



HERBARIUM INDEX

**CATALOG WORLD
HERBARIA**

HERBARIUM INDEX

INDEX
HERBARIORUM

INDEX HERBARIUM



INTER-NET SERVICE

INDEX HERBARIUM

Index Herbariorum

Part I: The Herbaria of the World

Eighth Edition

Search Index Herbariorum

Part I: The Herbaria of the World

Search for an Institution

Search by Acronym

Use the field below to search the database using the acronym as the search criteria. Enter the herbarium acronym in the field and press the Search button to execute the query.

Herbarium Acronym

Search by Name or Location

Use the fields below to search the database for an institution by specifying the appropriate search criteria in the relevant fields. Press the Search button to execute the search.

Institution

City

State

Country

Search for a Person

Search by Person

Search for an herbarium staff member by entering the appropriate search criteria in the relevant fields below. Press the Search button to execute the search.

Last Name

First Name

Any Part of Name Contains

Herbarium Code

Institution

City

State

Country

Research Specialty

Index Herbariorum

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Last Name

First Name

Any Part of Name Contains

Herbarium Code

Institution

City

State

Country

Research Specialty



Herbarium Details:

Name [University of Michigan](#)

Herbarium Code MICH

Address Herbarium

University of Michigan
3600 Varsity Drive
Ann Arbor, Michigan 48108-2287
U.S.A.
<http://herbarium.lsa.umich.edu>

Contact [1] 734/ 764-2407.
Fax: [1] 734/ 647-5719.

Correspondent [Íñigo Granzow de la Cerda](#)
[Michael Wynne](#)
[Anton Reznicek](#)

Number of Specimens 1 700 000

Important Collections M. Bang, H. H. Bartlett, D. V. Baxter, D. E. Breedlove, F. W. Case, R. Chand, M. Clemens, E. U. Clover, E. J. Cole, E. B. Copeland, H. A. Crum, F. A. Dickason, C. K. Dodge, R. R. Dreisbach, L. E. Ebaló, G. E. Edaño, J. H. Ehlers, A. D. E. Elmer, E. W. Erlanson, O. A. Farwell, C. Feddema, B. Fink, R. L. Fleming, P. H. Gentle, C. O. Grassl, L. H. Harvey, F. J. Hermann, G. B. Hinton, D. Houghton, A. Jewett, M. E. Jones, C. H. Kauffman, W. N. Koelz, K. Lems, J. J. Linden, C. L. Lundell, M. W. Lyon, E. B. Mains, E. Matuda, R. McVaugh, Y. E. J. Mexia, R. Peter, C. G. Pringle, M. Ramos, F. Rugel, H. H. Rusby, J. Rzedowski, J. Samples, J. V. Santos, H. H. Smith, F. K. Sparrow, J. B. Steere, R. R. Stewart, M. Tagawa, W. R. Taylor, D. L. Topping, W. H. Wagner, Jr., S. S. White, H. S. Yates

BETA TAXONOMIST
BARROWS
ALL TYPE SPECIMENS
&
ALL GENERAL SPECIMENS
OF
Unaopsis

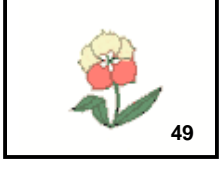
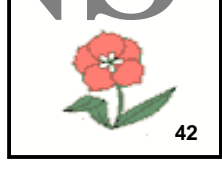
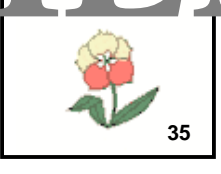
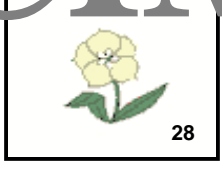
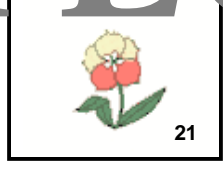
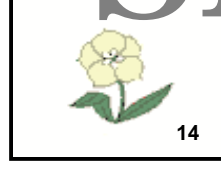
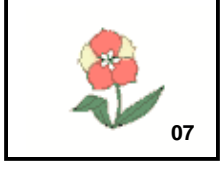
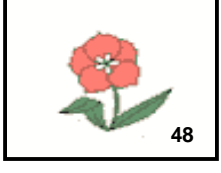
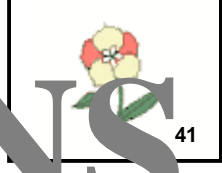
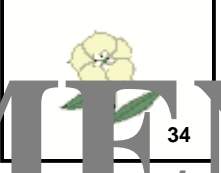
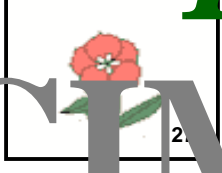
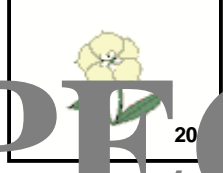
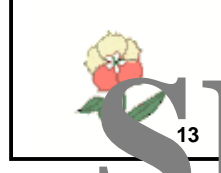
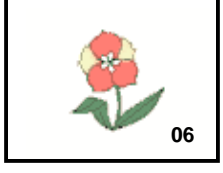
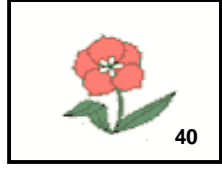
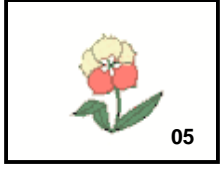
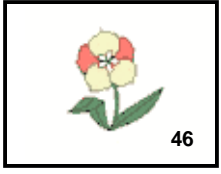
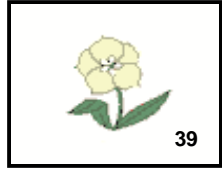
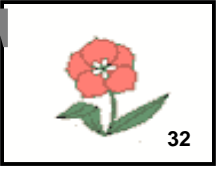
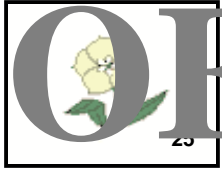
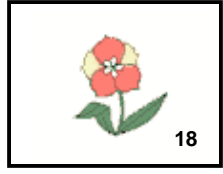
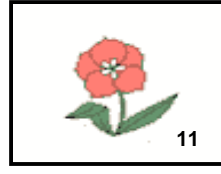
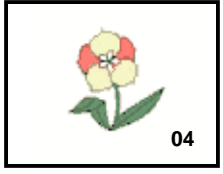
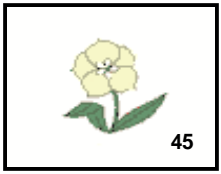
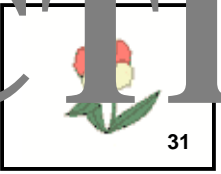
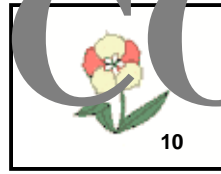
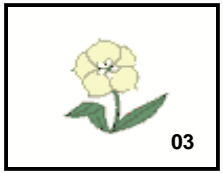
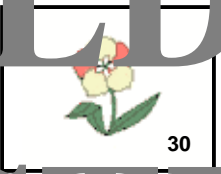
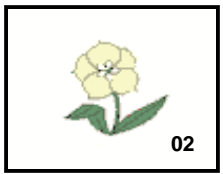
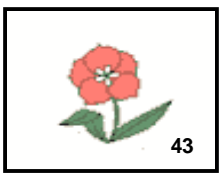
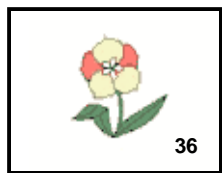
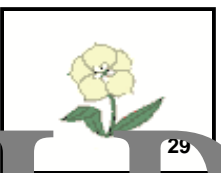
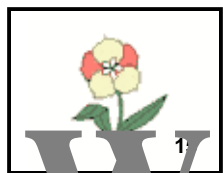
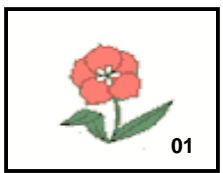


A woman with dark hair, wearing a blue long-sleeved shirt, is shown in profile, looking at a large collection of dried plant specimens (herbarium) in a black metal cabinet. Her hands are resting on the specimens. The text is overlaid on the image.

POST HERBARIUM
SEARCH
WORLD
COLLECTION
OF

Unaopsis





WORLD
COLLECTION
OF
Unaopsis
SPECIMENS



SELECT RESEARCH METHODS

TAXONOMIC RESEARCH METHODS



TAXONOMIC RESEARCH METHODS

MACRO-MORPHOLOGICAL METHOD

TAXONOMIC RESEARCH METHODS



TAXONOMIC RESEARCH METHODS

**MACRO-MORPHOLOGICAL METHOD
MICRO-MORPHOLOGICAL METHOD**

TAXONOMIC RESEARCH METHODS



TAXONOMIC RESEARCH METHODS

MACRO-MORPHOLOGICAL METHOD
MICRO-MORPHOLOGICAL METHOD
KARYOTYPE METHOD

TAXONOMIC RESEARCH METHODS



TAXONOMIC RESEARCH METHODS

MACRO-MORPHOLOGICAL METHOD
MICRO-MORPHOLOGICAL METHOD
KARYOTYPE METHOD
CHEMICAL METHOD

TAXONOMIC RESEARCH METHODS

MACRO MORPHOLOGICAL METHOD

**MACRO
MORPHOLOGICAL
METHOD**

MACRO-MORPHOLOGICAL⁺ METHOD

**QUALITATIVE AND QUANTITATIVE MEASURES OF
MACRO-MORPHOLOGICAL FLORAL
CHARACTERS**

MACRO-MORPHOLOGICAL METHOD

MACRO-MORPHOLOGICAL[^] METHOD

QUALITATIVE AND QUANTITATIVE MEASURES OF
MACRO-MORPHOLOGICAL FLORAL
CHARACTERS
&
MACRO-MORPHOLOGICAL VEGETATIVE
CHARACTERS

MACRO-MORPHOLOGICAL METHOD

**QUALITATIVE
CHARACTER
VS
QUANTITATIVE
CHARACTER**

QUALITATIVE CHARACTER



QUALITATIVE CHARACTER

NON-MEASURABLE CHARACTER

QUALITATIVE CHARACTER

QUALITATIVE CHARACTER

NON-MEASURABLE CHARACTER
NON-NUMERIC VALUE

QUALITATIVE CHARACTER



QUALITATIVE CHARACTER

NON-MEASURABLE CHARACTER

NON-NUMERIC VALUE

EG PETAL COLOR

QUALITATIVE CHARACTER

QUALITATIVE CHARACTER [^]_Q

NON-MEASURABLE CHARACTER
NON-NUMERIC VALUE

EG PETAL COLOR

QUALITATIVE CHARACTER

QUANTITATIVE CHARACTER



QUANTITATIVE CHARACTER

MEASURABLE CHARACTER

QUANTITATIVE CHARACTER

QUANTITATIVE CHARACTER

MEASURABLE CHARACTER
NUMERIC VALUE

QUANTITATIVE CHARACTER



QUANTITATIVE CHARACTER

MEASURABLE CHARACTER

NUMERIC VALUE

EG PETAL WIDTH

QUANTITATIVE CHARACTER

QUANTITATIVE CHARACTER



MEASURABLE CHARACTER
NUMERIC VALUE

EG PETAL WIDTH

QUANTITATIVE CHARACTER

MACRO MORPHOLOGICAL TOOLS

MACRO-MORPHOLOGICAL⁺ TOOLS

DISSECTING SCOPE

MACROMORPHOLOGICAL
TOOLS

MACRO-MORPHOLOGICAL⁺ TOOLS

**DISSECTING SCOPE
METRIC RULER**

**MACROMORPHOLOGICAL
TOOLS**

MACRO-MORPHOLOGICAL

TOOLS

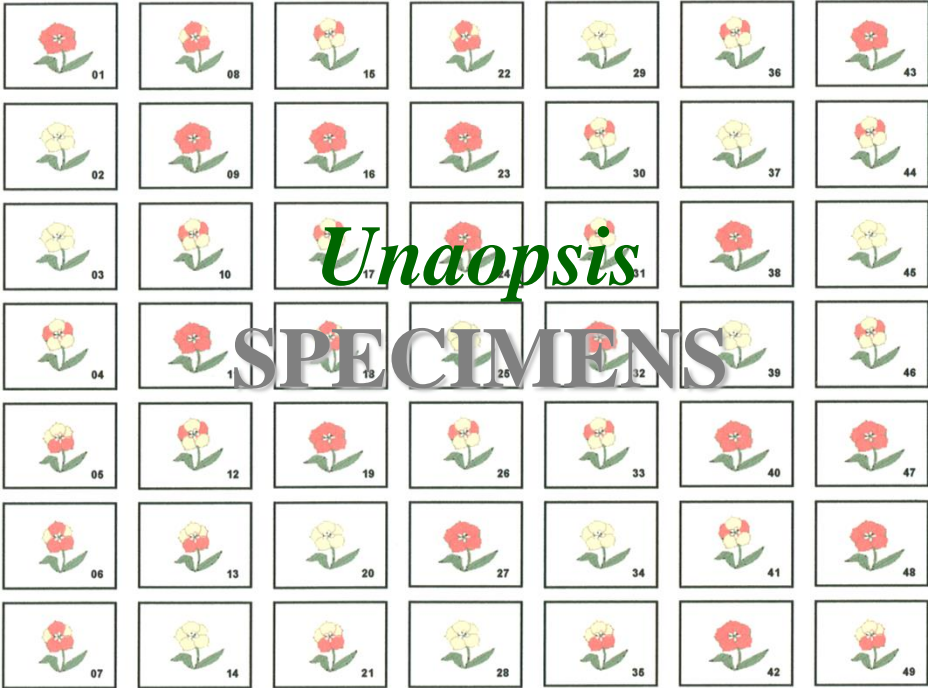
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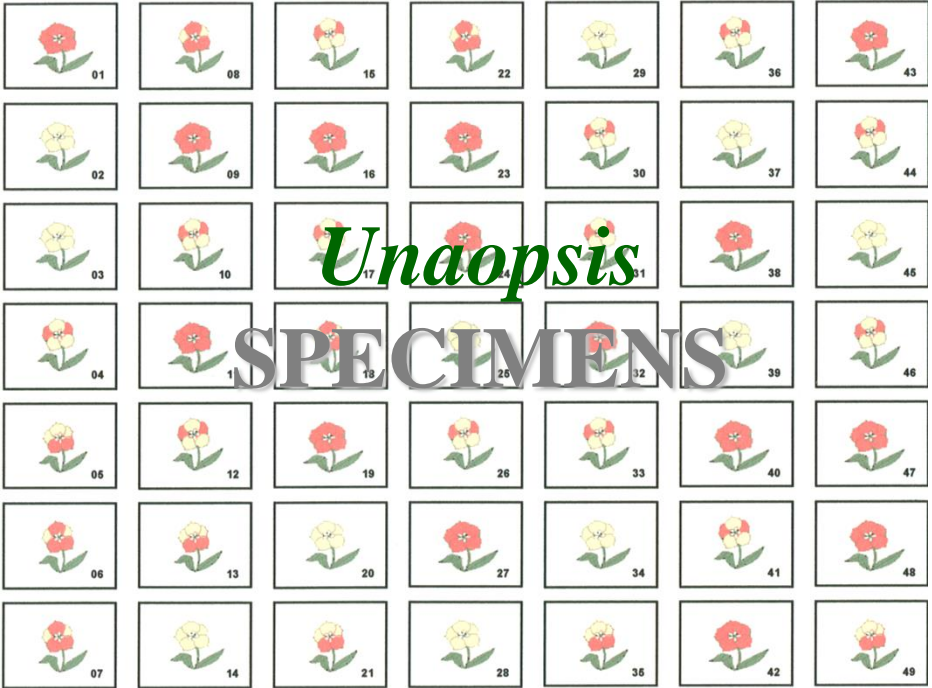
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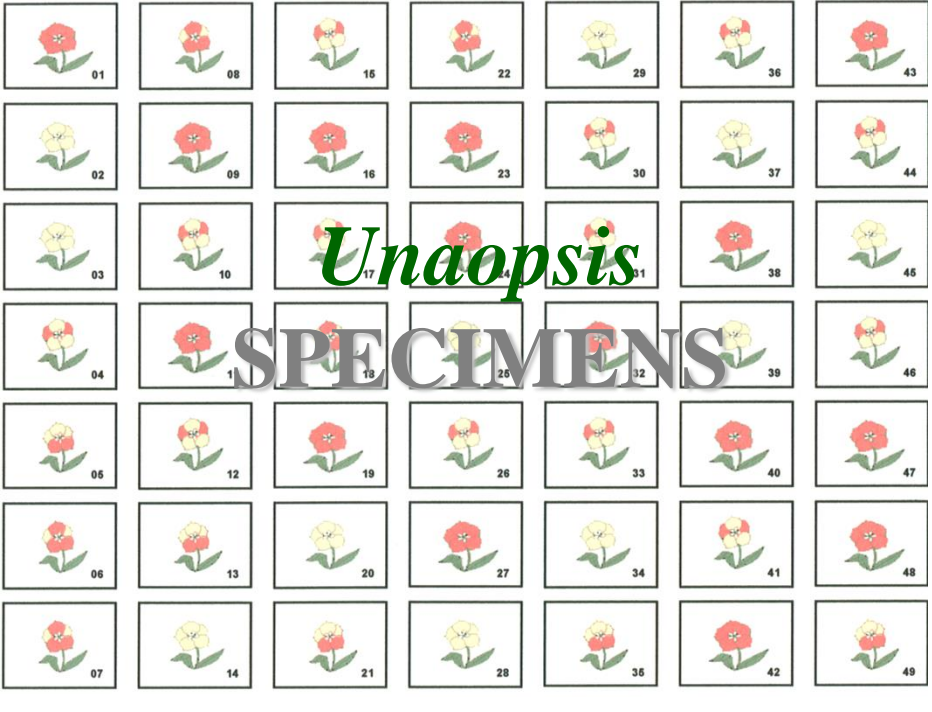
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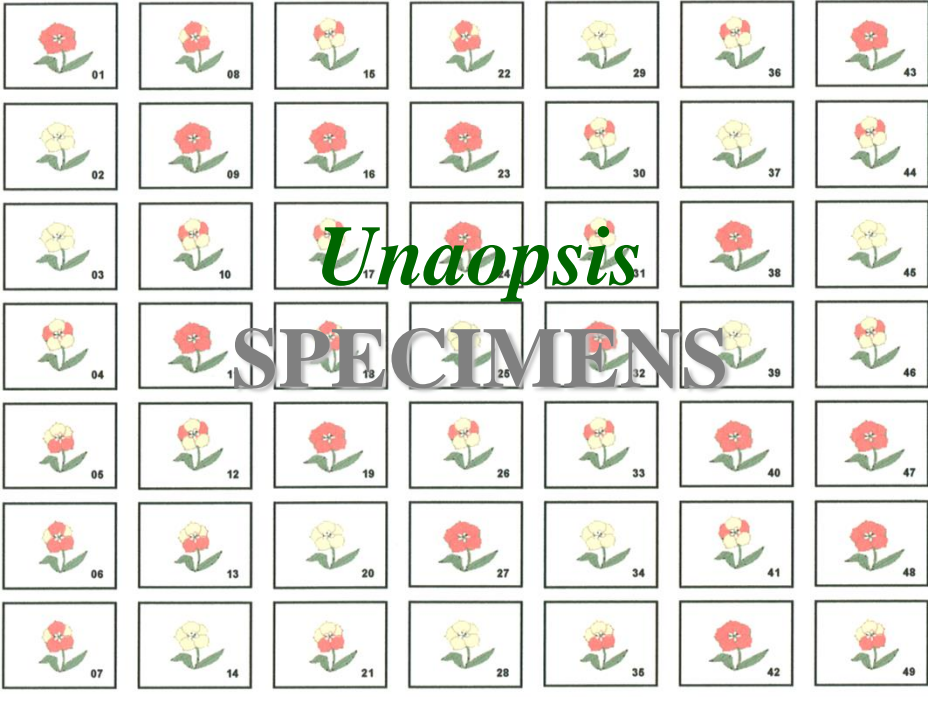
MACROMORPHOLOGICAL

TOOLS





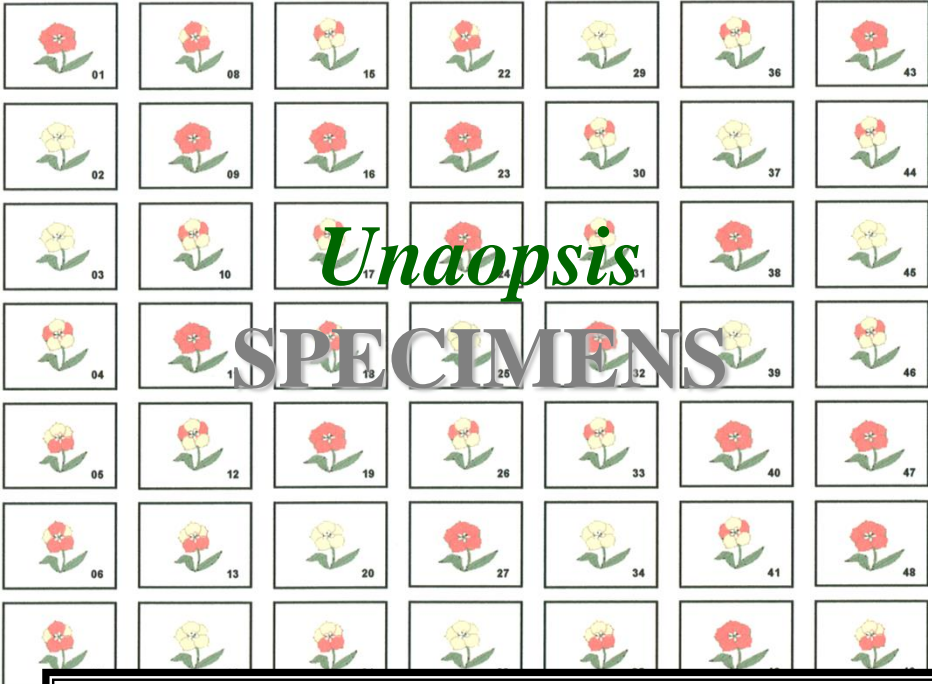




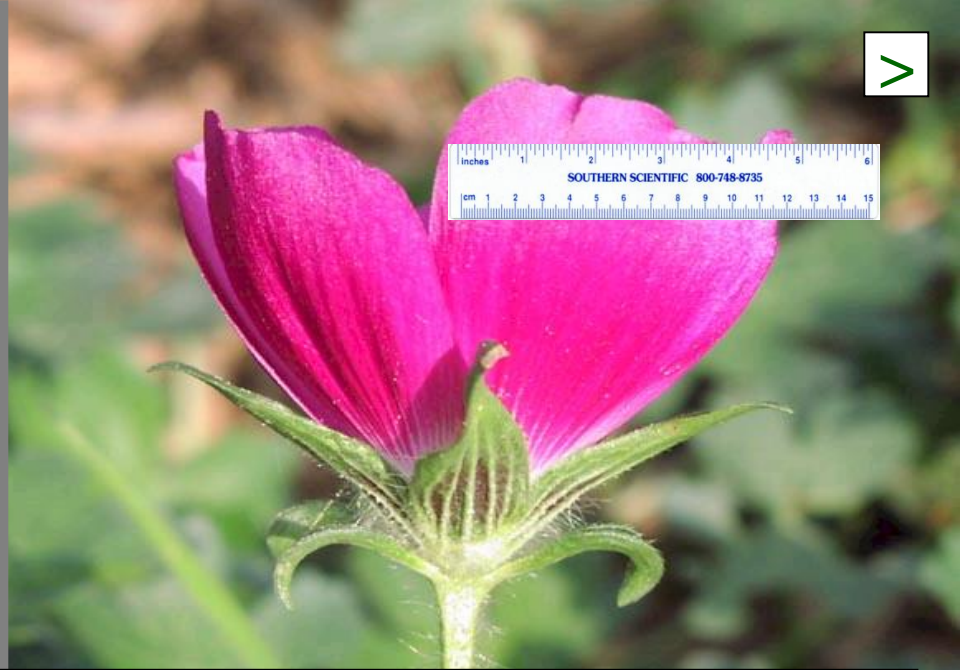
Unaopsis
SPECIMENS



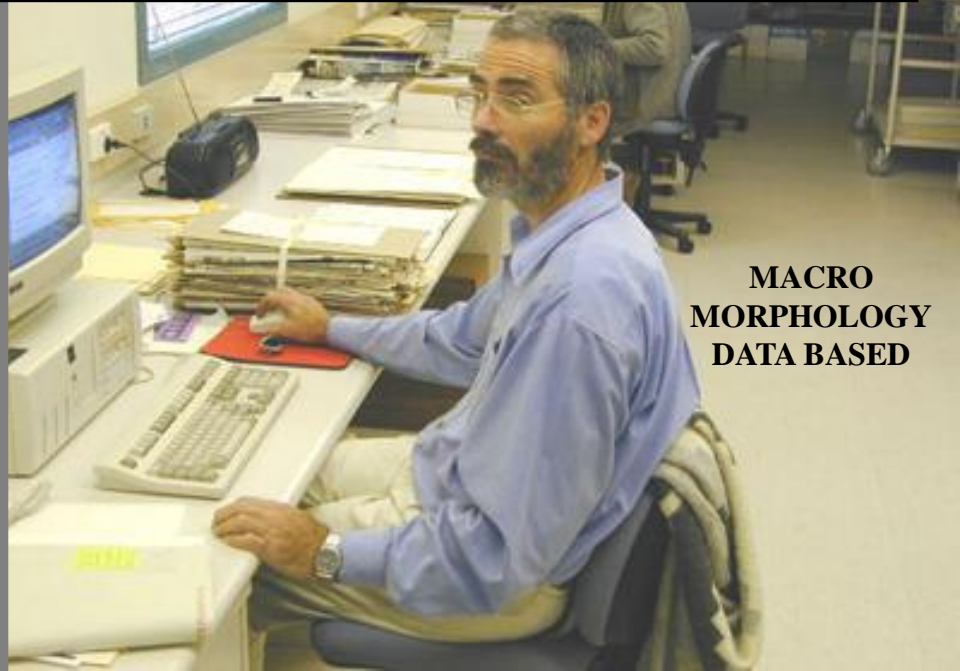
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DATA BASED**



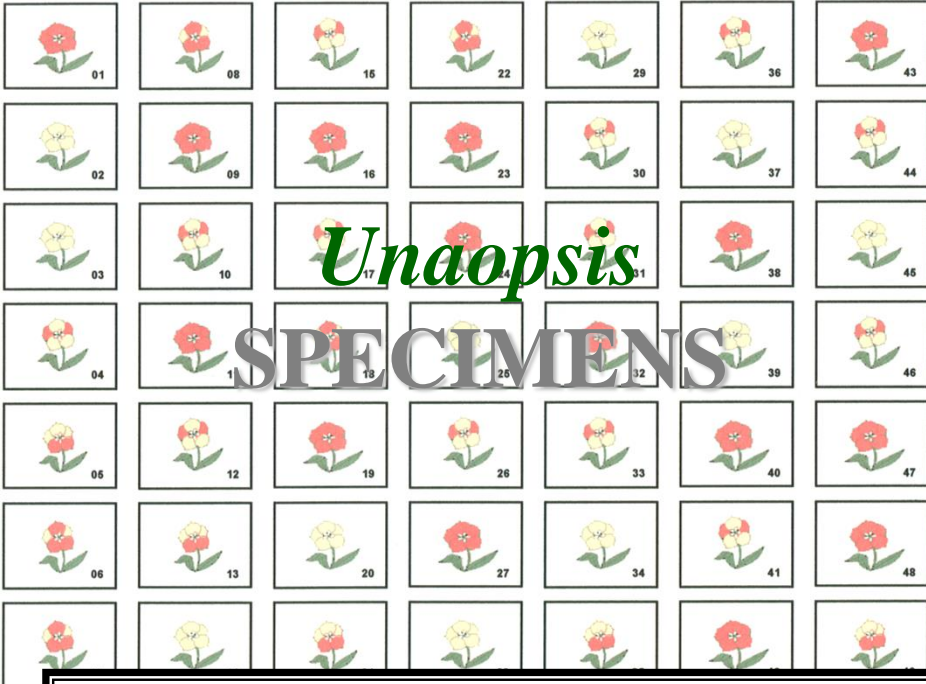
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TRADITIONAL RESEARCH METHOD



MACRO
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DATA BASED

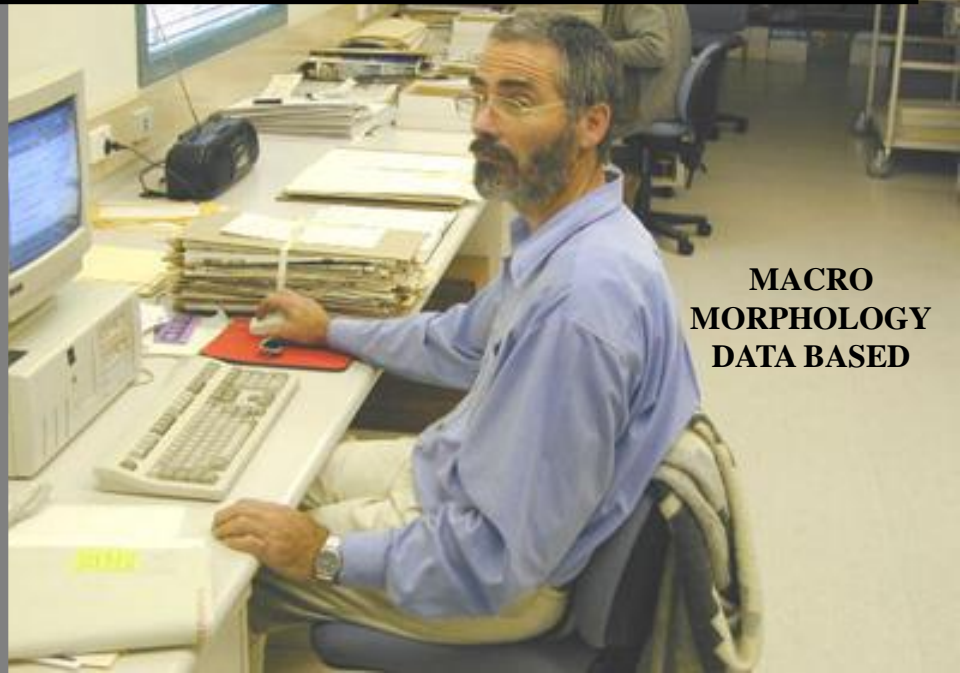


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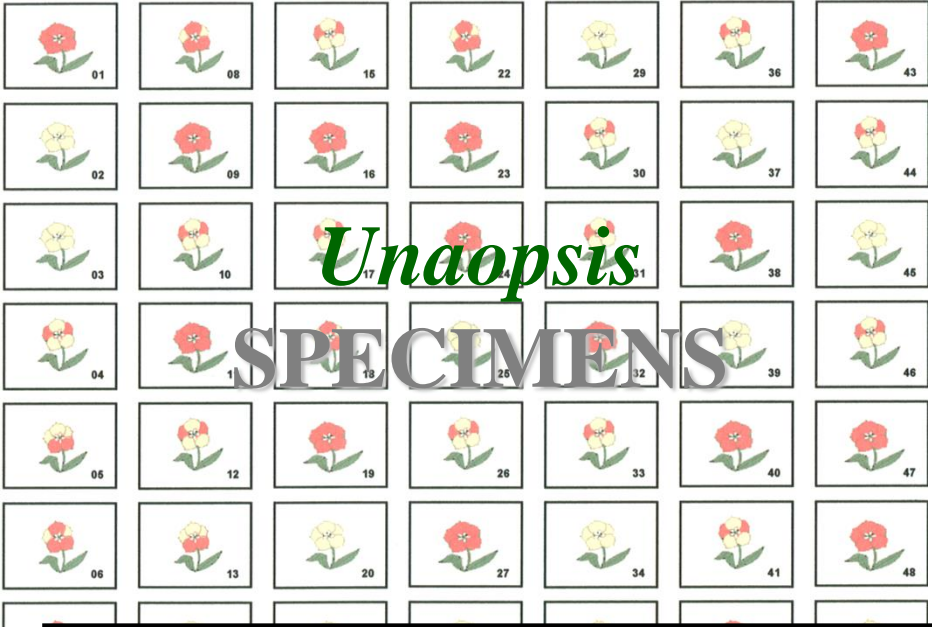
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REQUIRED CONTEMPORARY MONOGRAPHS



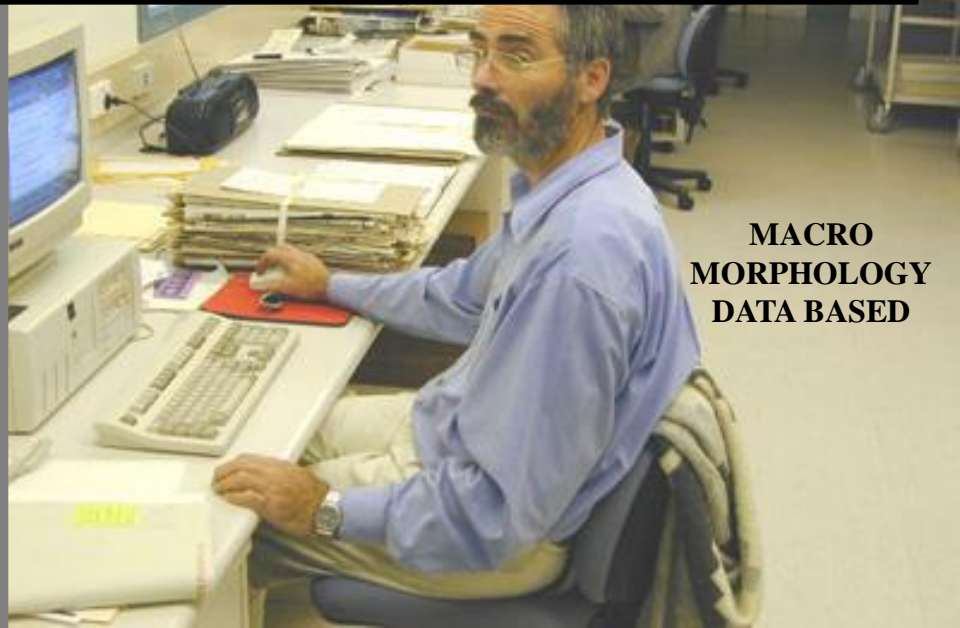
**MACRO
MORPHOLOGY
DATA BASED**



Unaopsis
SPECIMENS



**MONOGRAPHERS MUST SELECT
ONE ADDITIONAL METHOD**



**MACRO
MORPHOLOGY
DATA BASED**

MICRO MORPHOLOGICAL METHOD

**MICRO
MORPHOLOGICAL
METHOD**

MICRO-MORPHOLOGICAL⁺ METHOD

**QUALITATIVE AND QUANTITATIVE MEASURES OF
MICRO-MORPHOLOGICAL FLORAL
CHARACTERS**

MACRO-MORPHOLOGICAL METHOD

MICRO-MORPHOLOGICAL[^] METHOD

**QUALITATIVE AND QUANTITATIVE MEASURES OF
MICRO-MORPHOLOGICAL FLORAL
CHARACTERS
&
MICRO-MORPHOLOGICAL VEGETATIVE
CHARACTERS**

MACRO-MORPHOLOGICAL METHOD

**MICRO
MORPHOLOGICAL
METHOD
TOOLS**

MACRO-MORPHOLOGICAL⁺ TOOLS

ELECTRON MICROSCOPE

**MACROMORPHOLOGICAL
TOOLS**

MACRO-MORPHOLOGICAL⁺ TOOLS

**ELECTRON MICROSCOPE
MICROMETER**

**MACROMORPHOLOGICAL
TOOLS**

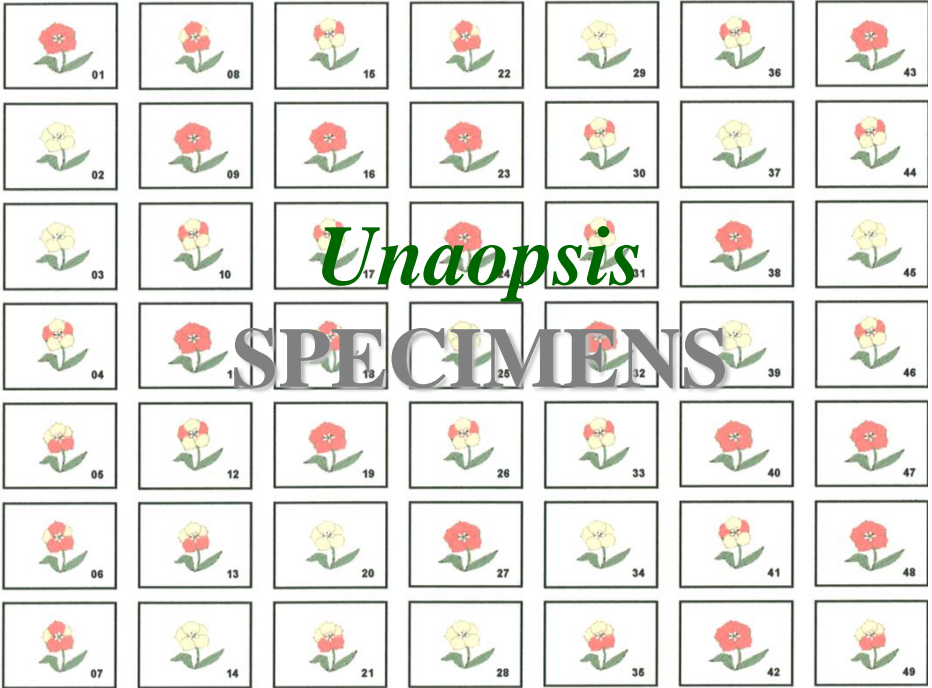
MACRO-MORPHOLOGICAL

TOOLS

ELECTRON MICROSCOPE
MICROMETER
DATA BASE

MACROMORPHOLOGICAL

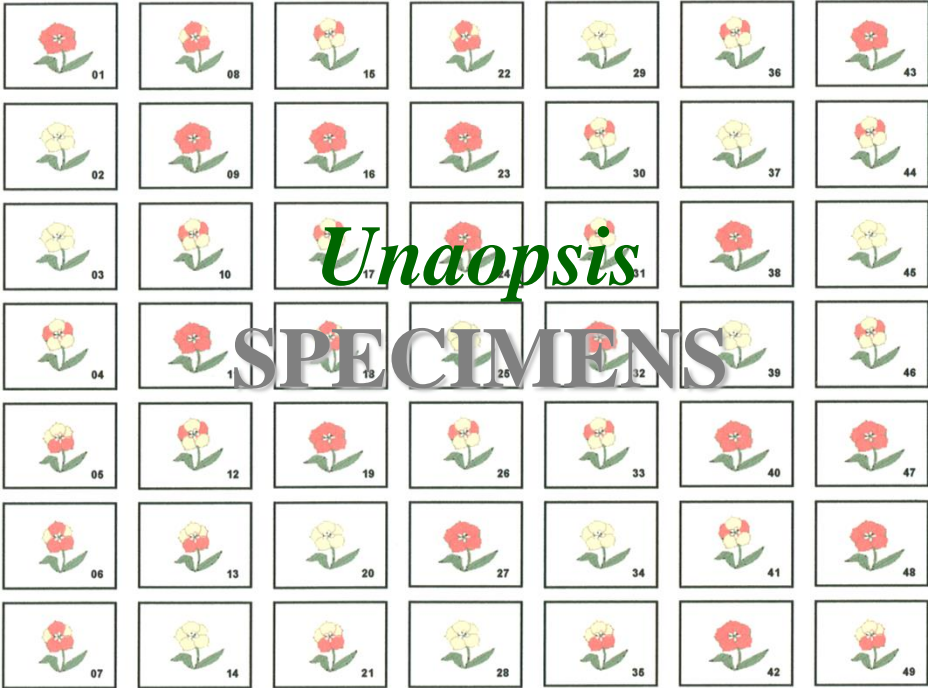
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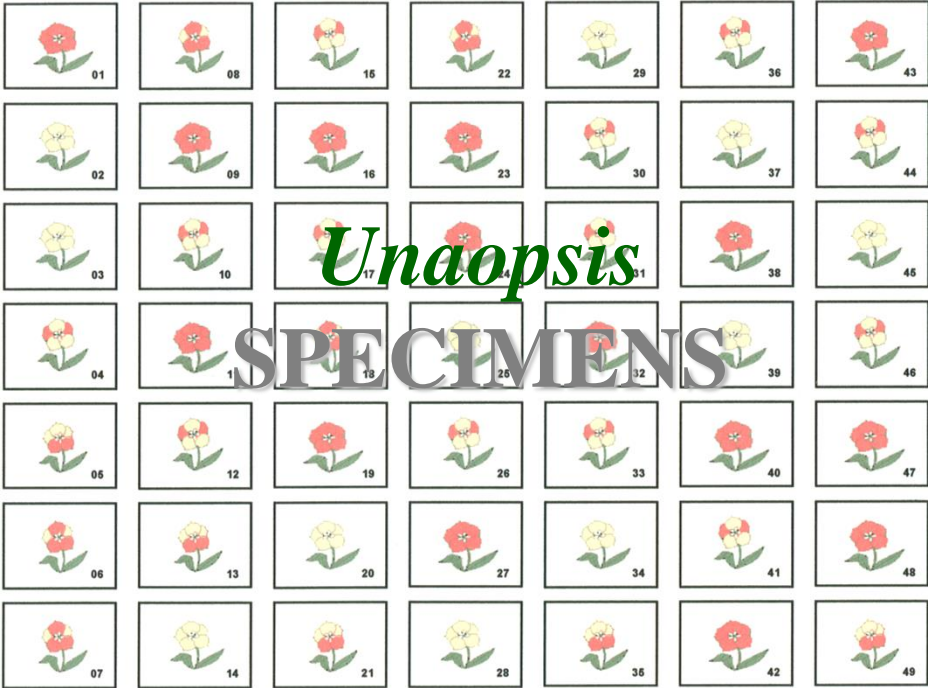


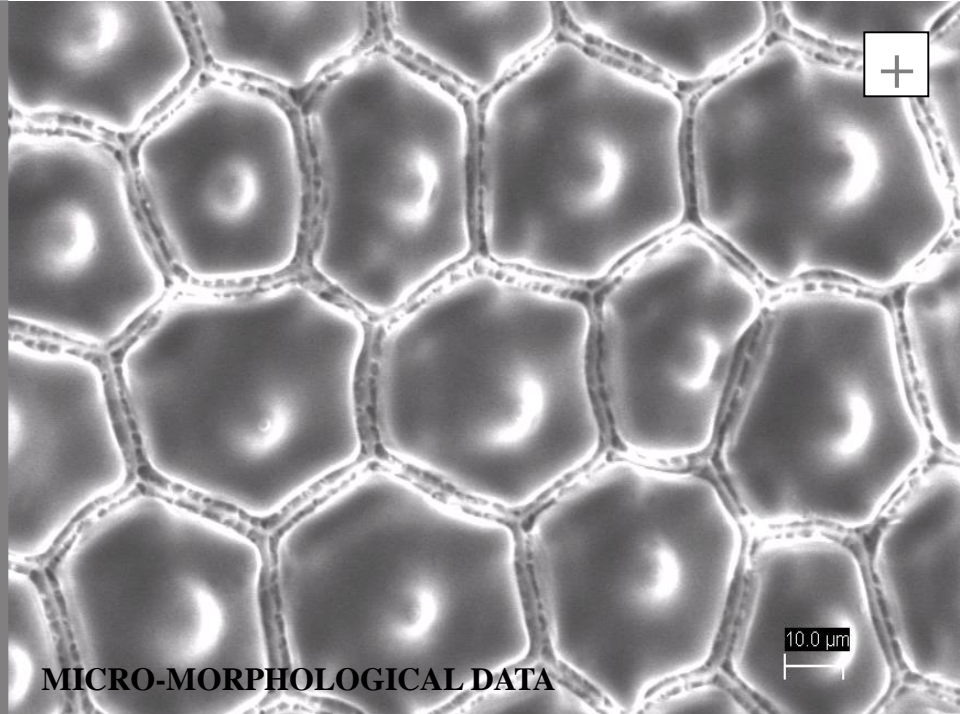
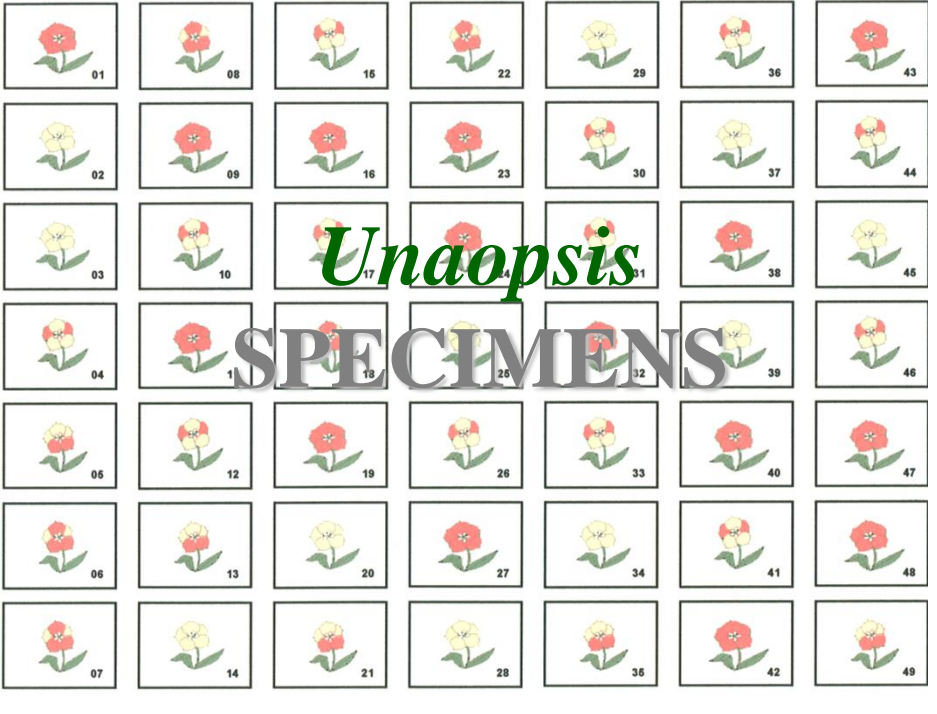
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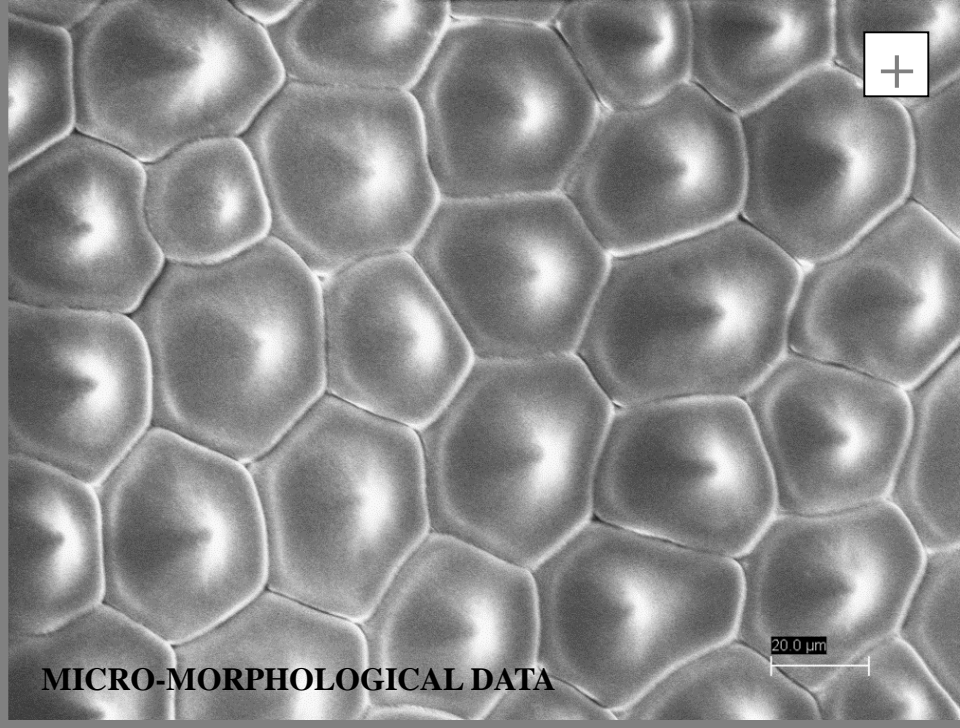
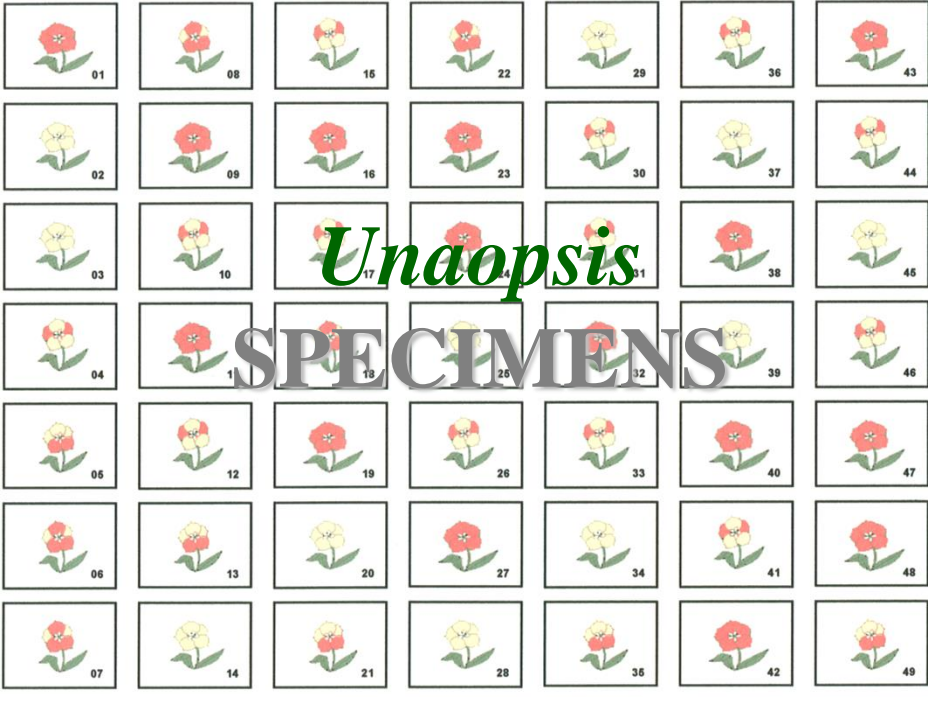
SPECIMENS

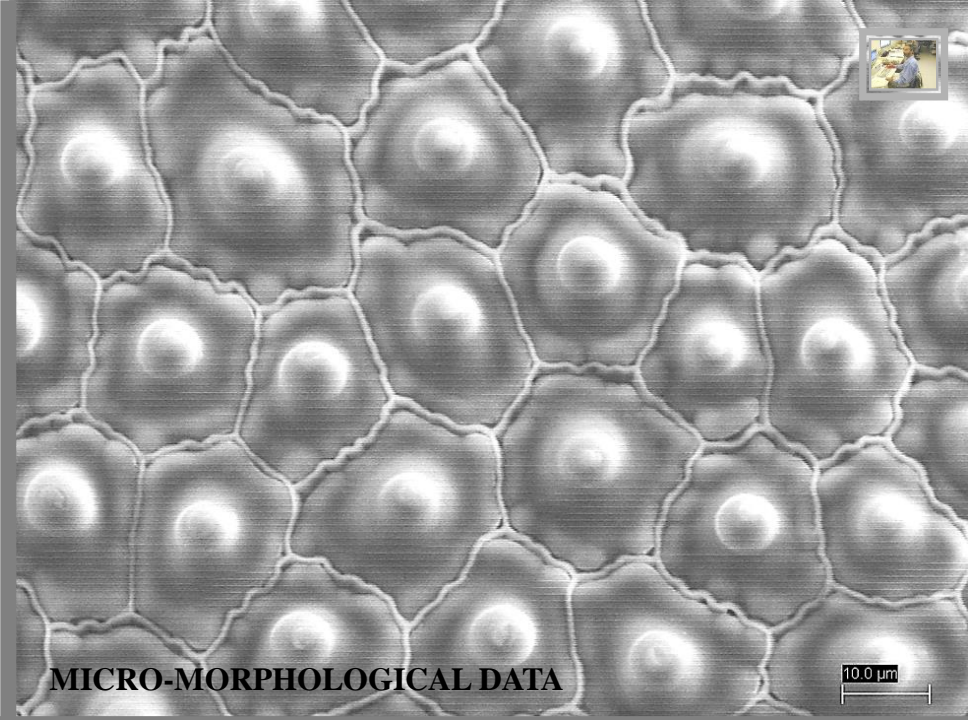
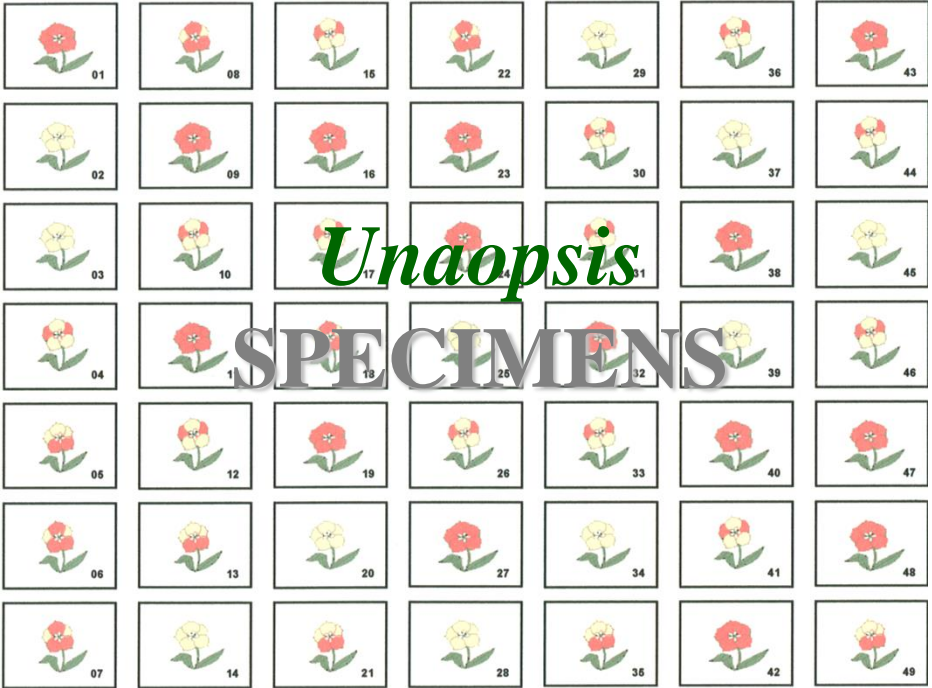


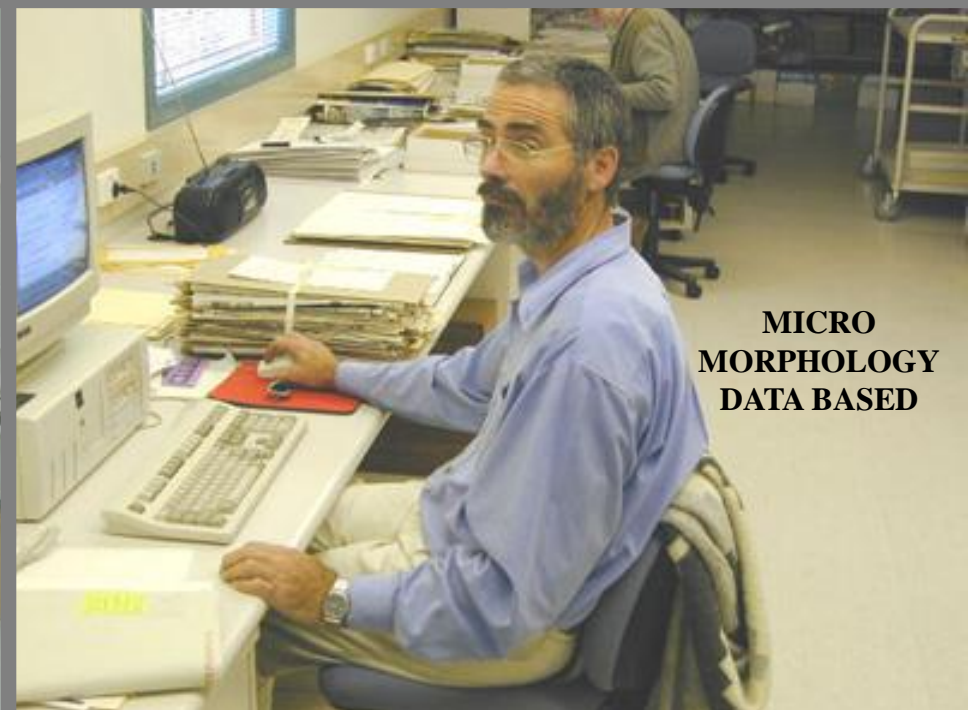
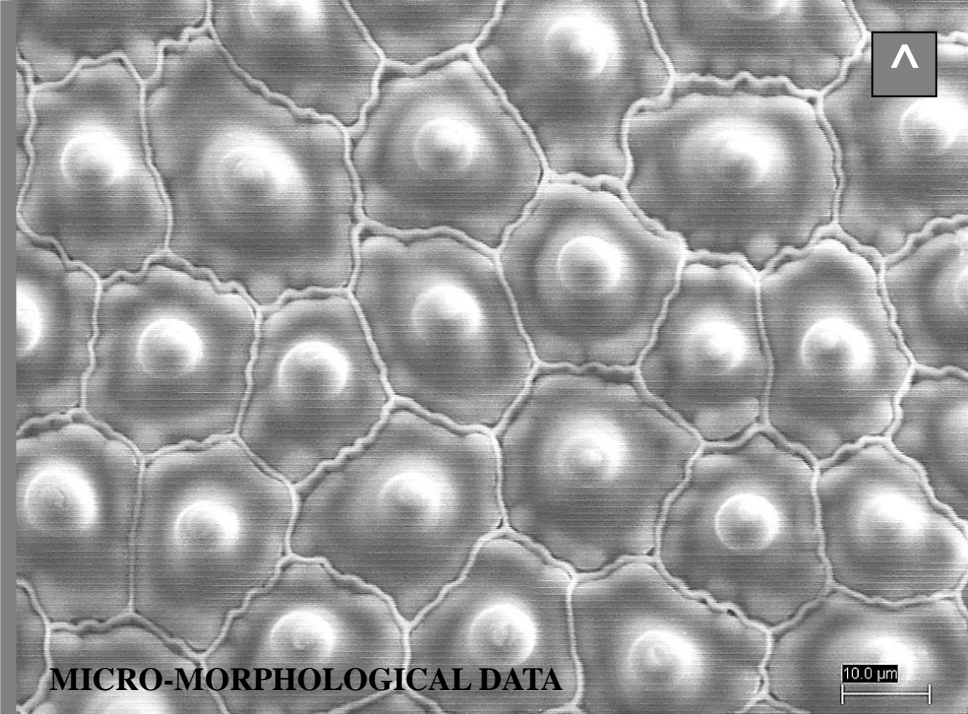
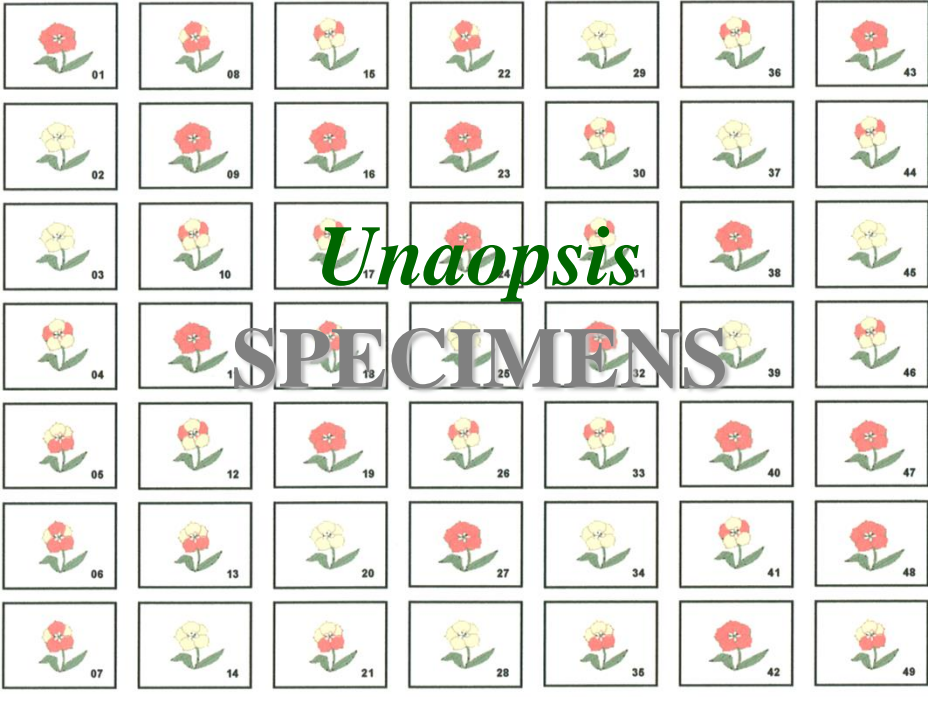












KARYOTYPE METHOD

KARYOTYPE METHOD

KARYOTYPE METHOD



CHROMOSOME CHARACTERS

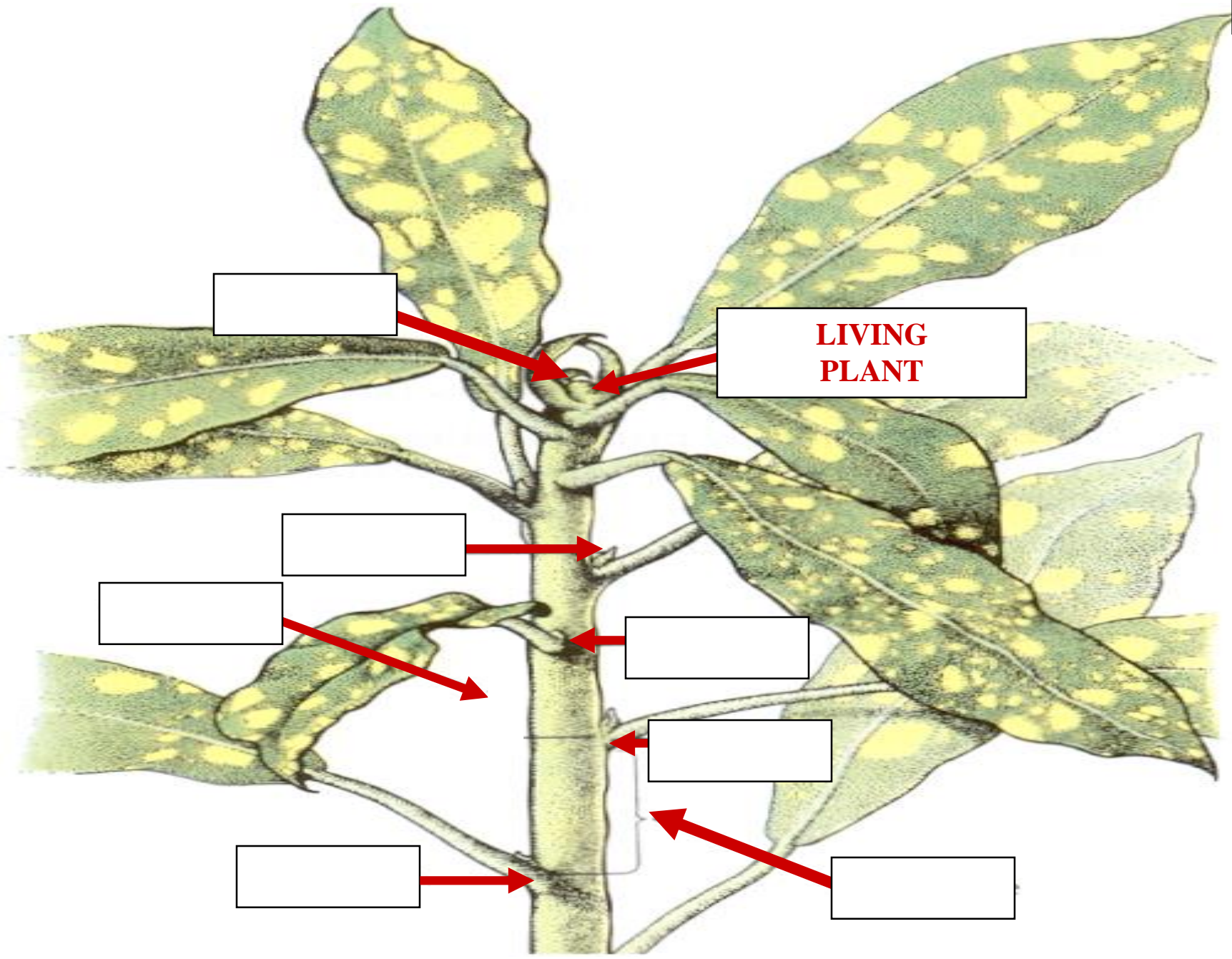
KARYOTYPE METHOD

KARYOTYPE METHOD



**CHROMOSOME CHARACTERS
OBSERVE: SOMATIC CELL
DURING MITOSIS PROPHASE**

KARYOTYPE METHOD



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**LIVING
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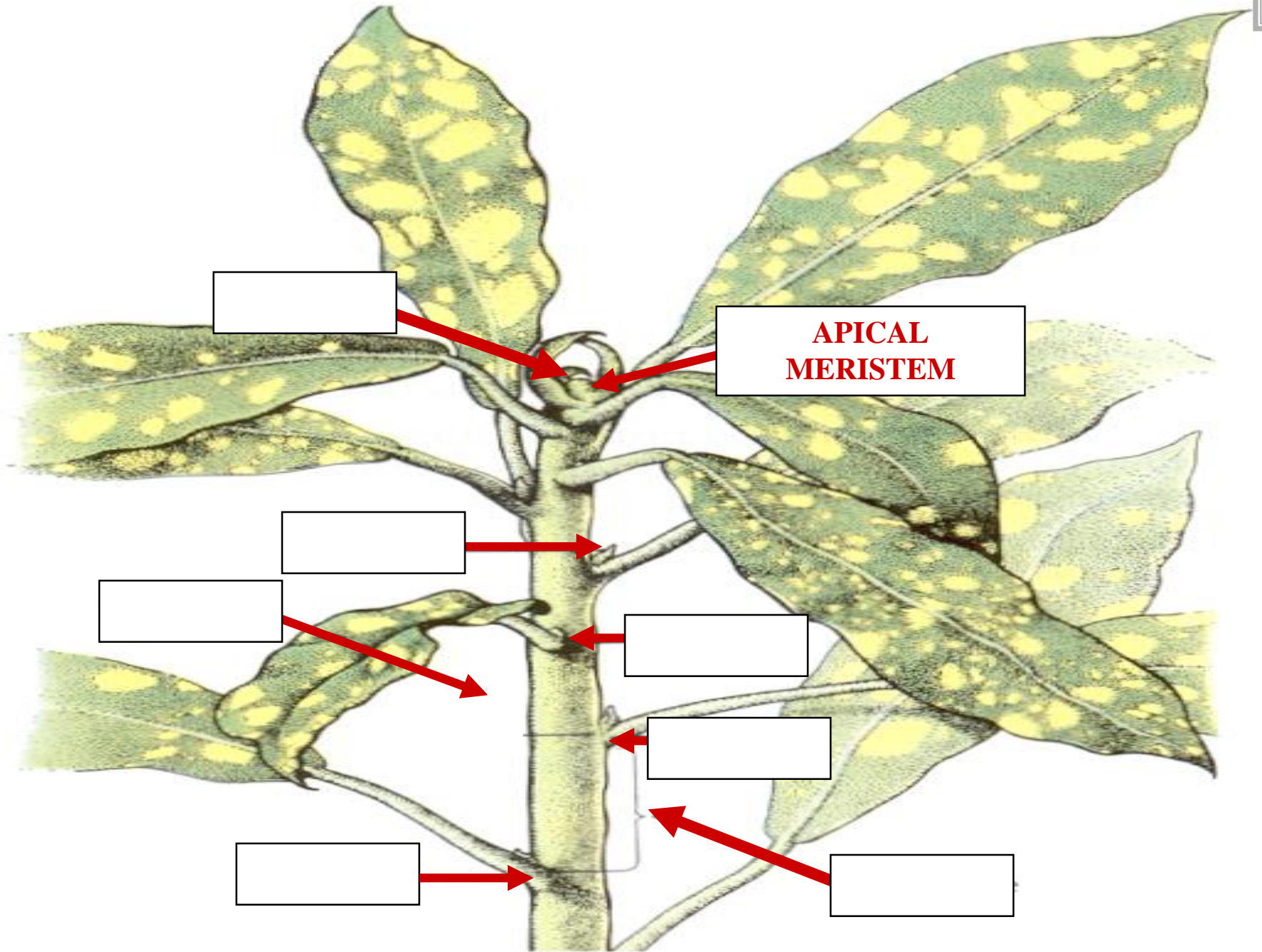
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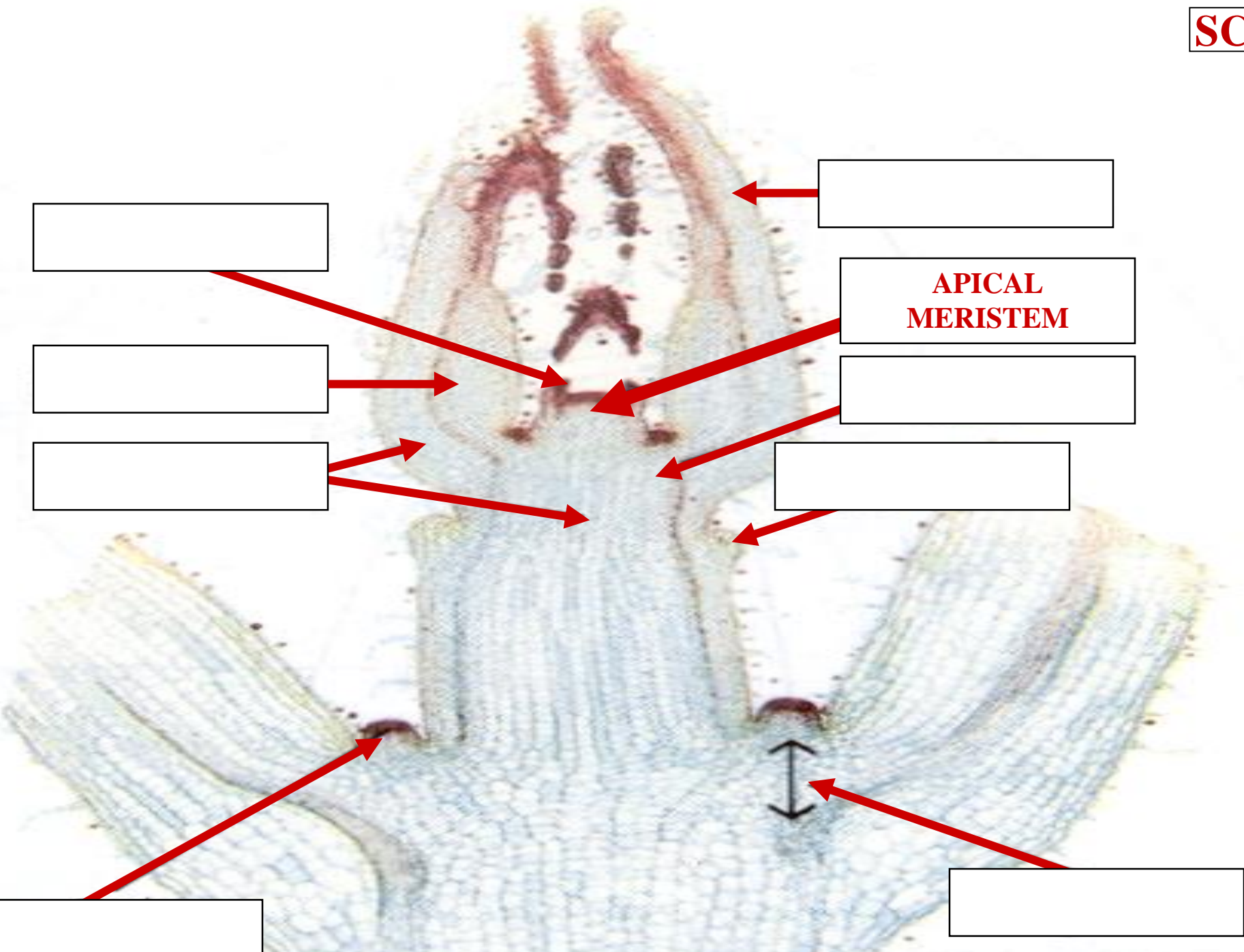
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**APICAL
MERISTEM**

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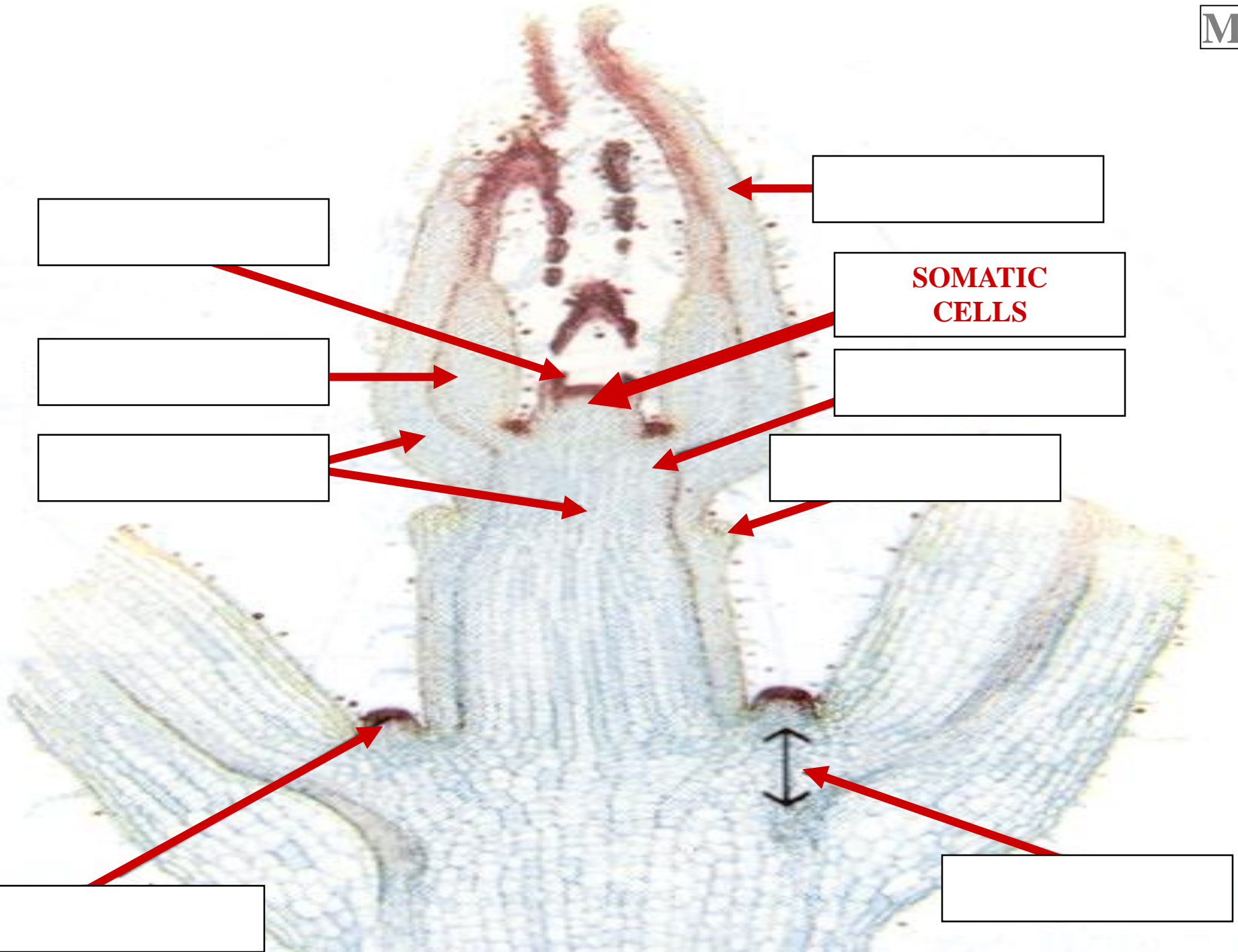
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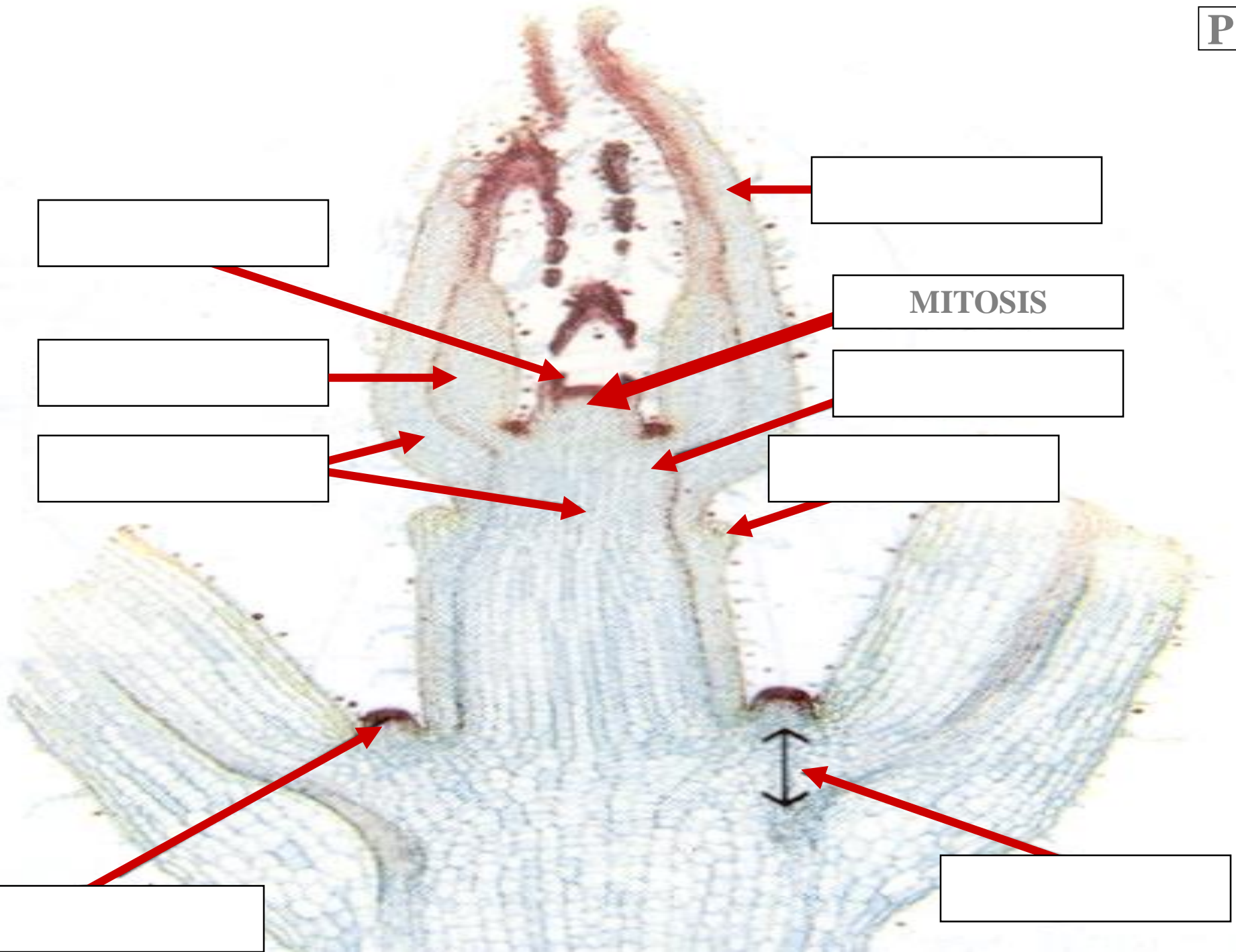
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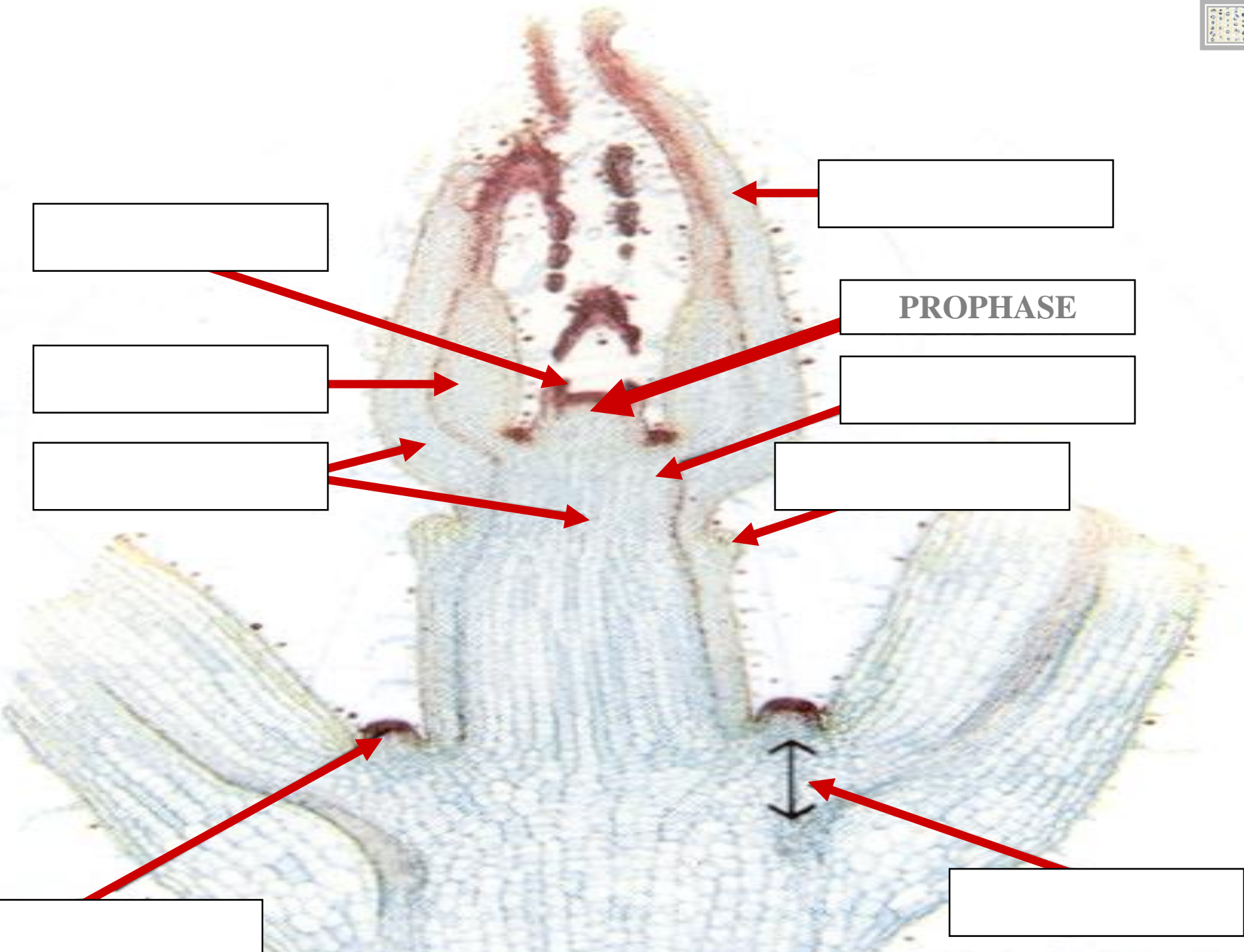
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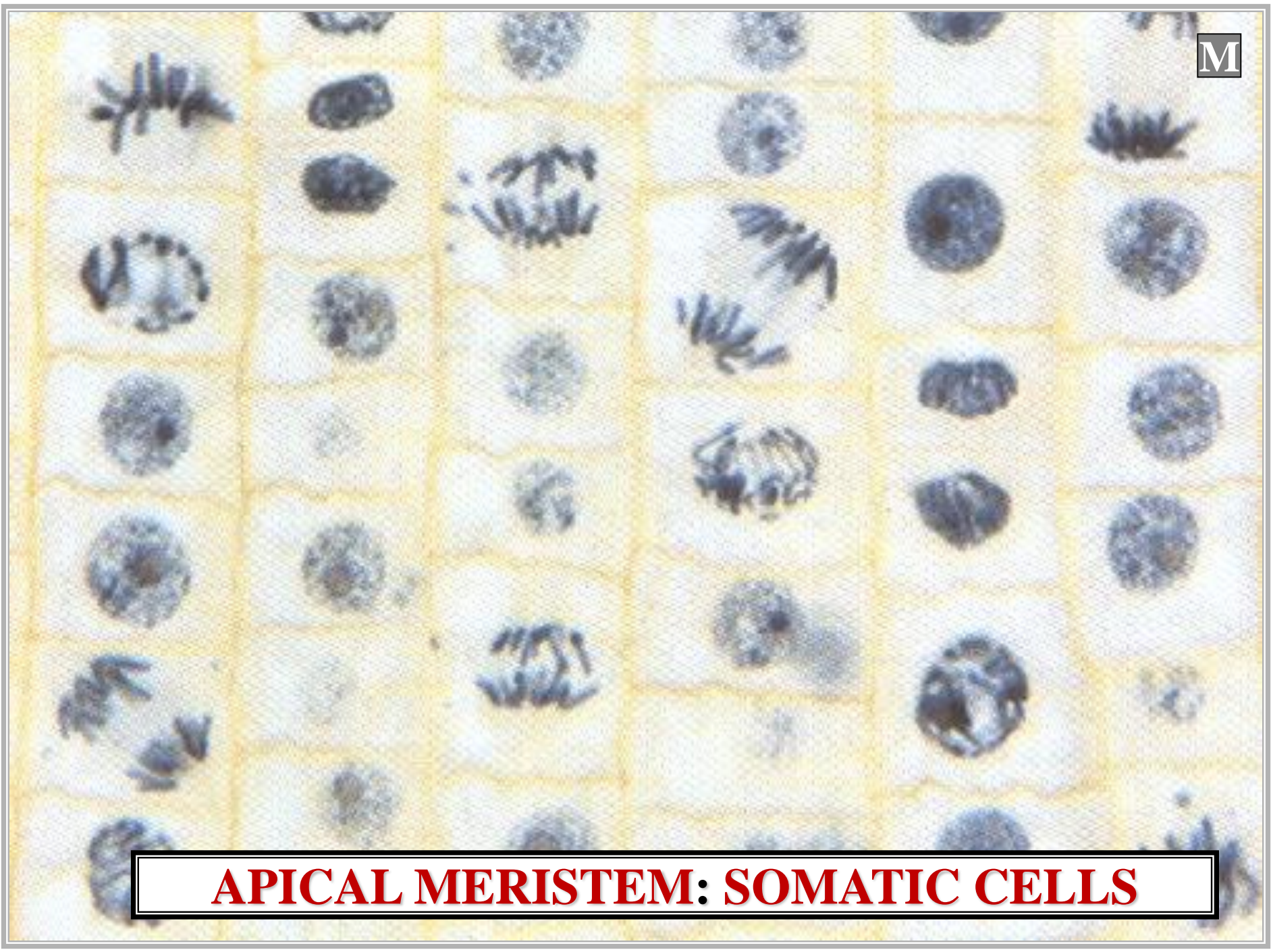
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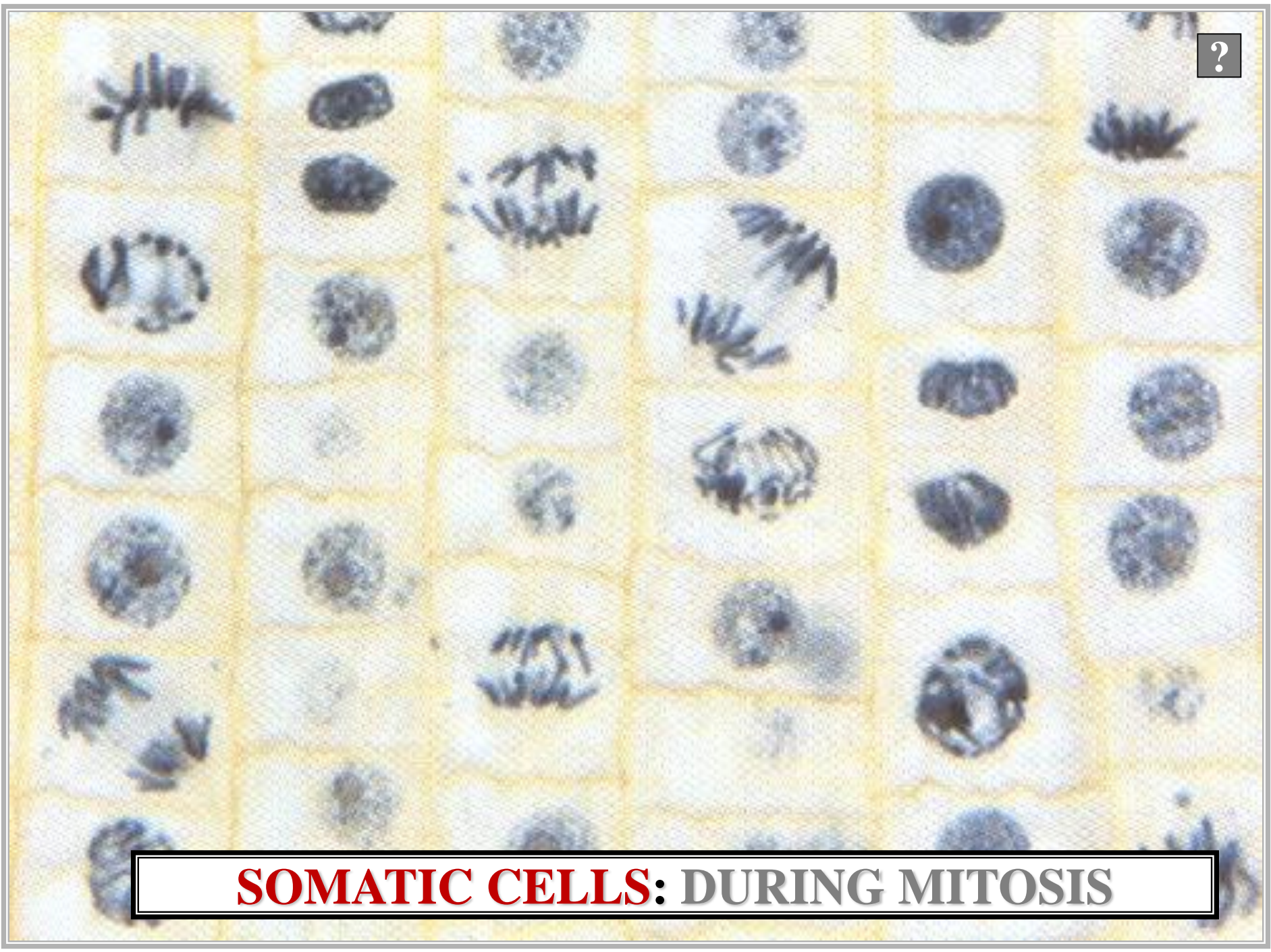
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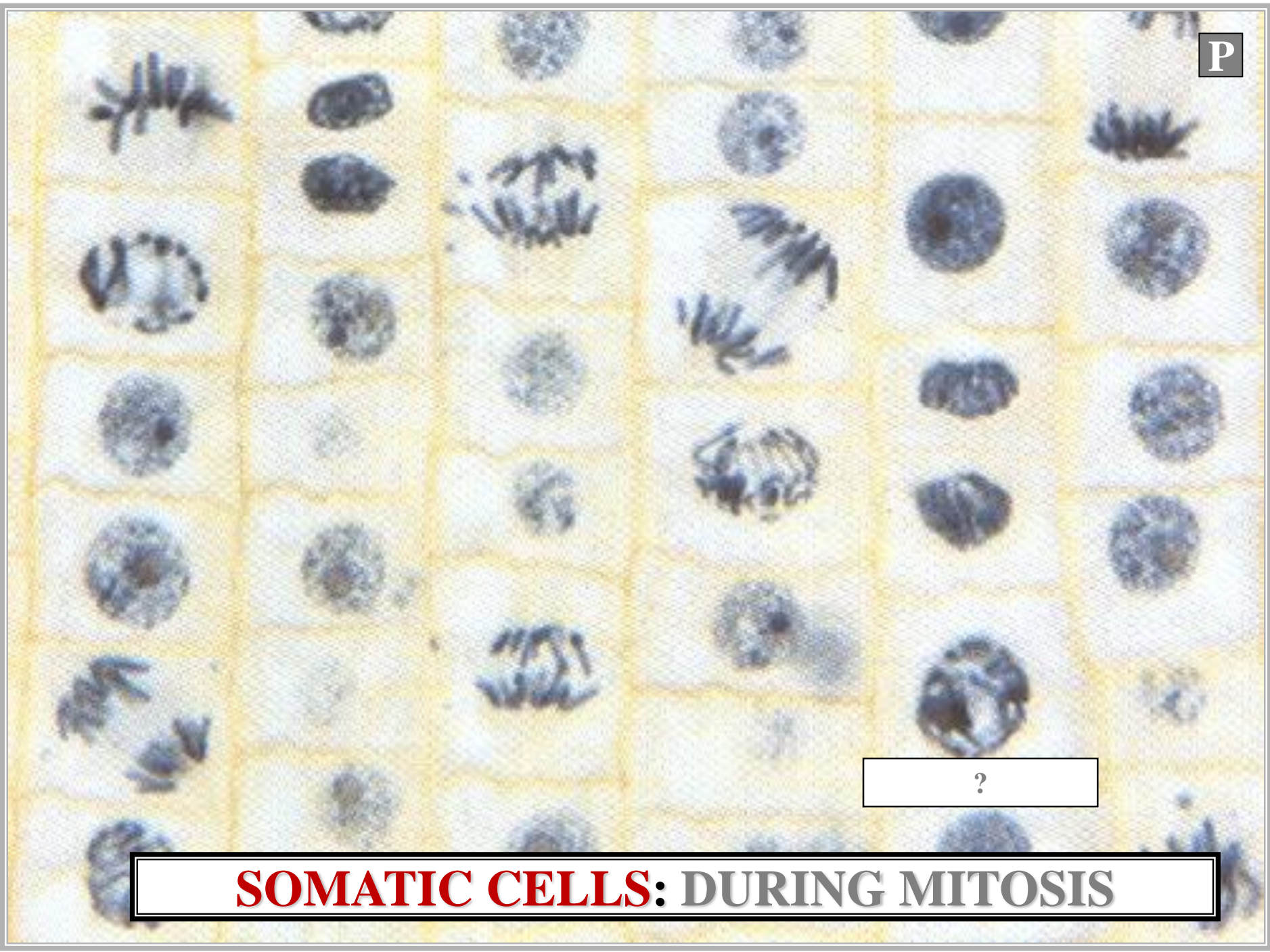
APICAL MERISTEM: SOMATIC CELLS



?

SOMATIC CELLS: DURING MITOSIS





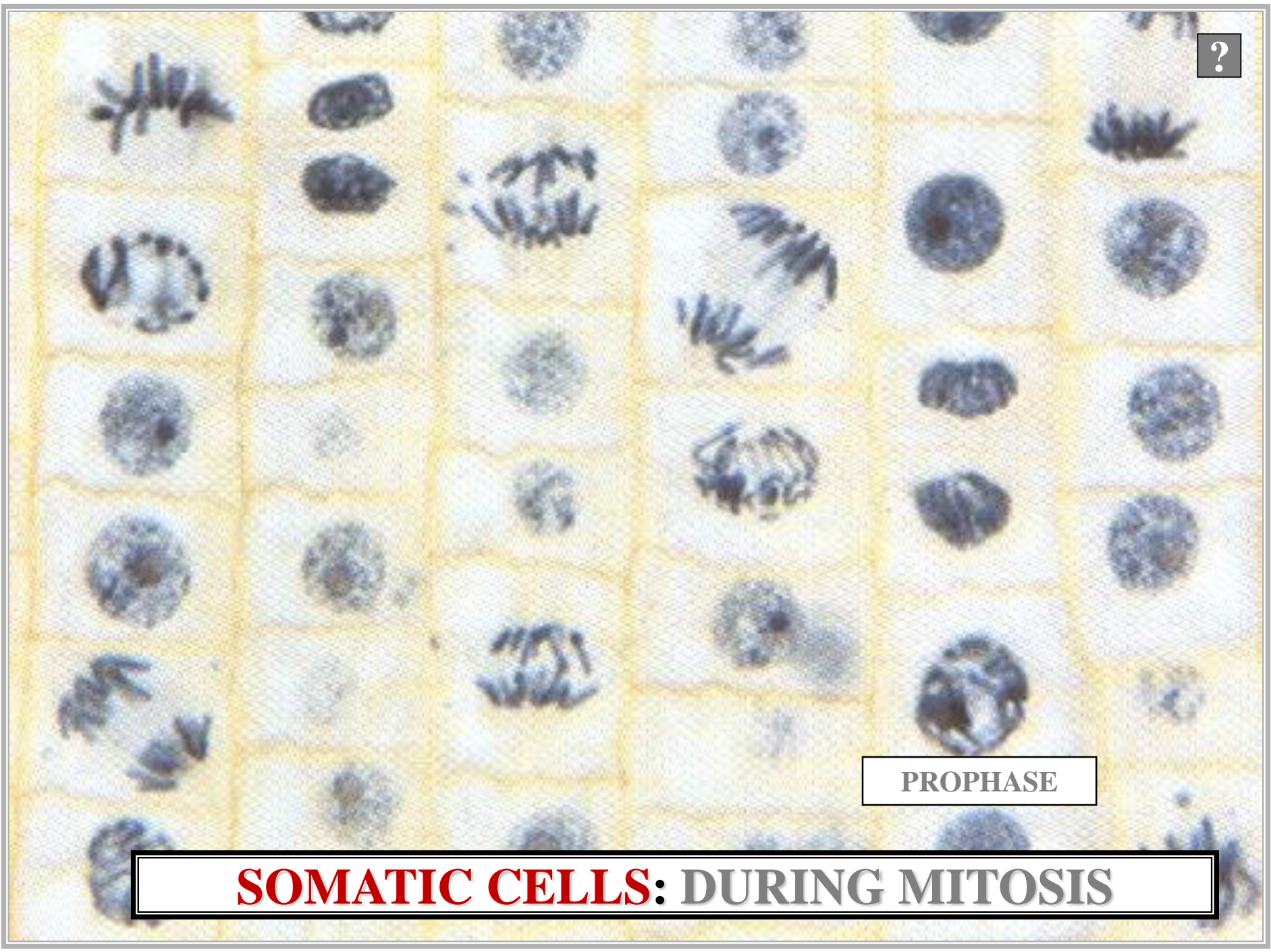
?

SOMATIC CELLS: DURING MITOSIS

?

PROPHASE

SOMATIC CELLS: DURING MITOSIS



A micrograph showing numerous somatic cells in various stages of mitosis, arranged on a yellow grid. The cells are stained, showing dark nuclei and chromosomes. Some cells are in prophase, with condensed chromosomes visible. A white box with a question mark is located in the upper left corner.

?

PROPHASE

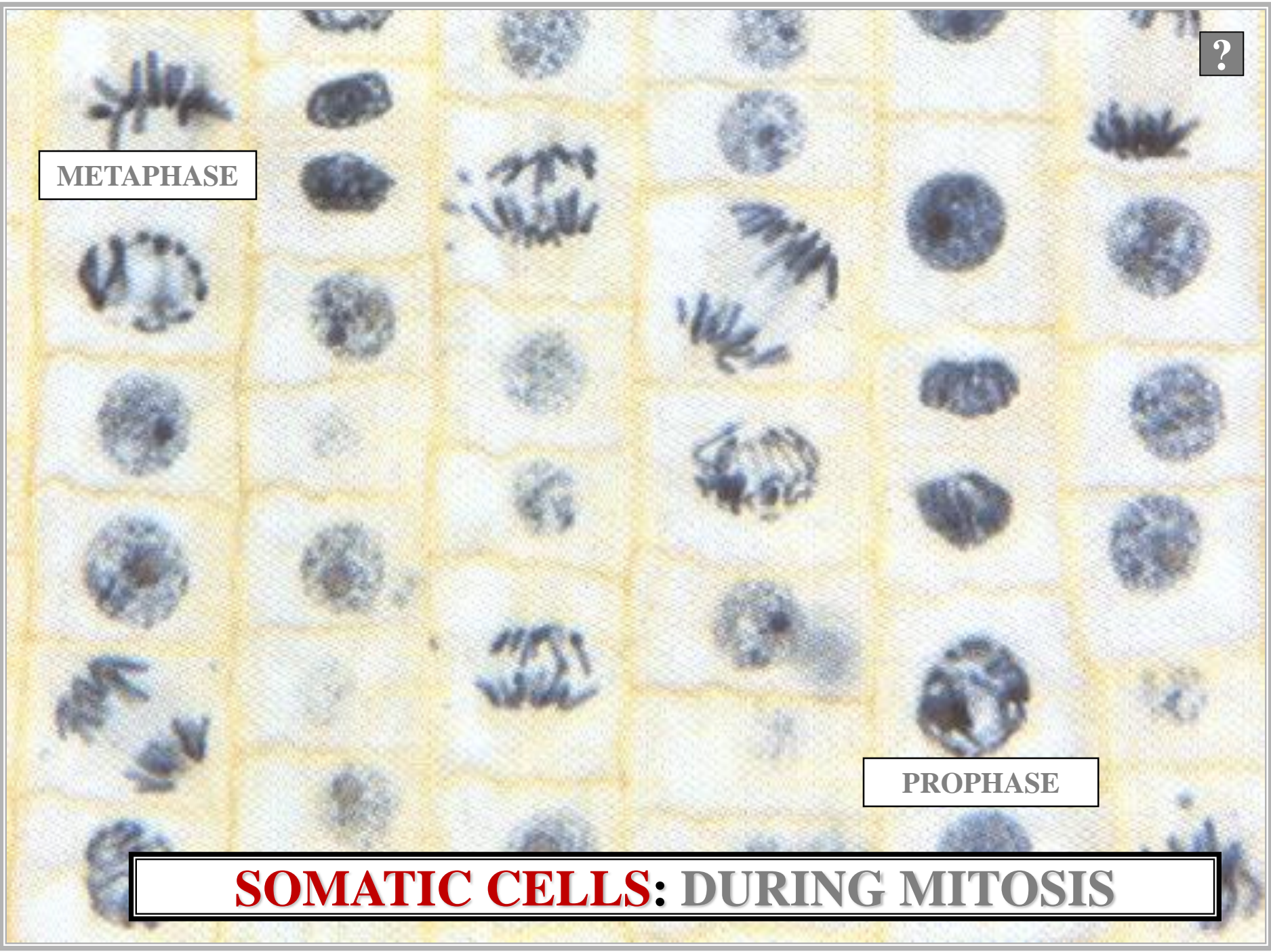
SOMATIC CELLS: DURING MITOSIS

?

METAPHASE

PROPHASE

SOMATIC CELLS: DURING MITOSIS



A micrograph showing a grid of somatic cells in various stages of mitosis. The cells are stained, showing dark chromosomes and lighter nuclei. The grid is composed of approximately 10 columns and 10 rows of cells. Several cells are labeled with text boxes. The label 'METAPHASE' is in the top left. Two boxes with question marks are in the center. The label 'PROPHASE' is in the bottom right. A large title box is at the very bottom.

METAPHASE

?

?

PROPHASE

SOMATIC CELLS: DURING MITOSIS

?

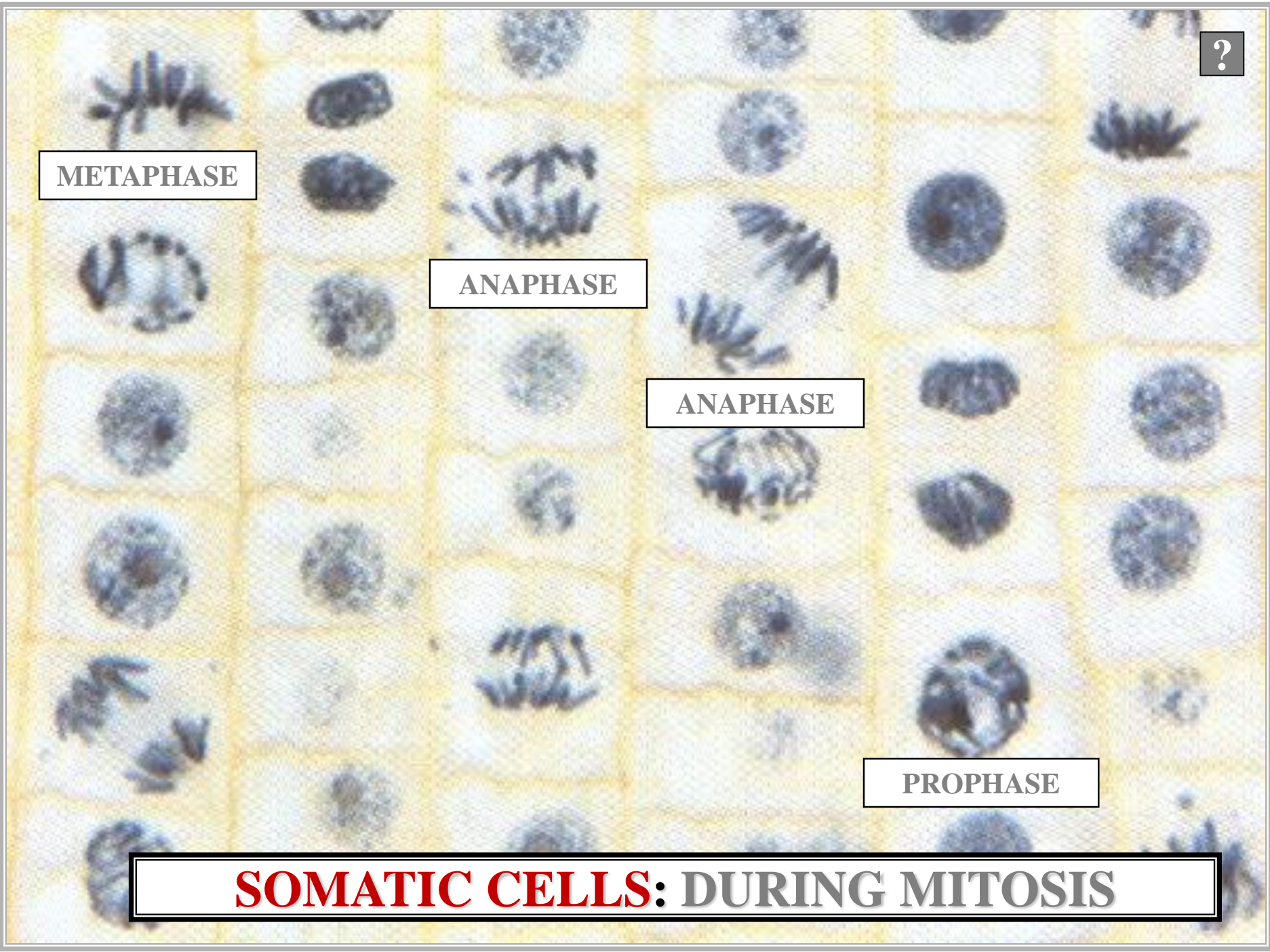
METAPHASE

ANAPHASE

ANAPHASE

PROPHASE

SOMATIC CELLS: DURING MITOSIS



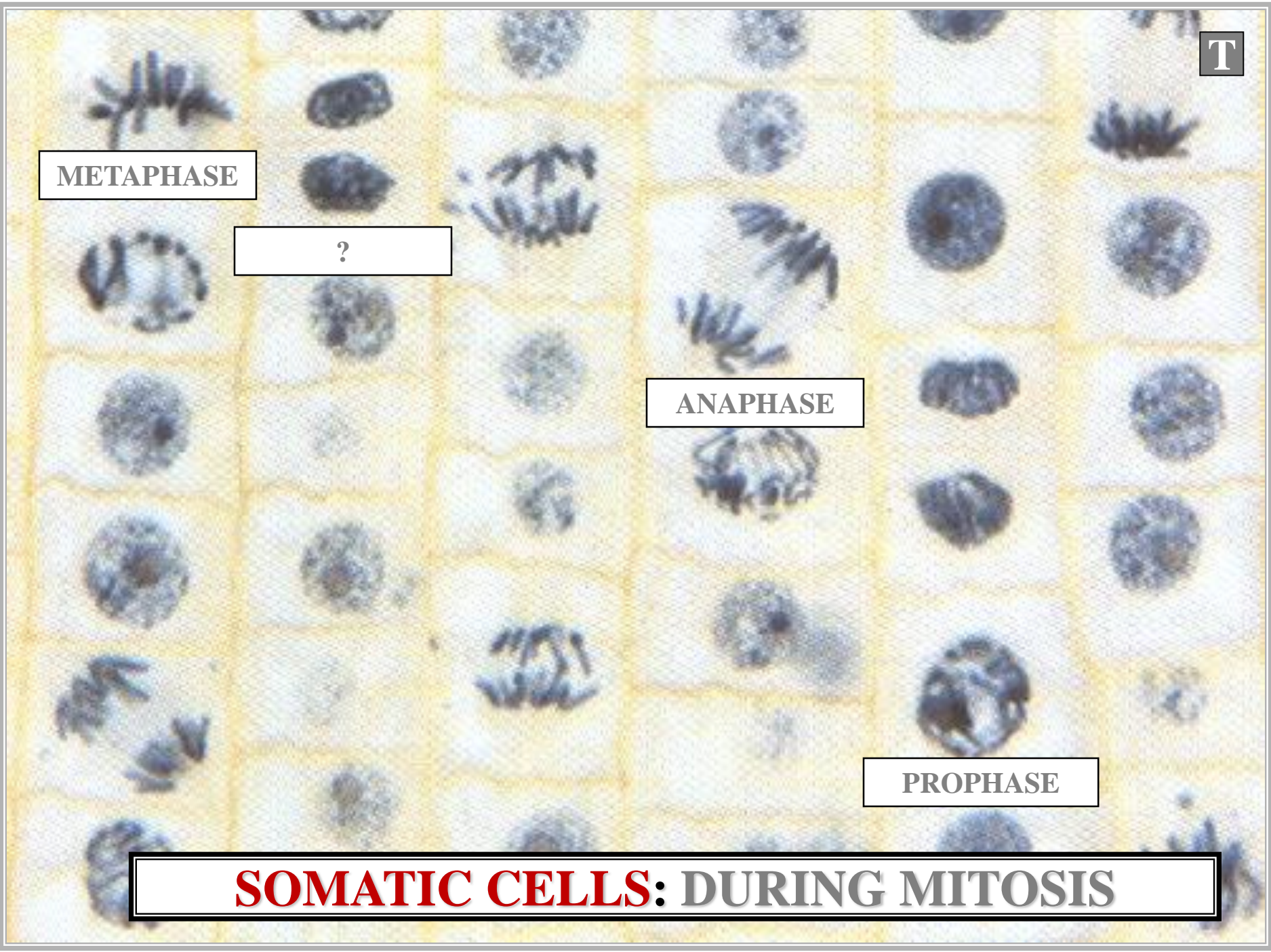
METAPHASE

?

ANAPHASE

PROPHASE

SOMATIC CELLS: DURING MITOSIS



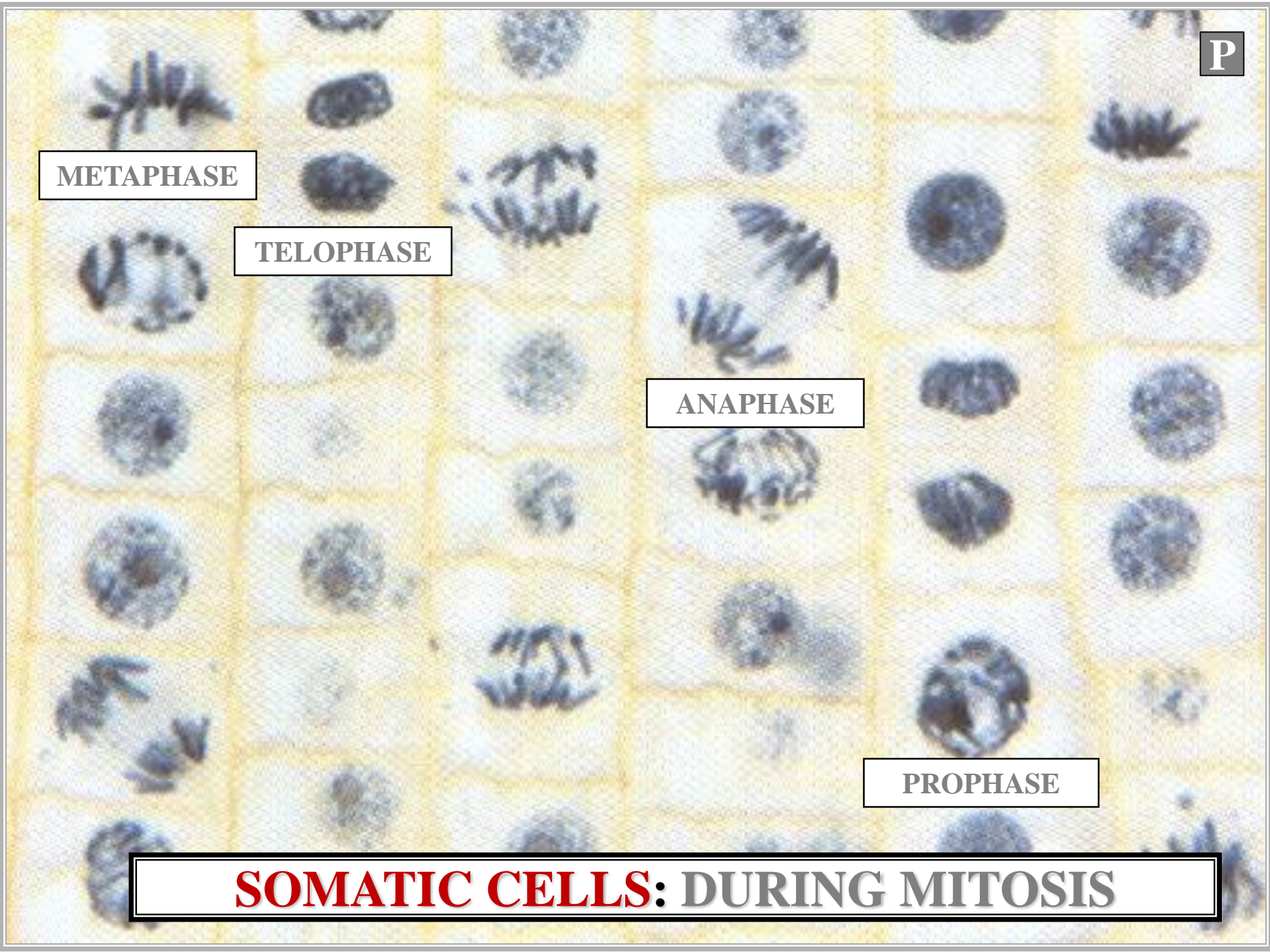
METAPHASE

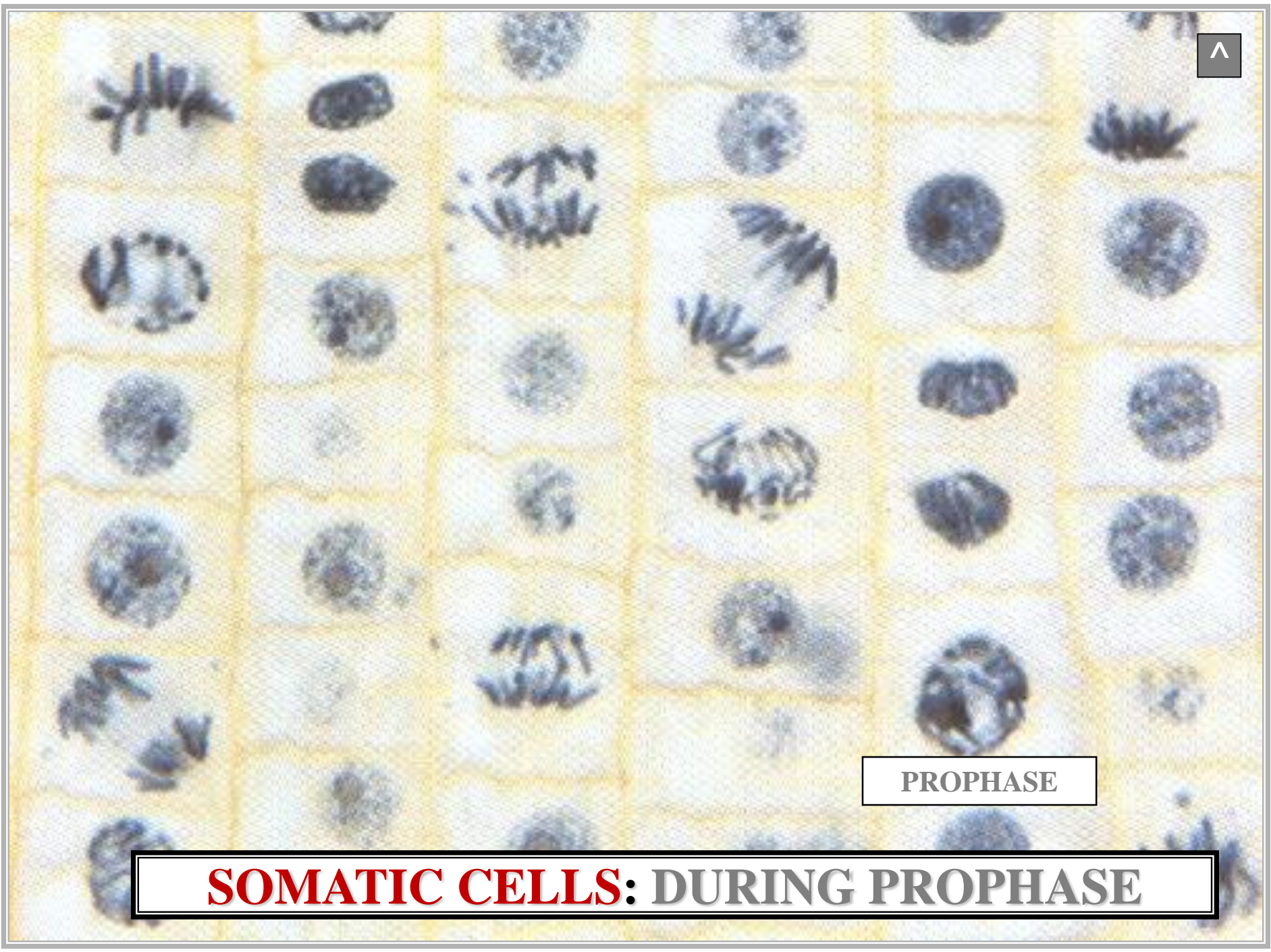
TELOPHASE

ANAPHASE

PROPHASE

SOMATIC CELLS: DURING MITOSIS





PROPHASE

SOMATIC CELLS: DURING PROPHASE



CHROMOSOME CHARACTERS

PROPHASE

CHROMOSOMES





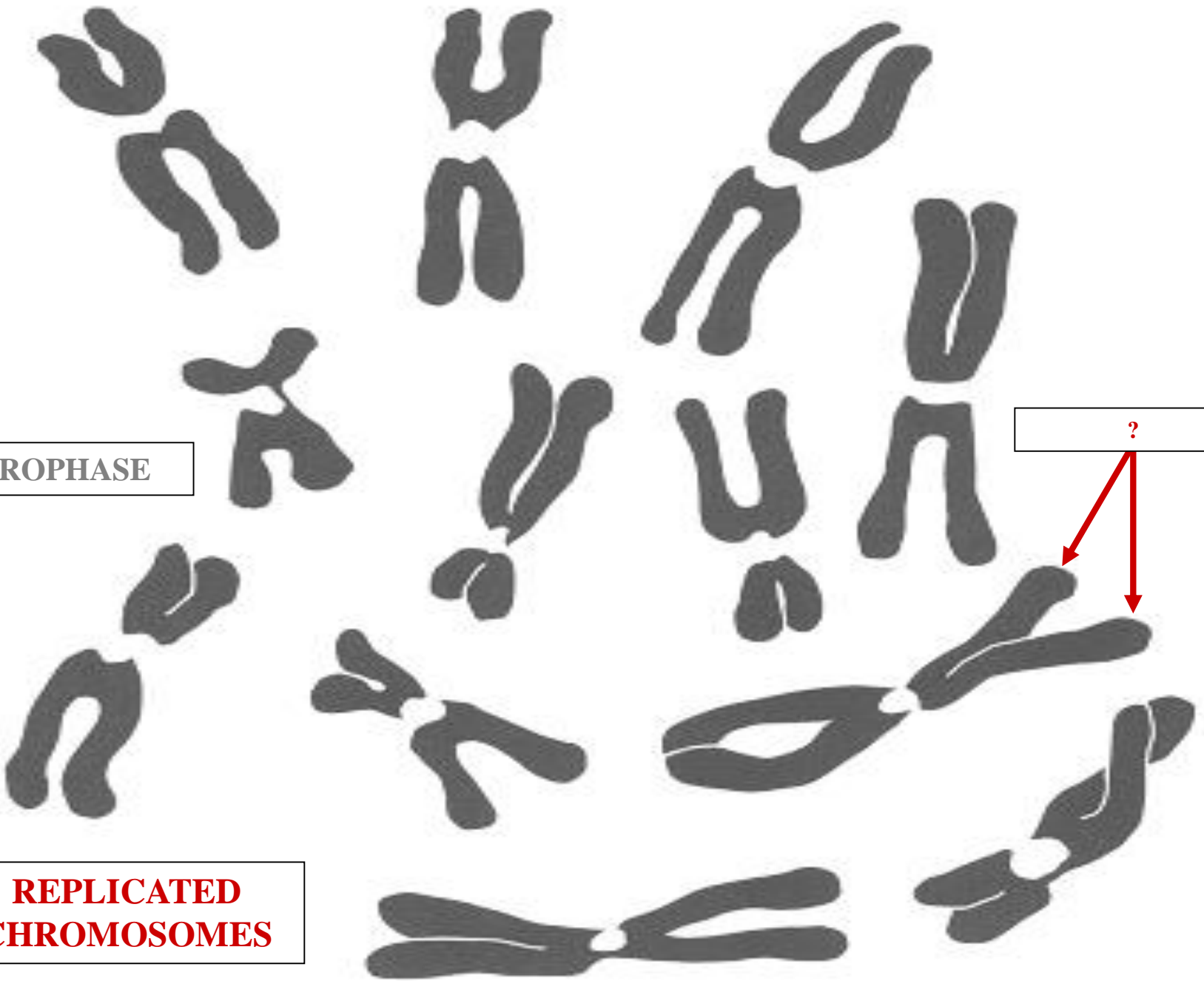
PROPHASE

**REPLICATED
CHROMOSOMES**



PROPHASE

REPLICATED
CHROMOSOMES

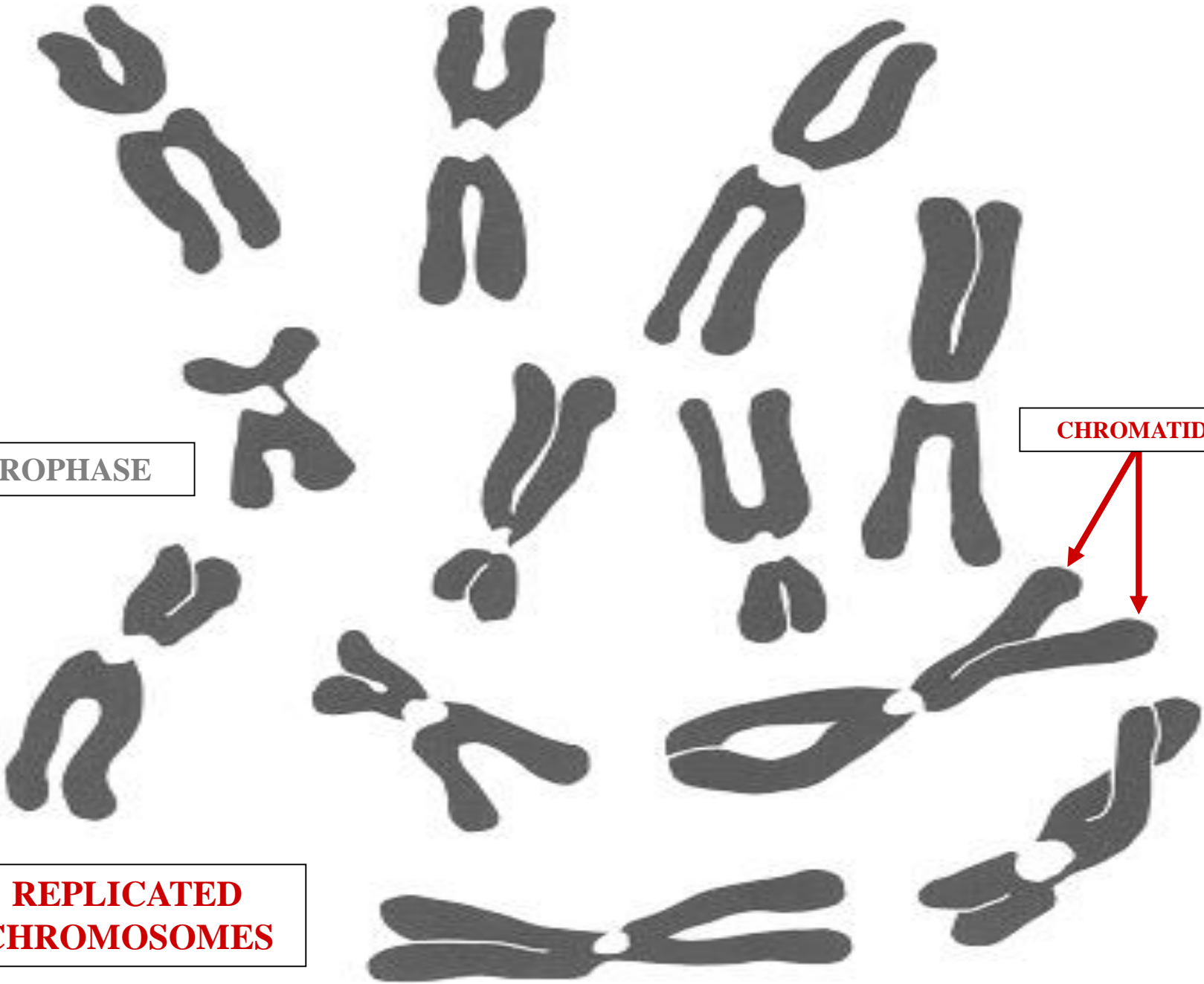


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PROPHASE

CHROMATIDS

REPLICATED
CHROMOSOMES



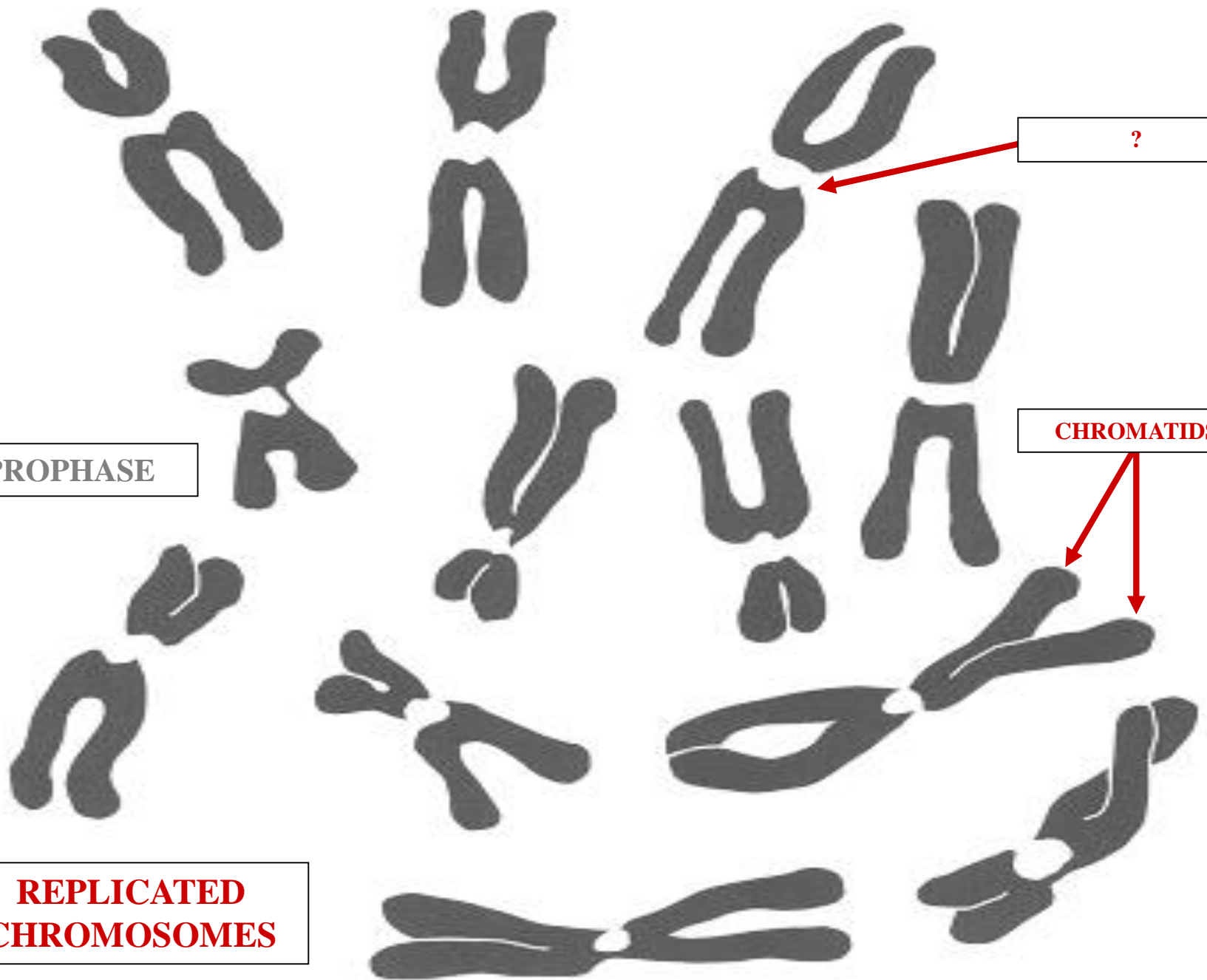
C

?

PROPHASE

CHROMATIDS

REPLICATED
CHROMOSOMES



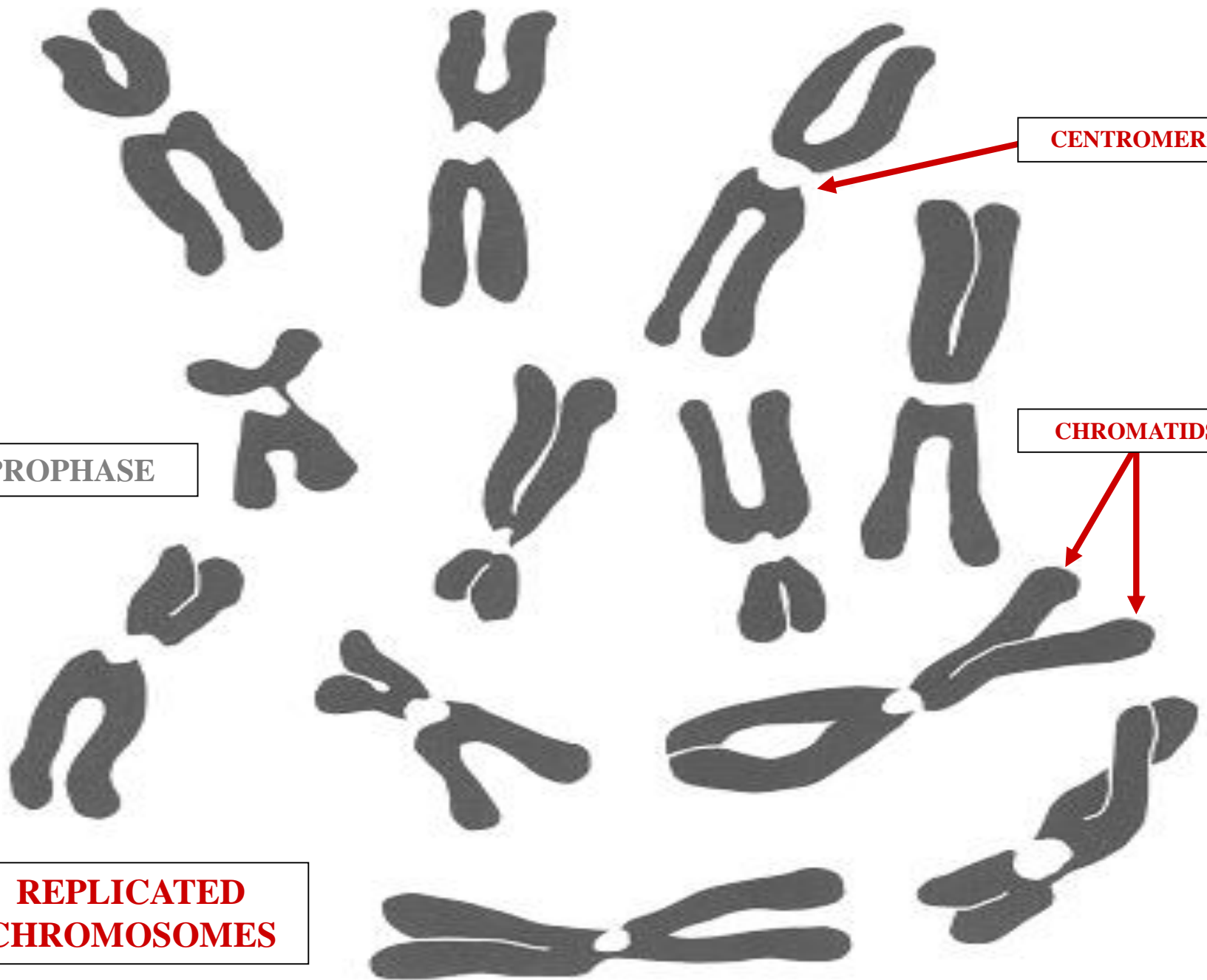
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CENTROMERE

CHROMATIDS

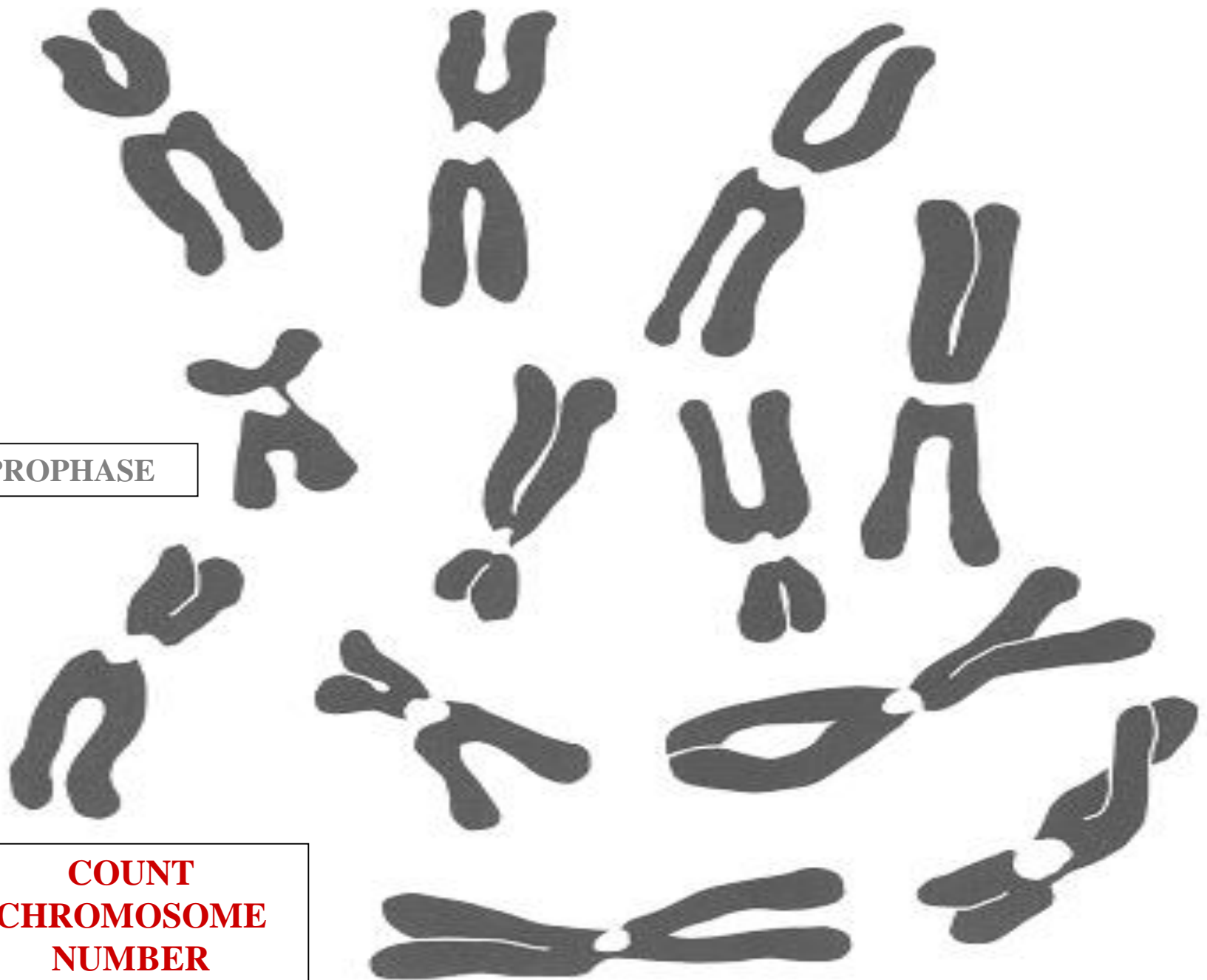
PROPHASE

REPLICATED
CHROMOSOMES



PROPHASE

**COUNT
CHROMOSOME
NUMBER**





PROPHASE

TYPICALLY DIFFERS WITH EACH SPECIES

**CHROMOSOME
NUMBER**



KARYOTYPE METHOD TOOLS

KARYOTYPE METHOD TOOLS



LIGHT COMPOUND MICROSCOPE

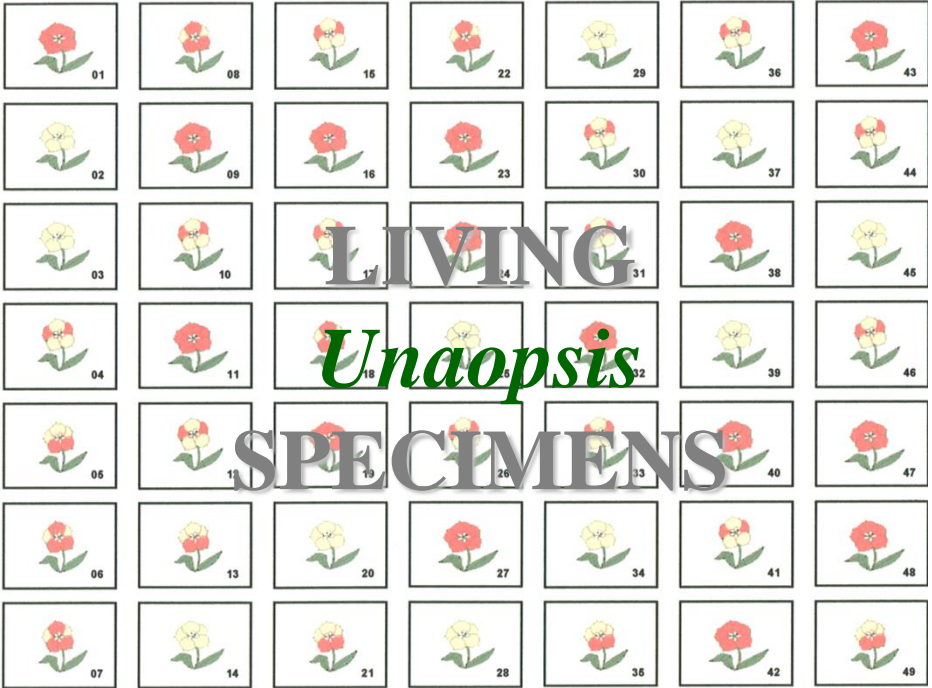
**KARYOTYPE METHOD
TOOLS**

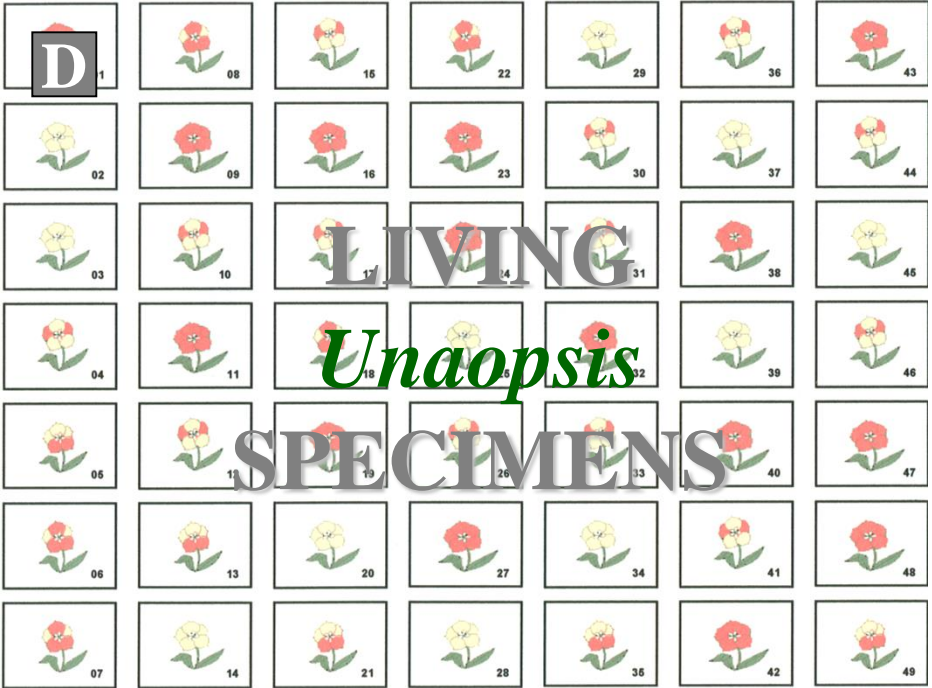
KARYOTYPE METHOD TOOLS

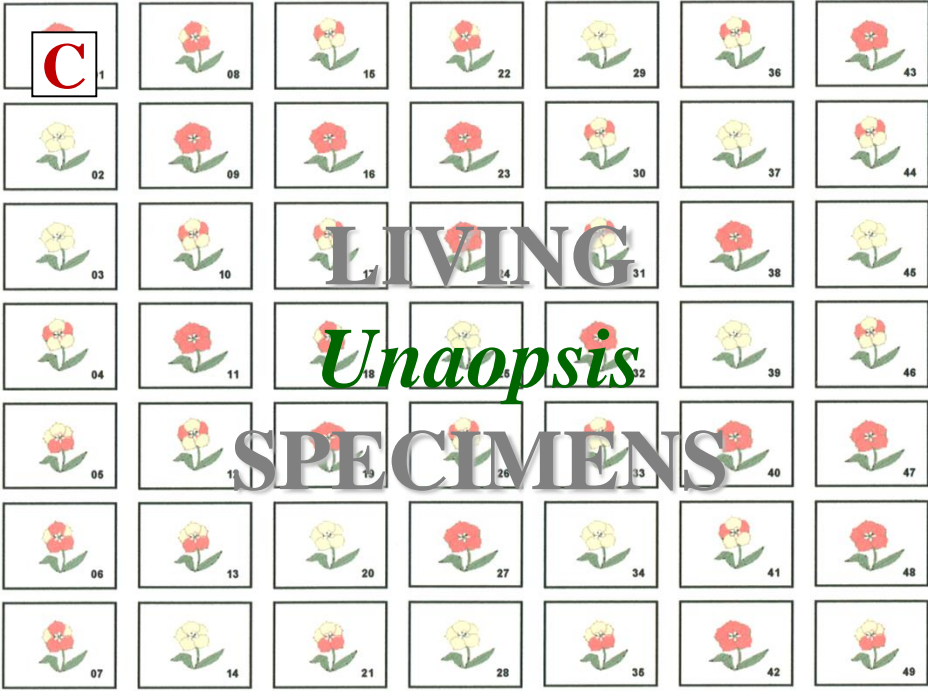


**LIGHT COMPOUND MICROSCOPE
DATA BASE**

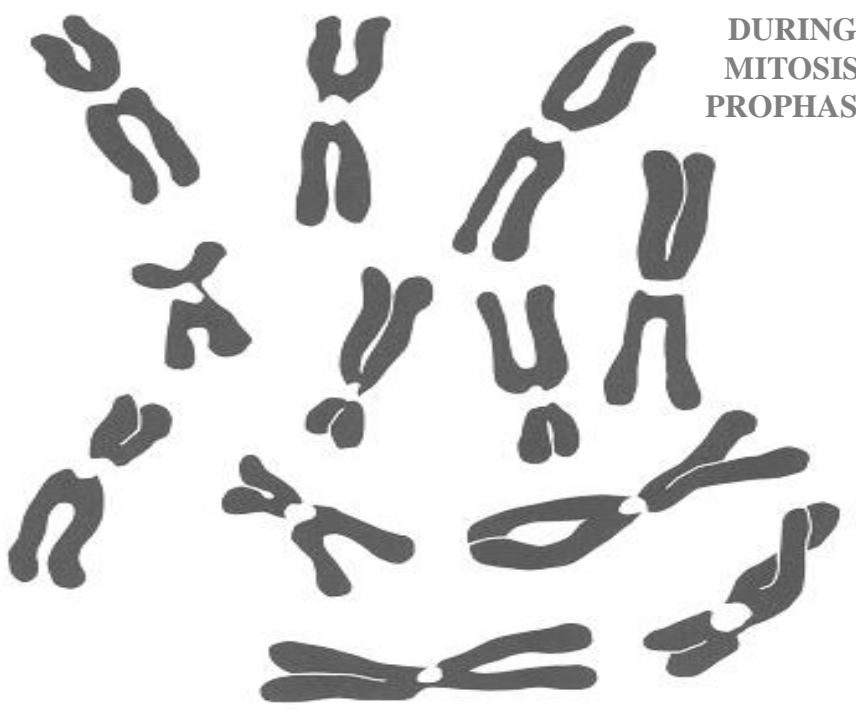
**KARYOTYPE METHOD
TOOLS**



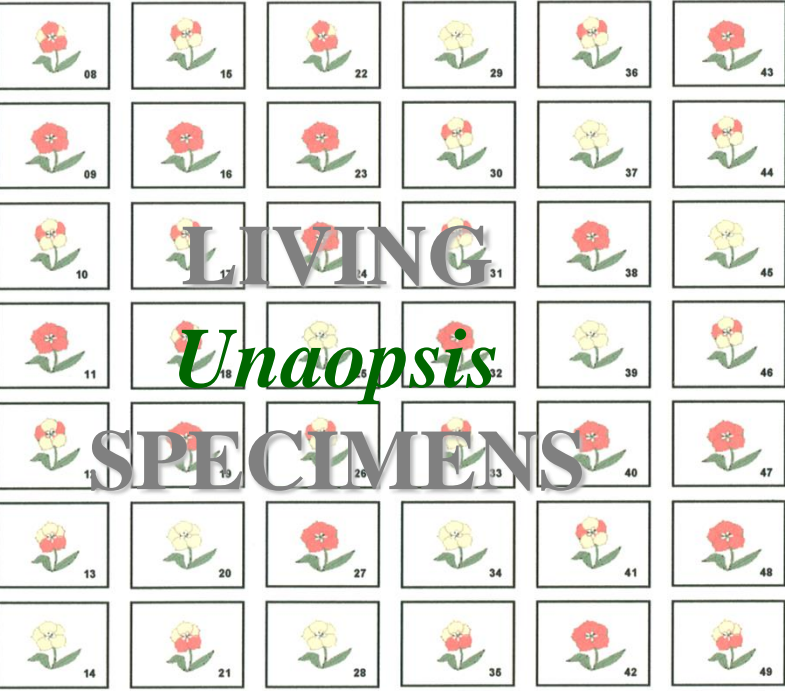




DURING
MITOSIS
PROPHASE



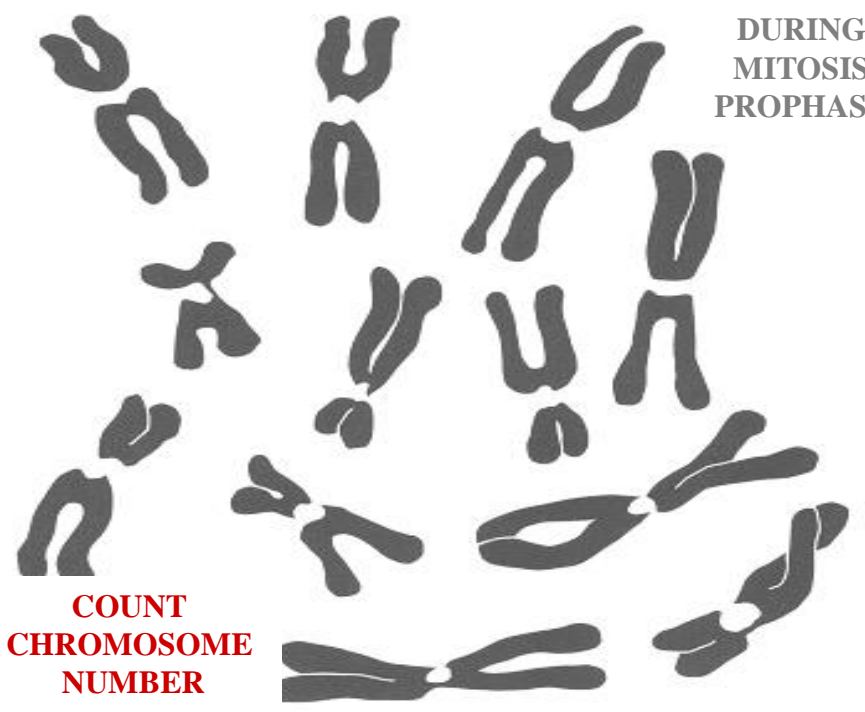
D



LIVING
Unaopsis

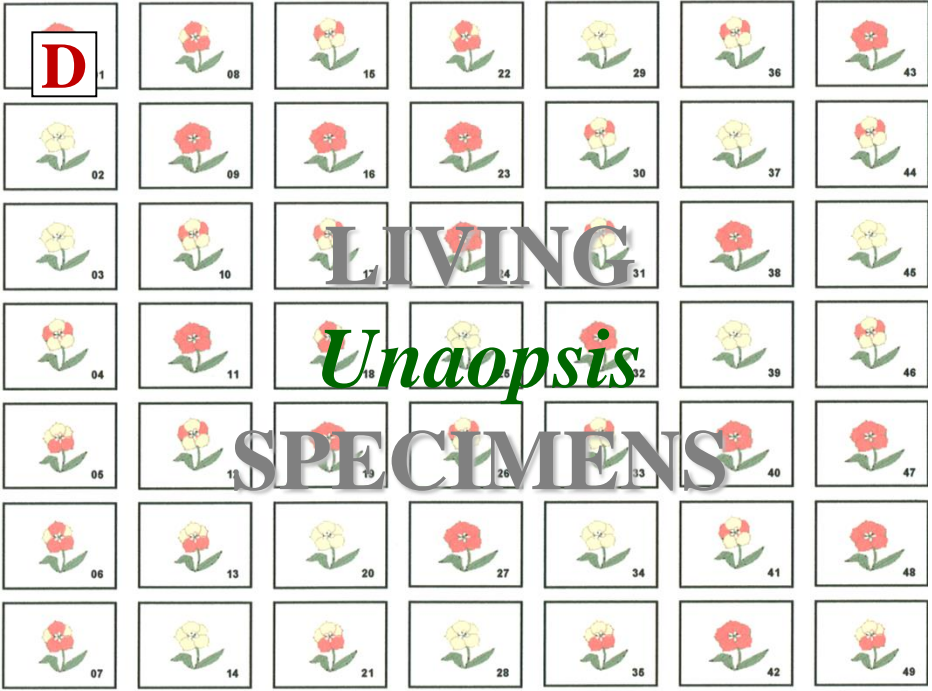
SPECIMENS

DURING
MITOSIS
PROPHASE

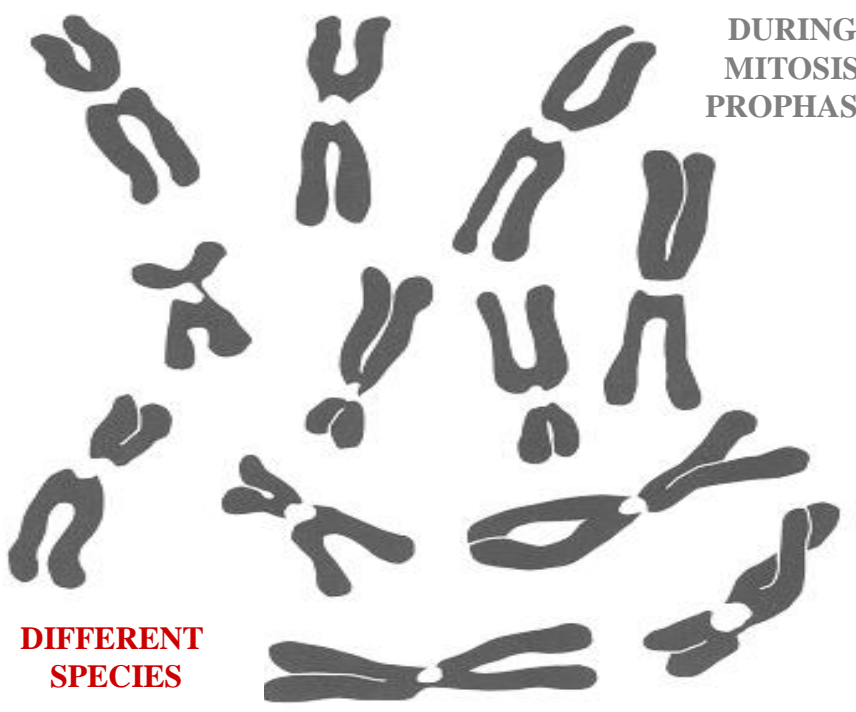


COUNT
CHROMOSOME
NUMBER





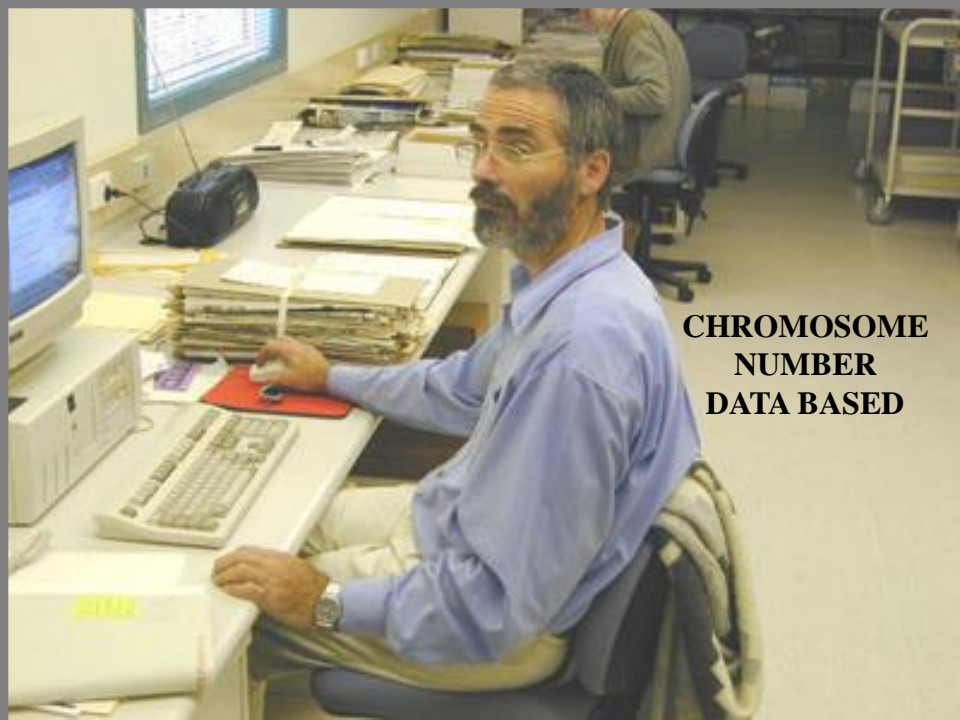
DURING
MITOSIS
PROPHASE





DURING
MITOSIS
PROPHASE





CHEMICAL METHOD

CHEMICAL METHOD

CHEMICAL METHOD



QUALITATIVE & QUANTITATIVE ANALYSIS MICRO-COMPOUND CHARACTERS

CHEMICAL METHOD

CHEMICAL METHOD



QUALITATIVE & QUANTITATIVE ANALYSIS MACRO-COMPOUND CHARACTERS

CHEMICAL METHOD