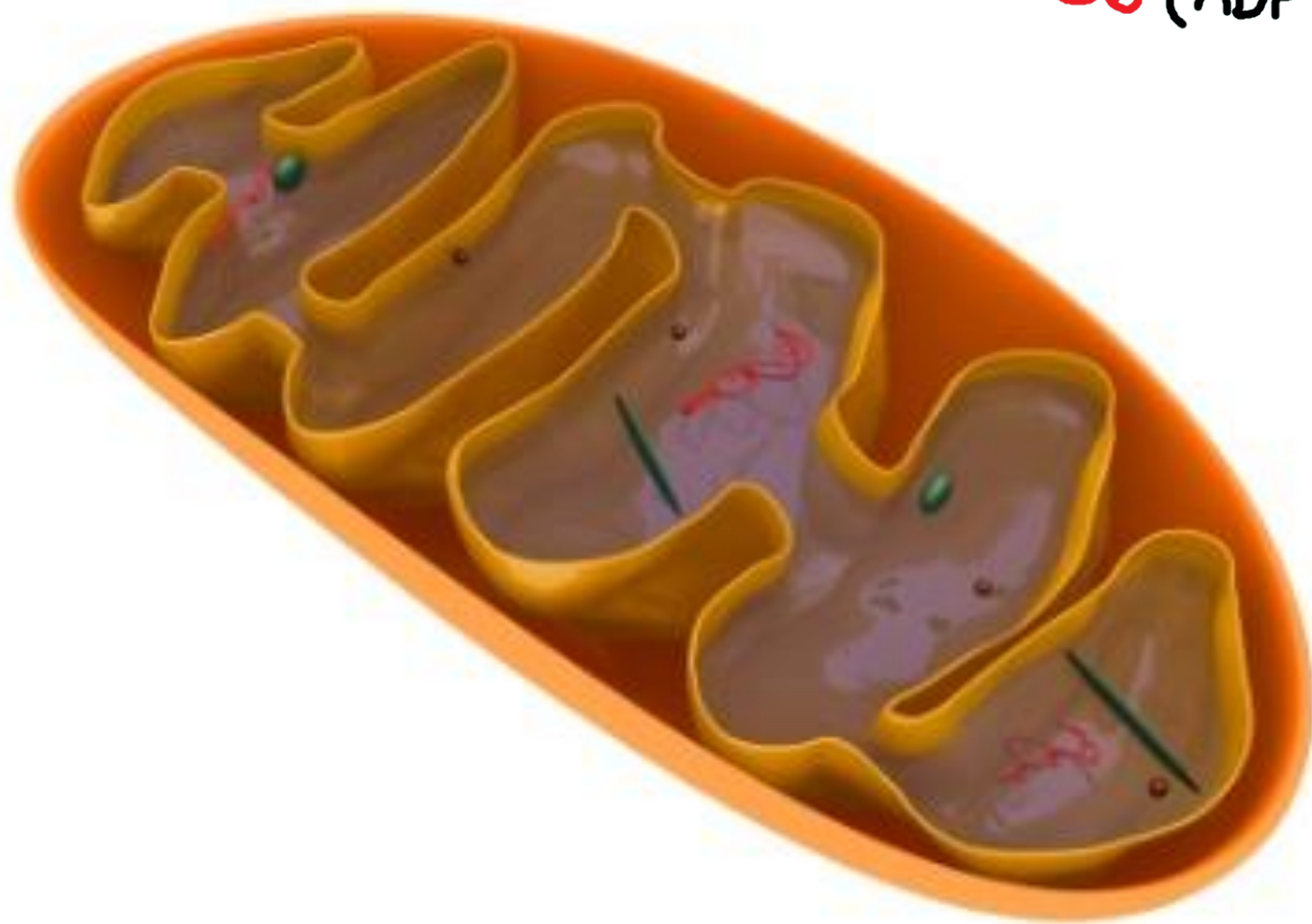
Vesícula
exocítica

Citoplasma

Exocitose

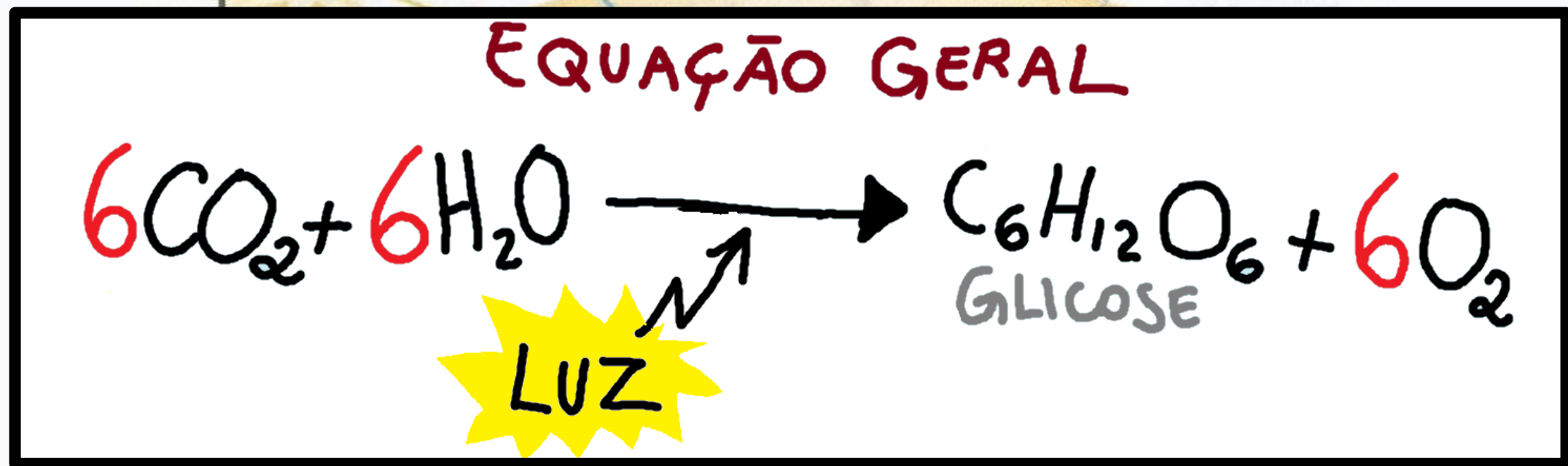


RESPIRAÇÃO AERÓBIA



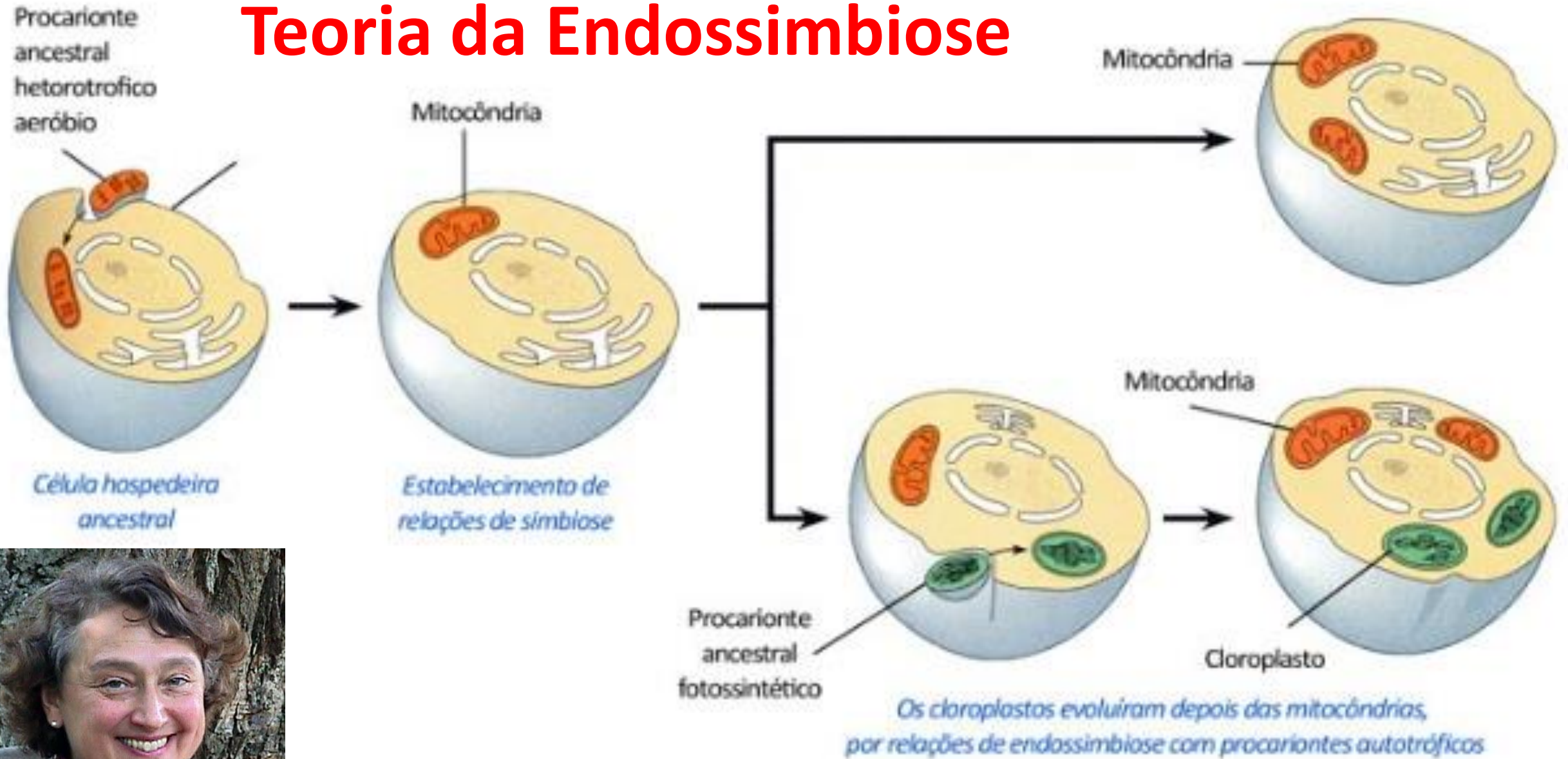
Mitocôndria

FOTOSÍNTESE



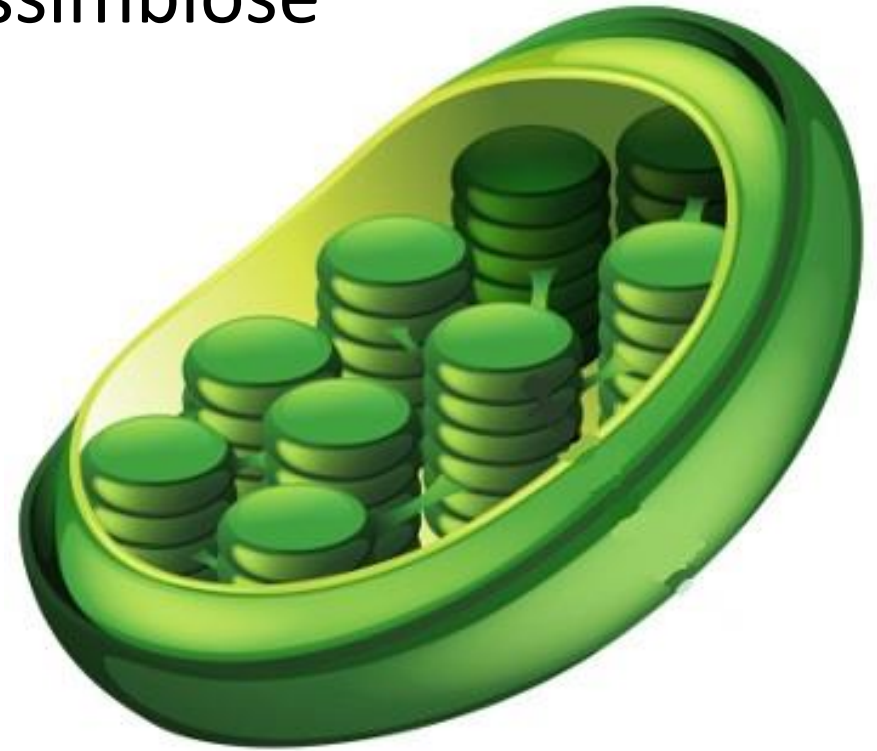
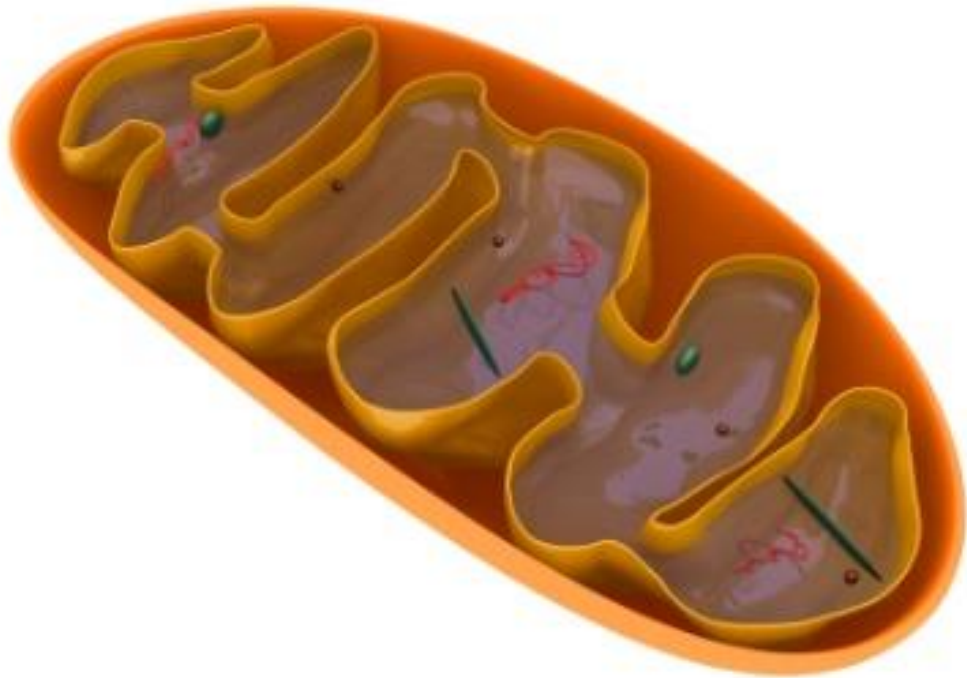
Na fase fotoquímica são necessários pigmentos que captam luz, os citocromos, sendo o principal deles a clorofila.

Teoria da Endossimbiose

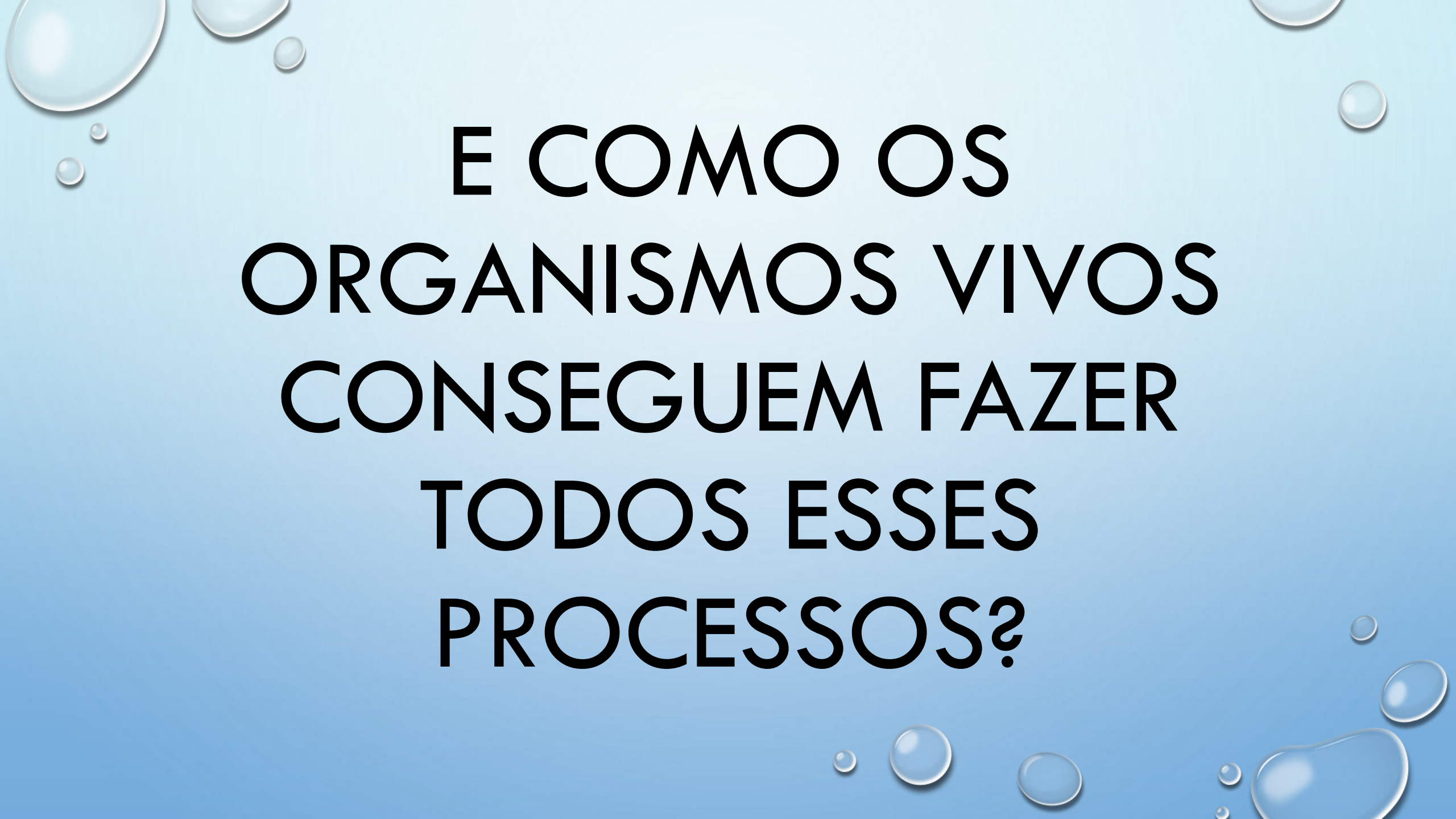


Lynn Margulis

Evidências de que a mitocôndria e o cloroplasto surgiram através da endossimbiose



Tanto o cloroplasto quanto a mitocôndria possuem **DUPLA MEMBRANA** e **MATERIAL GENÉTICO PRÓPRIO**

The background is a light blue gradient. In the top-left corner, there are several realistic water droplets of varying sizes, some with highlights and shadows. In the bottom-right corner, there are more water droplets, including a large one and several smaller ones. The text is centered and reads:

**E COMO OS
ORGANISMOS VIVOS
CONSEGUEM FAZER
TODOS ESSES
PROCESSOS?**

MATERIAL GENÉTICO!

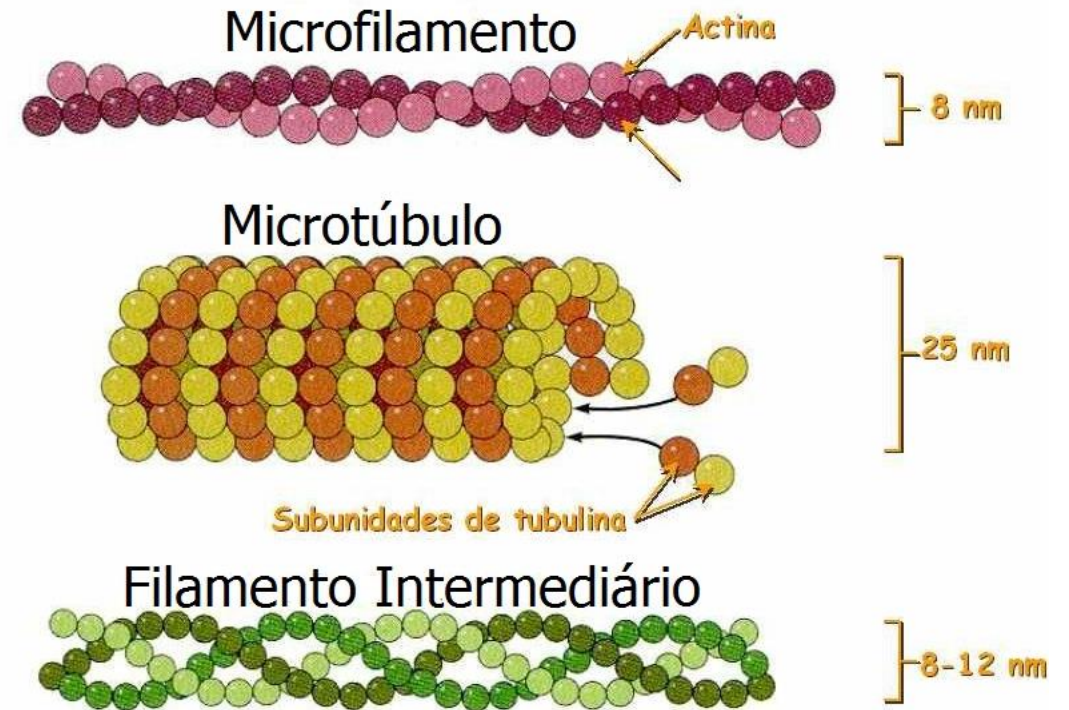
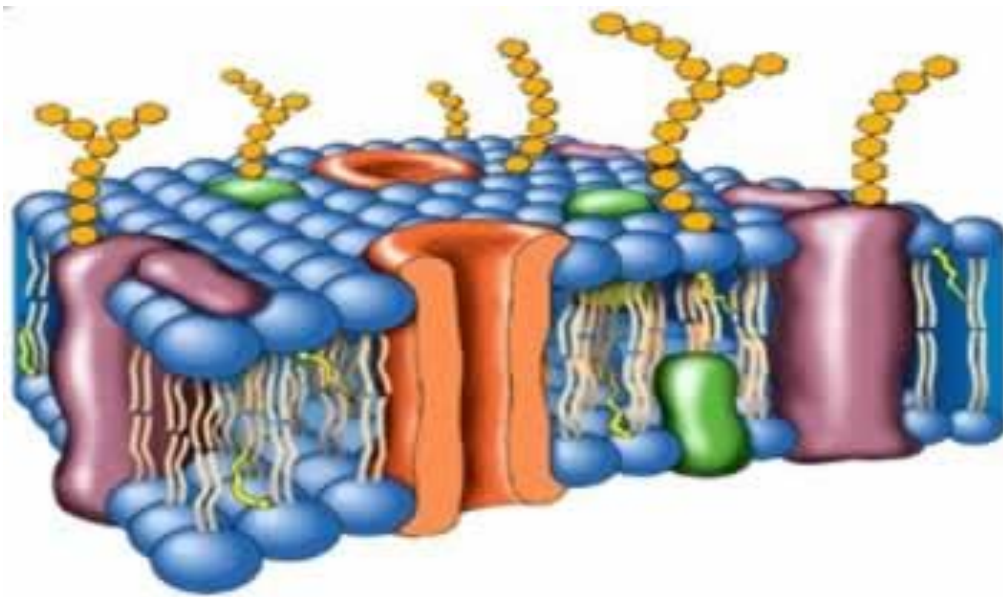
Que é o DNA, com exceção de vários vírus





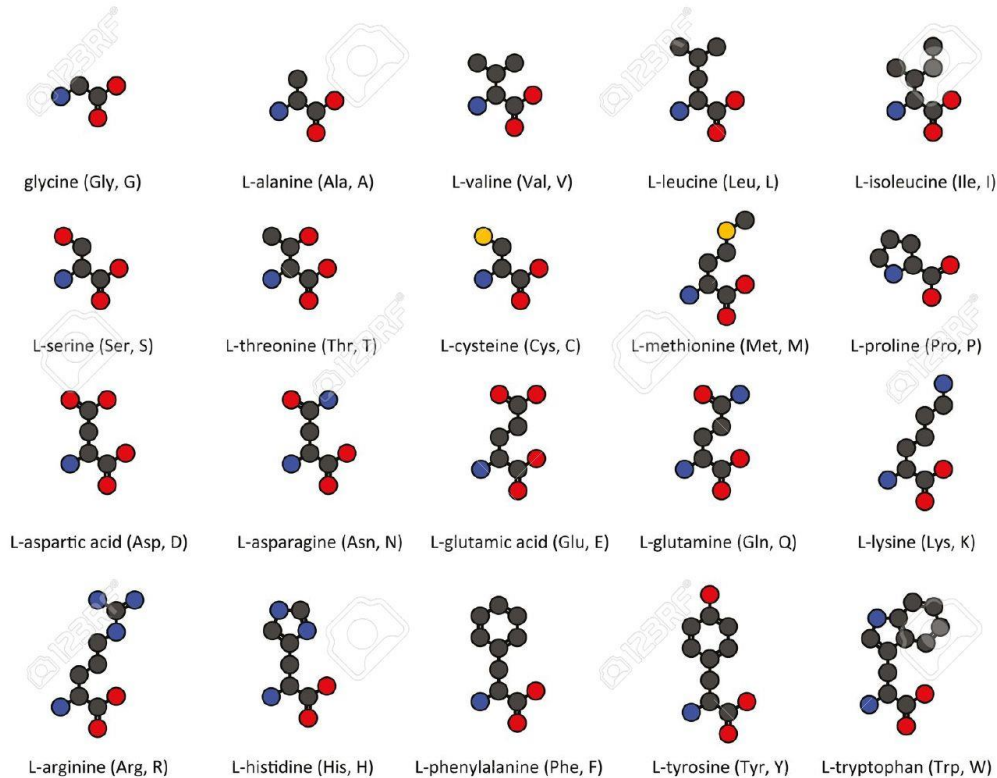
COMO ASSIM, MEU?

PROTEÍNAS!

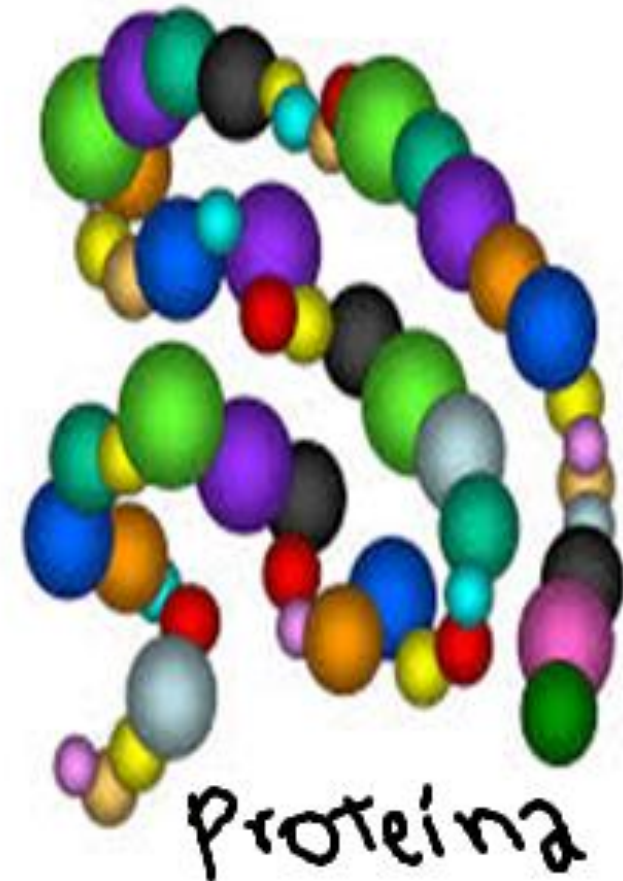
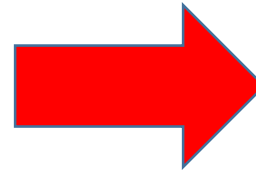


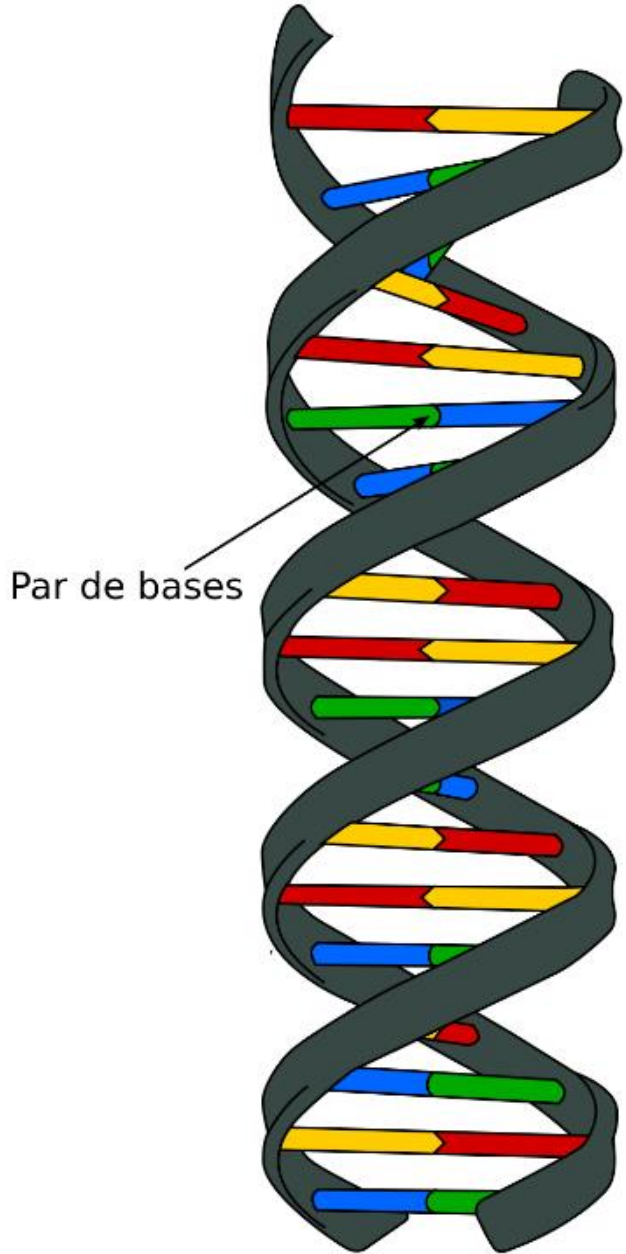
Nosso DNA é a “receita” para as nossas proteínas

PROTEÍNAS!



Aminoácidos

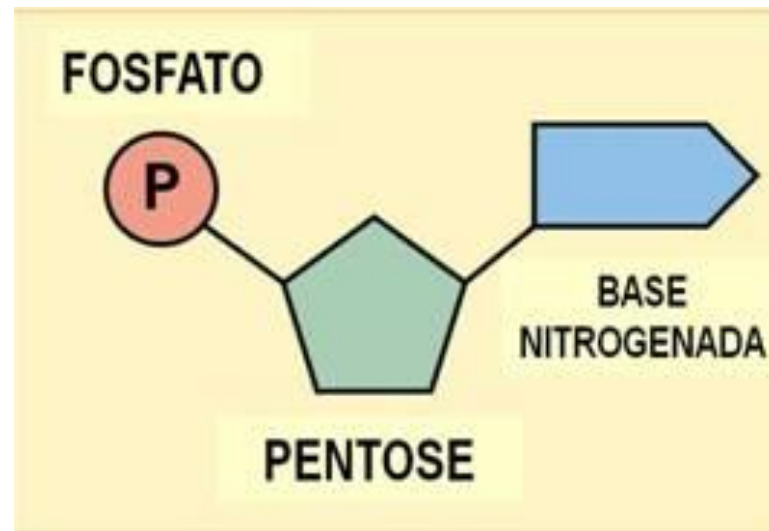




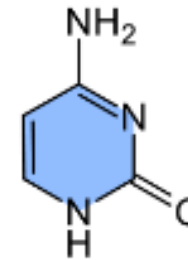
ADN

Ácido desoxirribonucleico

O DNA (ou ADN) é formado por nucleotídeos

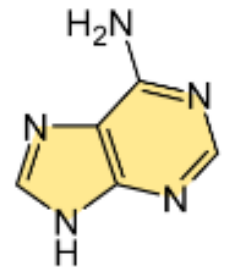


Citosina



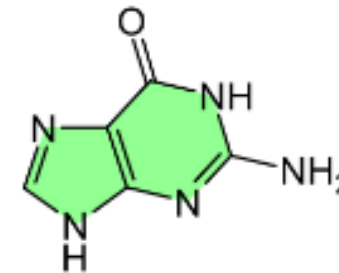
C

Adenina



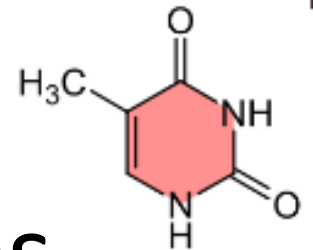
A

Guanina



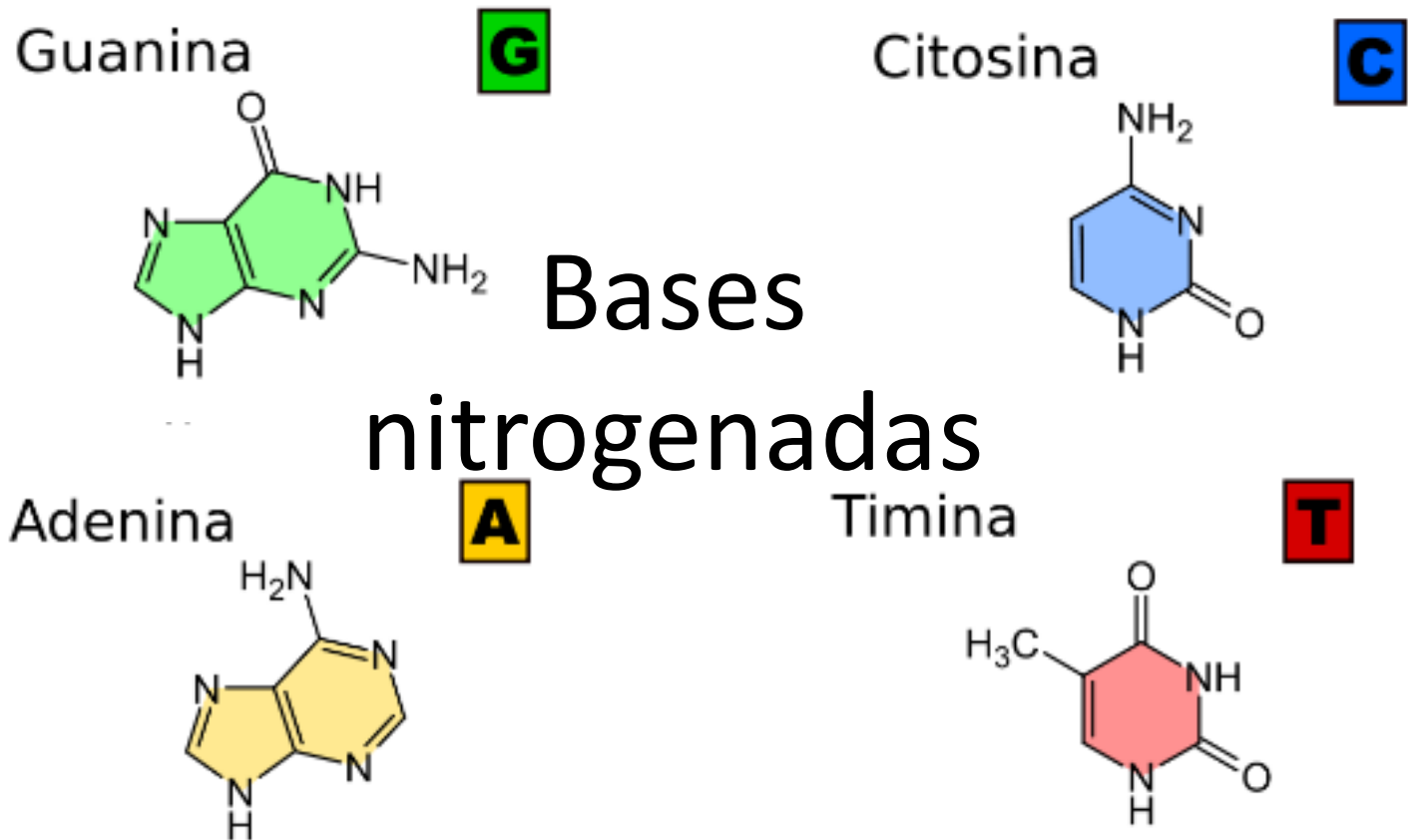
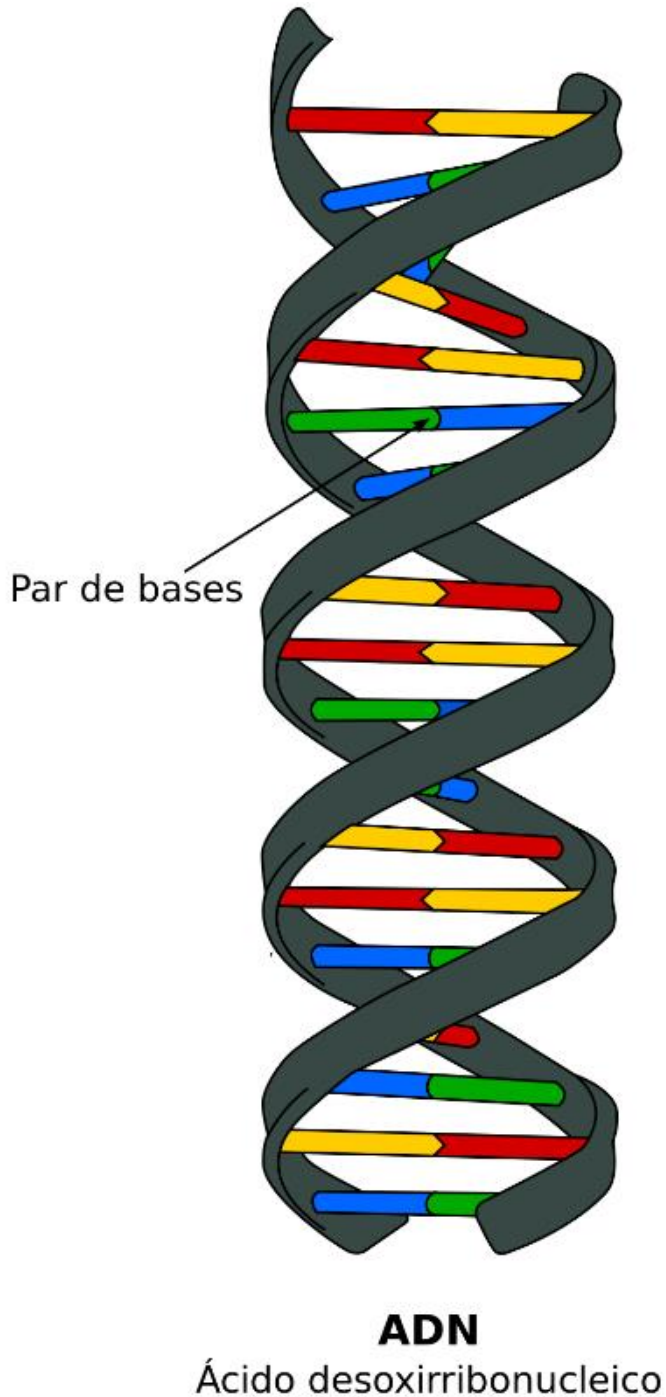
G

Timina



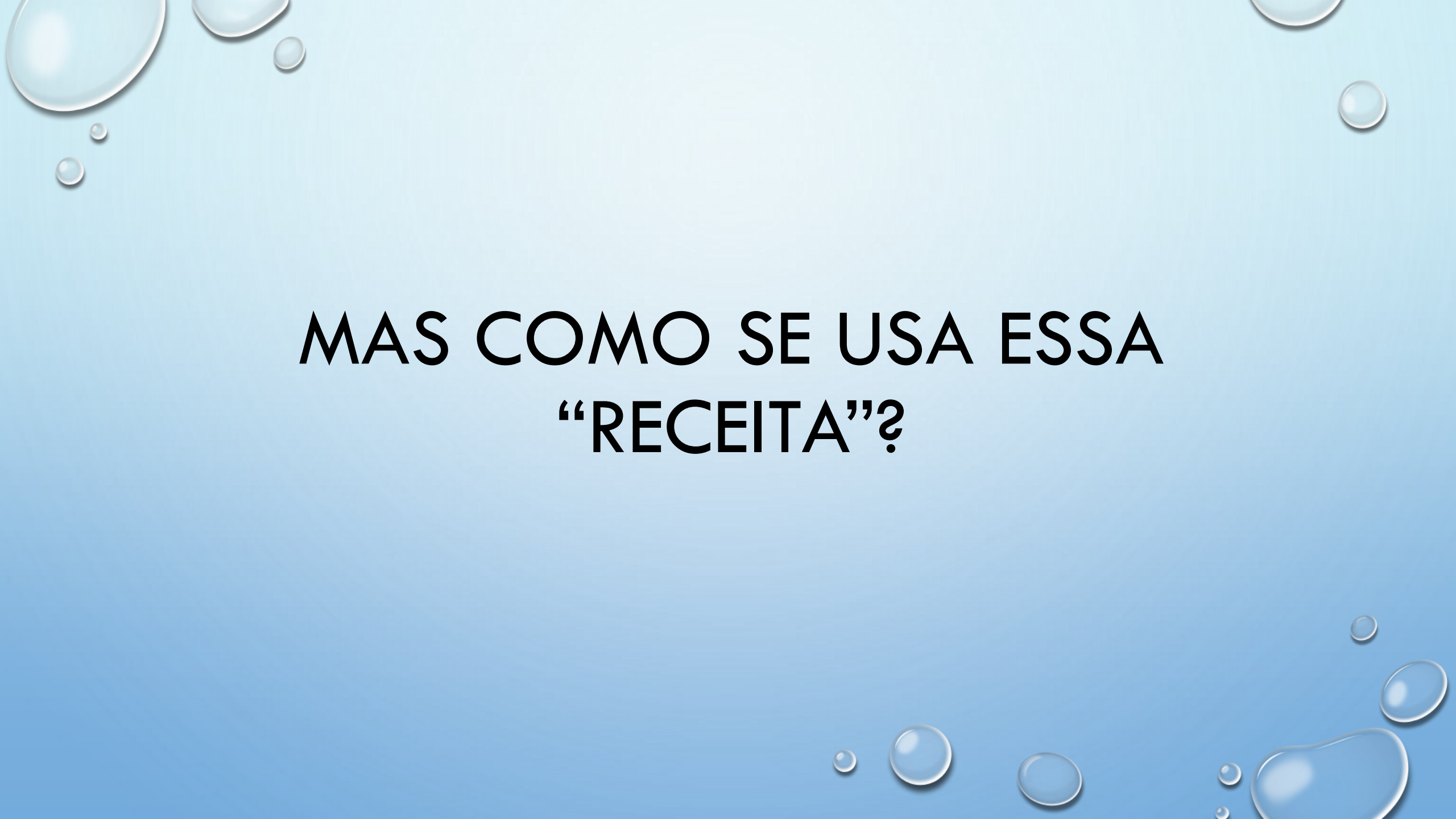
T

Bases
nitrogenadas

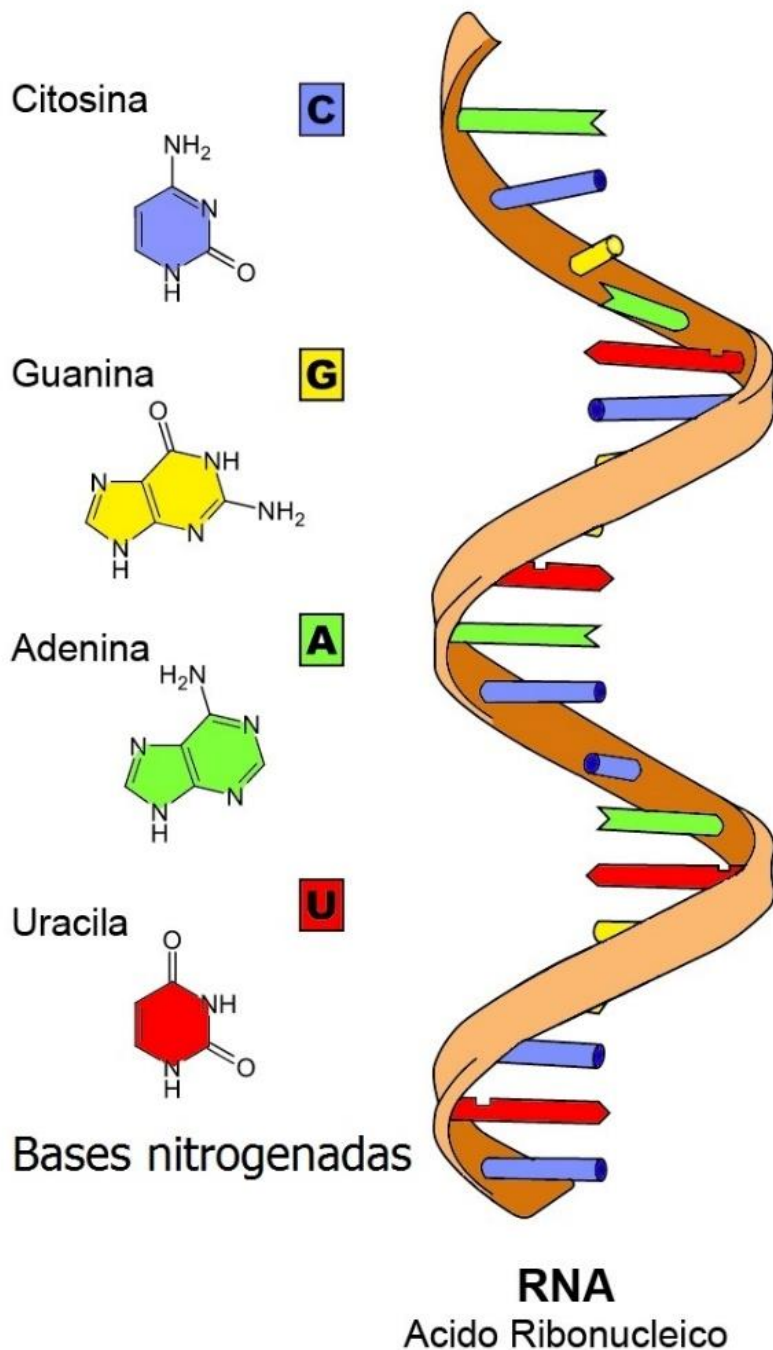


Ele é organizado em uma dupla hélice,
formada por duas fitas conectadas
pelas ligações entre as bases
(G com C e A com T)

Gal Costa e Agnaldo Timoteo (ajuda a lembrar haha)

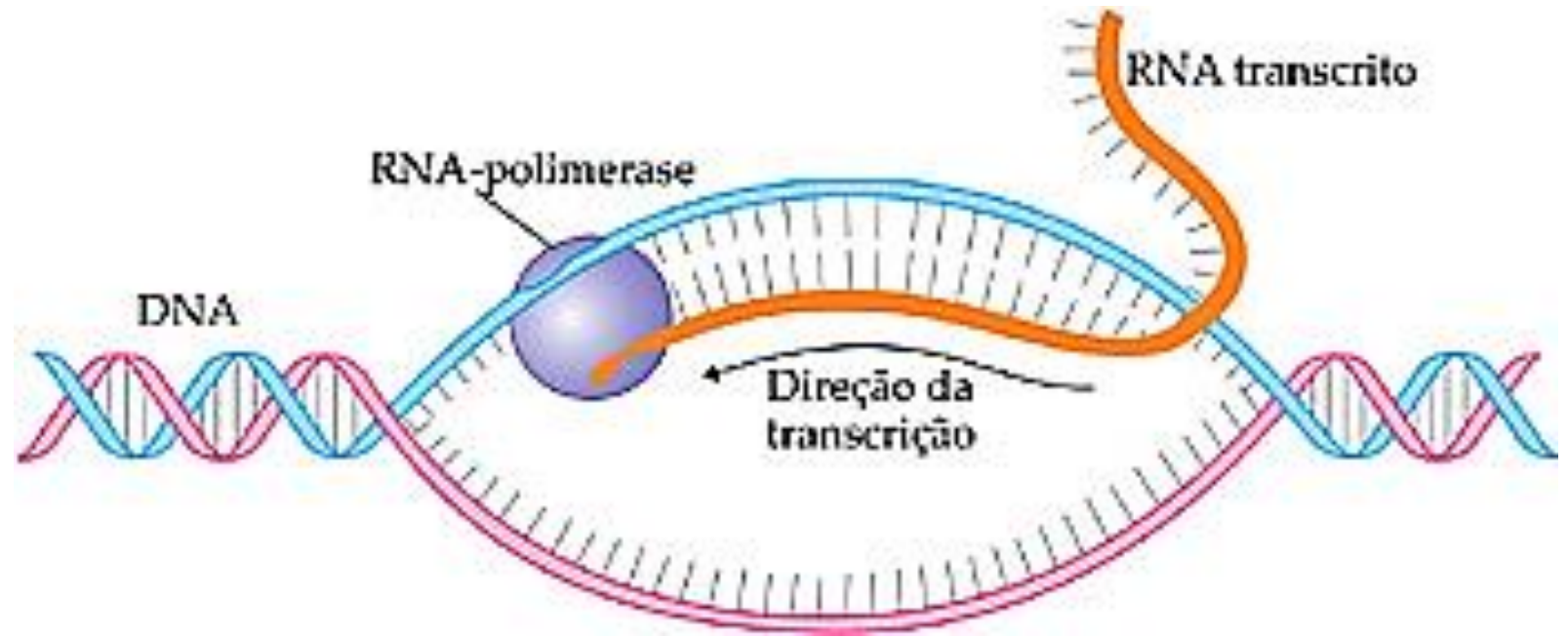
The background is a light blue gradient. In the top-left and bottom-right corners, there are several realistic-looking water droplets of various sizes, some overlapping. The text is centered in the middle of the image.

**MAS COMO SE USA ESSA
“RECEITA”?**



RNA

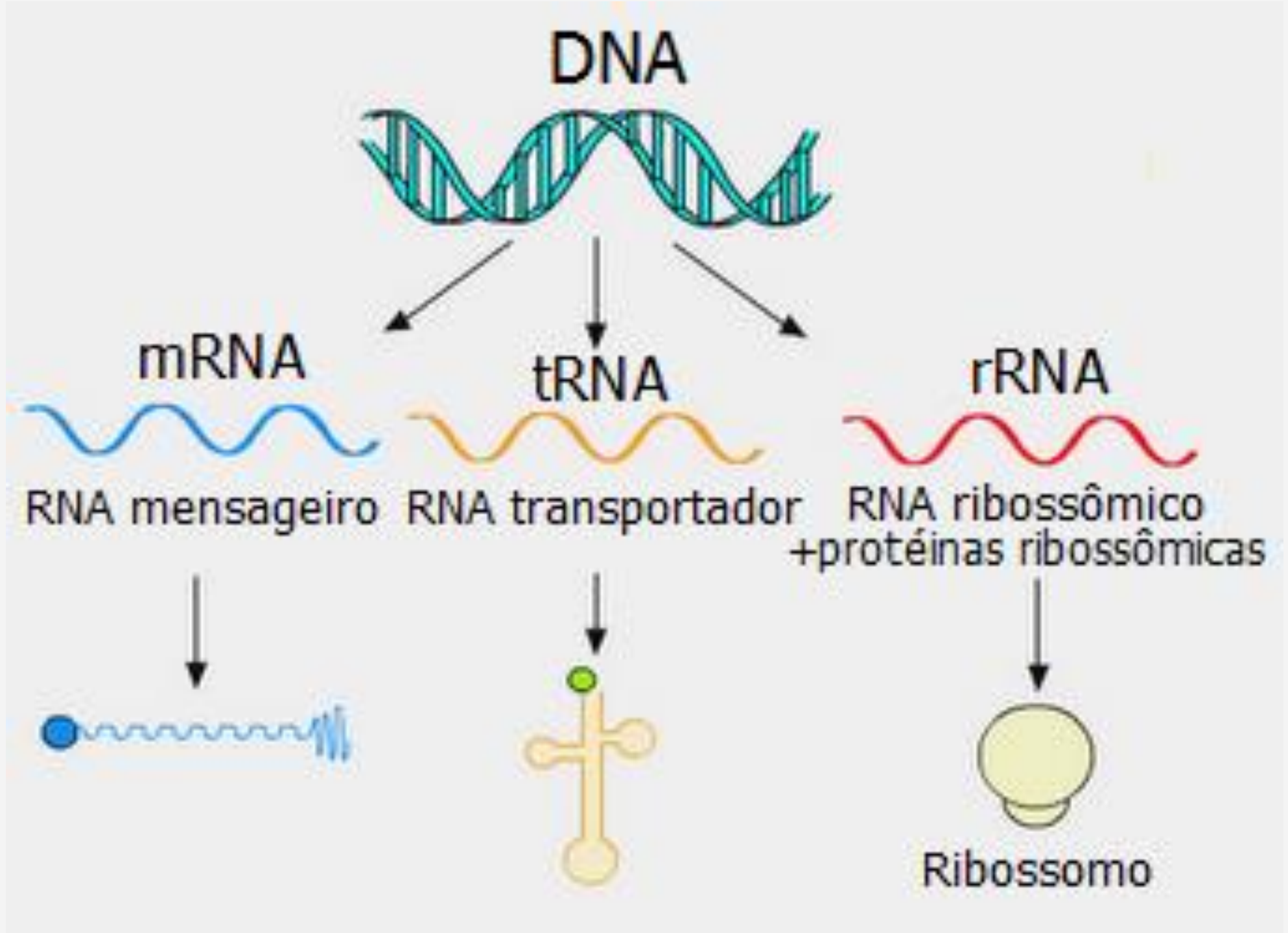
Pareamentos
G-C, C-G, A-U, T-A



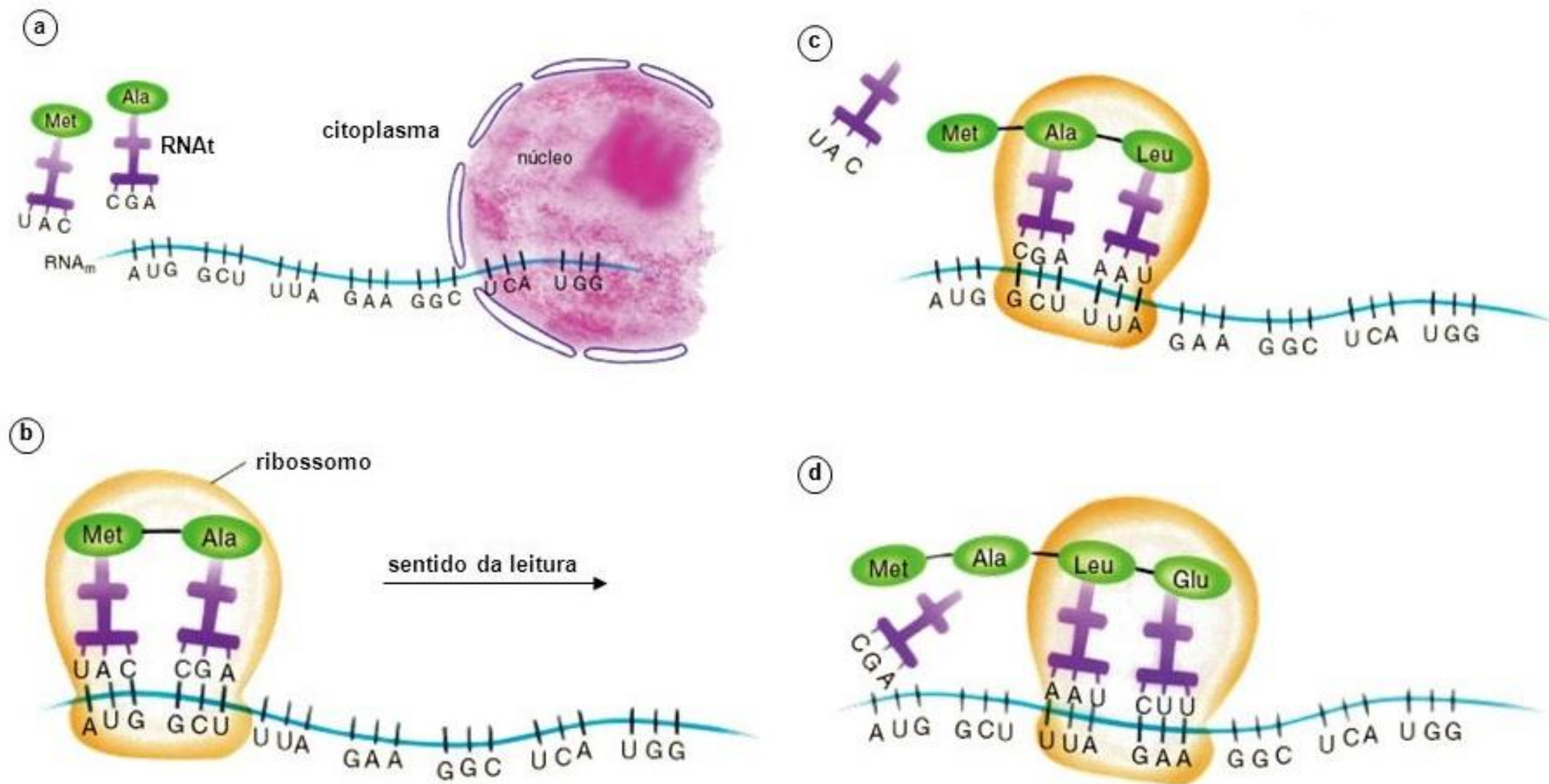
Transcrição

RNA sintetizado em molde de DNA

Tipos de RNA



Tradução: síntese de proteínas



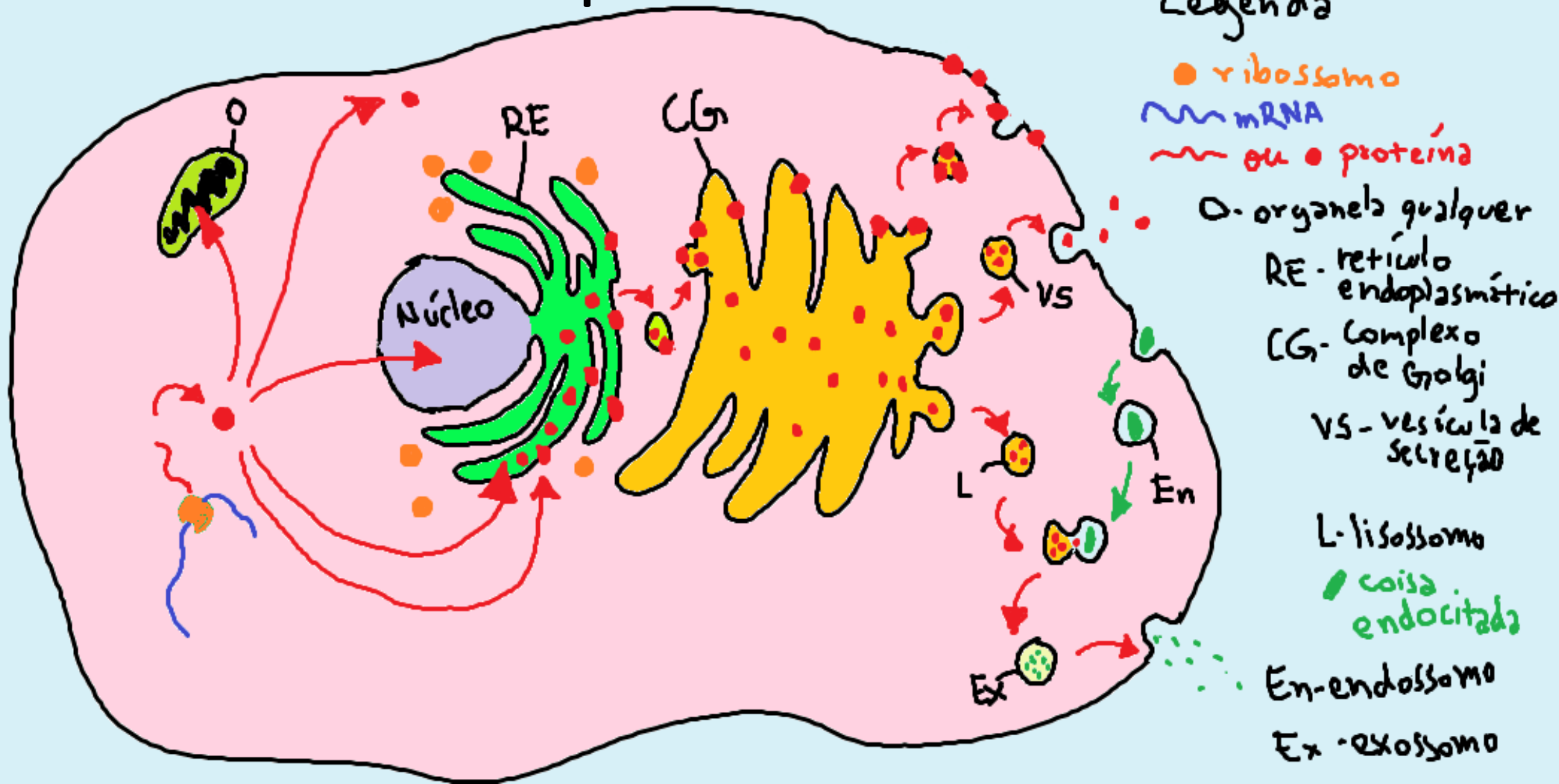
Código Genético

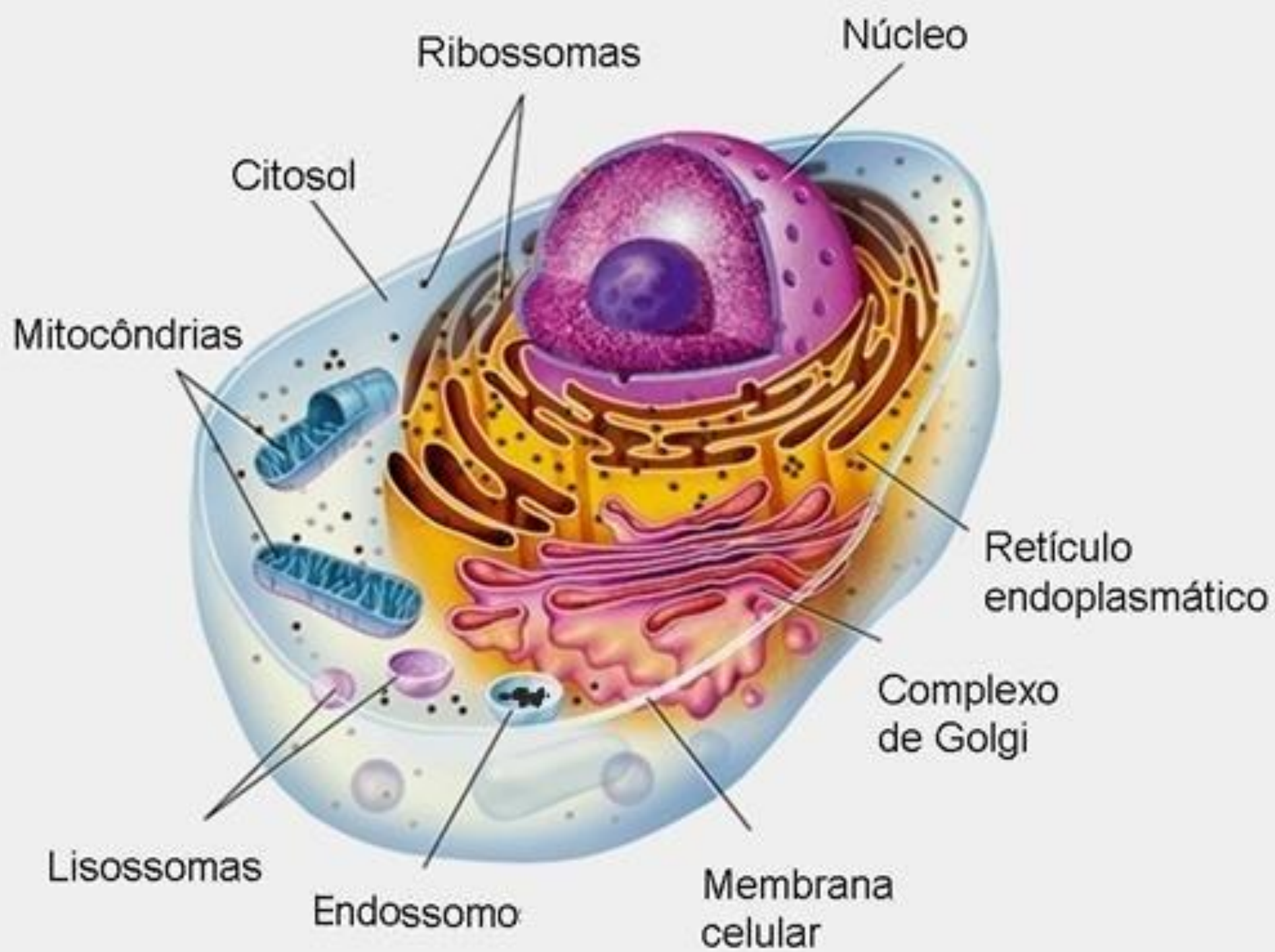
Primeira base	Segunda base				Terceira base
	U	C	A	G	
U	UUU } Fen	UCU } Ser	UAU } Tir	UGU } Cis	U
	UUC } Leu	UCC } Ser	UAC } Fim	UGC } Fim	C
	UUA } Leu	UCA } Ser	UAA } Fim	UGA } Fim	A
	UUG } Leu	UCG } Ser	UAG } Fim	UGG } Trp	G
C	CUU } Leu	CCU } Pro	CAU } His	CGU } Arg	U
	CUC } Leu	CCC } Pro	CAC } Gln	CGC } Arg	C
	CUA } Leu	CCA } Pro	CAA } Gln	CGA } Arg	A
	CUG } Leu	CCG } Pro	CAG } Gln	CGG } Arg	G
A	AUU } Ile	ACU } Tre	AAU } Ans	AGU } Ser	U
	AUC } Ile	ACC } Tre	AAC } Lis	AGC } Arg	C
	AUA } Met	ACA } Tre	AAA } Lis	AGA } Arg	A
	AUG } Met	ACG } Tre	AAG } Lis	AGG } Arg	G
G	GUU } Val	GCU } Ala	GAU } Asp	GGU } Gli	U
	GUC } Val	GCC } Ala	GAC } Glu	GGC } Gli	C
	GUA } Val	GCA } Ala	GAA } Glu	GGA } Gli	A
	GUG } Val	GCG } Ala	GAG } Glu	GGG } Gli	G

LEGENDA

Ala = alanina
Arg = arginina
Ans = asparagina
Asp = ácido aspártico
Glu = ácido glutâmico
Cis = cisteína
Fen = fenilalanina
Gli = glicina
Gln = glutamina
His = histidina
Ile = isoleucina
Leu = leucina
Lis = lisina
Met = metionina
Pro = prolina
Ser = serina
Tir = tirosina
Tre = treonina
Trp = triptofano
Val = valina

Destino das proteínas





ADIANTANDO ALGUNS CONCEITOS

- **Gene** – sequência do DNA responsável pela síntese de uma molécula de RNA
- **Alelos** – versões de um mesmo gene
- **Genótipo** – composição genética de um indivíduo (o conjunto de seus alelos)
- **Fenótipo** – características de um indivíduo oriundas da interação entre seu genótipo e o meio em que está inserido



NOS PRÓXIMO EPISÓDIO...

DIVISÃO CELULAR

MITOSE

MEIOSE



REFERÊNCIAS DAS IMAGENS

[HTTP://WWW.SOBIOLOGIA.COM.BR/CONTEUDOS/FIGURAS/BIOQUIMICA/FERMENTACAO_ALCOOLICA.JPG](http://www.sobiologia.com.br/conteudos/figuras/bioquimica/fermentacao_alcoolica.jpg)

[HTTP://WWW.SOBIOLOGIA.COM.BR/CONTEUDOS/FIGURAS/BIOQUIMICA/FERMENTACAO_LATICEA.JPG](http://www.sobiologia.com.br/conteudos/figuras/bioquimica/fermentacao_laticea.jpg)

[HTTPS://4.BP.BLOGSPOT.COM/-77VPDDRNYZ/VRXHCXFFXI/AAAAAAAAAMC8/QZL2ZKDN8S0/S1600/YOGURTE%2BCASEIRO%2BLIGHT.PNG](https://4.bp.blogspot.com/-77VPDDRNYZ/VRXHCXFFXI/AAAAAAAAAMC8/QZL2ZKDN8S0/S1600/YOGURTE%2BCASEIRO%2BLIGHT.PNG)

[HTTPS://THUMBS.DREAMSTIME.COM/T/BAKER-S-YEAST-ISOLATED-WHITE-BACKGROUND-36257300.JPG](https://thumbs.dreamstime.com/t/baker-s-yeast-isolated-white-background-36257300.jpg)

[HTTP://WWW.DOCADOCES.EU/WP-CONTENT/UPLOADS/2015/05/P%C3%A3O-AV%C3%B3.JPG](http://www.docadoces.eu/wp-content/uploads/2015/05/P%C3%A3O-AV%C3%B3.JPG)

[HTTP://REVISTAVIVASAUDE.UOL.COM.BR/UPLOAD/IMAGENS_UPLOAD/6_MOTIVOS_PARA_BEVER_CERVEJA.JPG](http://revistavivasaude.uol.com.br/upload/imagens_upload/6_motivos_para_bever_cerveja.jpg)

[HTTP://1.BP.BLOGSPOT.COM/-ZWNOURIDBQ/VOQVMMRCBG/AAAAAAAAAGG/CDNORYOBGHW/S1600/2.JPG](http://1.bp.blogspot.com/-ZWNOURIDBQ/VOQVMMRCBG/AAAAAAAAAGG/CDNORYOBGHW/S1600/2.JPG)

[HTTPS://STATIC.TODAMATERIA.COM.BR/UPLOAD/56/4D/564D2BF9B5ED7-CELULA-VEGETAL.JPG](https://static.todamateria.com.br/upload/56/4D/564D2BF9B5ED7-CELULA-VEGETAL.JPG)

[HTTP://SEGREDOSDOEMAGRECIMENTOESAUDE.COM/WP-CONTENT/UPLOADS/2015/06/DOCES.JPG](http://segredosdoemagrecimentoesaude.com/wp-content/uploads/2015/06/doces.jpg)

[HTTP://GRACIETEOLIVEIRA.PBWORKS.COM/F/EXOCITOSE.JPG](http://gracieteoliveira.pbworks.com/f/exocitose.jpg)

[HTTP://IMAGE.SLIDESHARECDN.COM/ORIGEMEUCAIONTE-140830121438-PHPAPP02/95/ORIGEM-DA-CLULA-EUCARIONTE-8-638.JPG?CB=1409400925](http://image.slidesharecdn.com/origemeucaionte-140830121438-phpapp02/95/origem-da-clula-eucarionte-8-638.jpg?cb=1409400925)

[HTTP://WWW.NAME-LIST.NET/IMG/PORTRAIT/MARGULIS_3.JPG](http://www.name-list.net/img/portrait/margulis_3.jpg)

[HTTP://WWW.MUSCULACAO.NET/WP-CONTENT/UPLOADS/2013/04/1.JPG](http://www.musculacao.net/wp-content/uploads/2013/04/1.jpg)

[HTTP://4.BP.BLOGSPOT.COM/--NXYQOZECVU/UAWFMMY1WQI/AAAAAAAAAD00/AFS8L6M3XCC/S1600/AFILAMENTOS.JPG](http://4.bp.blogspot.com/--NXYQOZECVU/UAWFMMY1WQI/AAAAAAAAAD00/AFS8L6M3XCC/S1600/AFILAMENTOS.JPG)

[HTTP://4.BP.BLOGSPOT.COM/_NGSPKSJOX8K/TK5NZL5FIGI/AAAAAAAAAGU/K5CLYBDKO8U/S1600/MICROTUBULOS.JPG](http://4.bp.blogspot.com/_NGSPKSJOX8K/TK5NZL5FIGI/AAAAAAAAAGU/K5CLYBDKO8U/S1600/MICROTUBULOS.JPG)

[HTTP://WWW.EMFORMA.NET/IMAGENS/SAUDE/MITOCONDRIA.JPG](http://www.emforma.net/imagens/saude/mitocondria.jpg)

[HTTP://MUNDOEDUCACAO.BOL.UOL.COM.BR/UPLOAD/CONTEUDO/CLOROPLASTO.JPG](http://mundoeducacao.bol.uol.com.br/upload/conteudo/cloroplasto.jpg)

[HTTP://WWW.INFOESCOLA.COM/WP-CONTENT/UPLOADS/2007/12/ESPECTRO-VISIVEL-DA-LUZ.JPG](http://www.infoescola.com/wp-content/uploads/2007/12/espectro-visivel-da-luz.jpg)

[HTTP://M.MDEMULHER.ABRIL.COM.BR/SITES/MDEMULHER/FILES/MIGRACAO_BODY/735286/LIVROS-RECEITAS-ESTRELADAS-01.JPG](http://m.mdemulher.abril.com.br/sites/mdemulher/files/migracao_body/735286/livros-receitas-estreladas-01.jpg)

[HTTP://SUPERAGATOIDE.ALTERVISTA.ORG/IMAGES/RNA.JPG](http://superagatoide.altervista.org/images/rna.jpg)

[HTTP://IMAGES.SLIDEPLAYER.COM.BR/3/1270915/SLIDES/SLIDE_13.JPG](http://images.slideplayer.com.br/3/1270915/slides/slide_13.jpg)