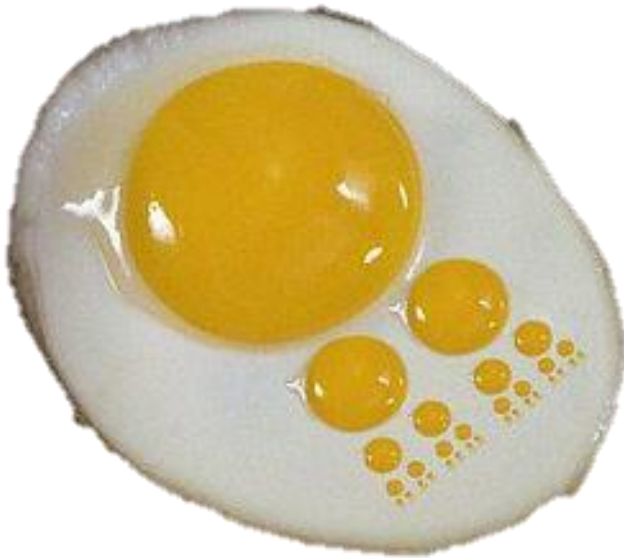


# MITOSE

## Aula prática 10



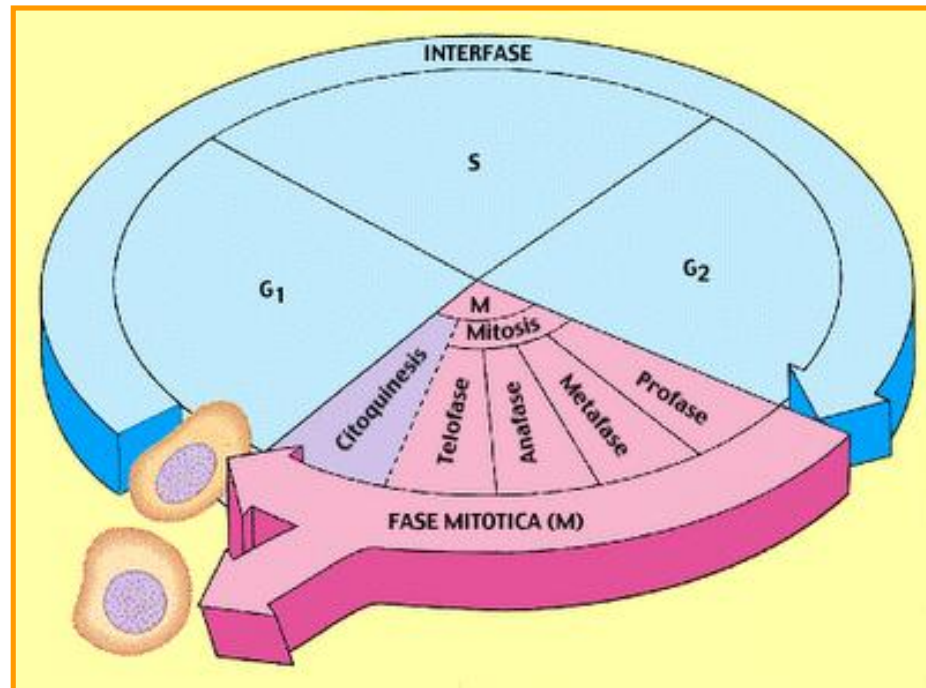
LGN0114 – Biologia Celular

Maria Carolina Quecine  
Departamento de Genética  
mquecine@usp.br

# CICLO CELULAR: INTERFASE E MITOSE

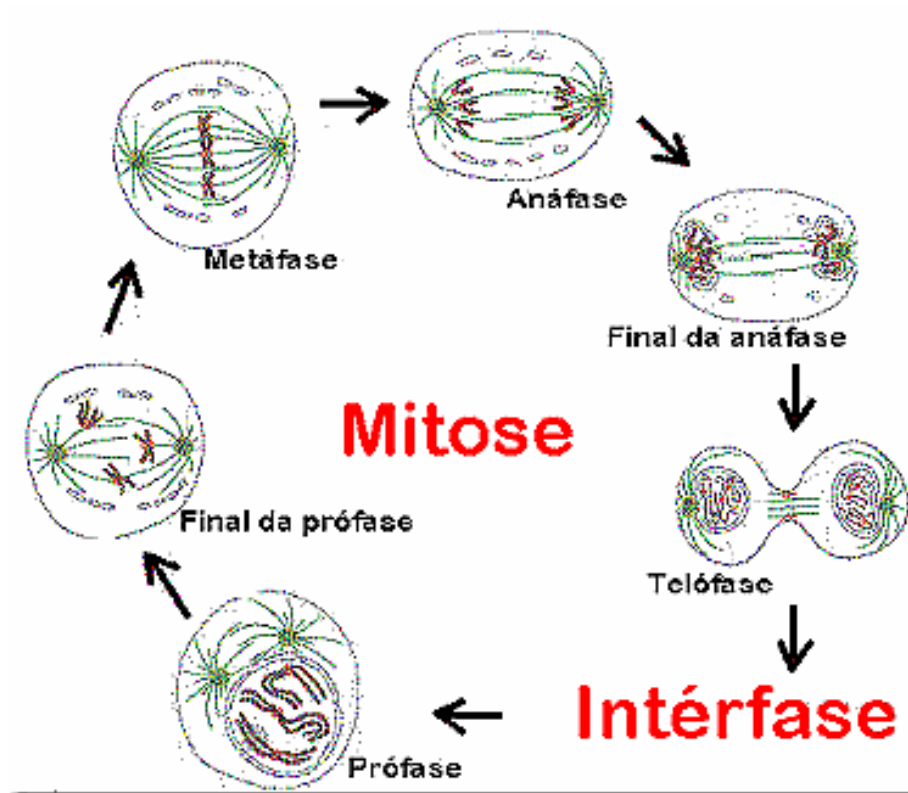
Eventos de duplicação do conteúdo celular e sua posterior divisão → forma dos organismos multicelulares crescerem

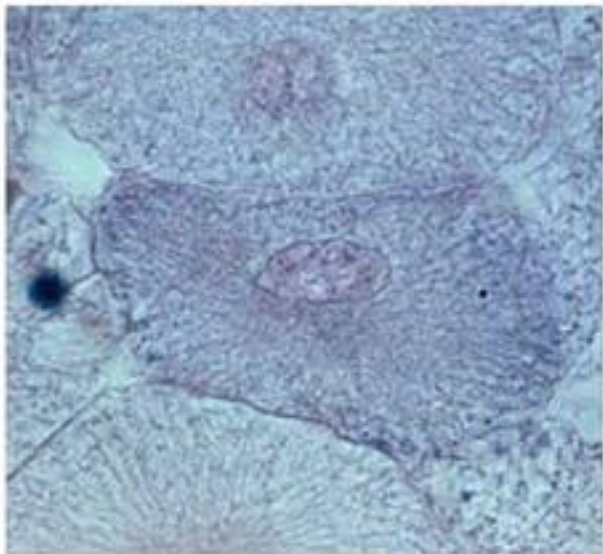
- ✓ Células filhas herdam uma réplica exata da informação genética da célula mãe;
- ✓ Células filhas semelhantes à célula mãe e entre si;
- ✓ Cada célula filha herda metade do citoplasma da célula mãe;



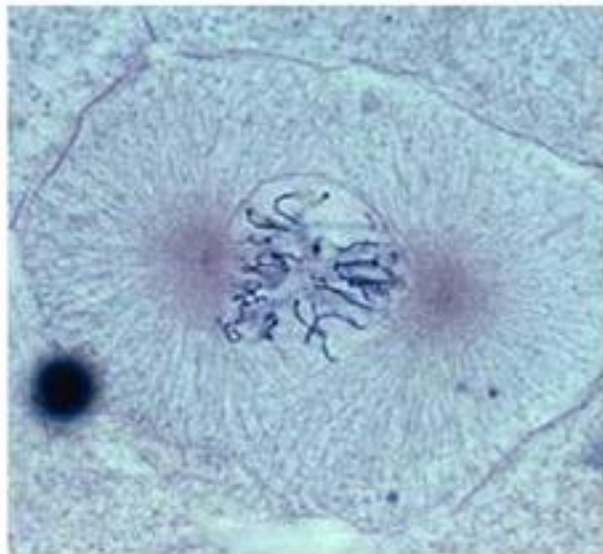
# DIVISÃO CELULAR: MITOSE E CITOCINESE

- ✓ **Mitose:** ou divisão nuclear, processo através do qual o material genético é precisamente duplicado e são gerados novos cromossomos idênticos ao original, os quais são posteriormente alocados em dois núcleos filhos;
- ✓ **Citocinese:** processo que divide a célula inteira em duas novas células, divisão do citoplasma.

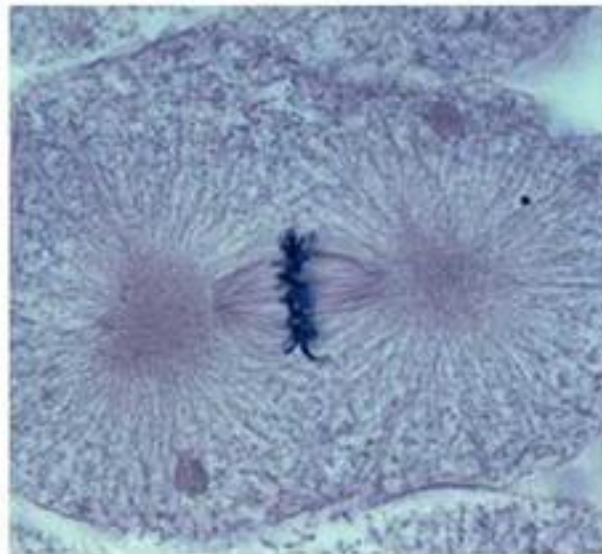




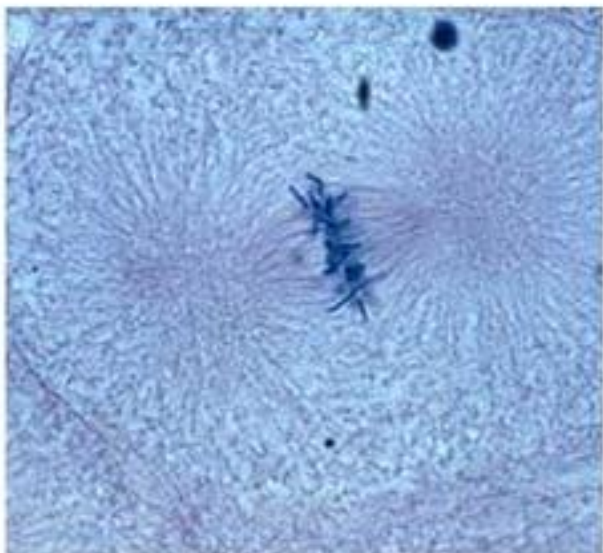
**Interfase**



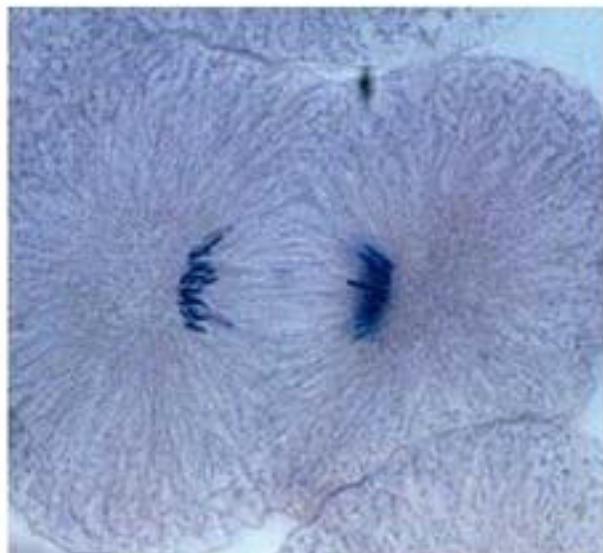
**Prófase**



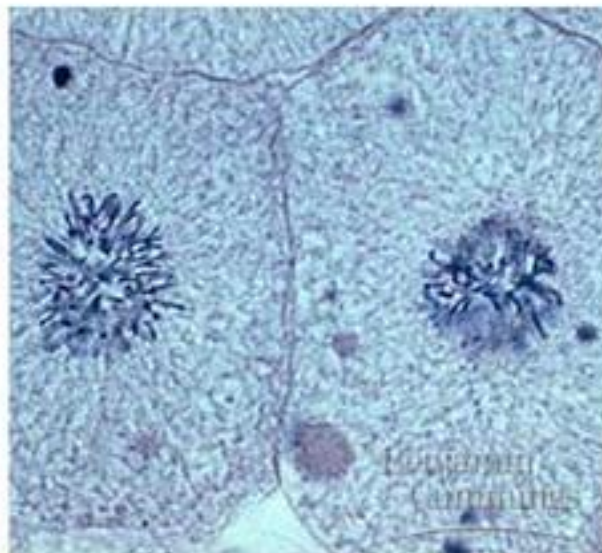
**Metáfase**



**Anáfase**



**Telófase (início)**



**Telófase (final)**

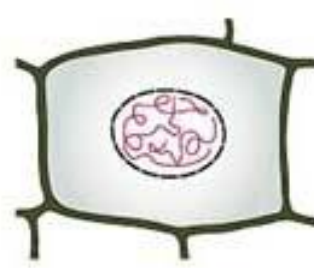
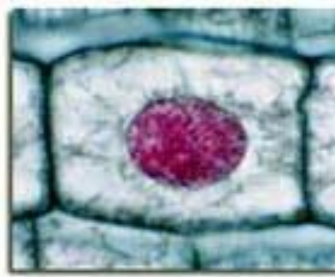
# CICLO CELULAR E DIVISÃO CELULAR

Microscopia de luz da ponta da raiz de cebola

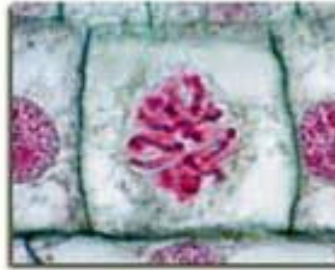
## CÉLULA VEGETAL



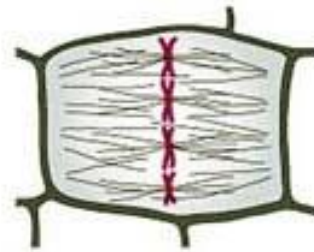
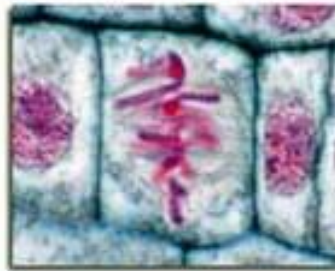
# CÉLULA VEGETAL



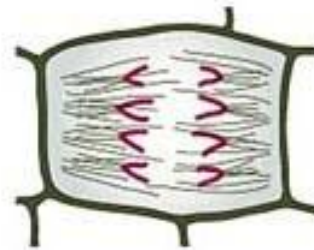
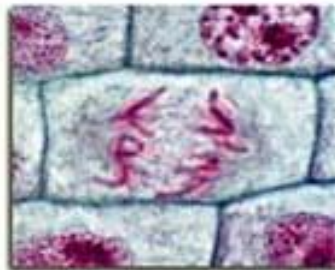
INTERFASE



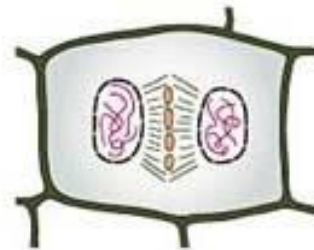
PRÓFASE



METÁFASE

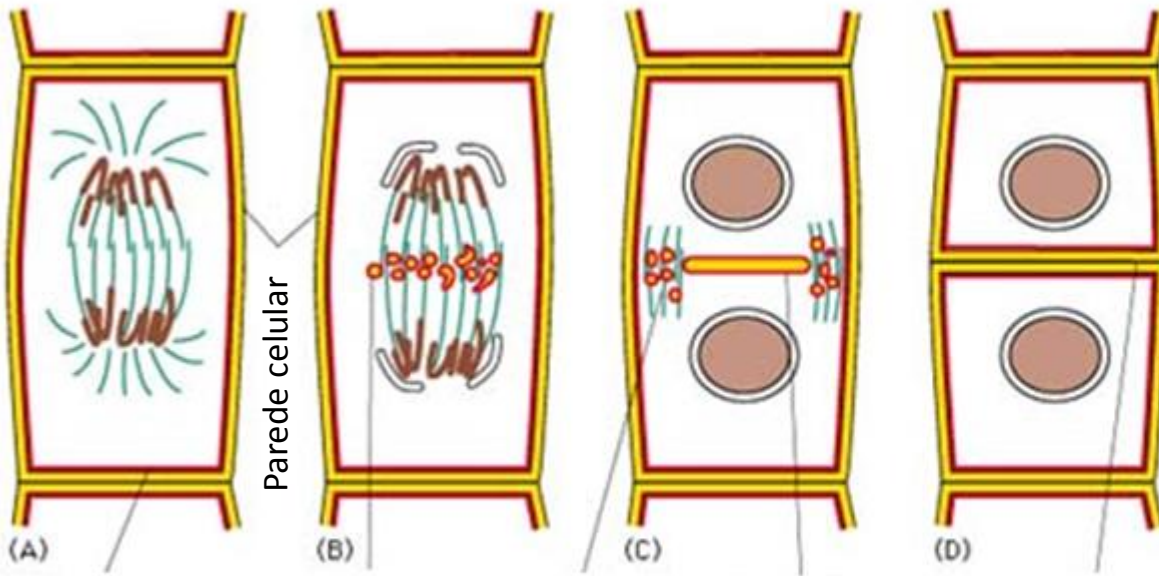


ANÁFASE



TELÓFASE

# CÉLULA VEGETAL

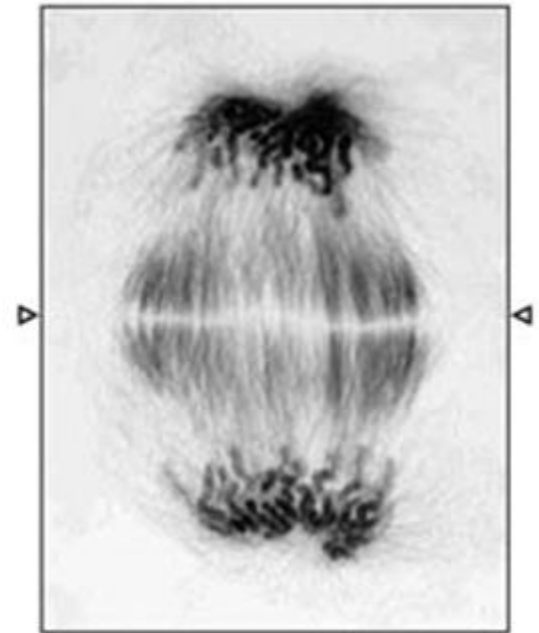


(A) Membrana plasmática

Parede celular

(B) Vesículas do **Fragmoplasto** Golgi

(C) Parede celular



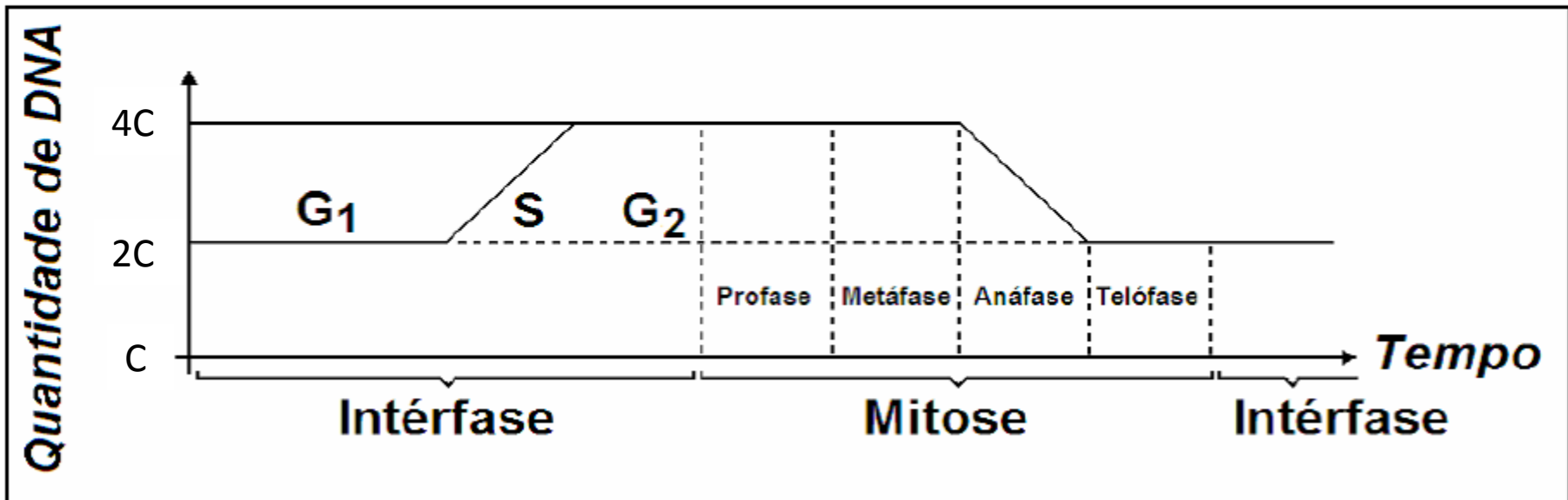
50  $\mu$ m

©1998 GARLAND PUBLISHING

CITOCINESE

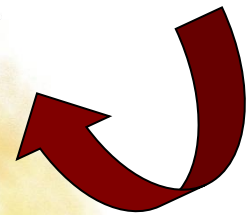
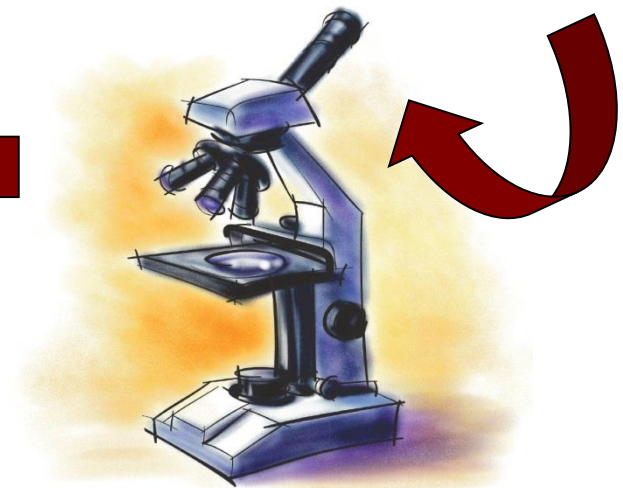
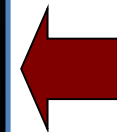
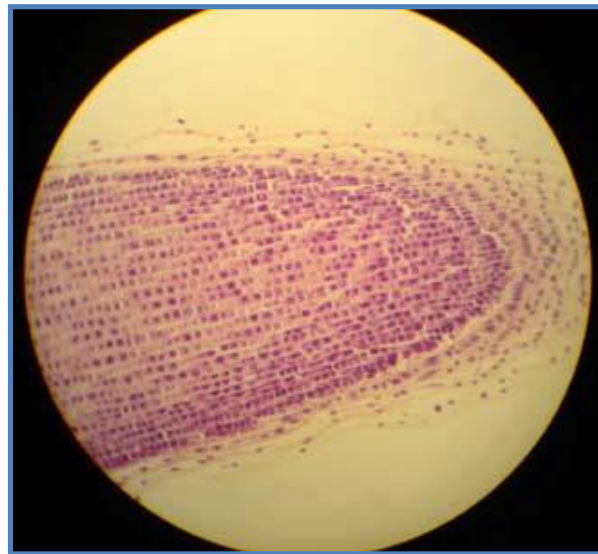
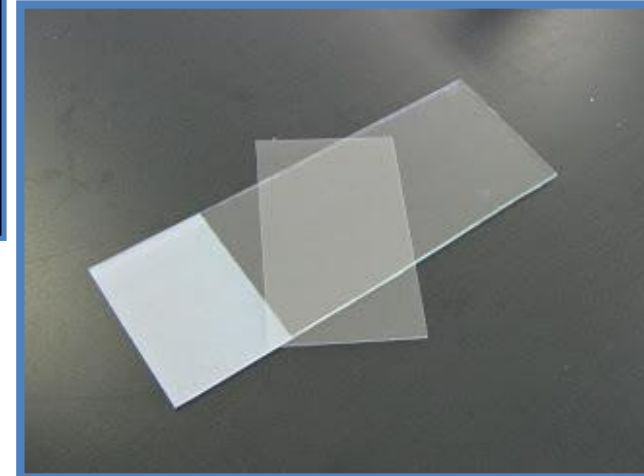
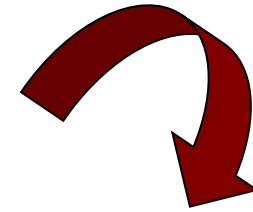
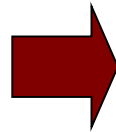
# VARIAÇÃO DA QUANTIDADE DE DNA DURANTE A MITOSE

Organismo	Homem	Cão	Drosófila	Cebola	Gato
Número diploide de cromossomos	46	78	08	16	38



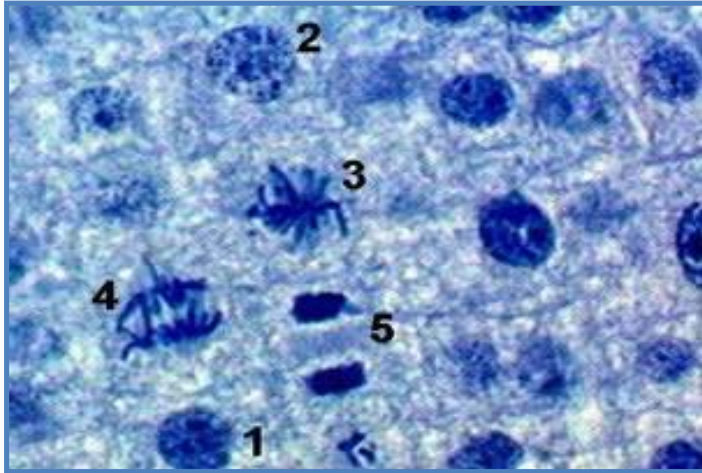


# EXERCÍCIO:

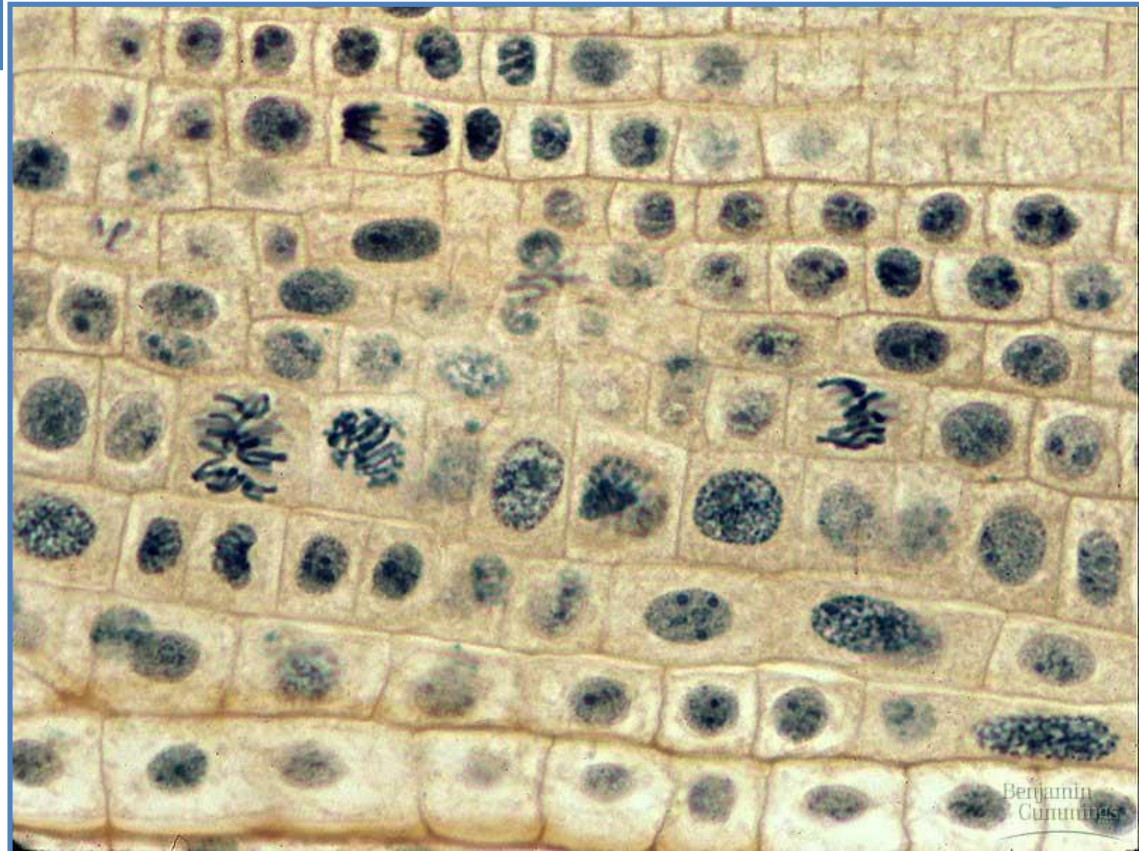


Usar aumentos de 10 e 40X

# MITOSE NAS CÉLULAS DA RAIZ DE CEBOLA



1. Interfase
2. Prófase
3. Metáfase
4. Anáfase
5. Telófase



# ESTUDO DIRIGIDO

1. Ciclo celular;
2. Fases da Interfase;
3. Fases da Mitose e suas características.

## **Capítulo 18 –O Ciclo da divisão celular (páginas 609 – 638)**

Alberts, B.; Bray, D.; Hopkin, K.; Johnson, A.; Lewis, J.; Raff, M.; Roberts, K.; Walter, P. 2011. ***Fundamentos da Biologia Celular***. 3ª Edição brasileira. Artmed, Porto Alegre

**Bom trabalho!!!**