

HOMEOSTASIS



MICROTUBULES

CYTOSKELETON MICROTUBULES



HOLLOW TUBULIN TUBULES

**CYTOSKELETON
MICROTUBULES**

CYTOSKELETON MICROTUBULES



HOLLOW TUBULIN TUBULES

FOUND THROUGHOUT CYTOSOL

CYTOSKELETON MICROTUBULES

CYTOSKELETON MICROTUBULES



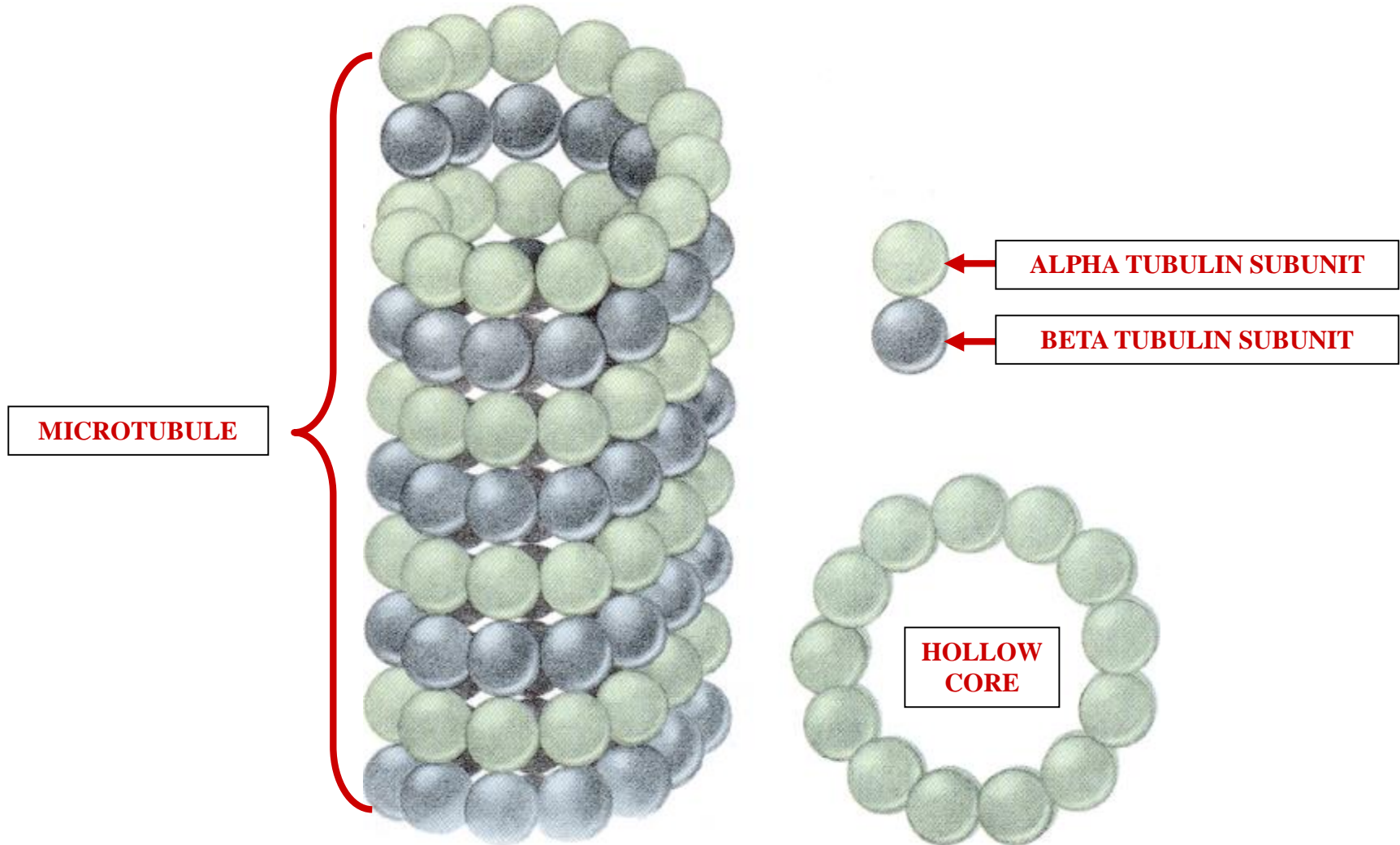
HOLLOW TUBULIN TUBULES

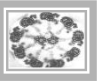
FOUND THROUGHOUT CYTOSOL

SUPPORT MICROFILAMENTS

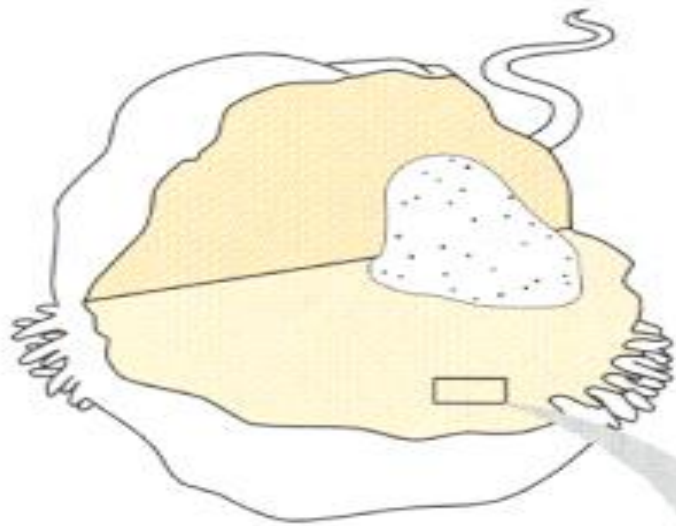
CYTOSKELETON MICROTUBULES

MICROTUBULE COMPOSITION



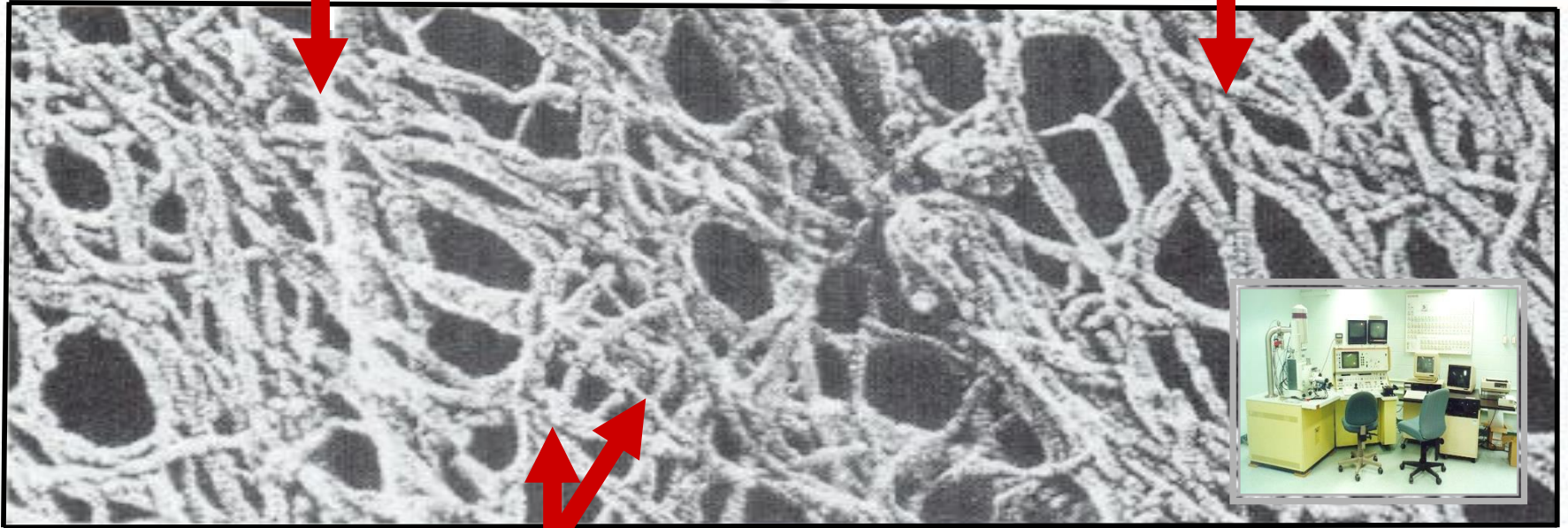


CYTOSKELETON ULTRASTRUCTURE

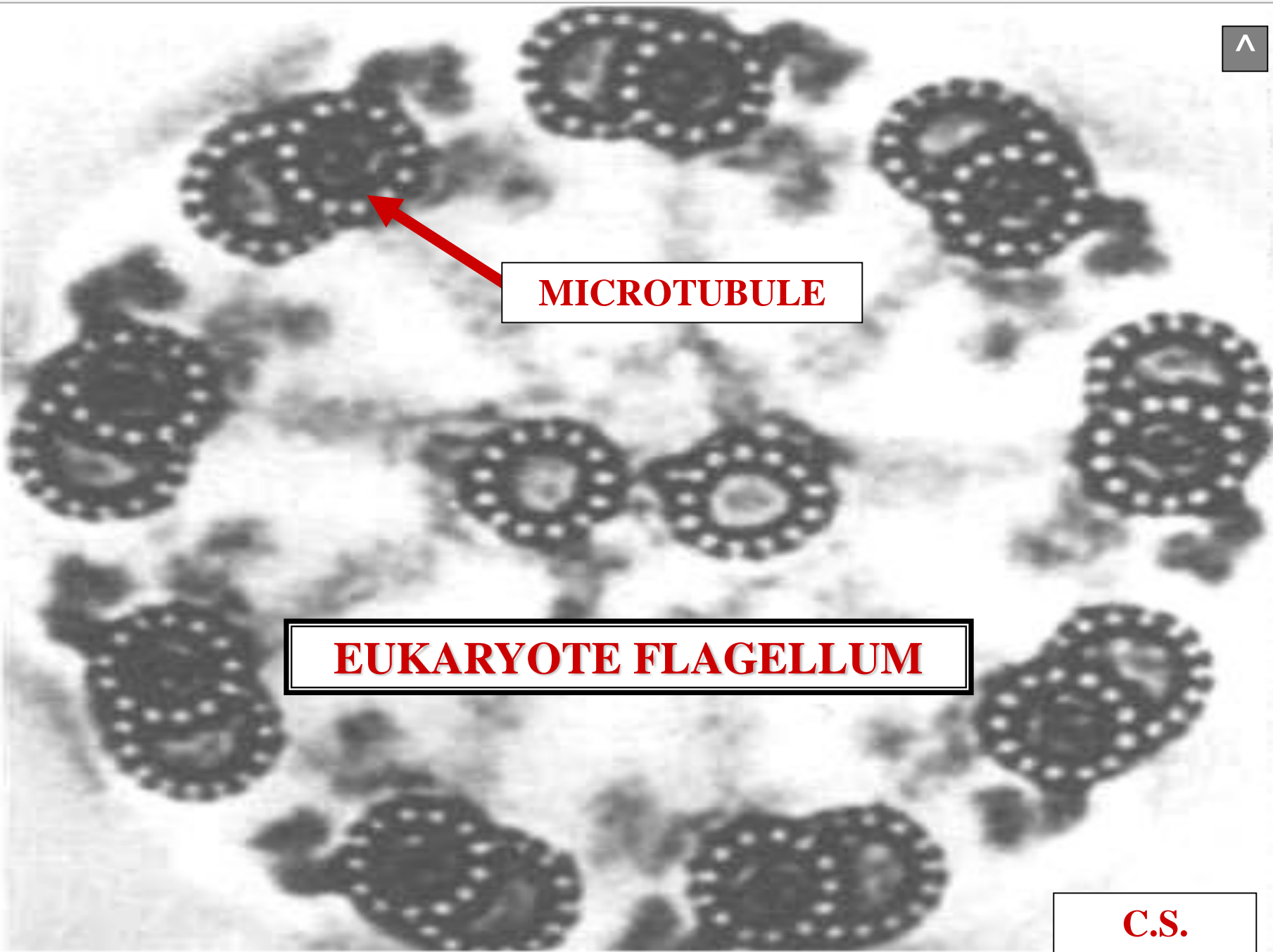


MICROTUBULE

CYTOSOL



MICROFILAMENTS



MICROTUBULE

EUKARYOTE FLAGELLUM

C.S.

TRUE PLANT FLAGELLUM

FLAGELLUM

FLAGELLUM



**PROPULSION
APPENDAGE**

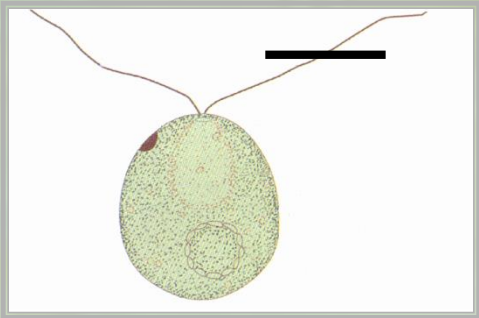
FLAGELLUM



FLAGELLA



CHLAMYDOMONAS

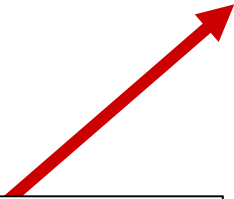
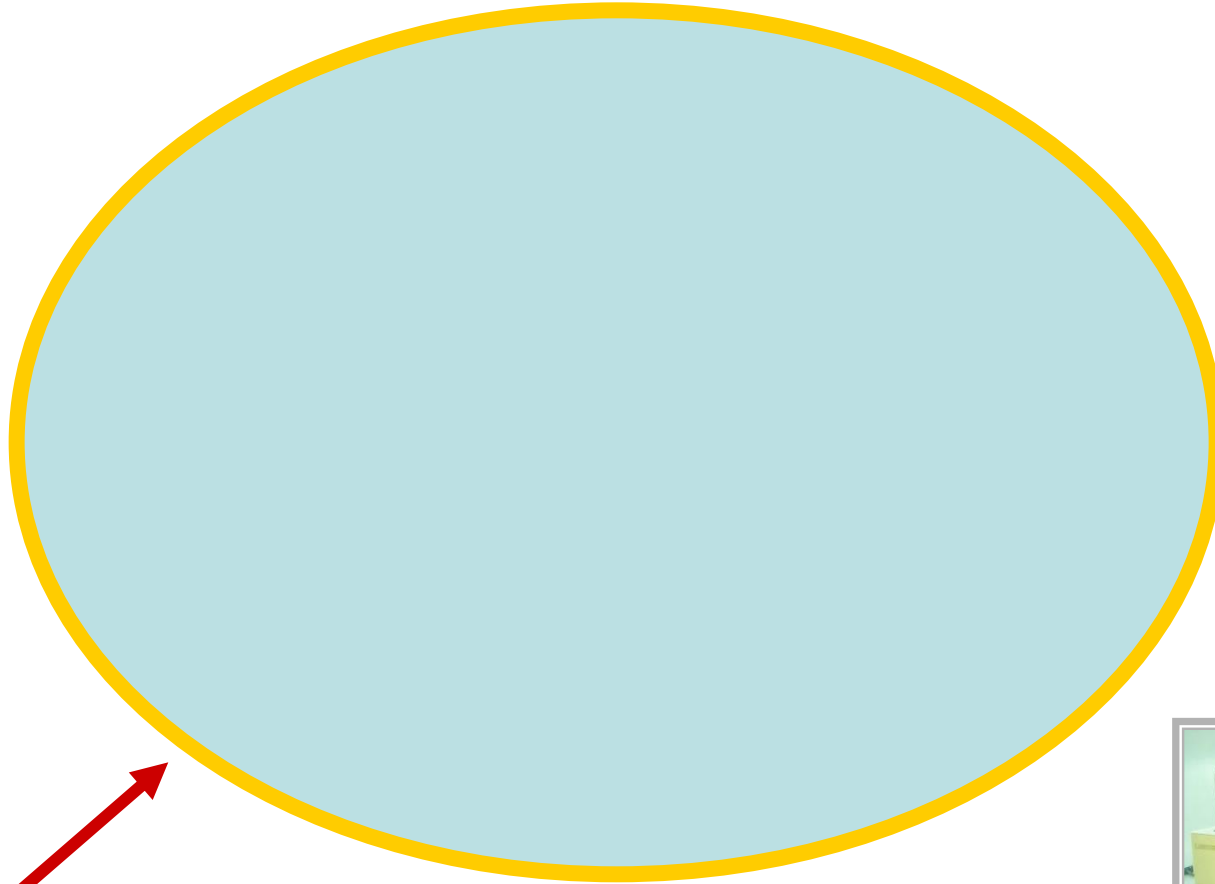


FLAGELLA



**TRUE PLANT
FLAGELLUM
ULTRASTRUCTURE**

PROKARYOTE FLAGELLUM



MEMBRANE



C.S.

PROKARYOTE FLAGELLUM



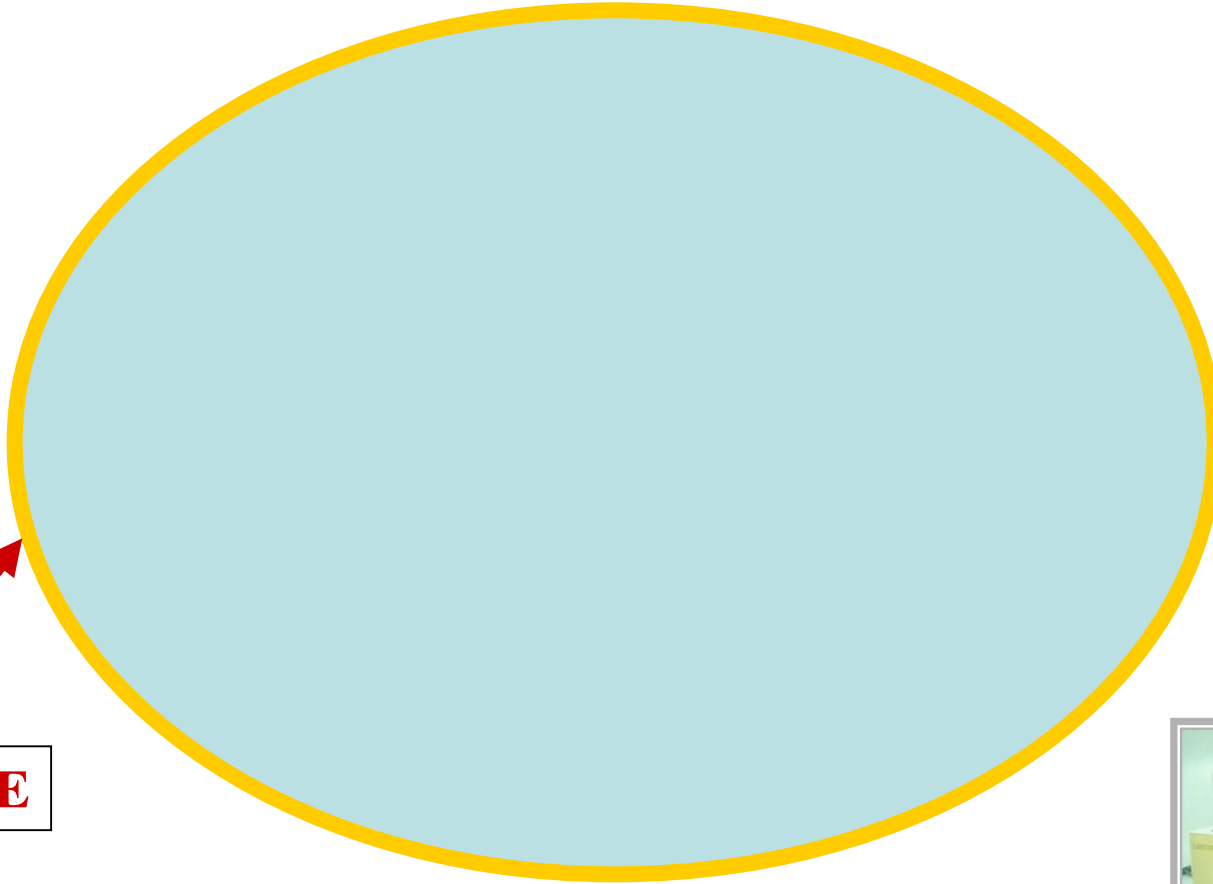
MEMBRANE: ABSENT

C.S.

EUKARYOTE FLAGELLUM

^

P



MEMBRANE



MEMBRANE: PRESENT

C.S.

PROKARYOTE FLAGELLUM

9 + 2
MICROTUBULE
PATTERN
ABSENT

MEMBRANE: ABSENT



C.S.

EUKARYOTE FLAGELLUM



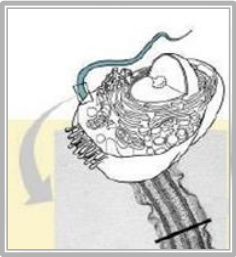
9 + 2
MICROTUBULE
PATTERN
PRESENT

MEMBRANE



MEMBRANE: PRESENT

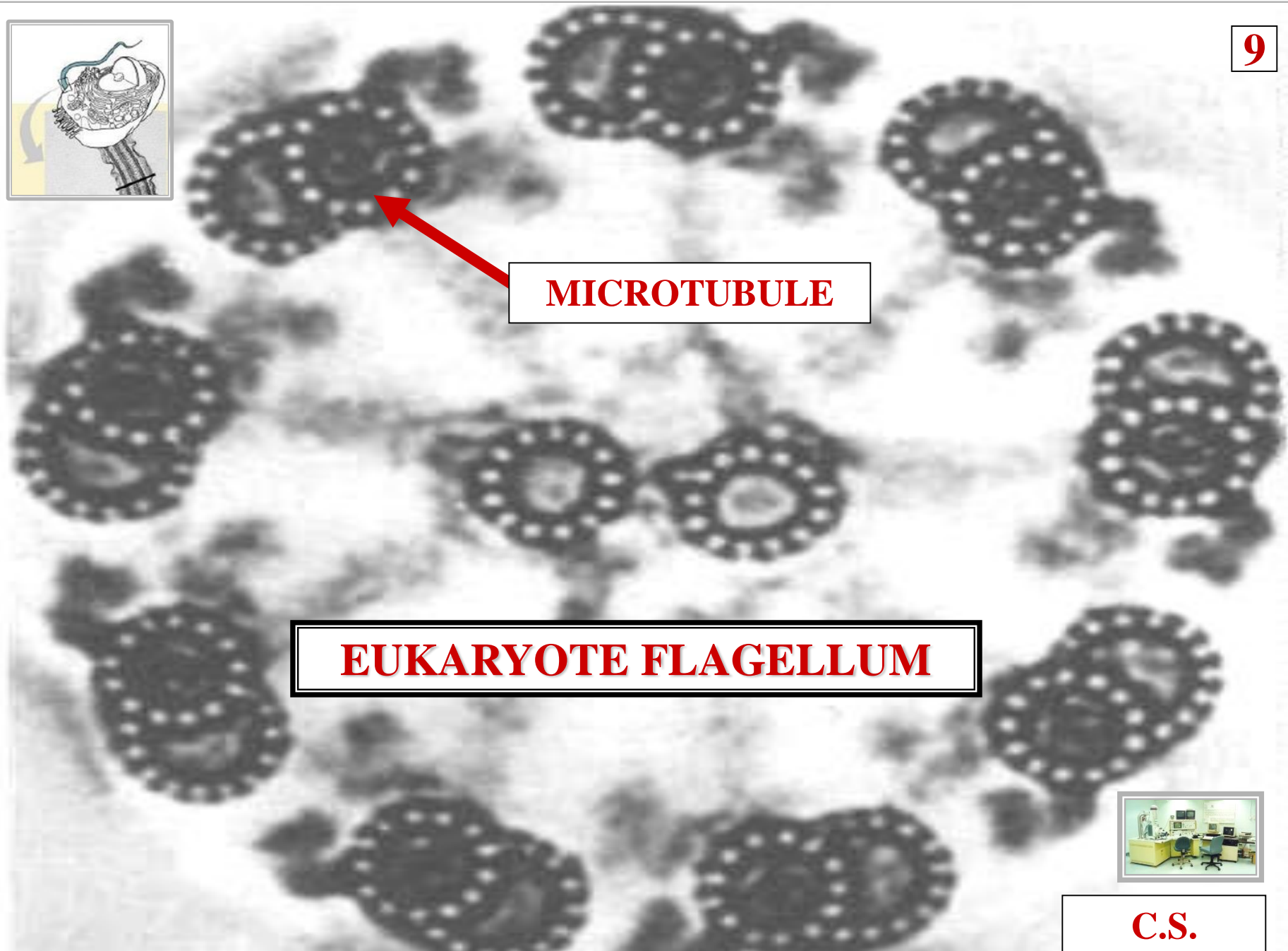
C.S.



EUKARYOTE FLAGELLUM



C.S.



MICROTUBULE

EUKARYOTE FLAGELLUM



C.S.



1

2

2

3

9 OUTER
PAIRED
MICROTUBULES

4

9

EUKARYOTE FLAGELLUM

8

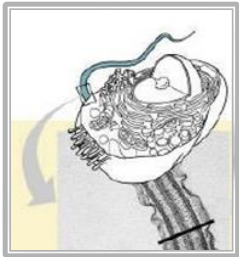
5

7

6



C.S.



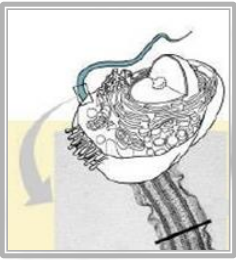
**9 OUTER
PAIRED
MICROTUBULES**

**2 INNER
NON-PAIRED
MICROTUBULES**

EUKARYOTE FLAGELLUM



C.S.



**9 OUTER
PAIRED
MICROTUBULES**

**2 INNER
NON-PAIRED
MICROTUBULES**

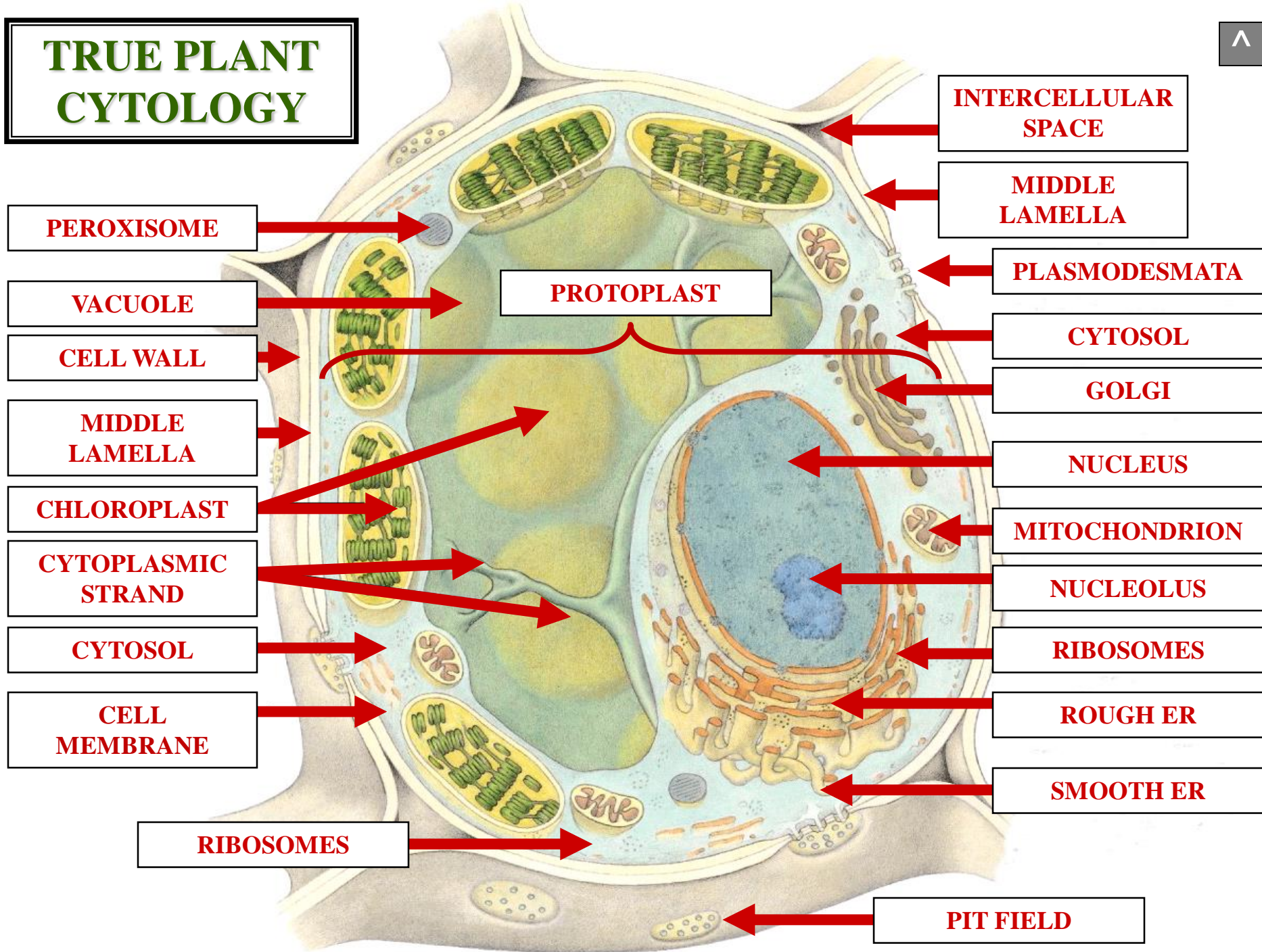
EUKARYOTE FLAGELLUM

9+2 MICROTUBULE PATTERN: PRESENT



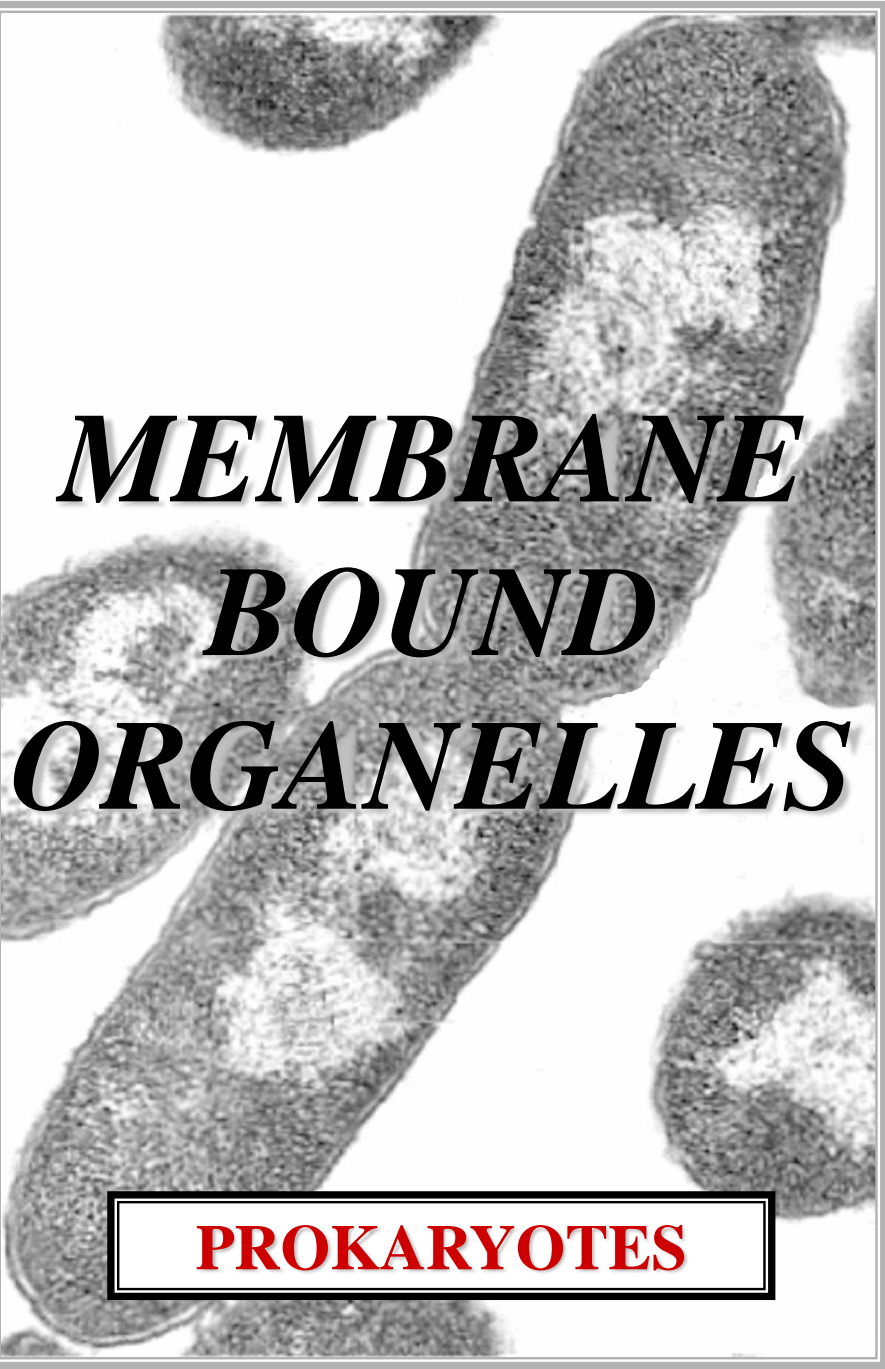
TRUE PLANT CYTOLOGY SUMMARY

TRUE PLANT CYTOLOGY



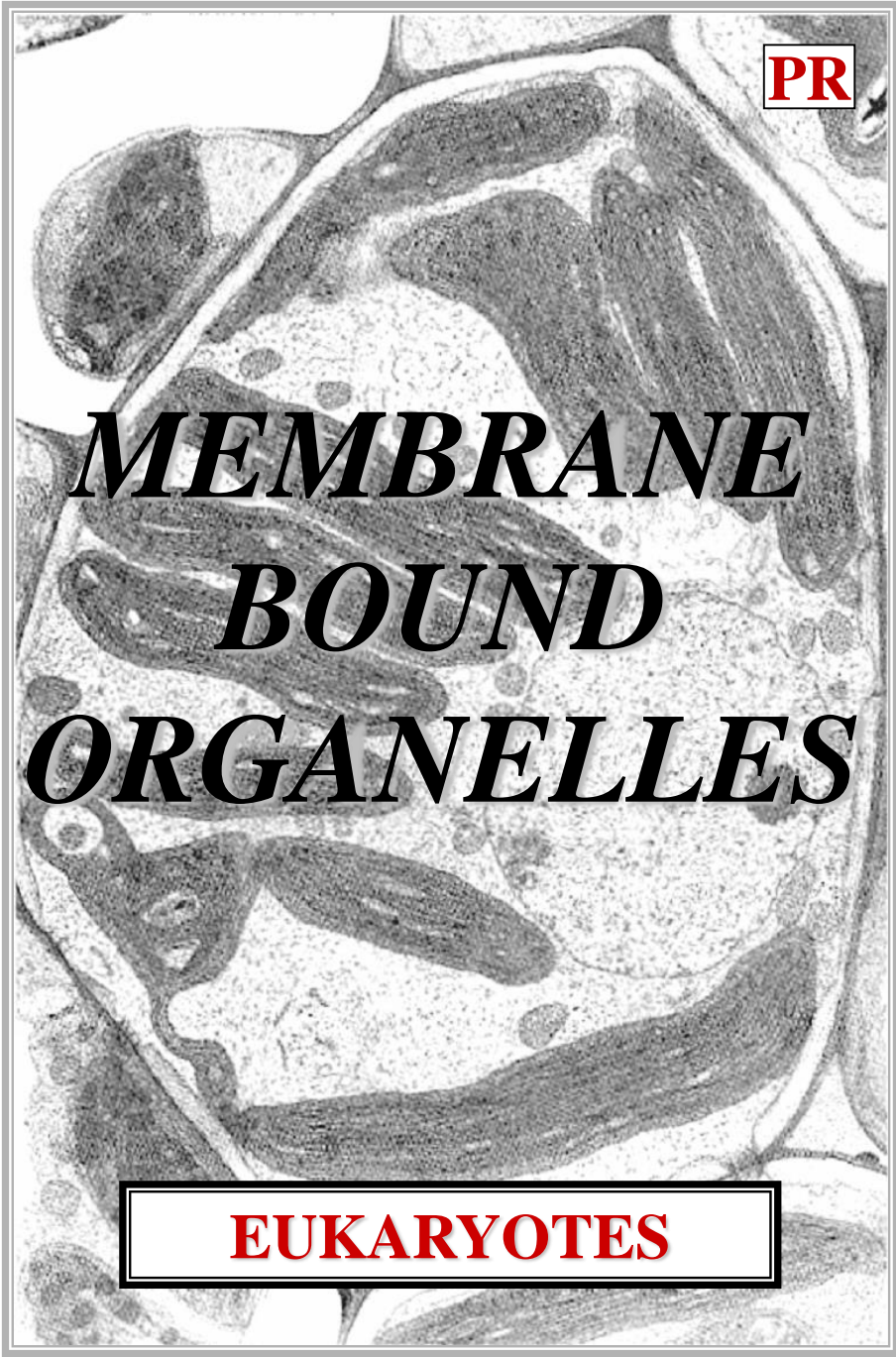
**PROKARYOTE
CYTOLOGY
VS
EUKARYOTE
CYTOLOGY
SUMMARY**





***MEMBRANE
BOUND
ORGANELLES***

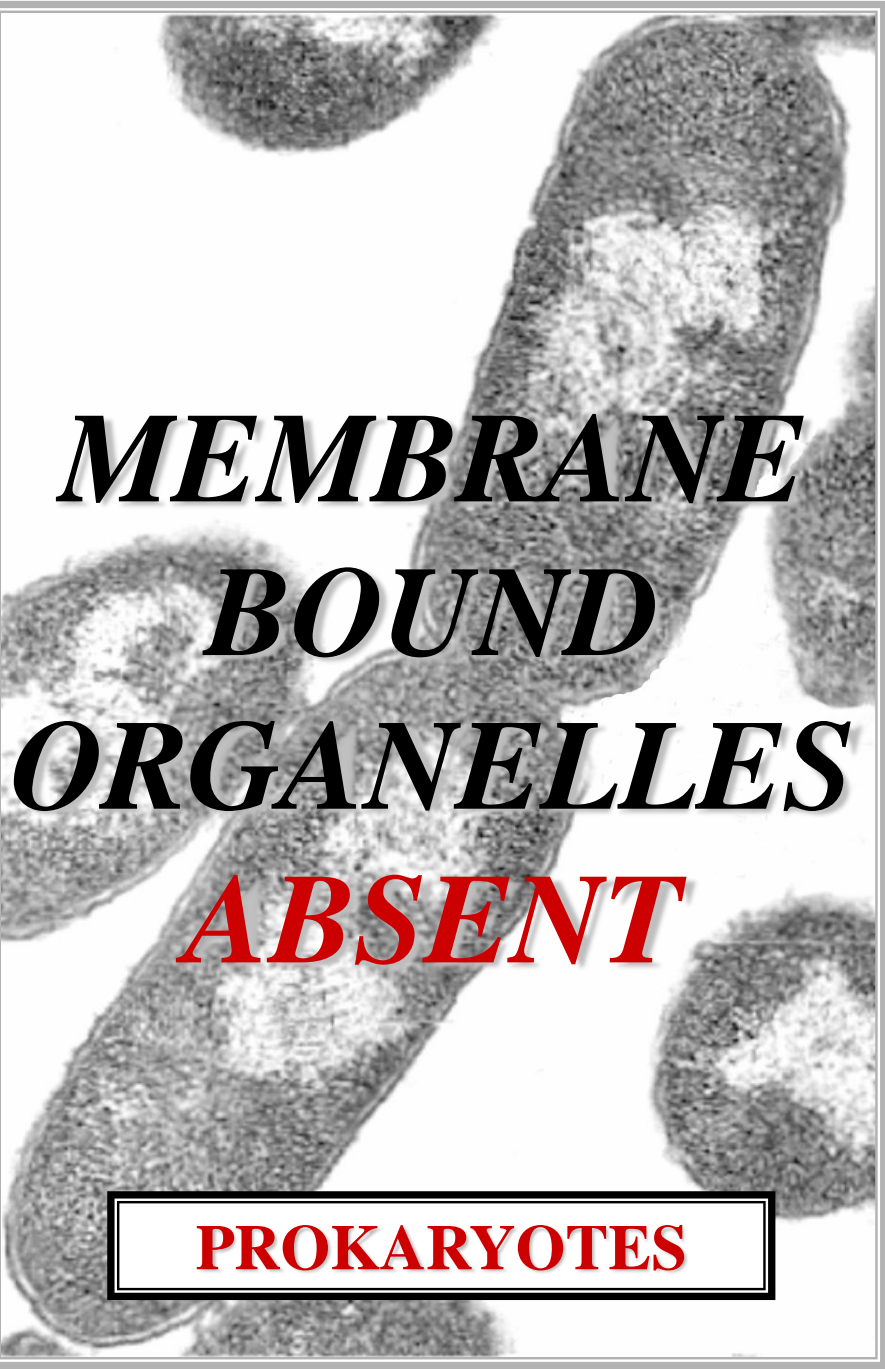
PROKARYOTES



PR

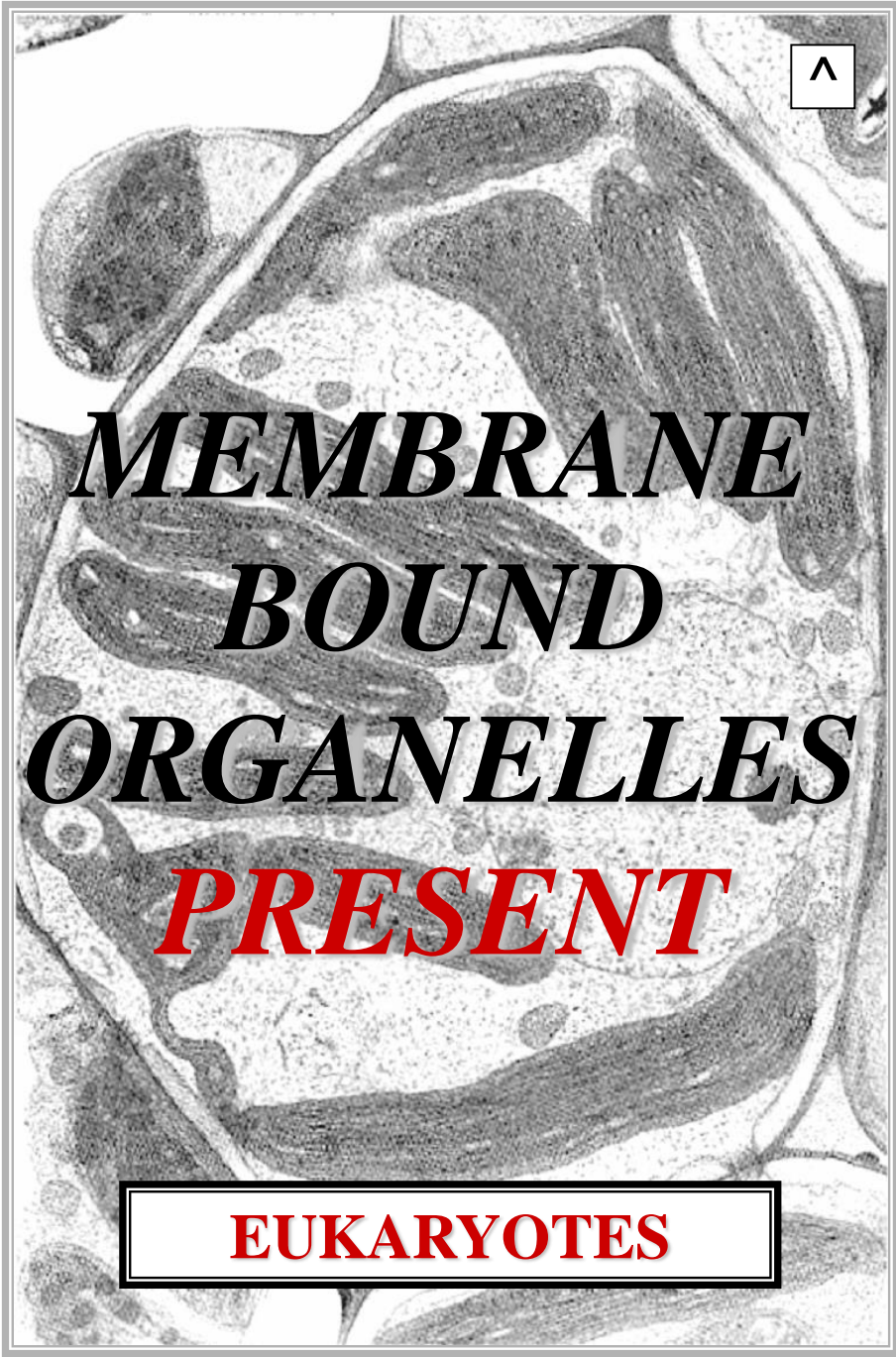
***MEMBRANE
BOUND
ORGANELLES***

EUKARYOTES



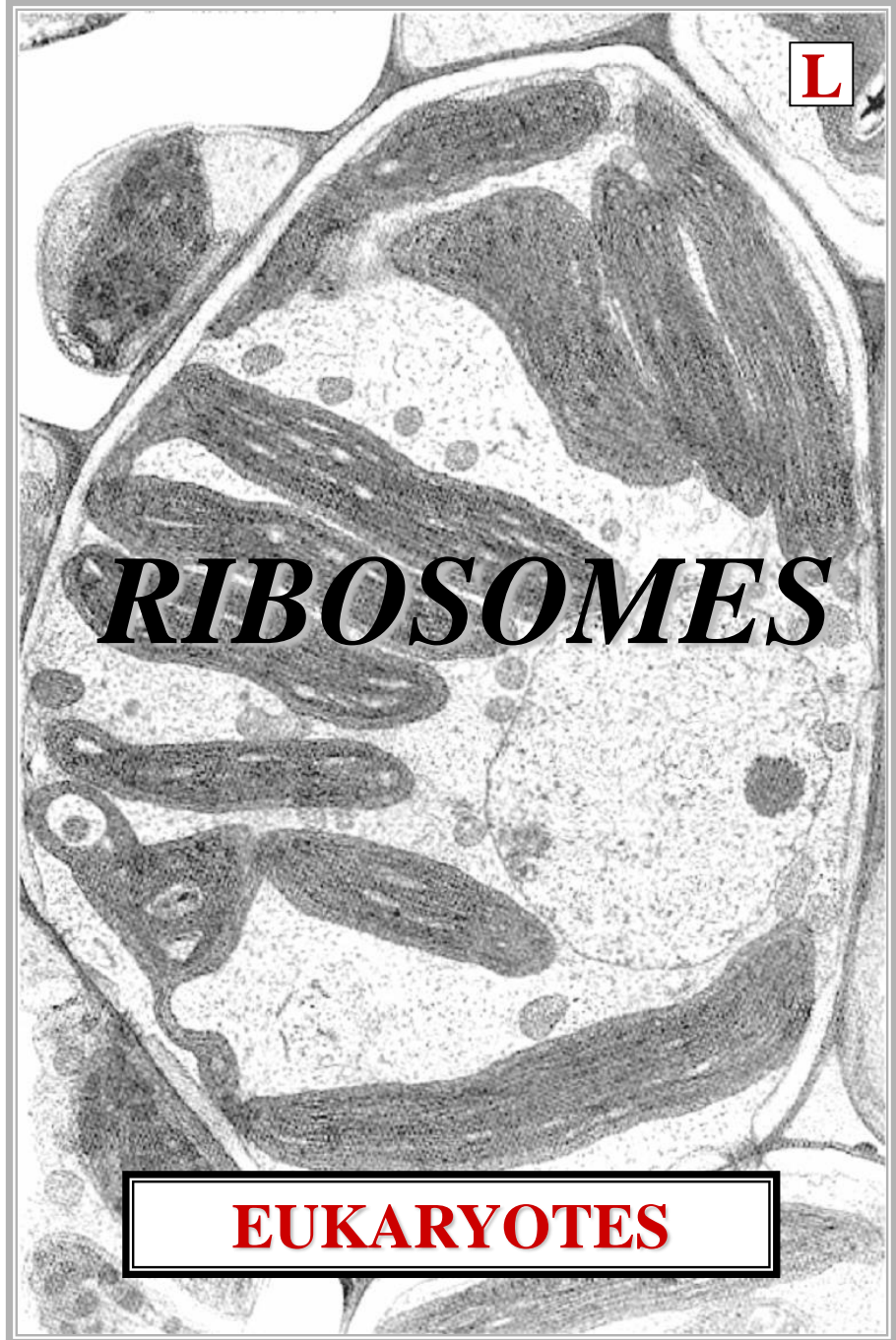
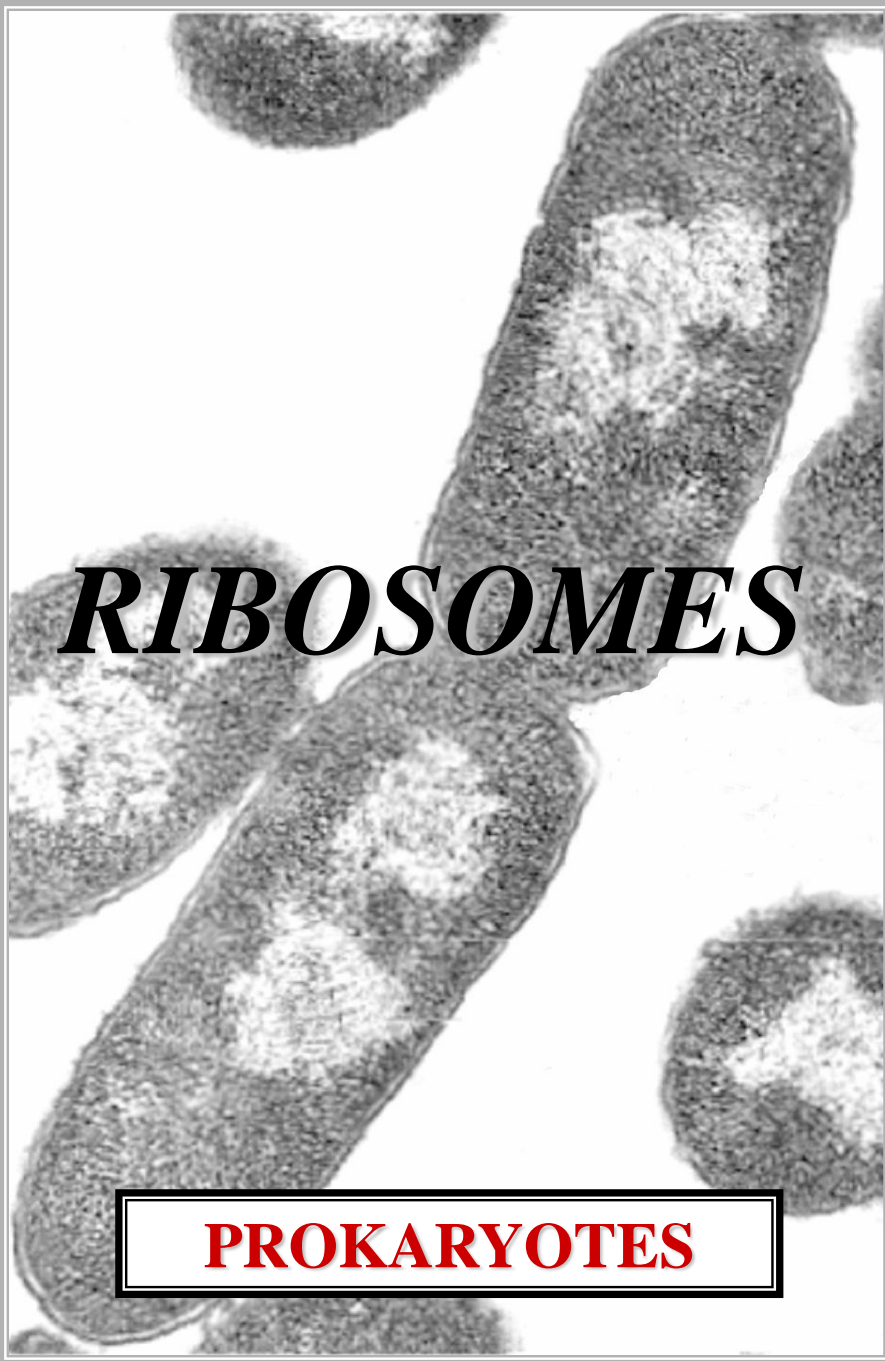
***MEMBRANE
BOUND
ORGANELLES
ABSENT***

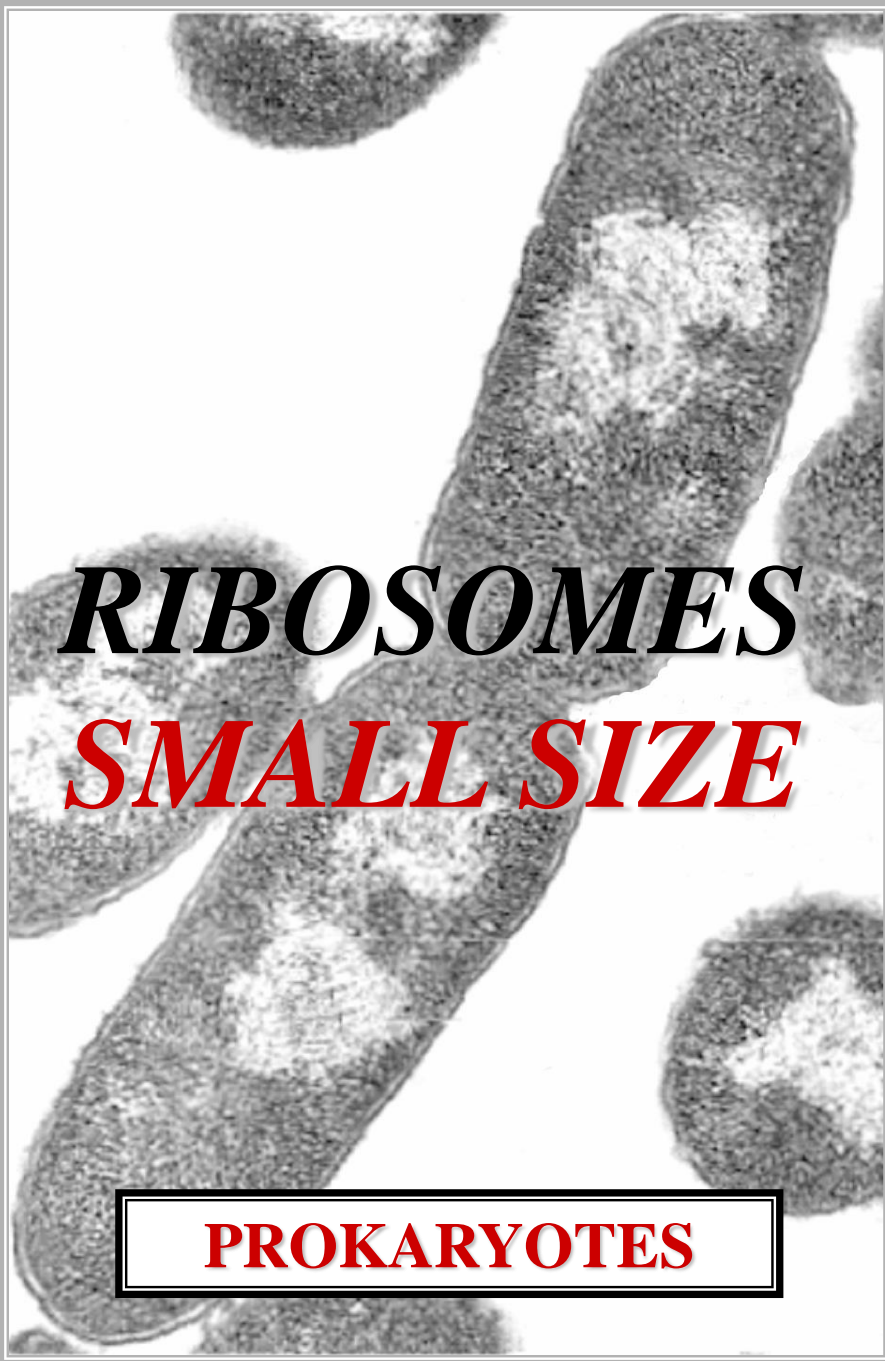
PROKARYOTES



***MEMBRANE
BOUND
ORGANELLES
PRESENT***

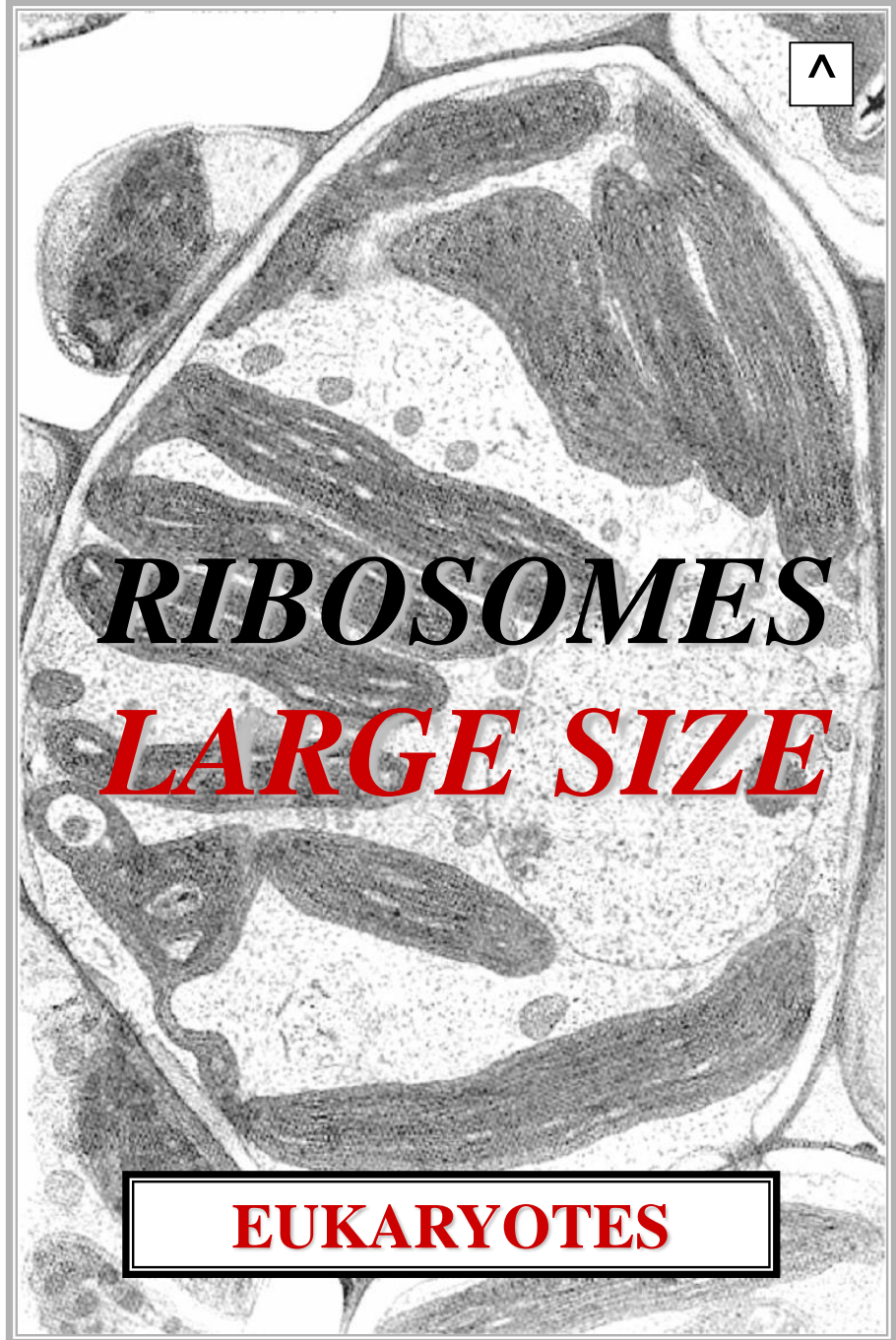
EUKARYOTES





RIBOSOMES
SMALL SIZE

PROKARYOTES



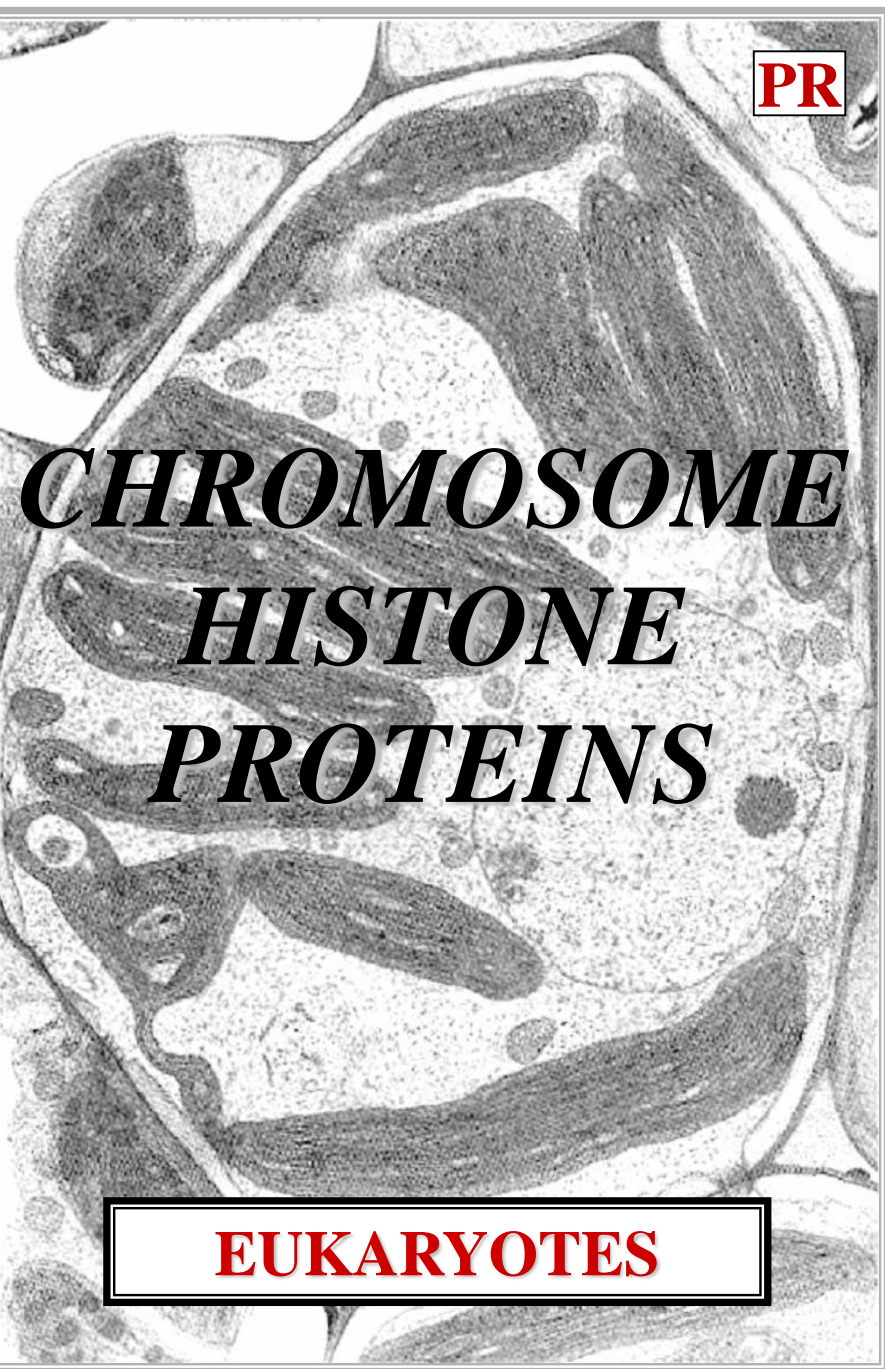
RIBOSOMES
LARGE SIZE

EUKARYOTES



CHROMOSOME
HISTONE
PROTEINS

PROKARYOTES



CHROMOSOME
HISTONE
PROTEINS

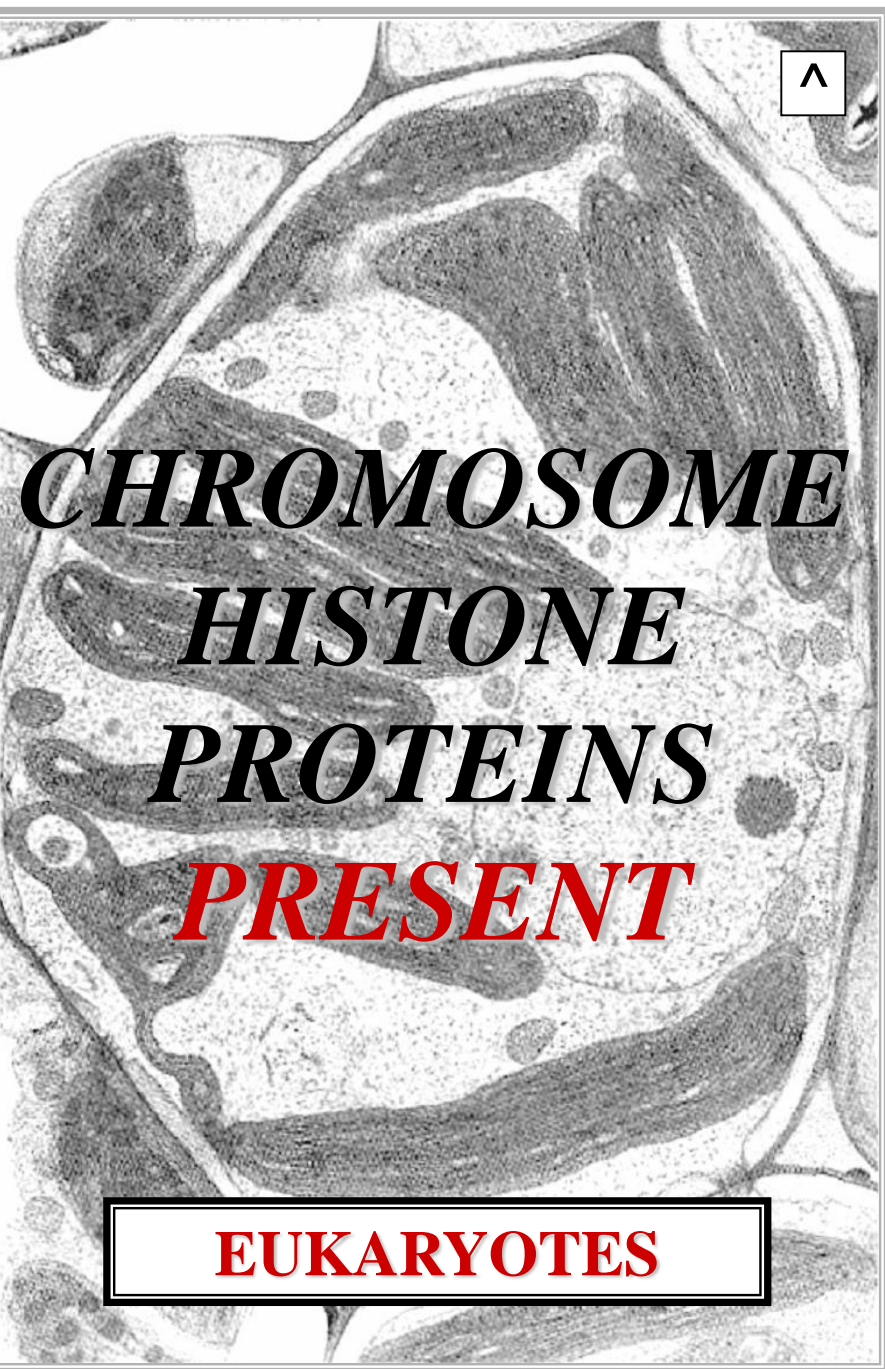
EUKARYOTES

PR



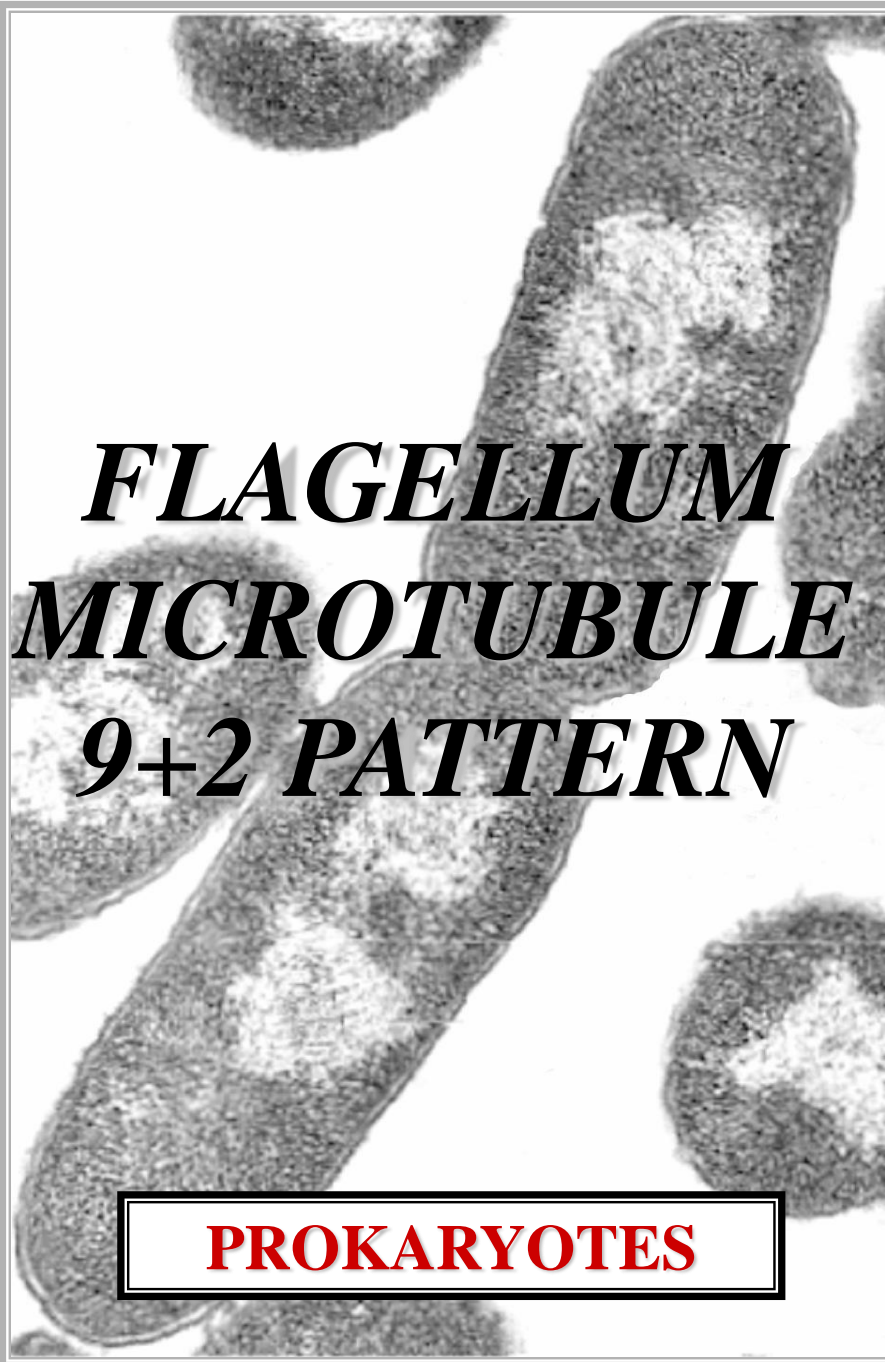
CHROMOSOME
HISTONE
PROTEINS
ABSENT

PROKARYOTES



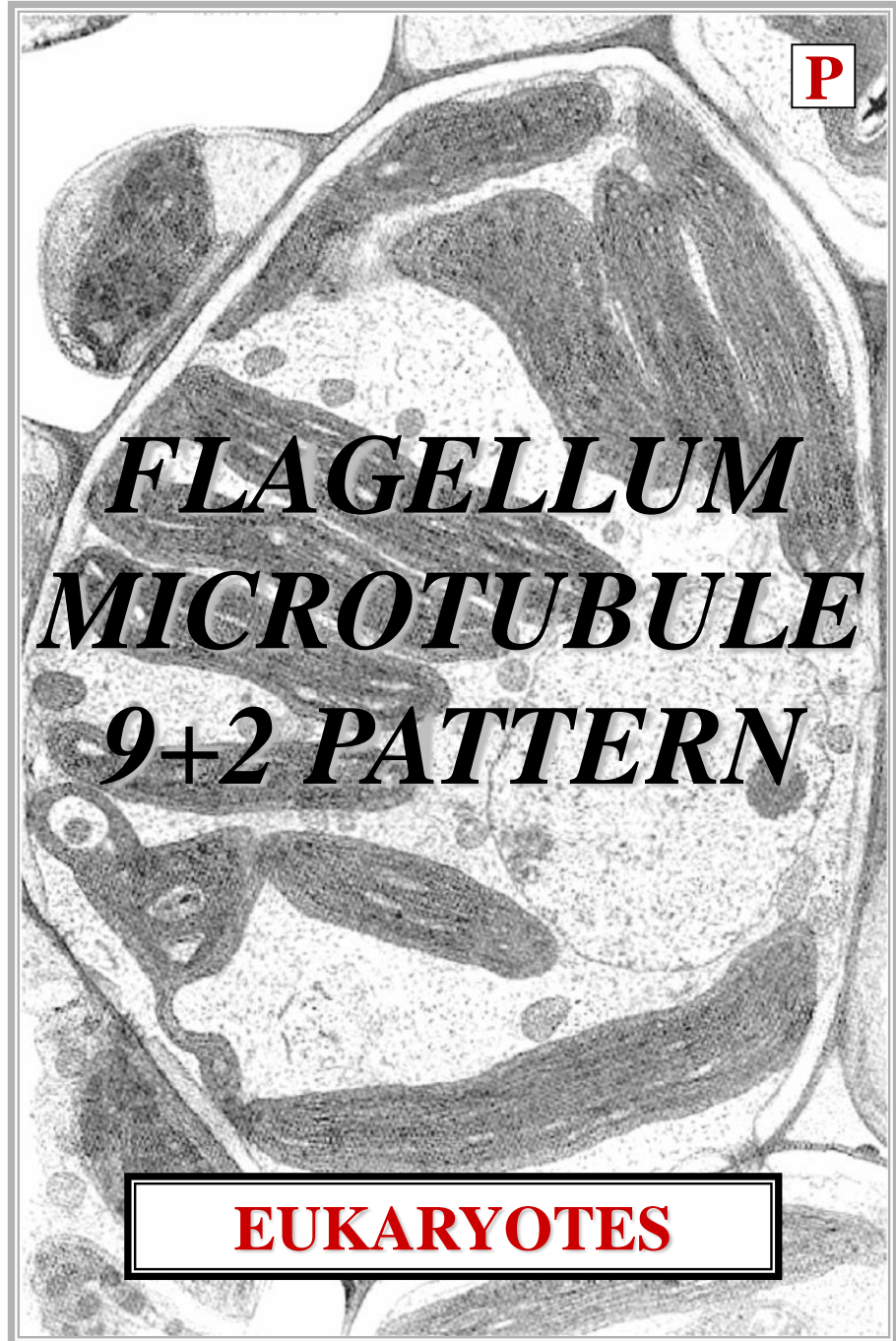
CHROMOSOME
HISTONE
PROTEINS
PRESENT

EUKARYOTES



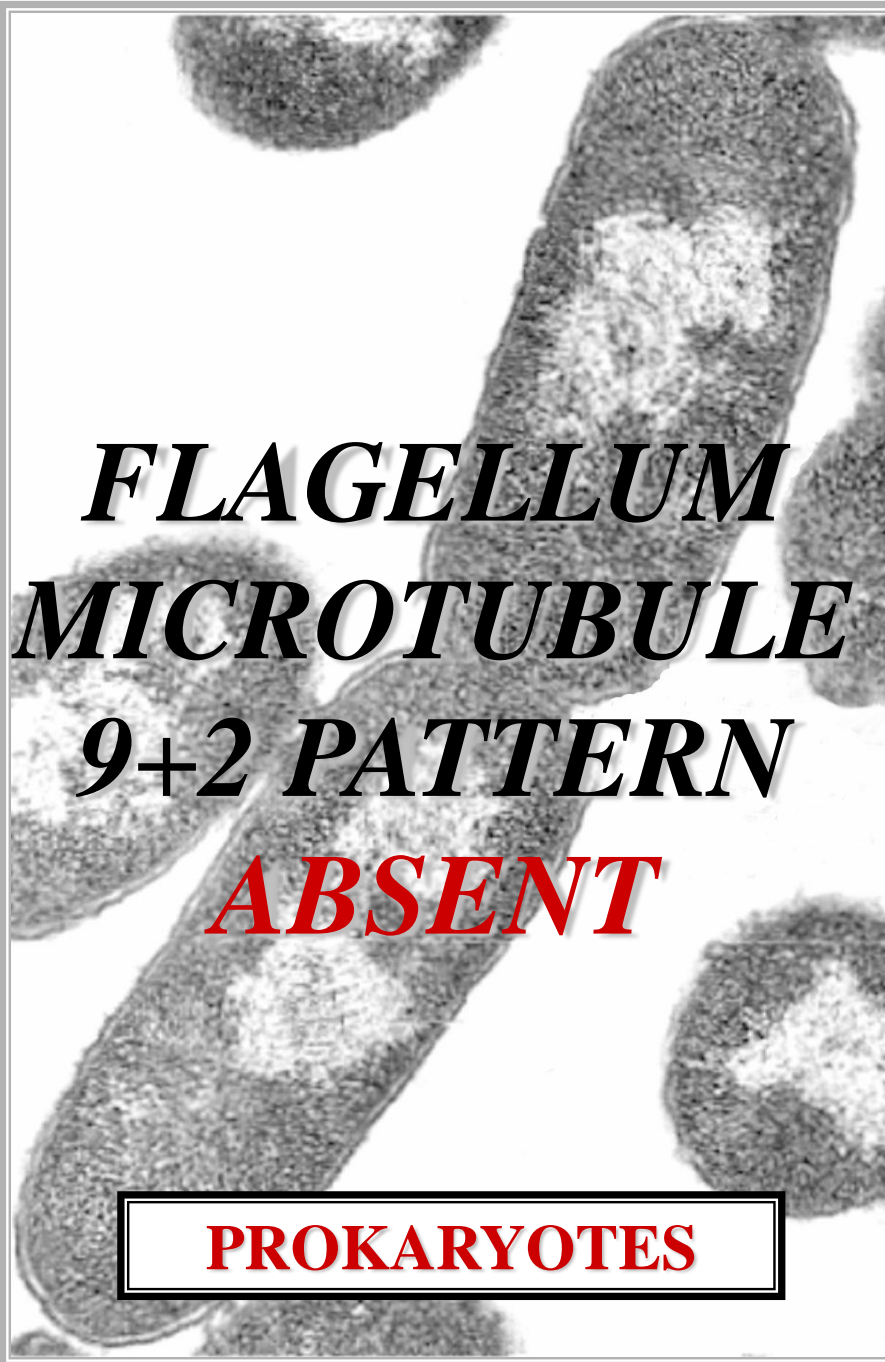
***FLAGELLUM
MICROTUBULE
9+2 PATTERN***

PROKARYOTES



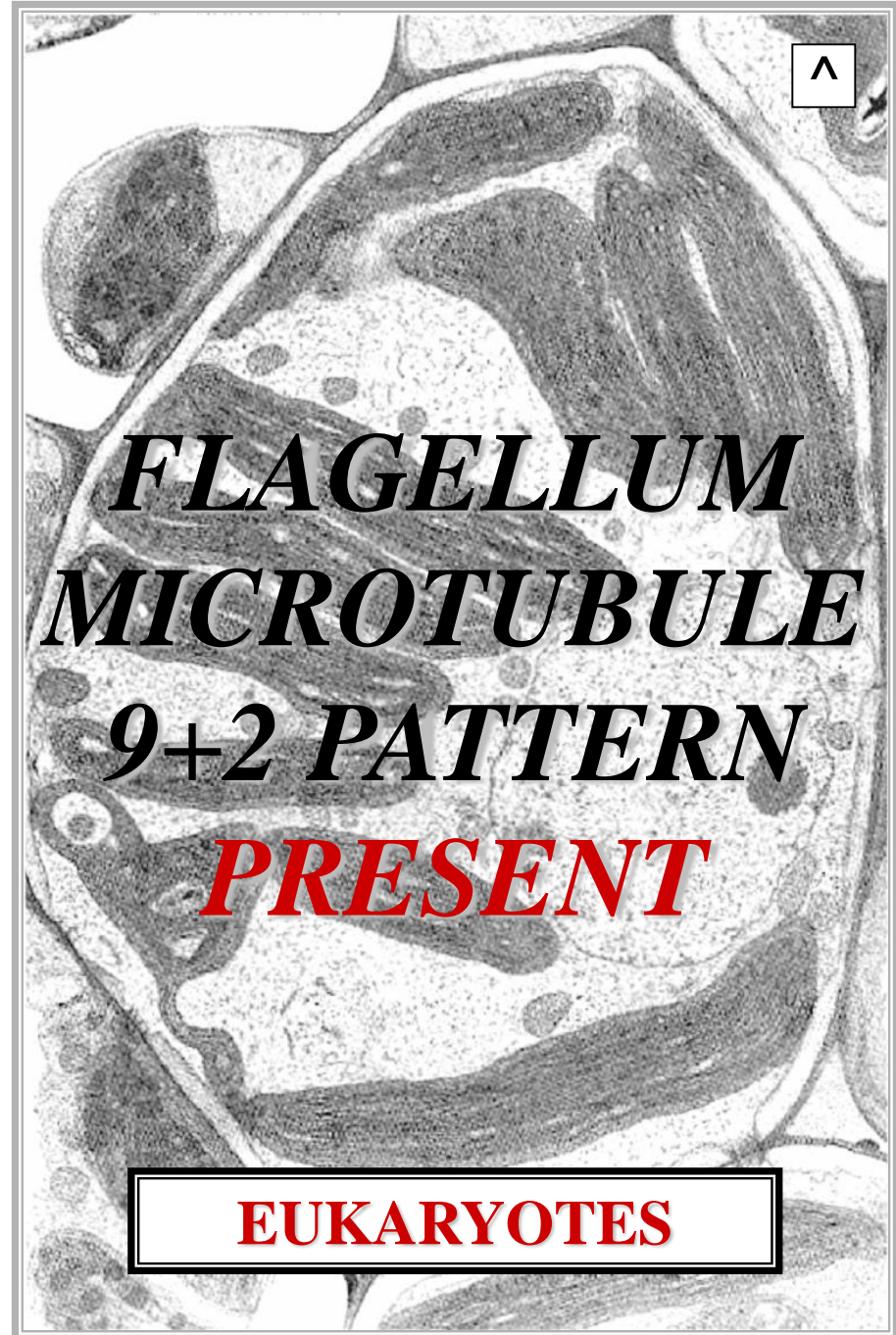
***FLAGELLUM
MICROTUBULE
9+2 PATTERN***

EUKARYOTES



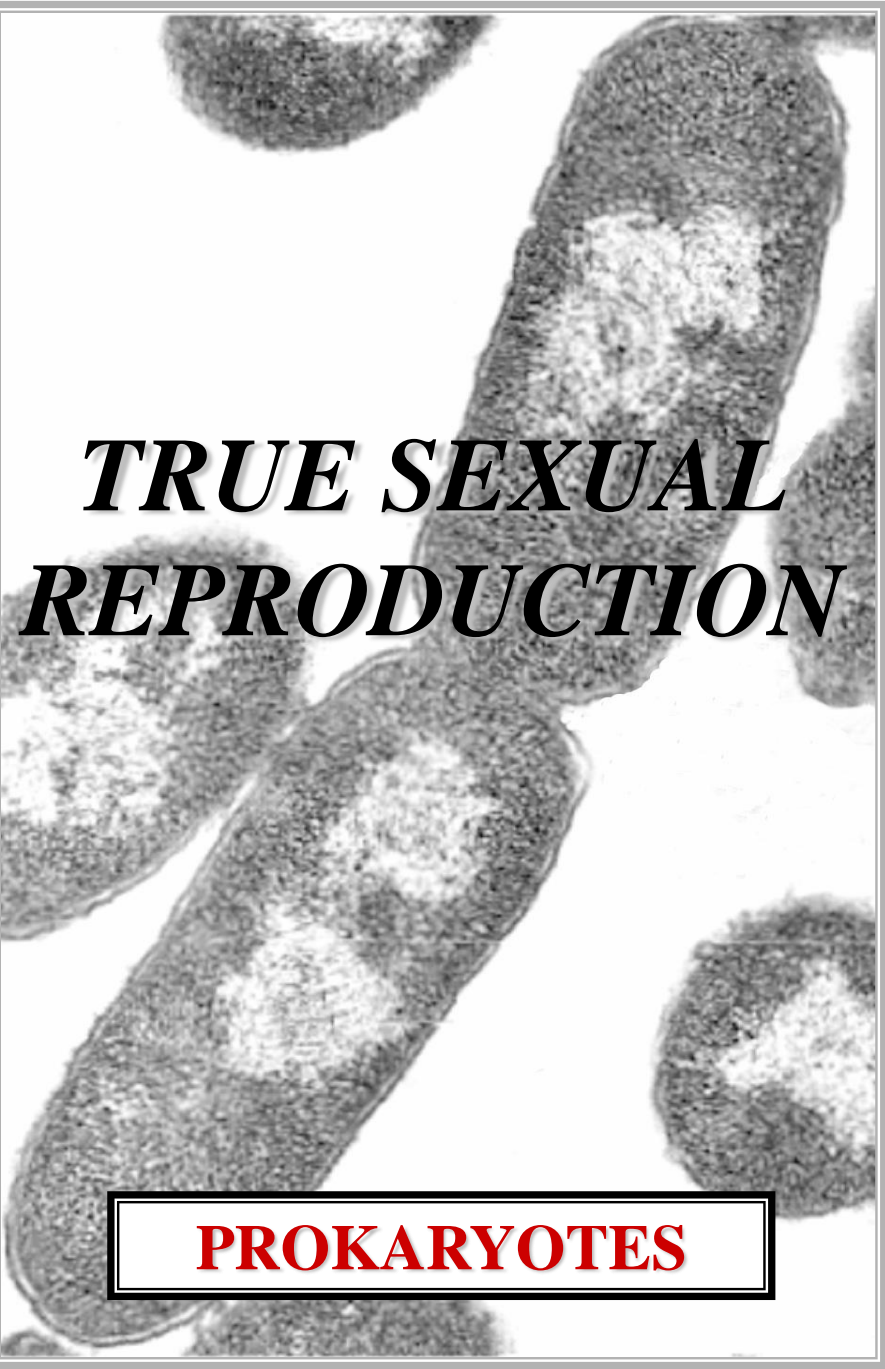
***FLAGELLUM
MICROTUBULE
9+2 PATTERN
ABSENT***

PROKARYOTES



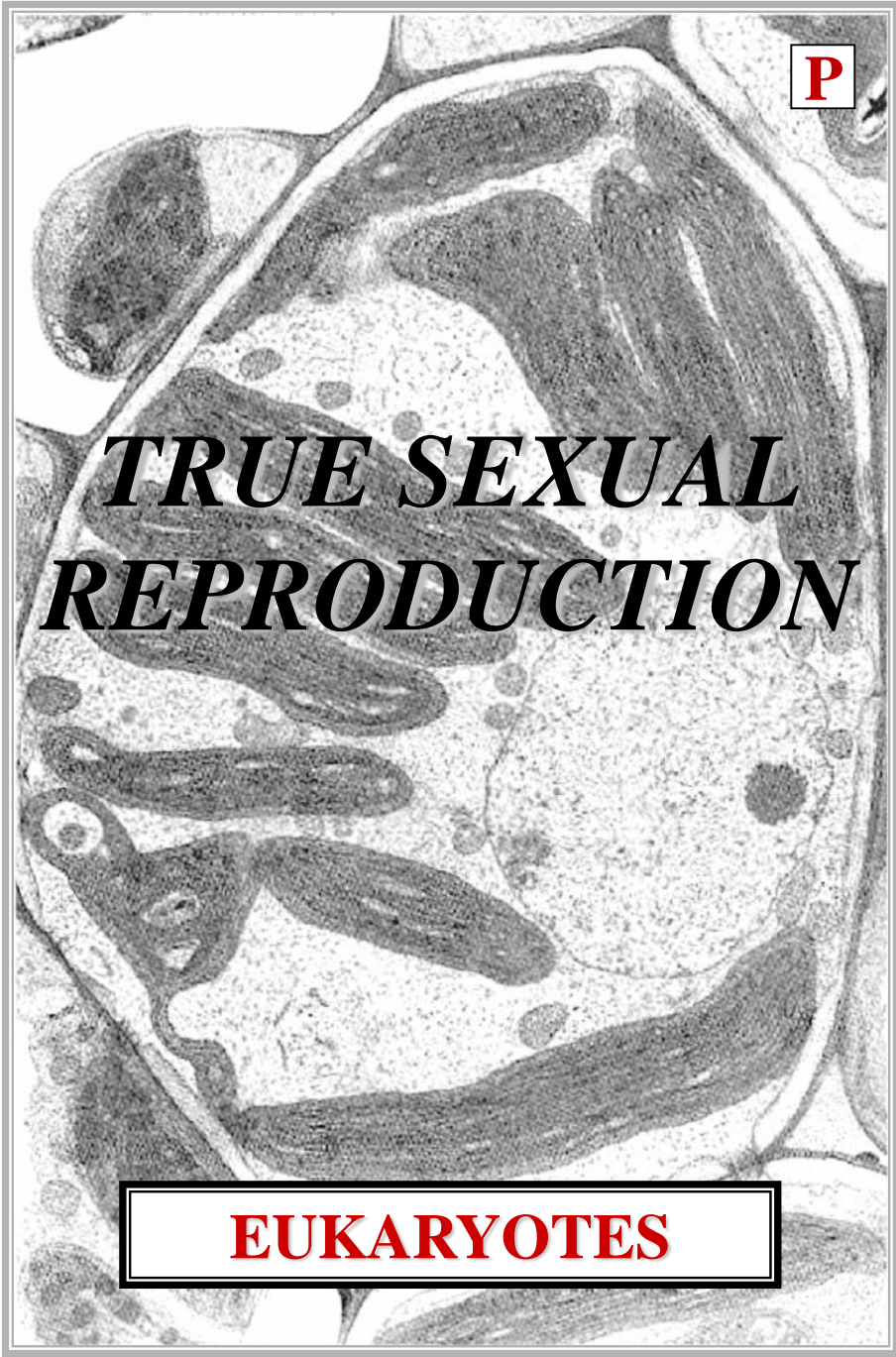
***FLAGELLUM
MICROTUBULE
9+2 PATTERN
PRESENT***

EUKARYOTES



***TRUE SEXUAL
REPRODUCTION***

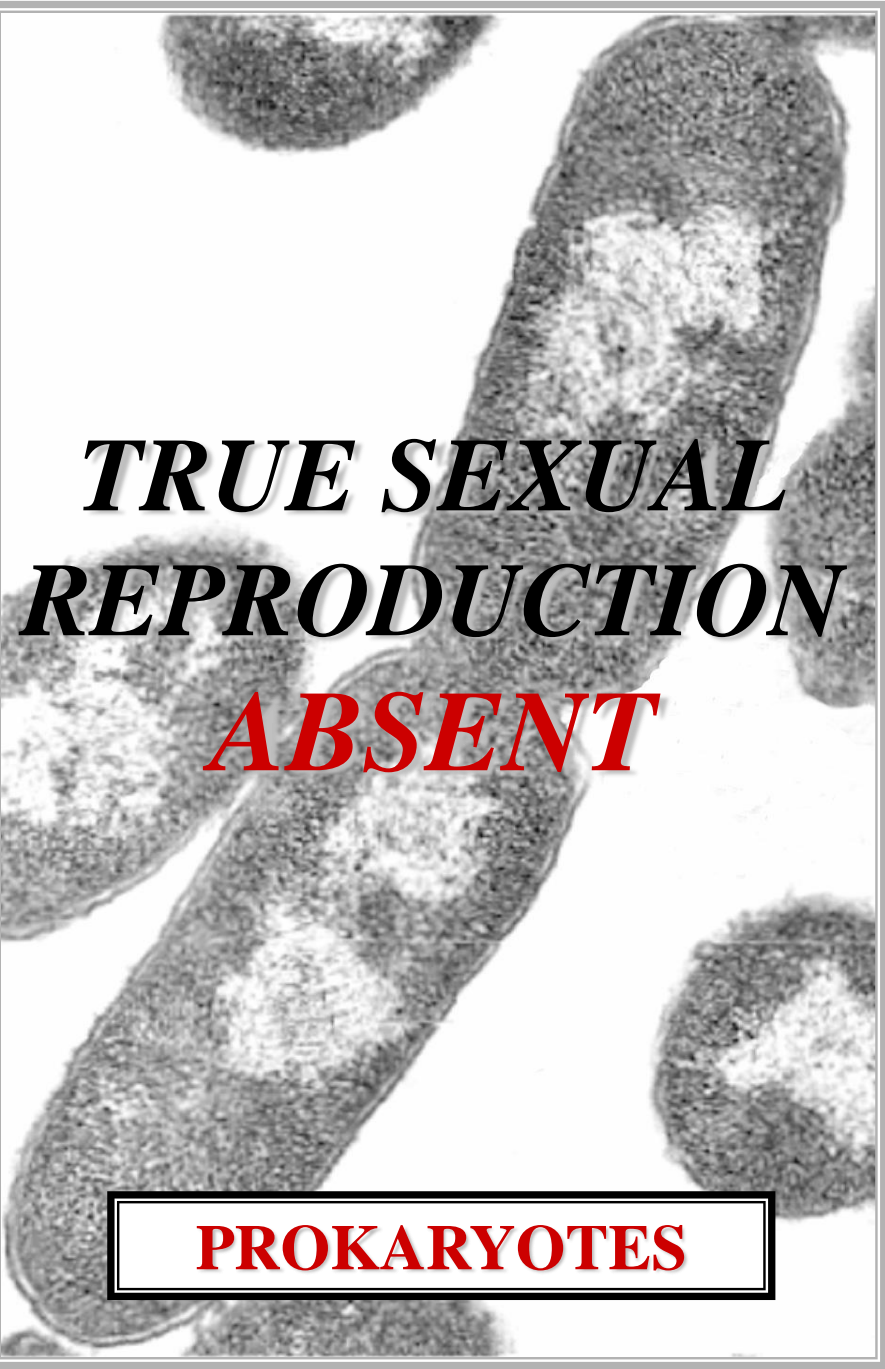
PROKARYOTES



P

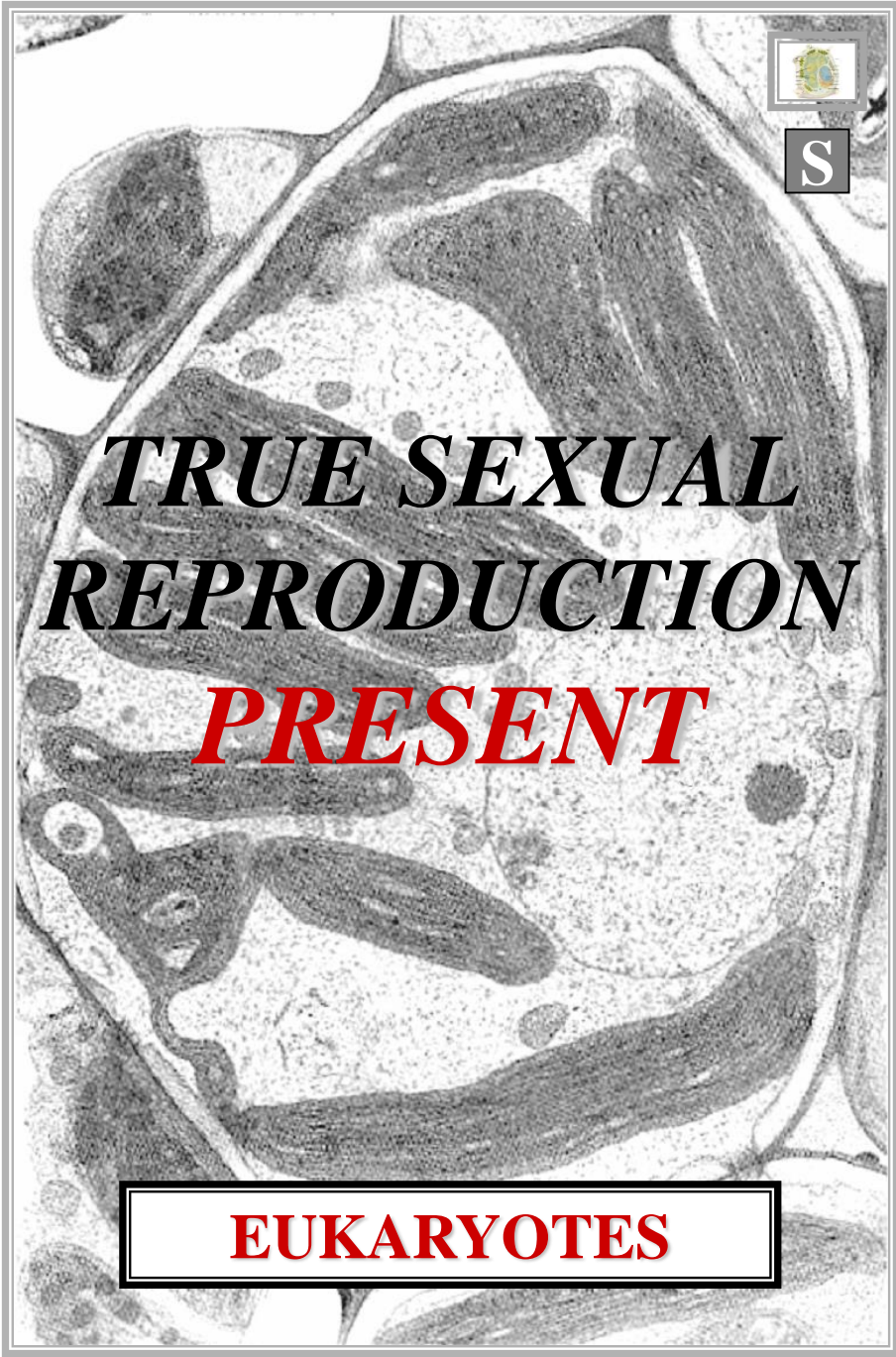
***TRUE SEXUAL
REPRODUCTION***

EUKARYOTES



***TRUE SEXUAL
REPRODUCTION
ABSENT***

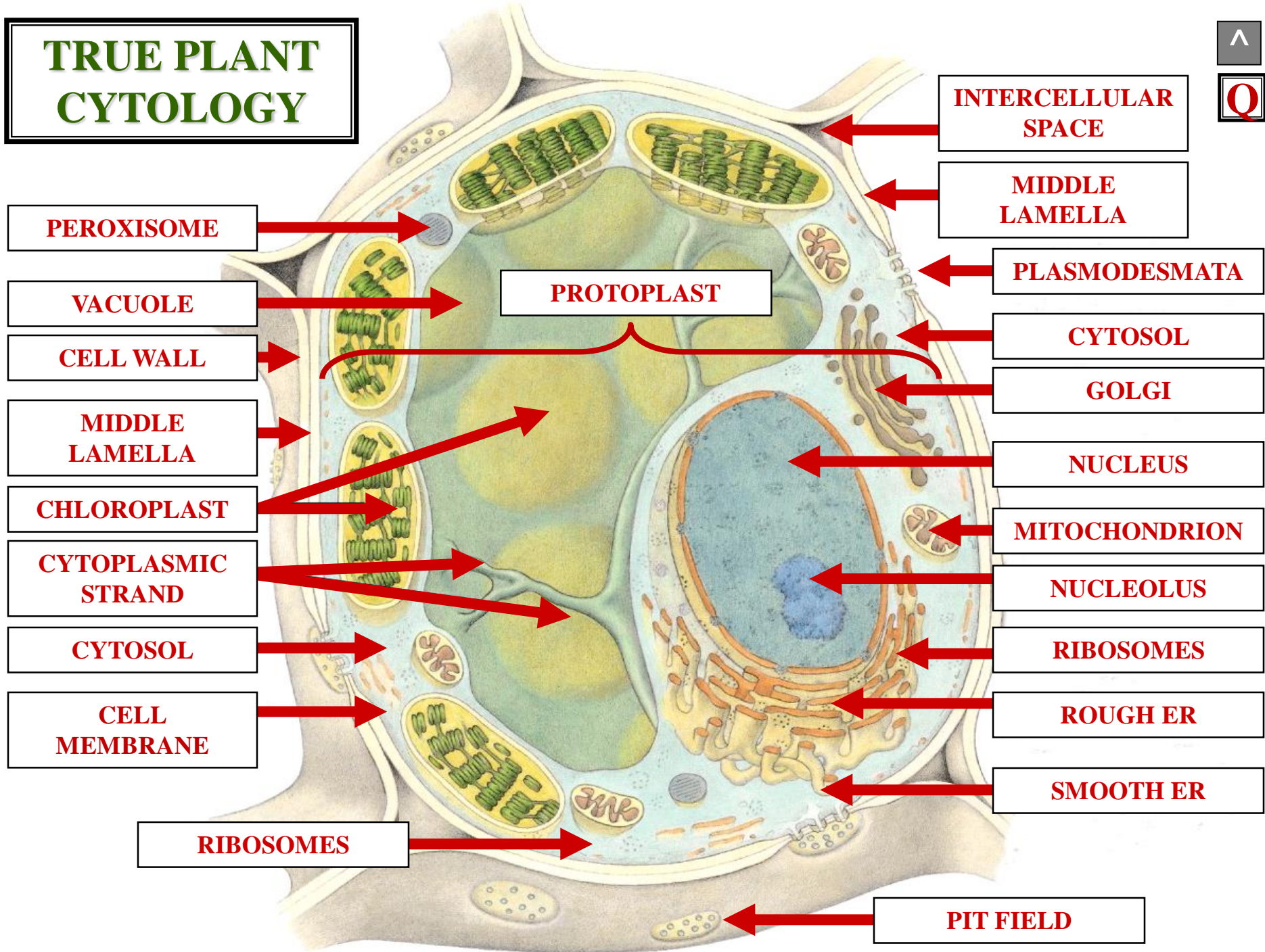
PROKARYOTES



***TRUE SEXUAL
REPRODUCTION
PRESENT***

EUKARYOTES

TRUE PLANT CYTOLOGY



**LECTURE
QUIZ**

FRIDAY

9 SEPTEMBER 2022



LECTURE QUIZ

TRUE PLANT CELL CYTOLOGY QUIZ



LECTURE QUIZ

**FORMAT
FILL IN
QUESTIONS**



LECTURE QUIZ

**MUST
SPELL CORRECTLY
FOR FULL CREDIT**



LECTURE QUIZ

FRIDAY

9 SEPTEMBER 2022



TRUE PLANT CELL CYCLE

TRUE PLANT CELL CYCLE STAGES

**TRUE PLANT
CELL CYCLE STAGES**

INTERPHASE

**TRUE PLANT
CELL CYCLE STAGES**

**TRUE PLANT
CELL CYCLE STAGES**

INTERPHASE

KARYOKINESIS

**TRUE PLANT
CELL CYCLE STAGES**

TRUE PLANT CELL CYCLE STAGES



INTERPHASE

KARYOKINESIS

CYTOKINESIS

TRUE PLANT CELL CYCLE STAGES

TRUE PLT CELL CYCLE

I

STAGE

STAGE

INTERPHASE

INTERPHASE



STAGE

TRUE PLT CELL CYCLE

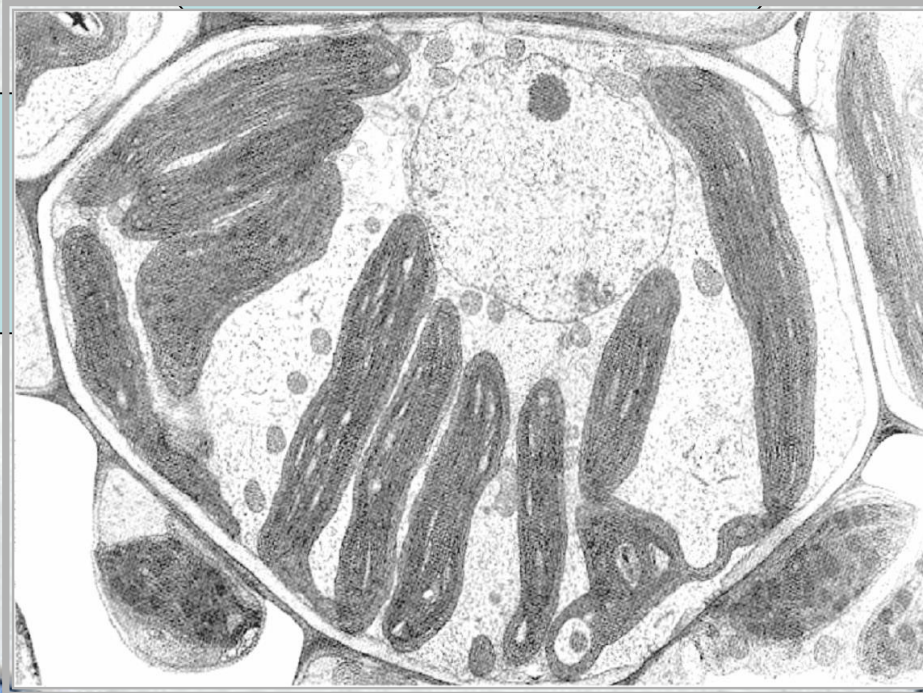
K

STAGE

STAGE

INTERPHASE

INTERPHASE



INTERPHASE

TRUE PLT CELL CYCLE

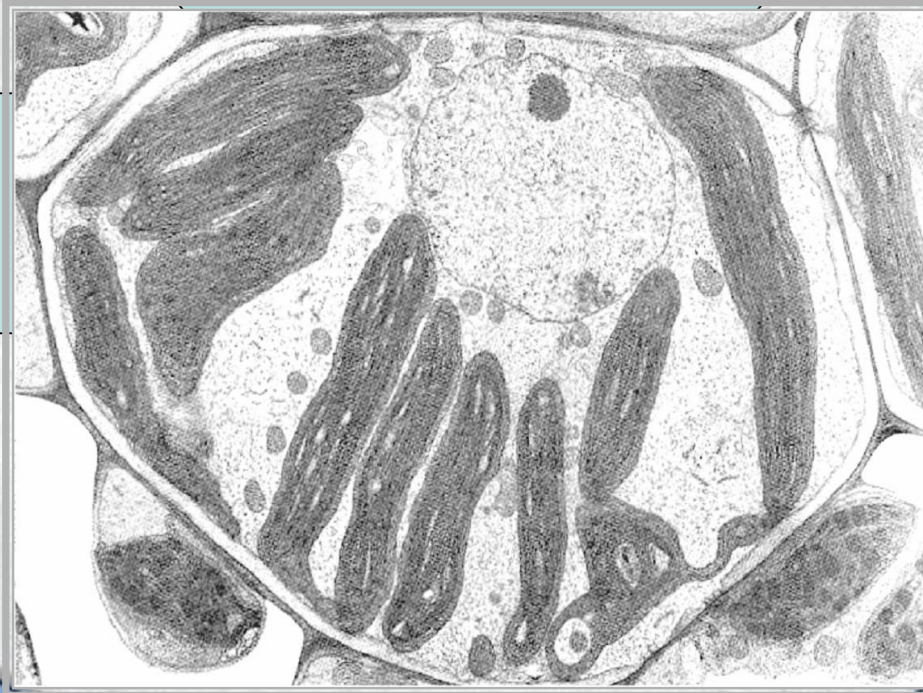
C

STAGE

KARYOKINESIS

INTERPHASE

INTERPHASE



INTERPHASE

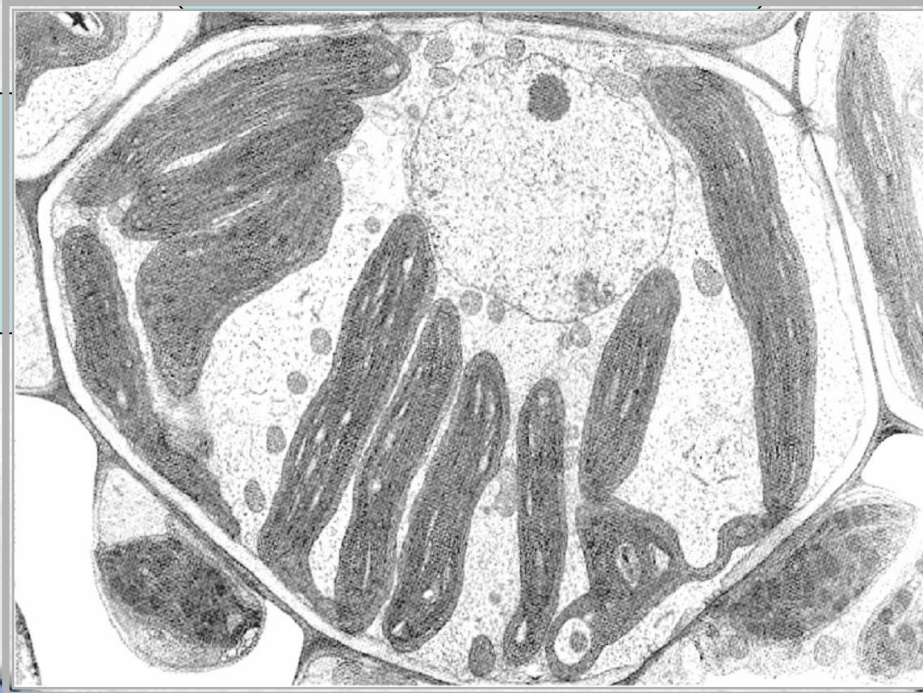
TRUE PLT CELL CYCLE

CYTOKINESIS

KARYOKINESIS

INTERPHASE

INTERPHASE



INTERPHASE



INTERPHASE

INTERPHASE

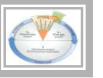
INTERPHASE



INTERVAL BETWEEN
CELL DIVISION

INTERPHASE

TRUE PLT CELL CYCLE

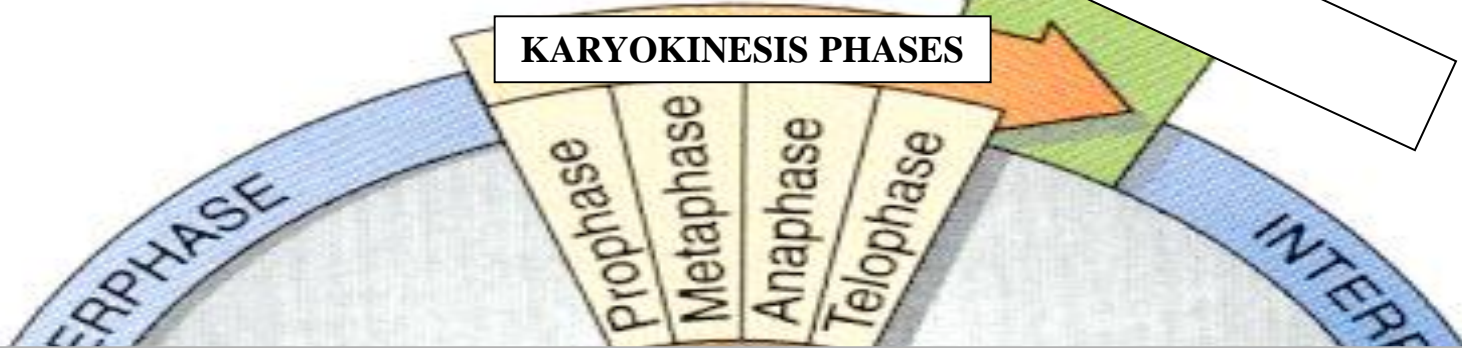


K

KARYOKINESIS

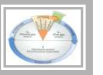
**INTERPHASE
IS NOT A
KARYOKINESIS
PHASE**

TRUE PLT CELL CYCLE

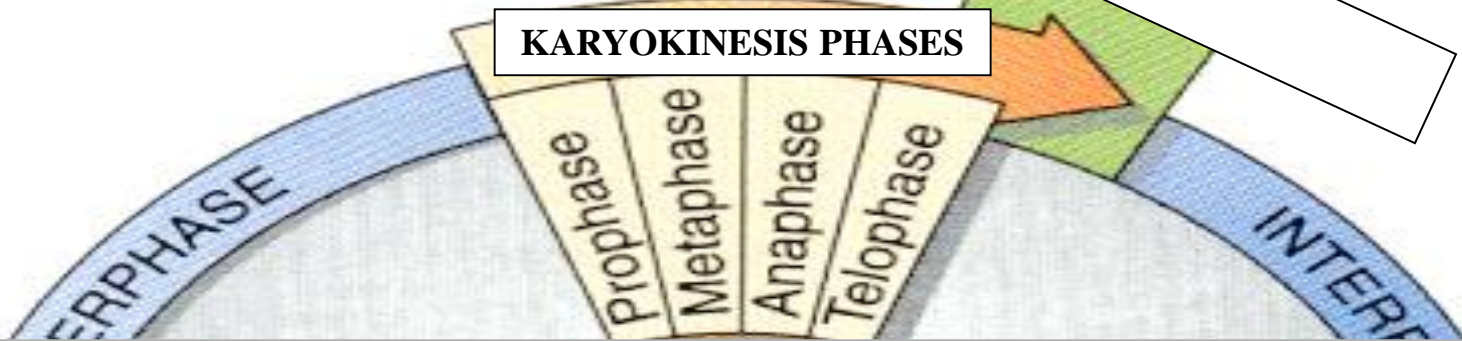


**INTERPHASE
IS NOT A
KARYOKINESIS
PHASE**

TRUE PLT CELL CYCLE

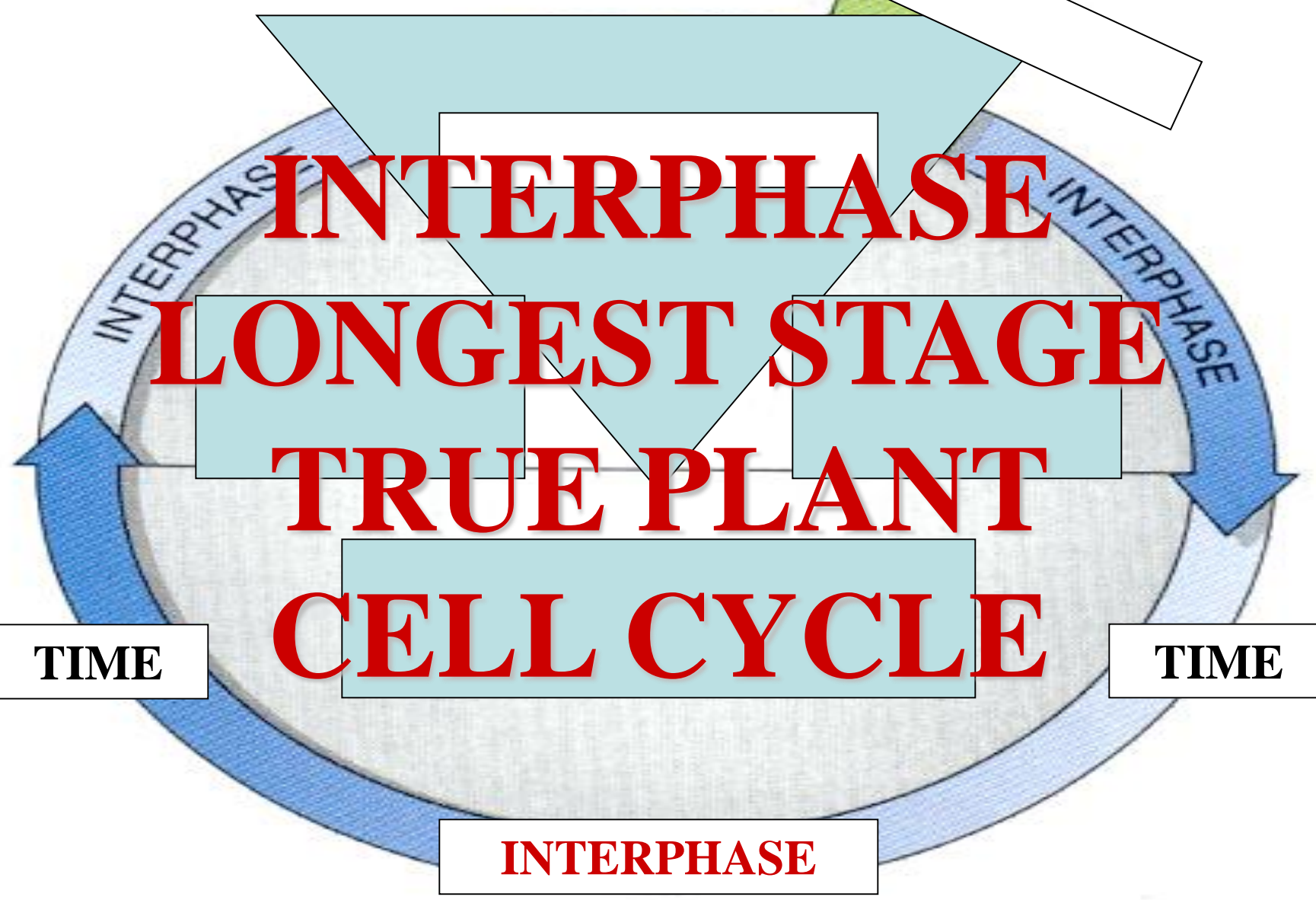


L



**INTERPHASE
IS A
CELL CYCLE
STAGE**

TRUE PLT CELL CYCLE



INTERPHASE
LONGEST STAGE
TRUE PLANT
CELL CYCLE

TIME

TIME

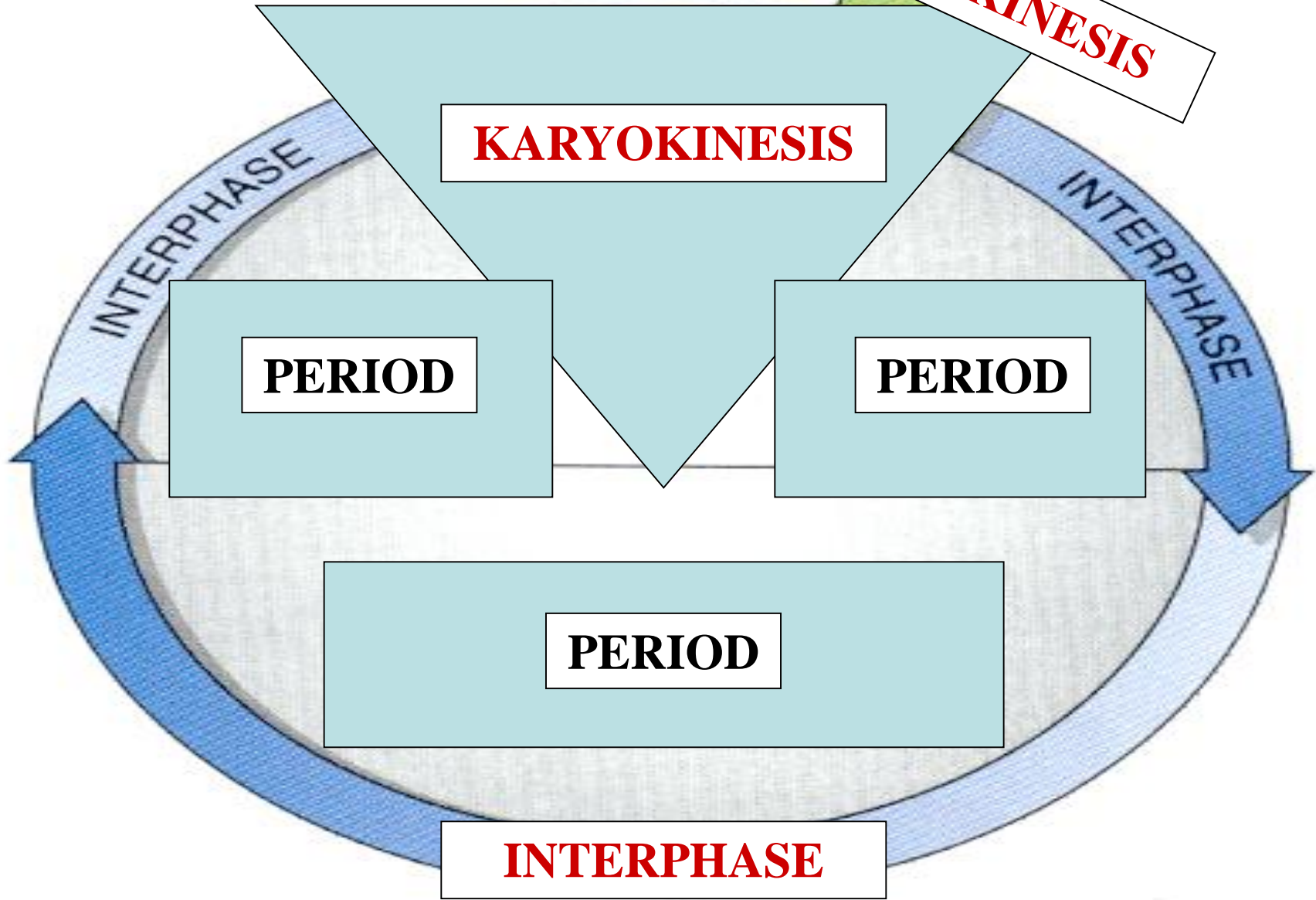
INTERPHASE



INTERPHASE PERIODS

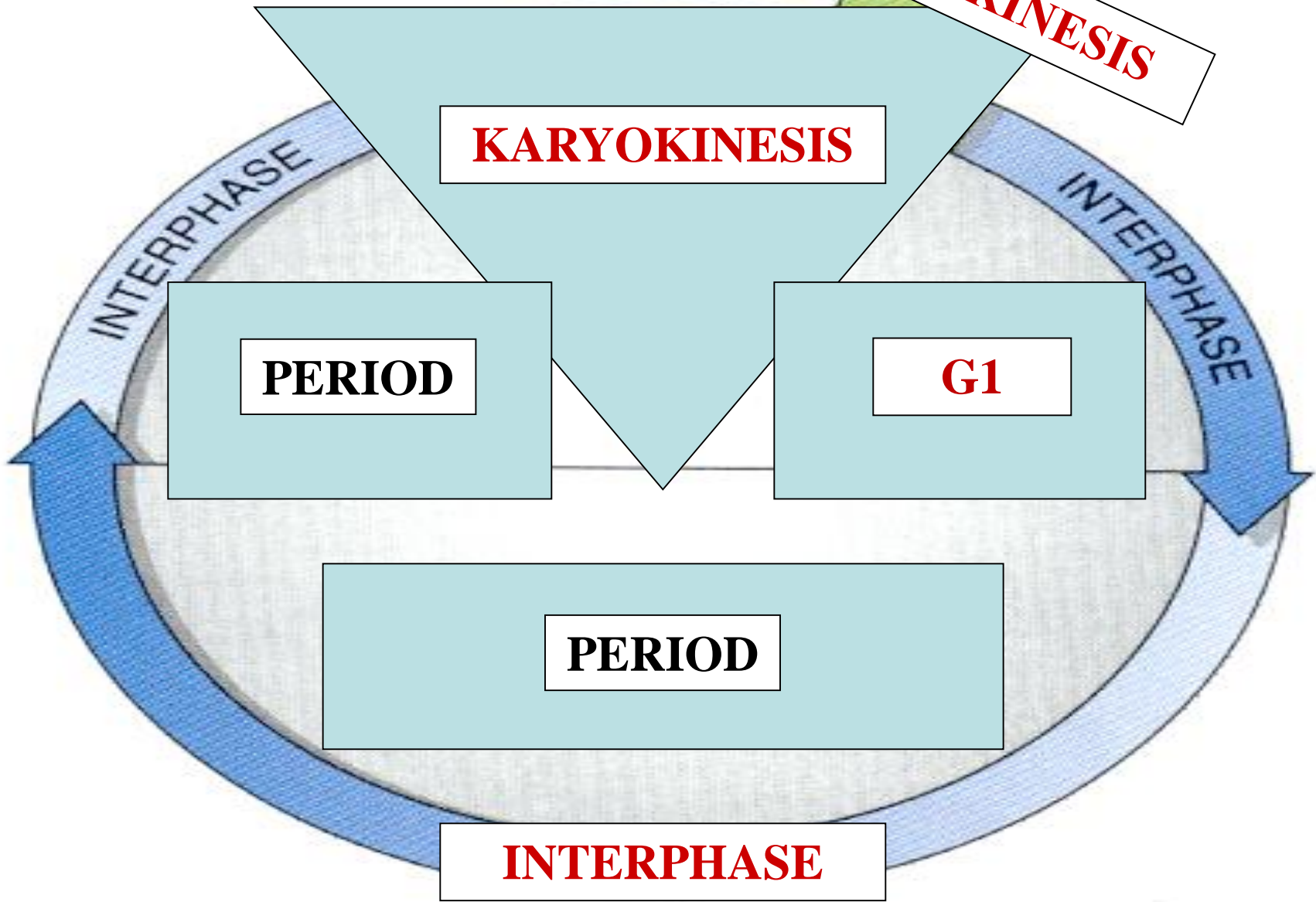
TRUE PLT CELL CYCLE

G1



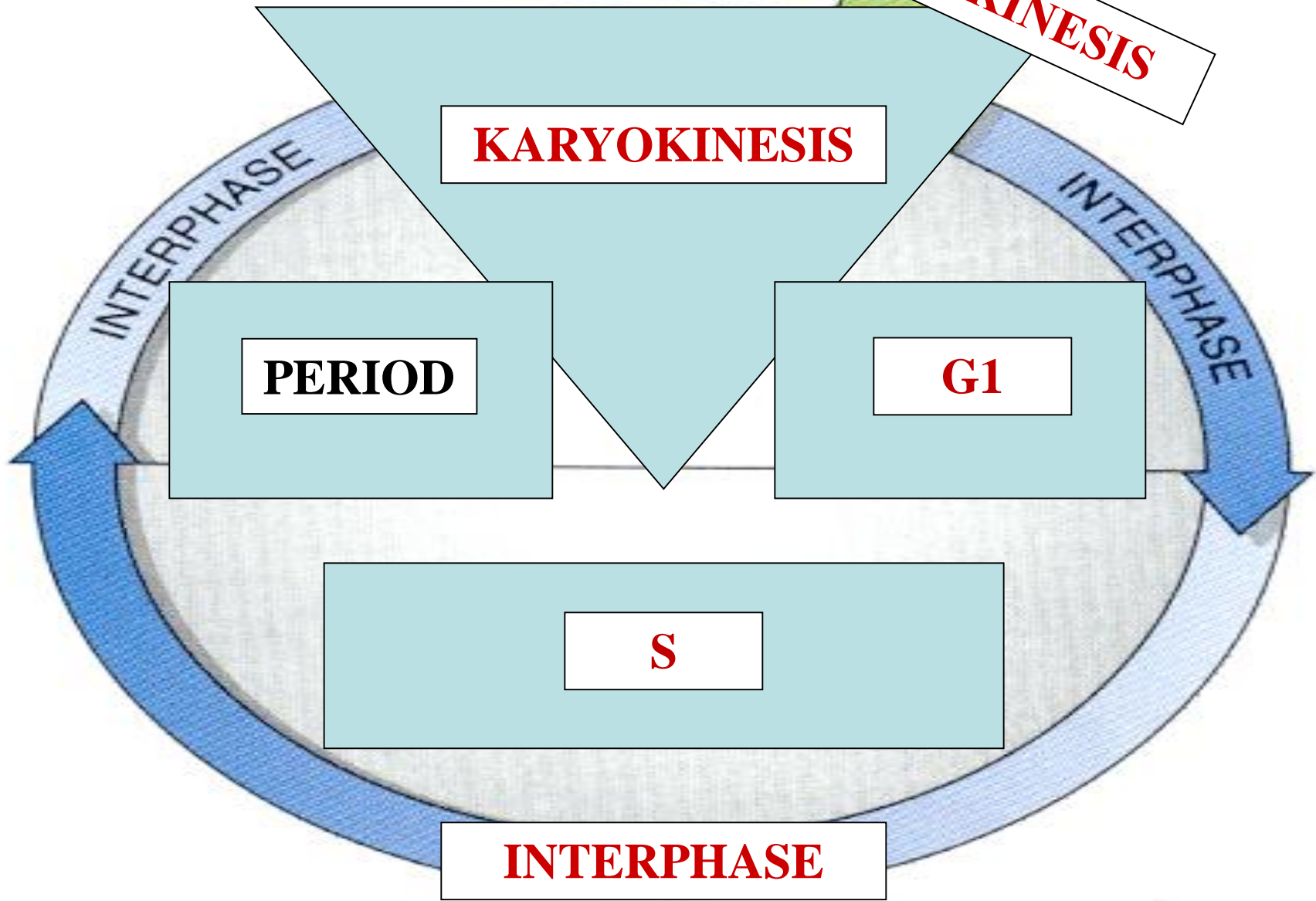
TRUE PLT CELL CYCLE

S

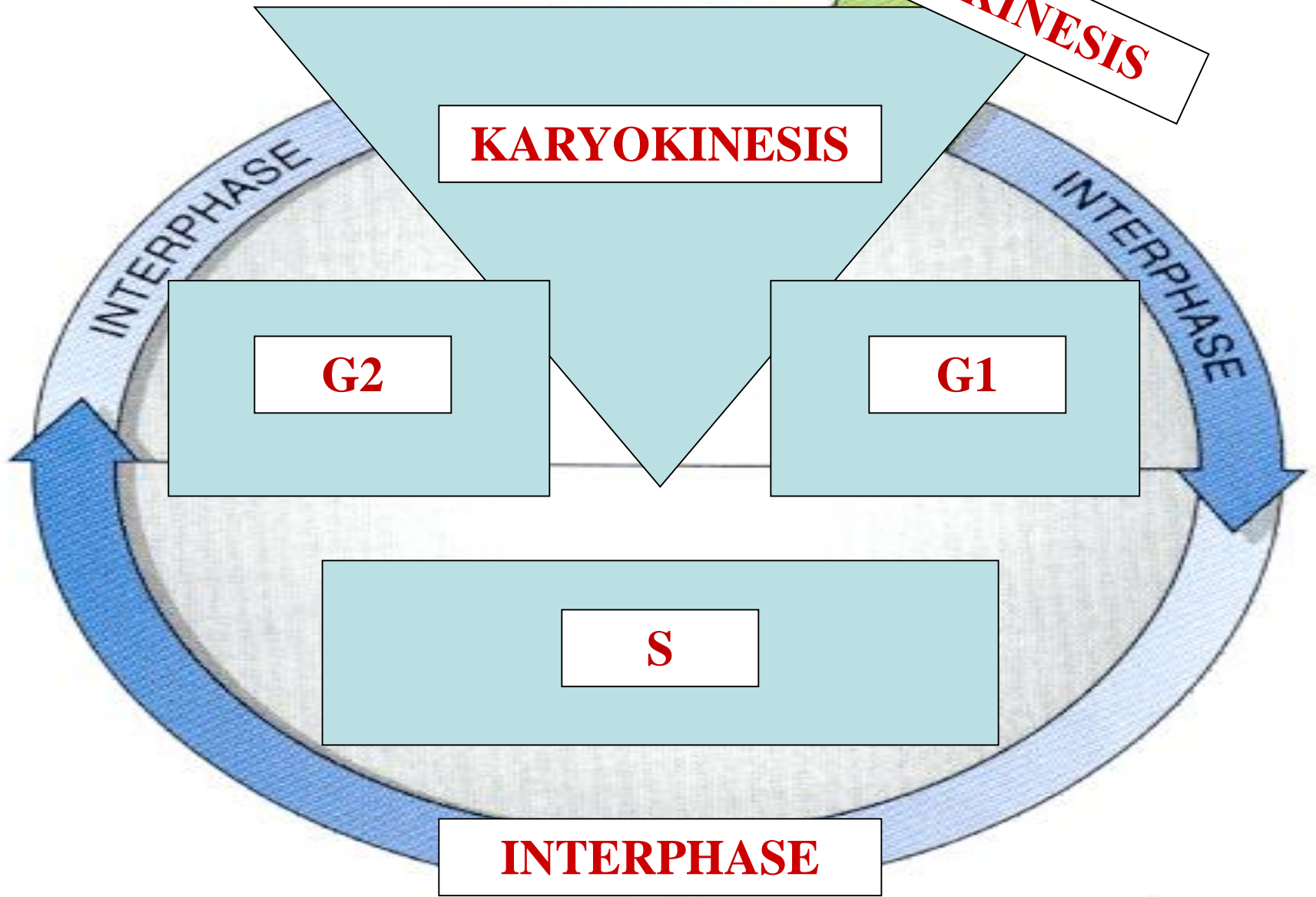


TRUE PLT CELL CYCLE

G2



TRUE PLT CELL CYCLE



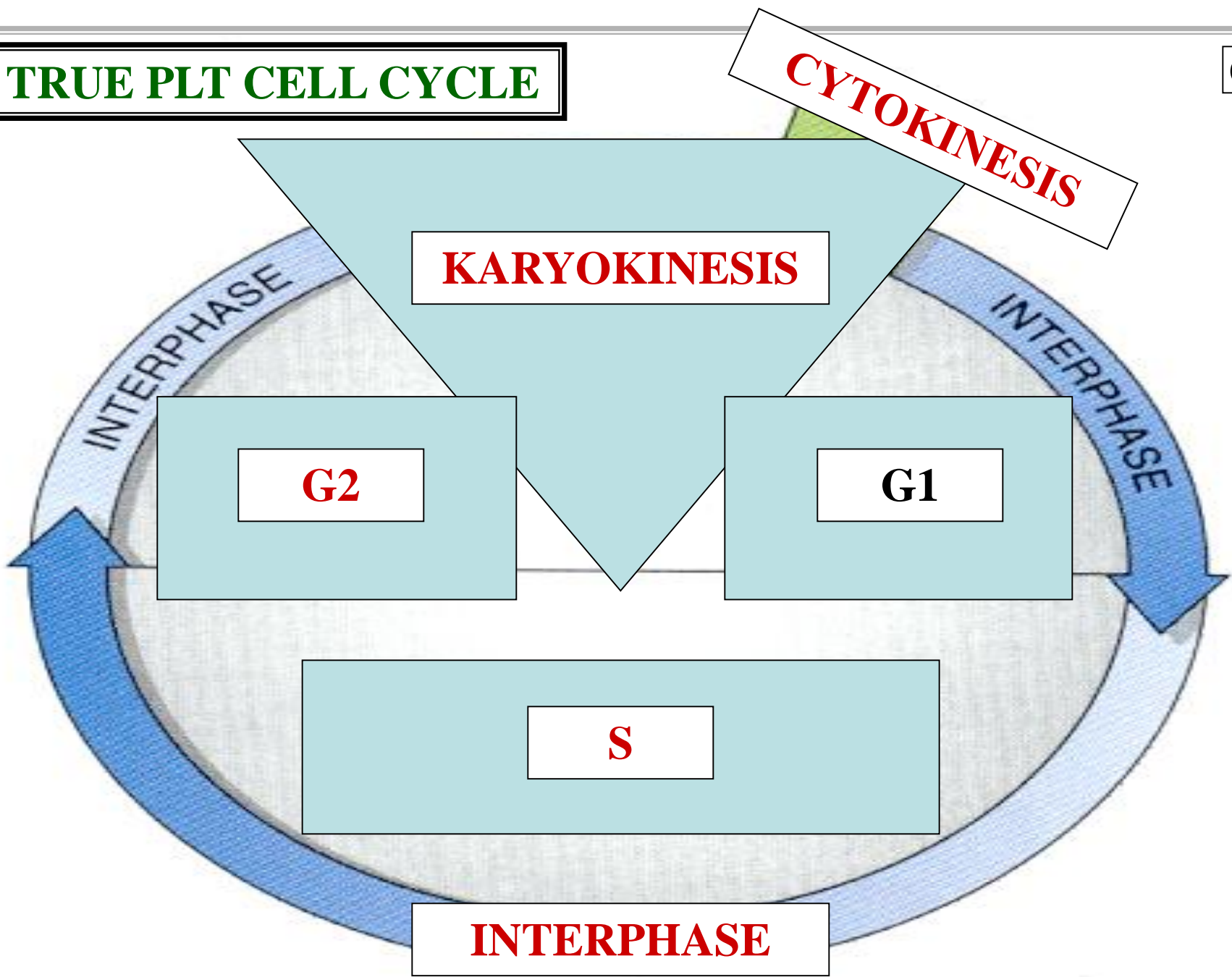
INTERPHASE PERIOD SPECIFICS



INTERPHASE G1 PERIOD SPECIFICS

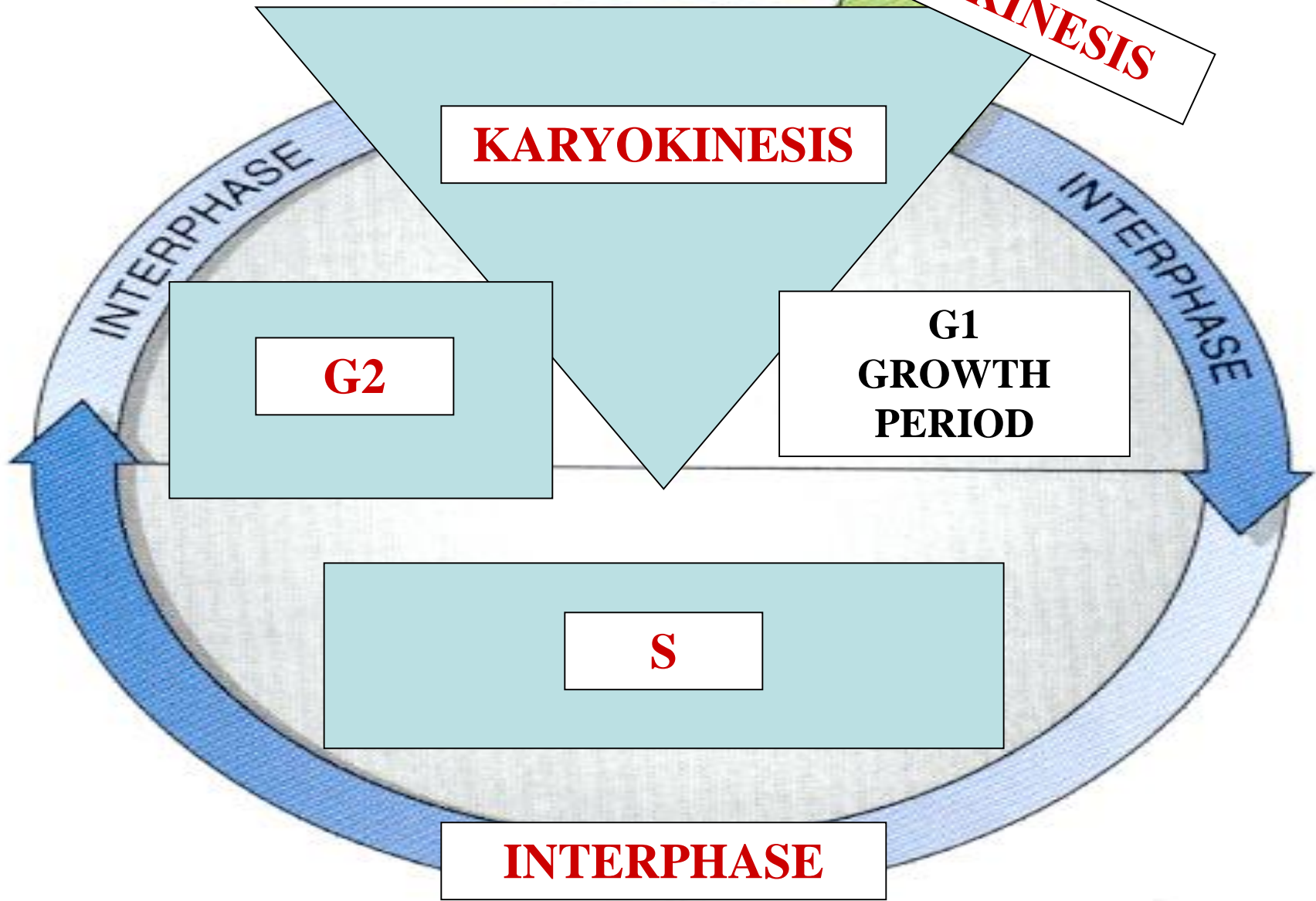
TRUE PLT CELL CYCLE

G



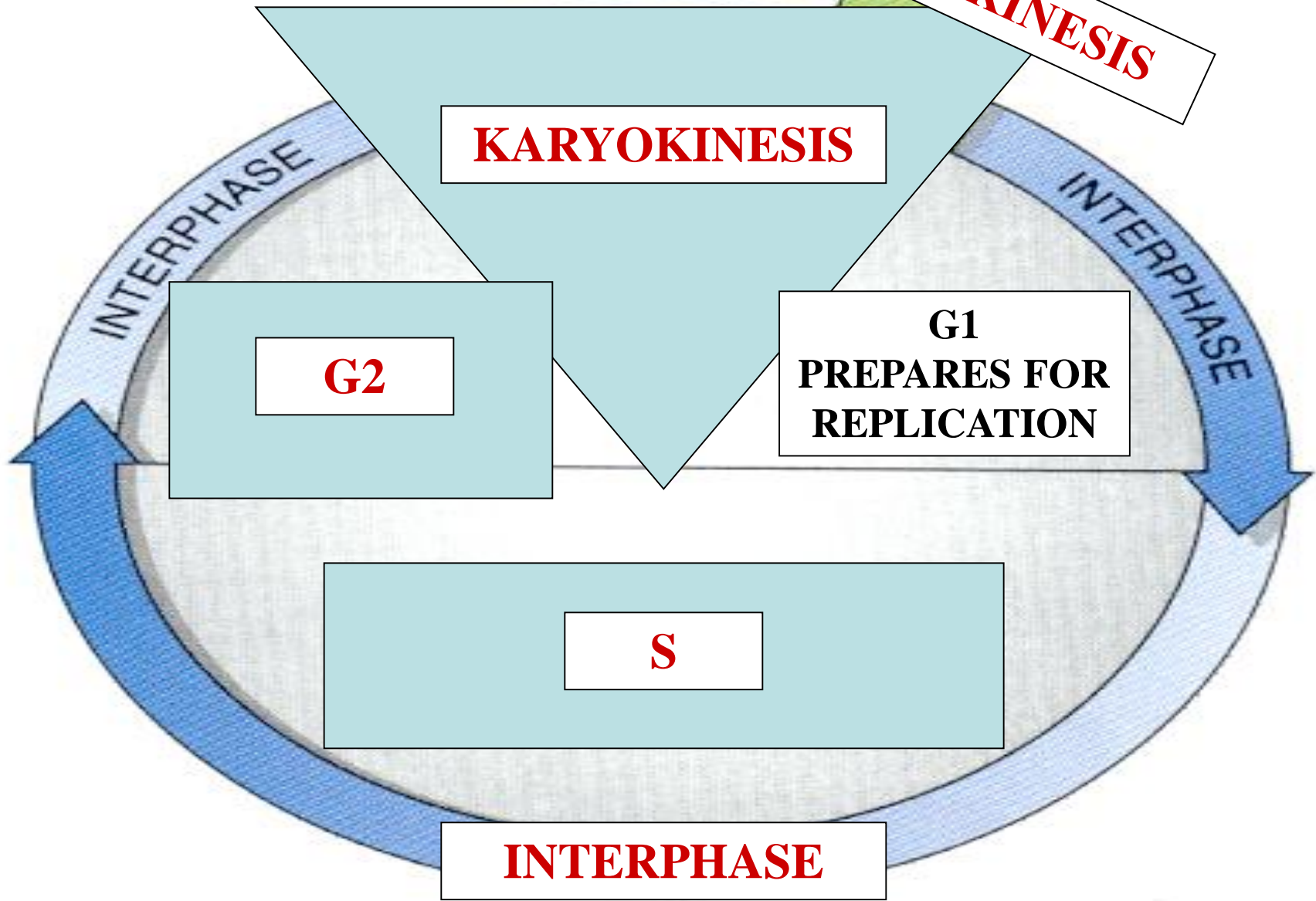
TRUE PLT CELL CYCLE

P



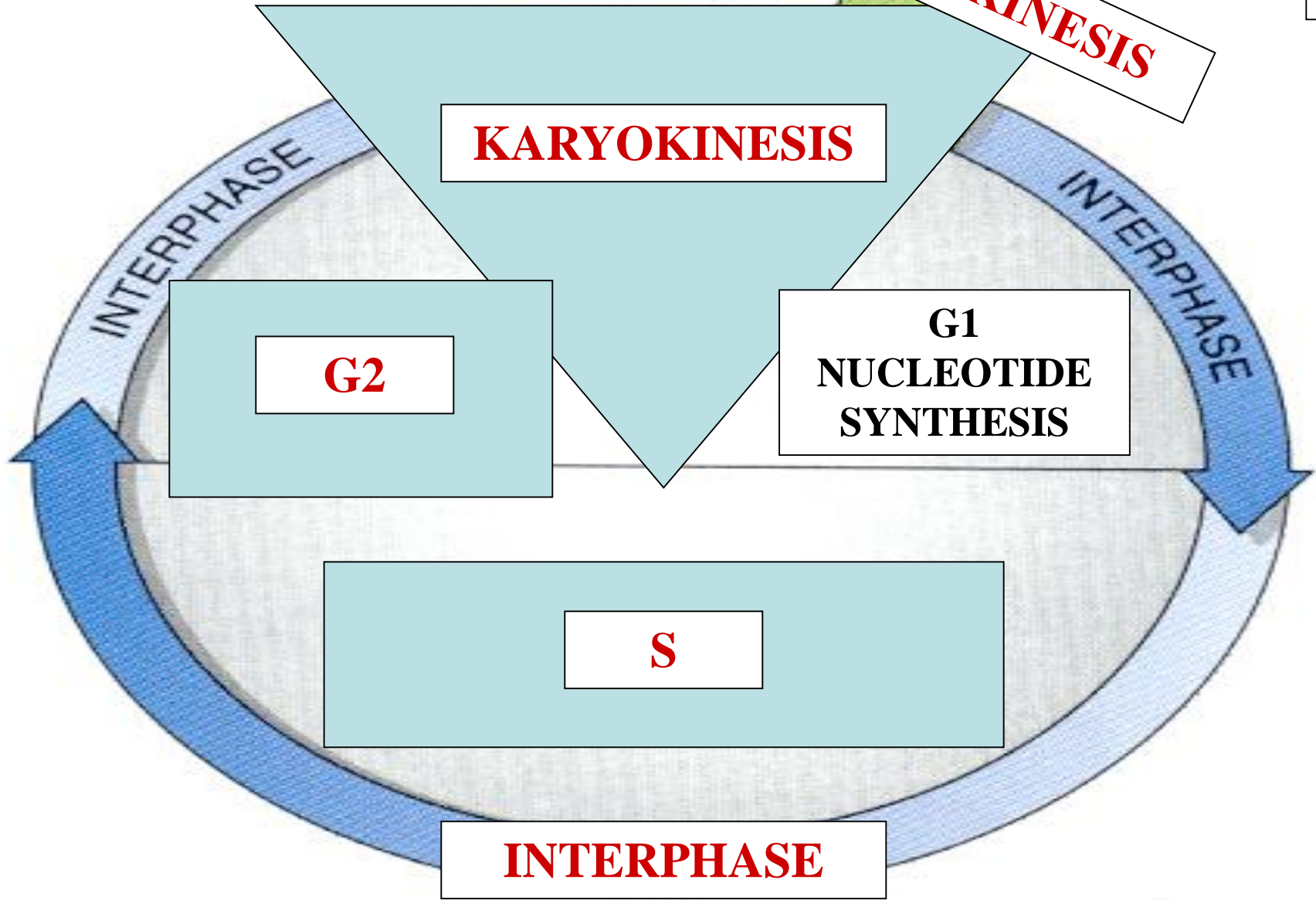
TRUE PLT CELL CYCLE

N



TRUE PLT CELL CYCLE

^
S

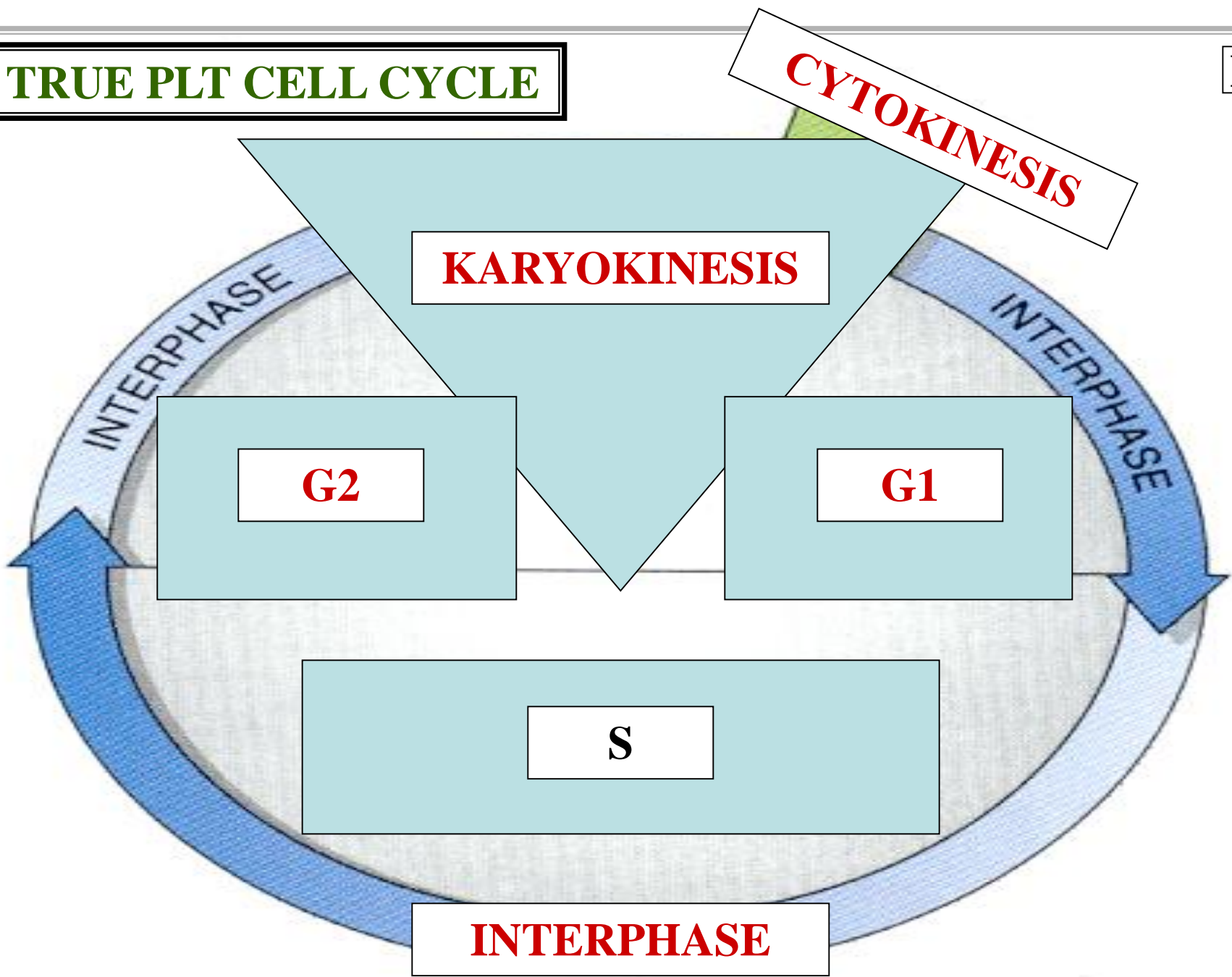




INTERPHASE S PERIOD SPECIFICS

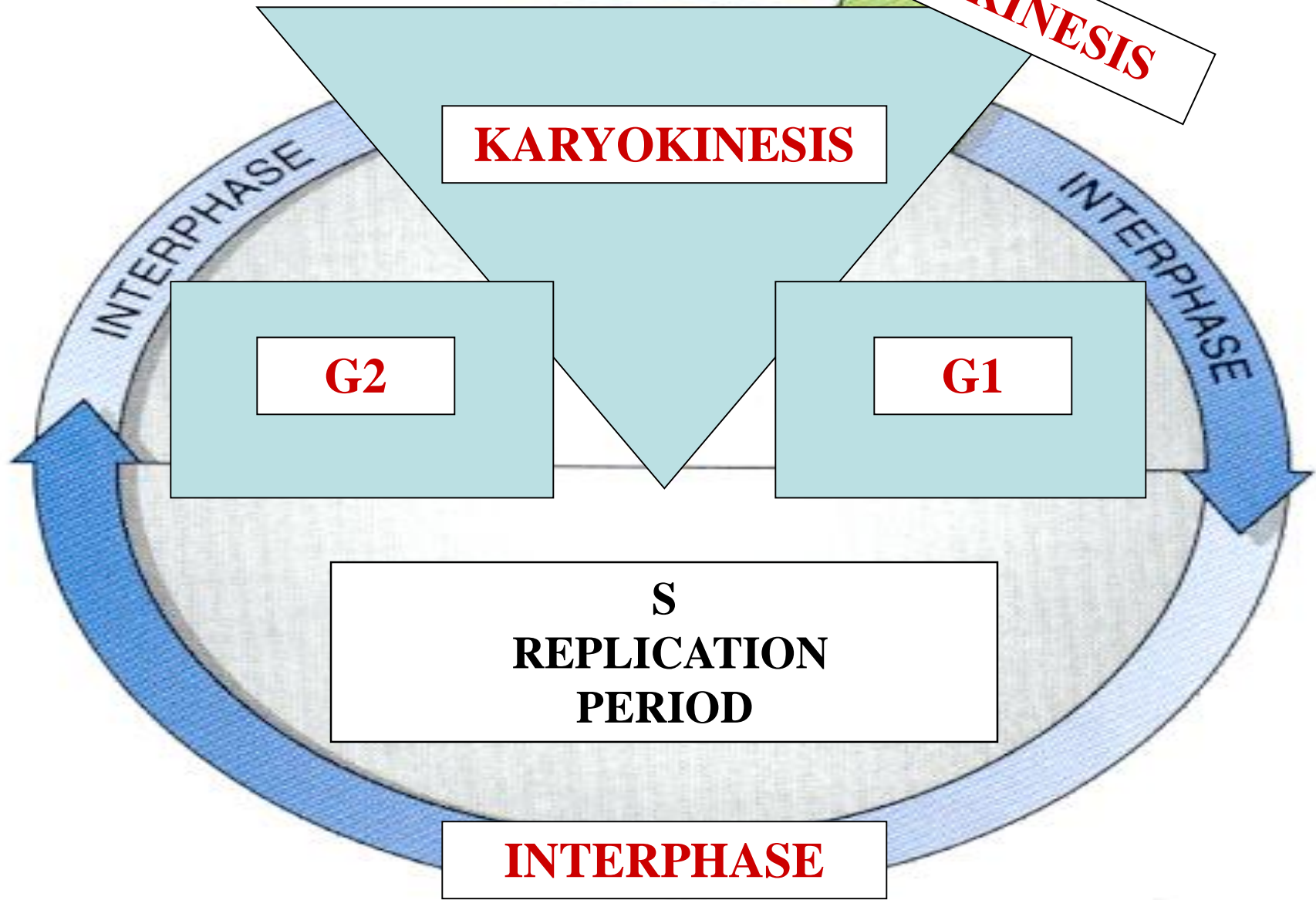
TRUE PLT CELL CYCLE

R



TRUE PLT CELL CYCLE

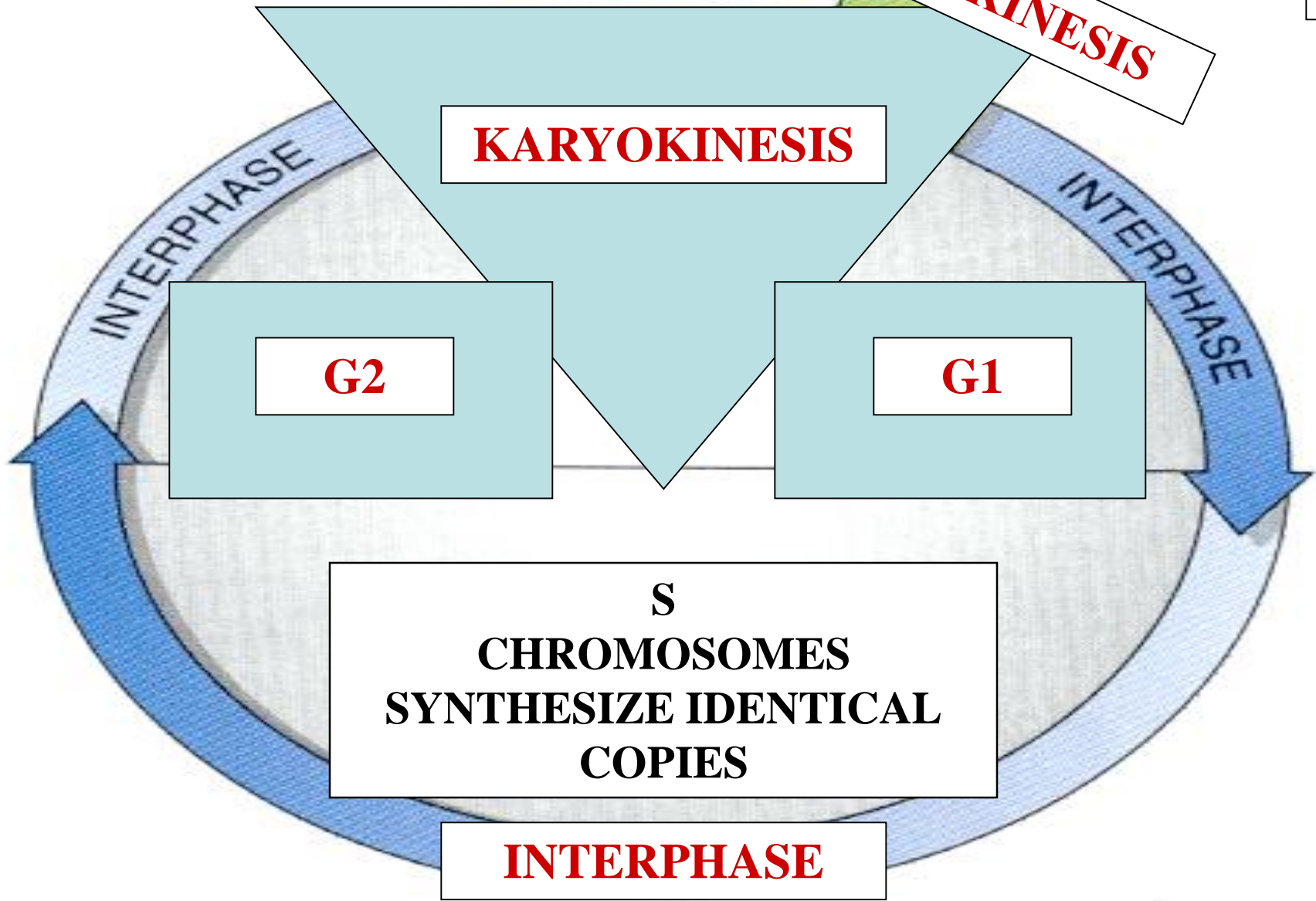
C



TRUE PLT CELL CYCLE

^

2

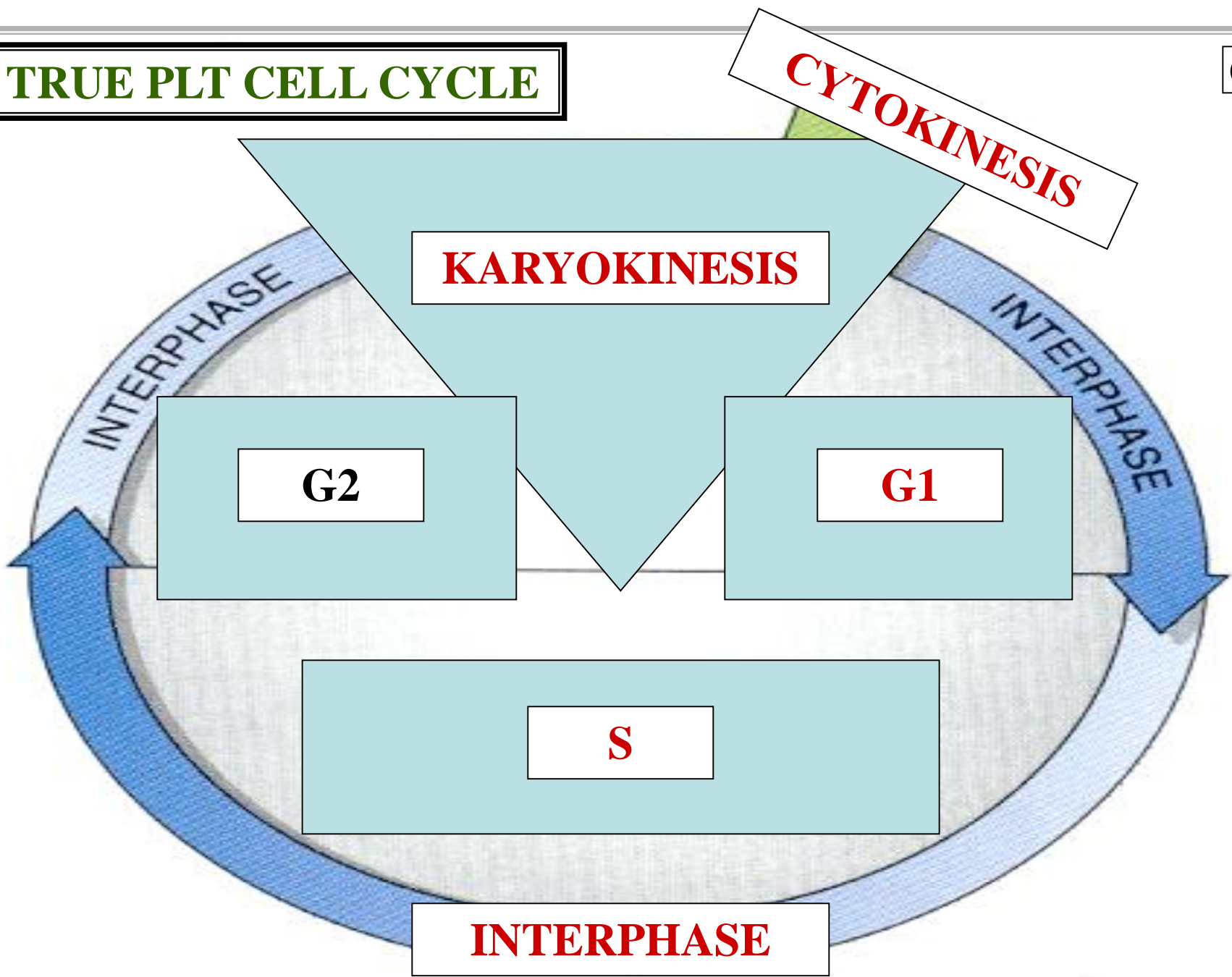




INTERPHASE G2 PERIOD SPECIFICS

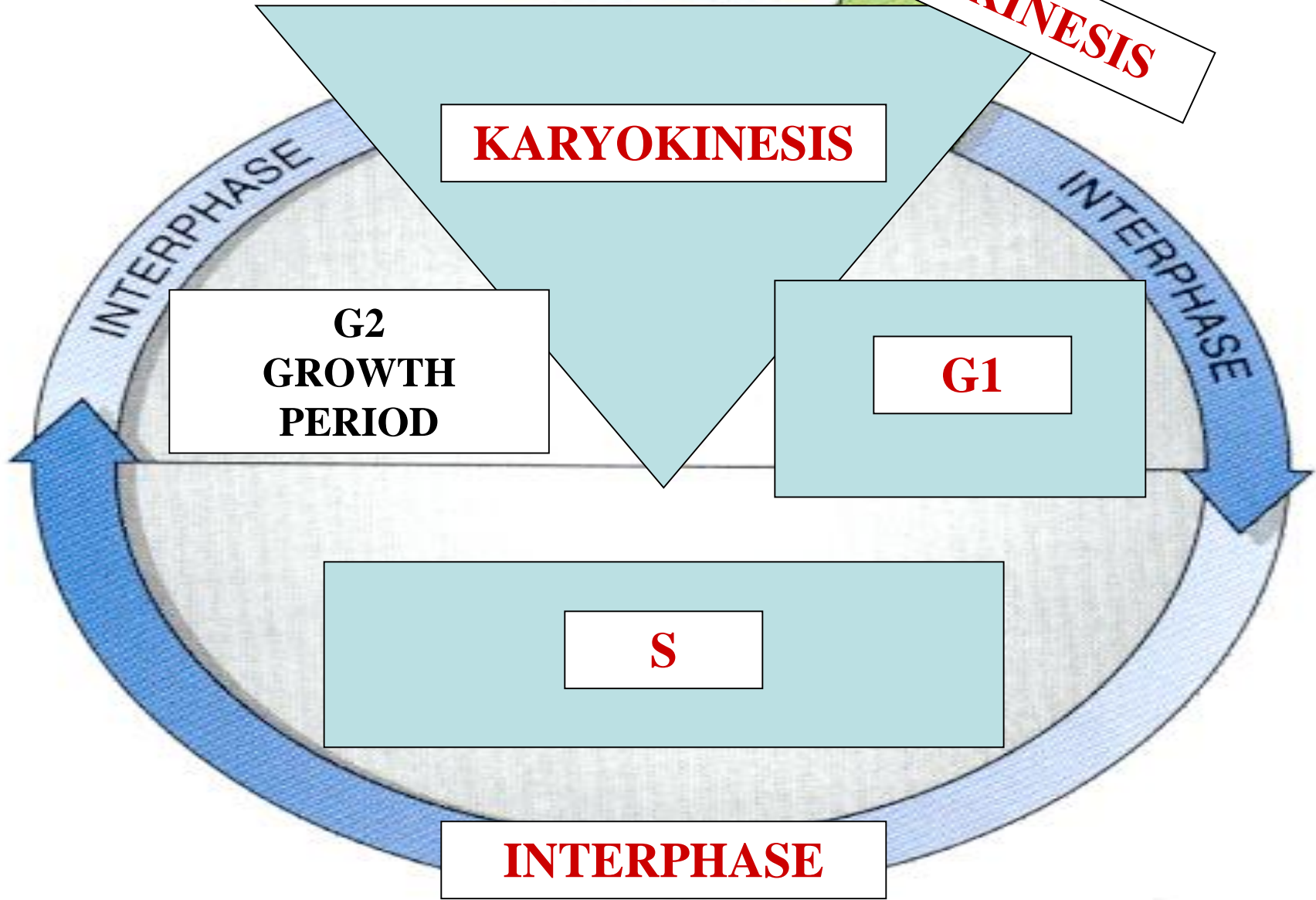
TRUE PLT CELL CYCLE

G



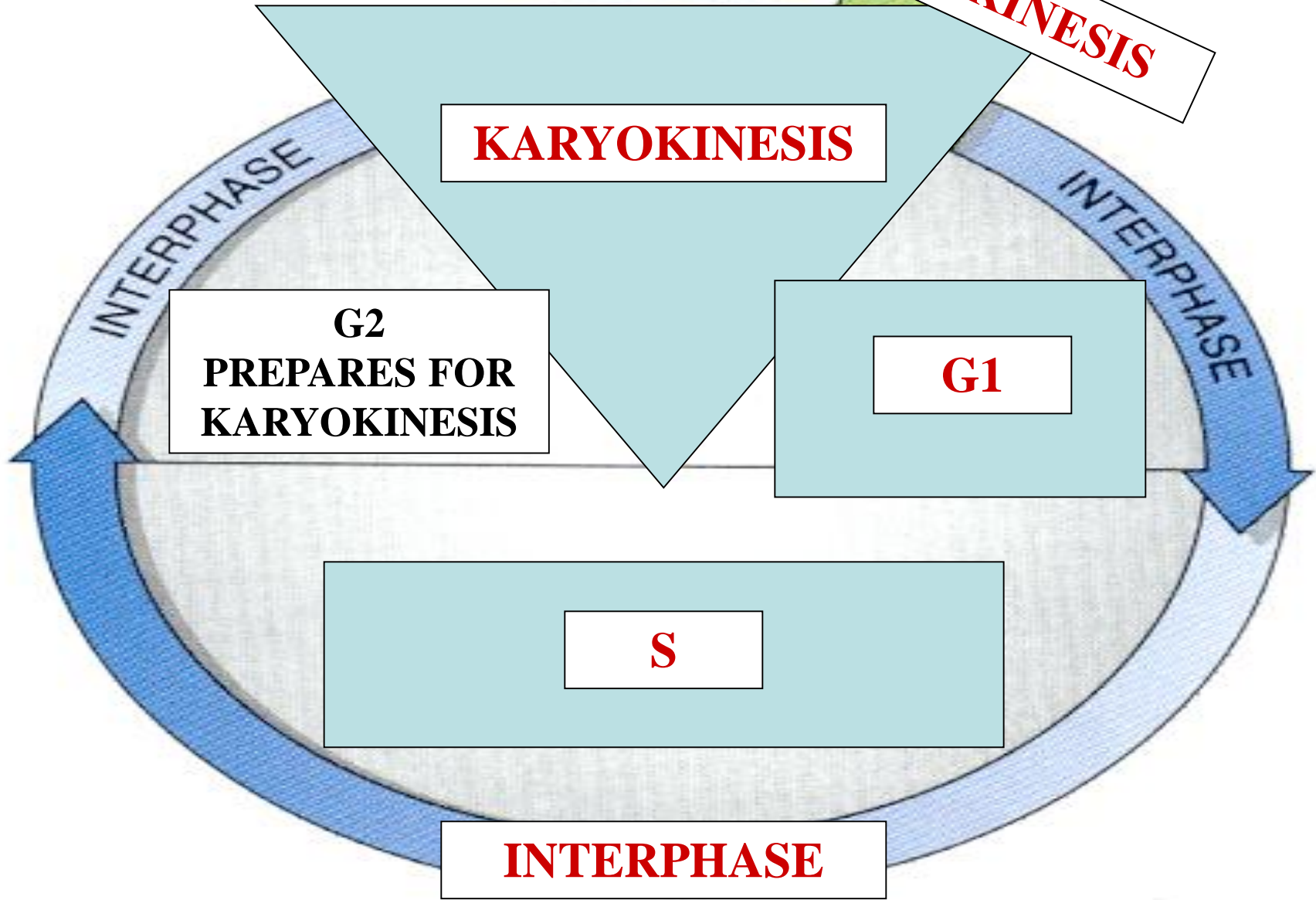
TRUE PLT CELL CYCLE

K

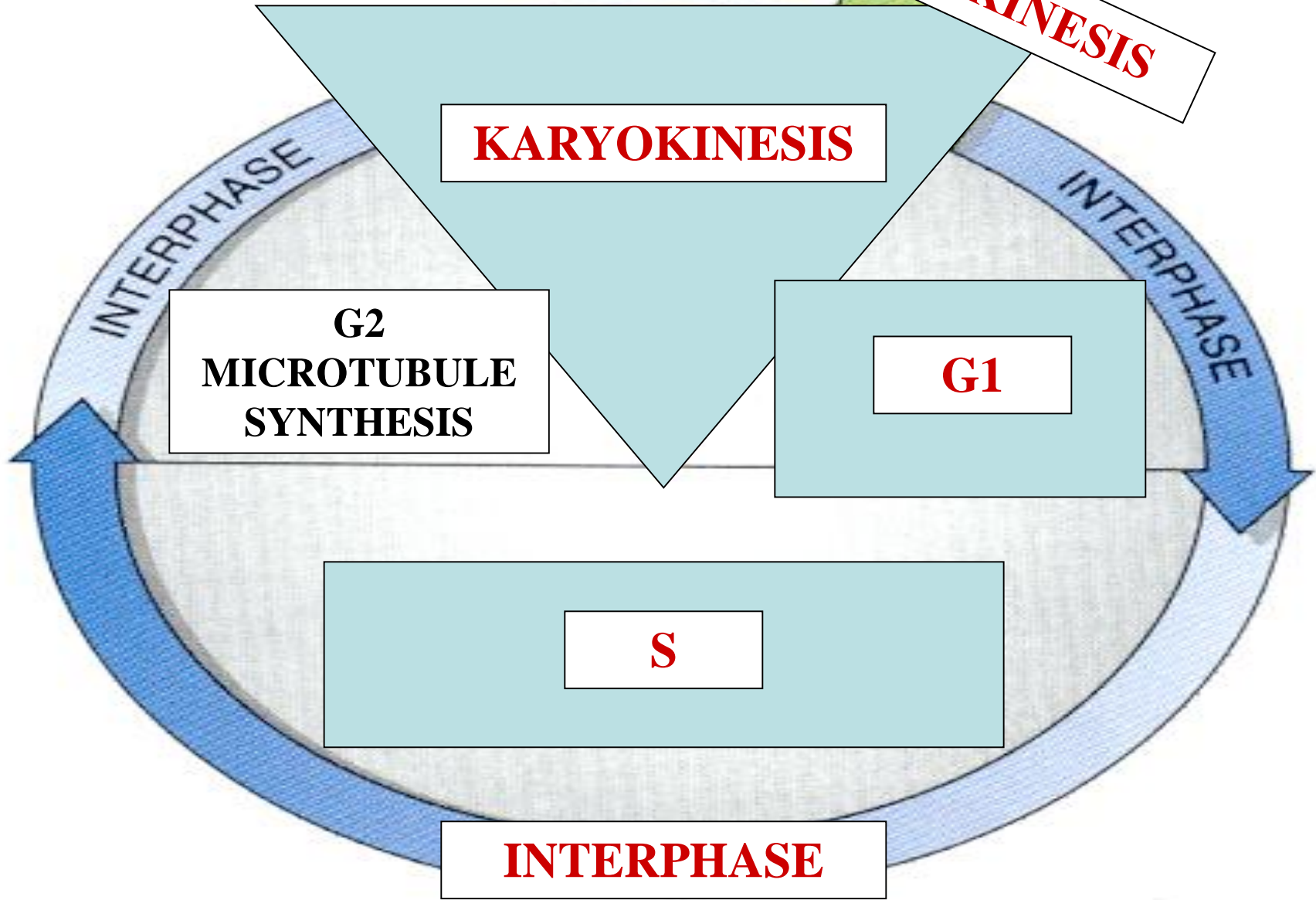


TRUE PLT CELL CYCLE

M



TRUE PLT CELL CYCLE



KARYOKINESIS

KARYOKINESIS

KARYOKINESIS



NUCLEAR DIVISION

KARYOKINESIS

KARYOKINESIS TYPES

KARYOKINESIS TYPES

MITOSIS

KARYOKINESIS TYPES

KARYOKINESIS TYPES

MITOSIS

MEIOSIS

KARYOKINESIS TYPES



MITOSIS

QUESTION

DURING MITOSIS
DOES CHROMOSOME
REDUCTION OCCUR?

QUESTION

ANSWER



**NO
CHROMOSOME
REDUCTION**

ANSWER

HUMAN GENOME

#



HOMO SAPIENS

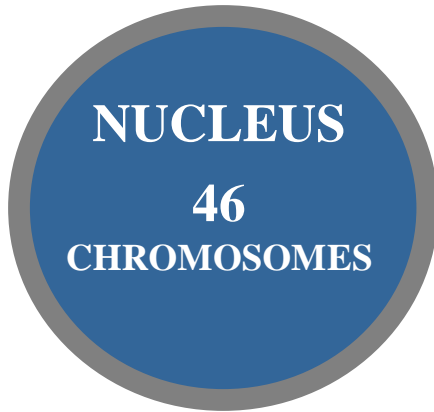
HUMAN GENOME



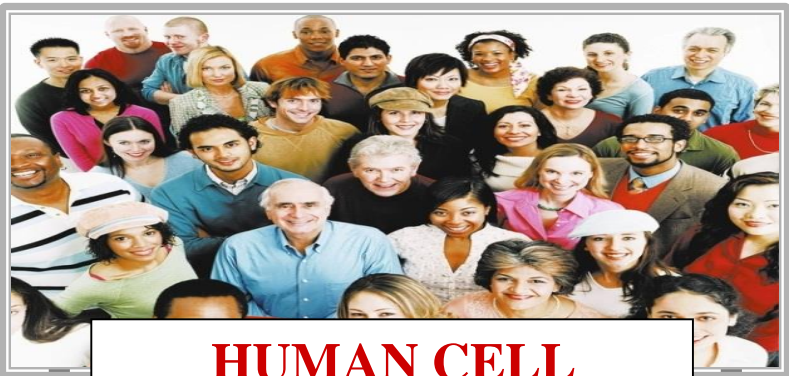
HOMO SAPIENS



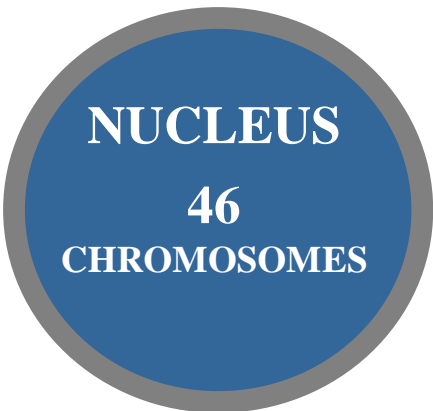
HUMAN CELL



MOTHER CELL



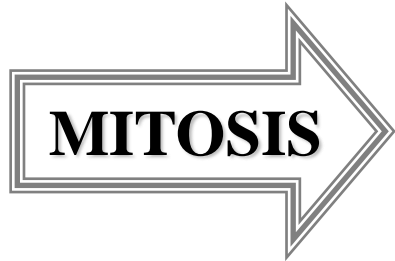
HUMAN CELL



NUCLEUS
46
CHROMOSOMES

**NO CHROMOSOME
REDUCTION**

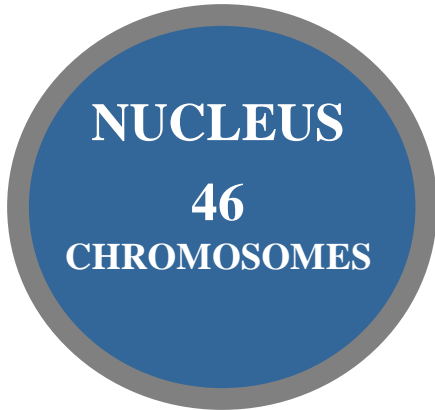
MOTHER CELL



MITOSIS

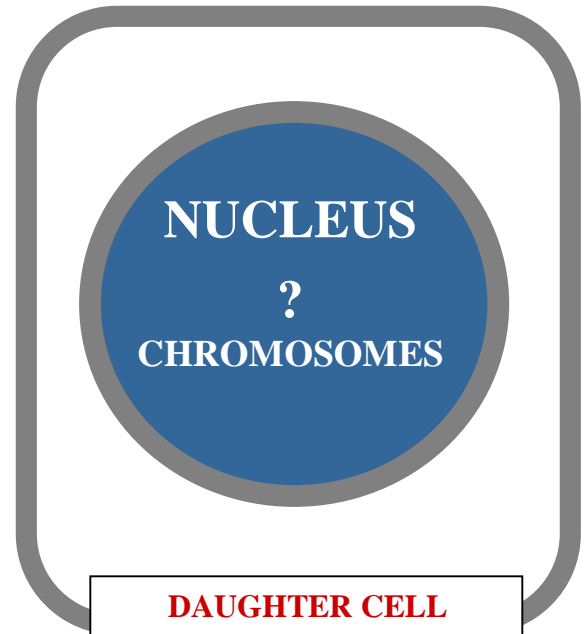
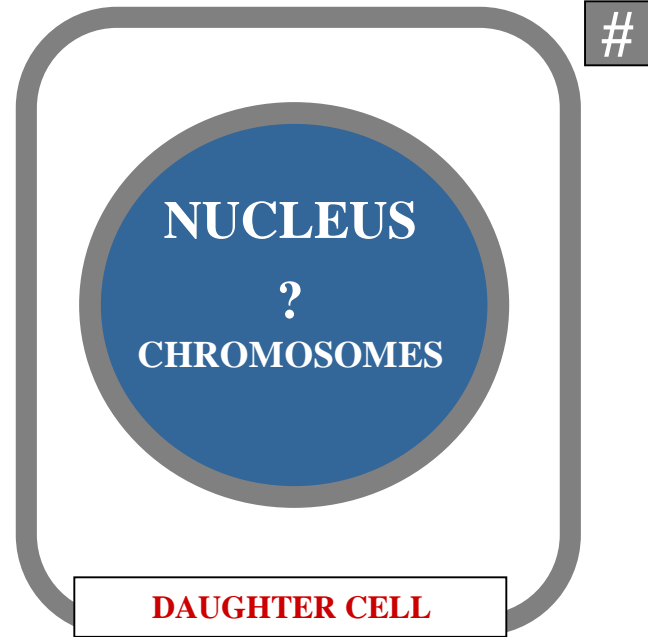
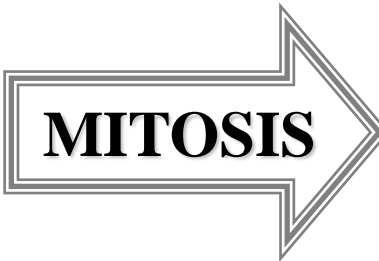


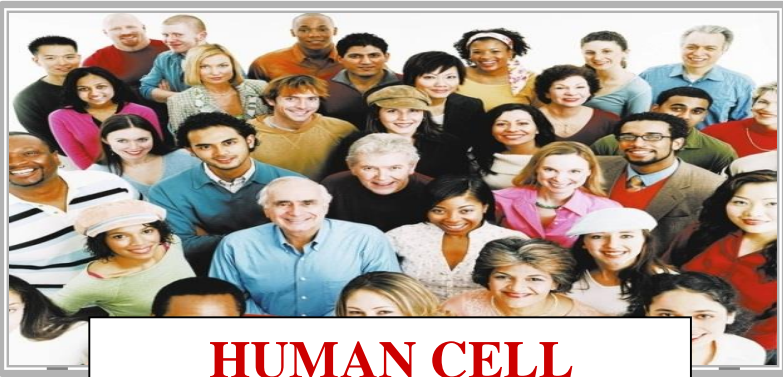
HUMAN CELL



**NO CHROMOSOME
REDUCTION**

MOTHER CELL



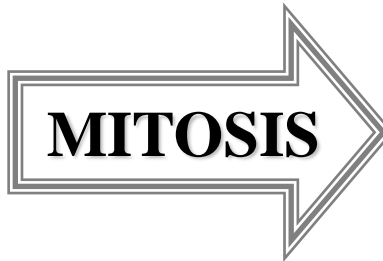


HUMAN CELL

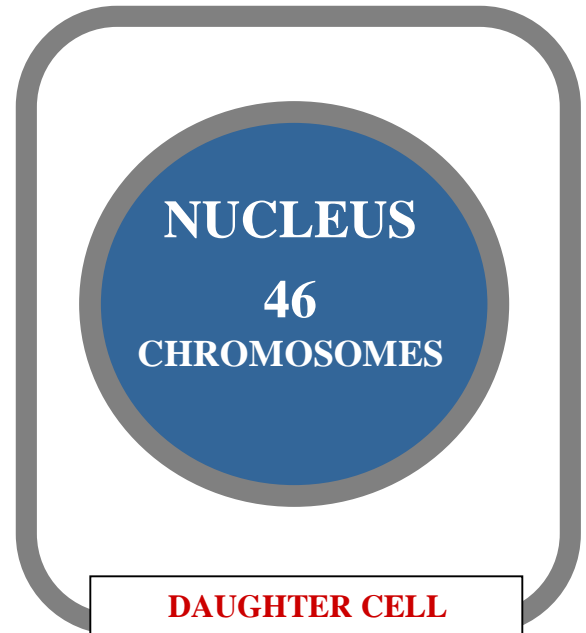
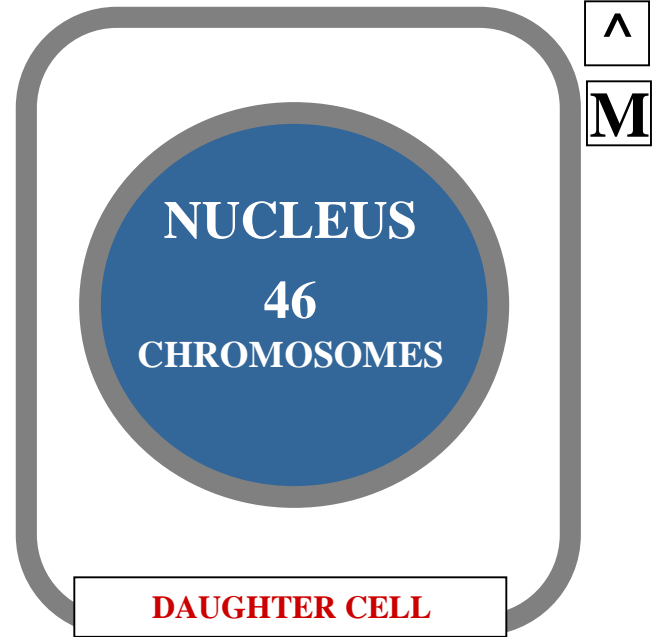
NUCLEUS
46
CHROMOSOMES

**NO CHROMOSOME
REDUCTION**

MOTHER CELL



MITOSIS





MEIOSIS

QUESTION

DURING MEIOSIS
DOES CHROMOSOME
REDUCTION OCCUR?

QUESTION

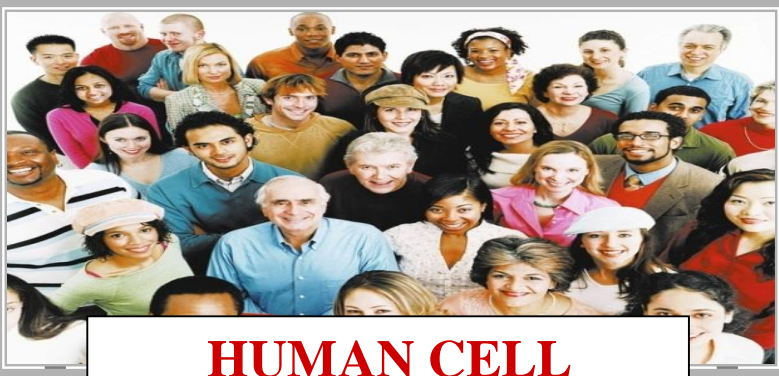


ANSWER

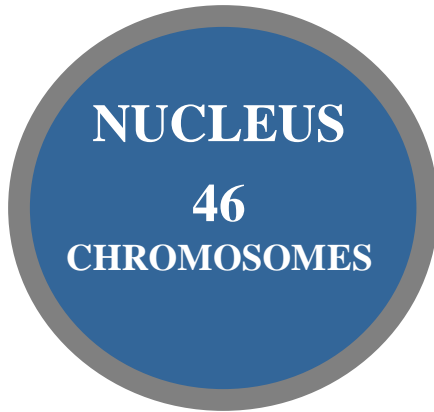
YES

**CHROMOSOME
REDUCTION**

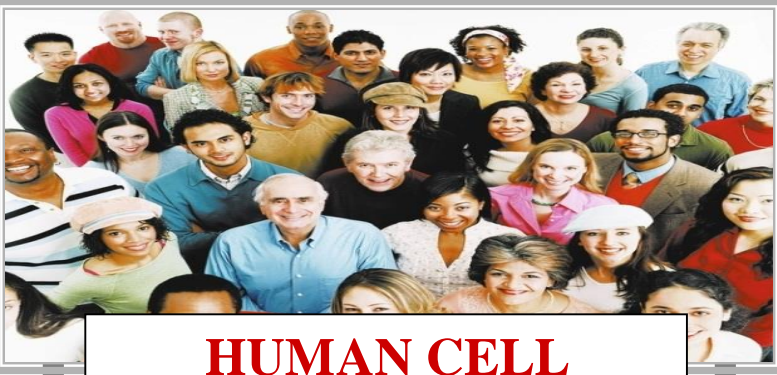
ANSWER



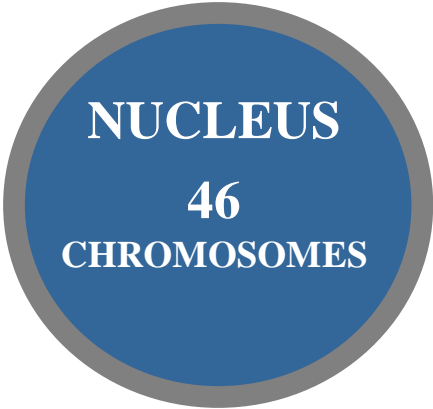
HUMAN CELL



MOTHER CELL

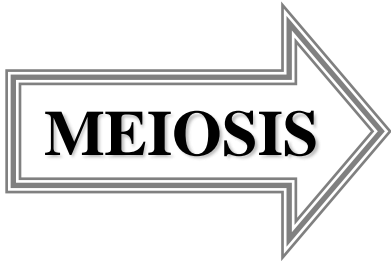


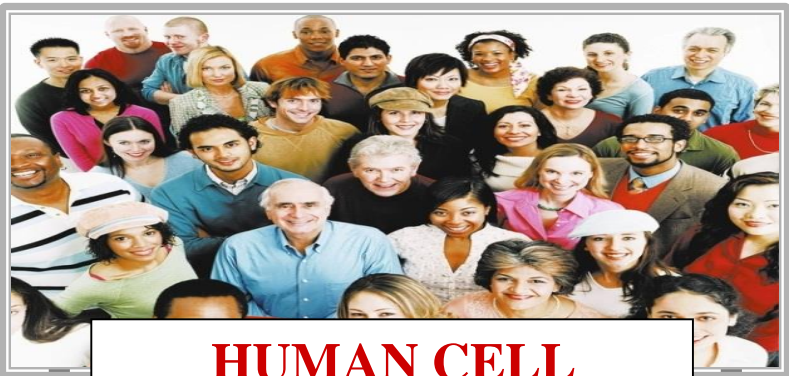
HUMAN CELL



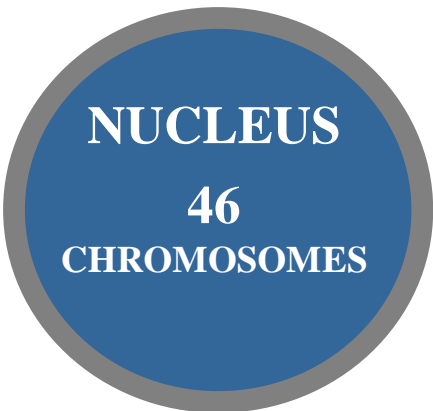
**YES CHROMOSOME
REDUCTION**

MOTHER CELL



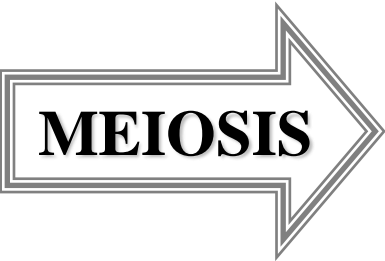


HUMAN CELL



**YES CHROMOSOME
REDUCTION**

MOTHER CELL



1/2 REDUCTION