



# SYNGAMY



**SYNGAMY**

**SYNONYMOUS**

**FERTILIZATION**

# SYNGAMY/ FERTILIZATION

2 1N GAMETES FUSE



2N ZYGOTE

SYNGAMY / FERTILIZATION

**EXAMPLE  
HUMAN  
SYNGAMY**



# HUMAN GENOME

#



CHROMOSOMES

*HOMO SAPIENS*

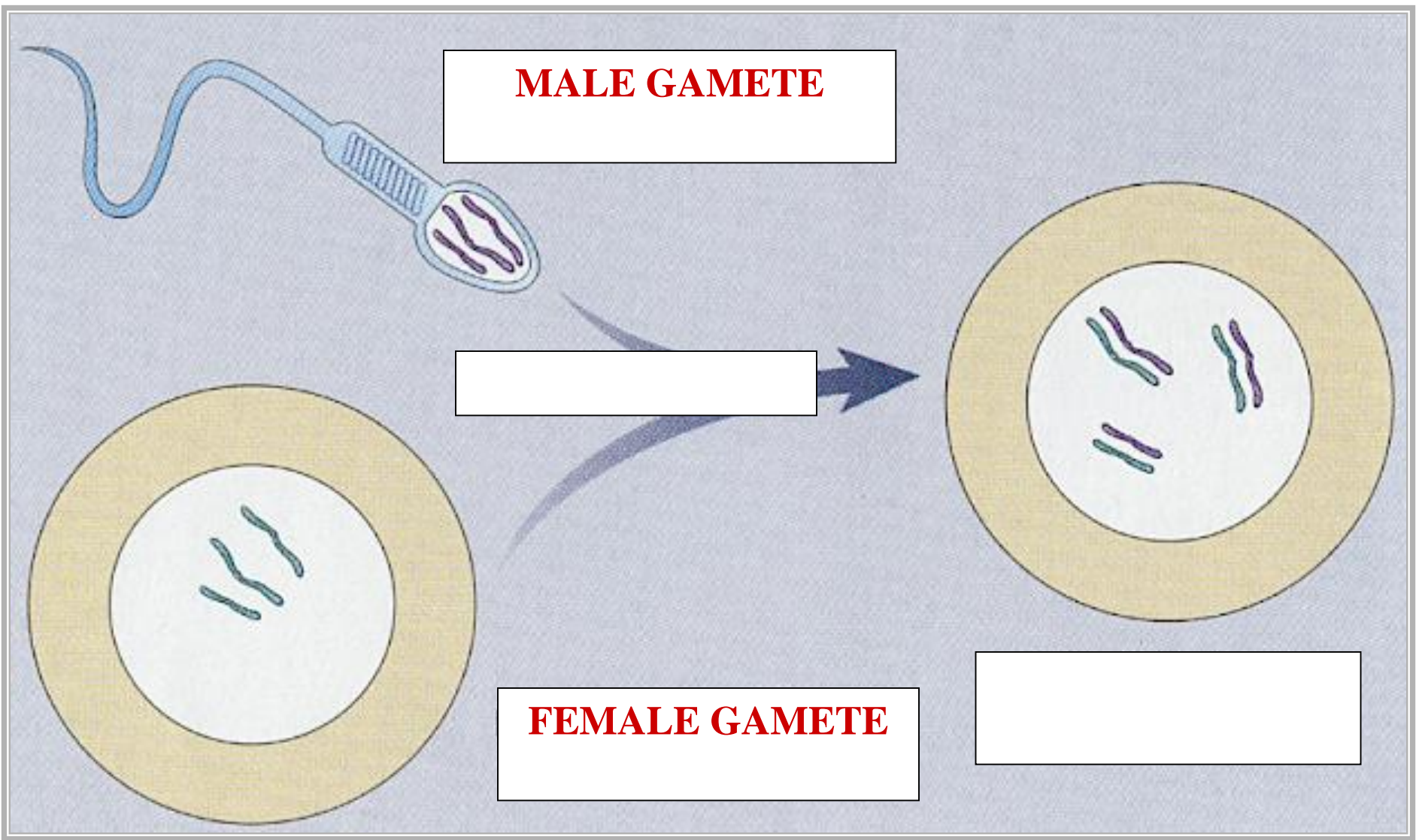
# HUMAN GENOME



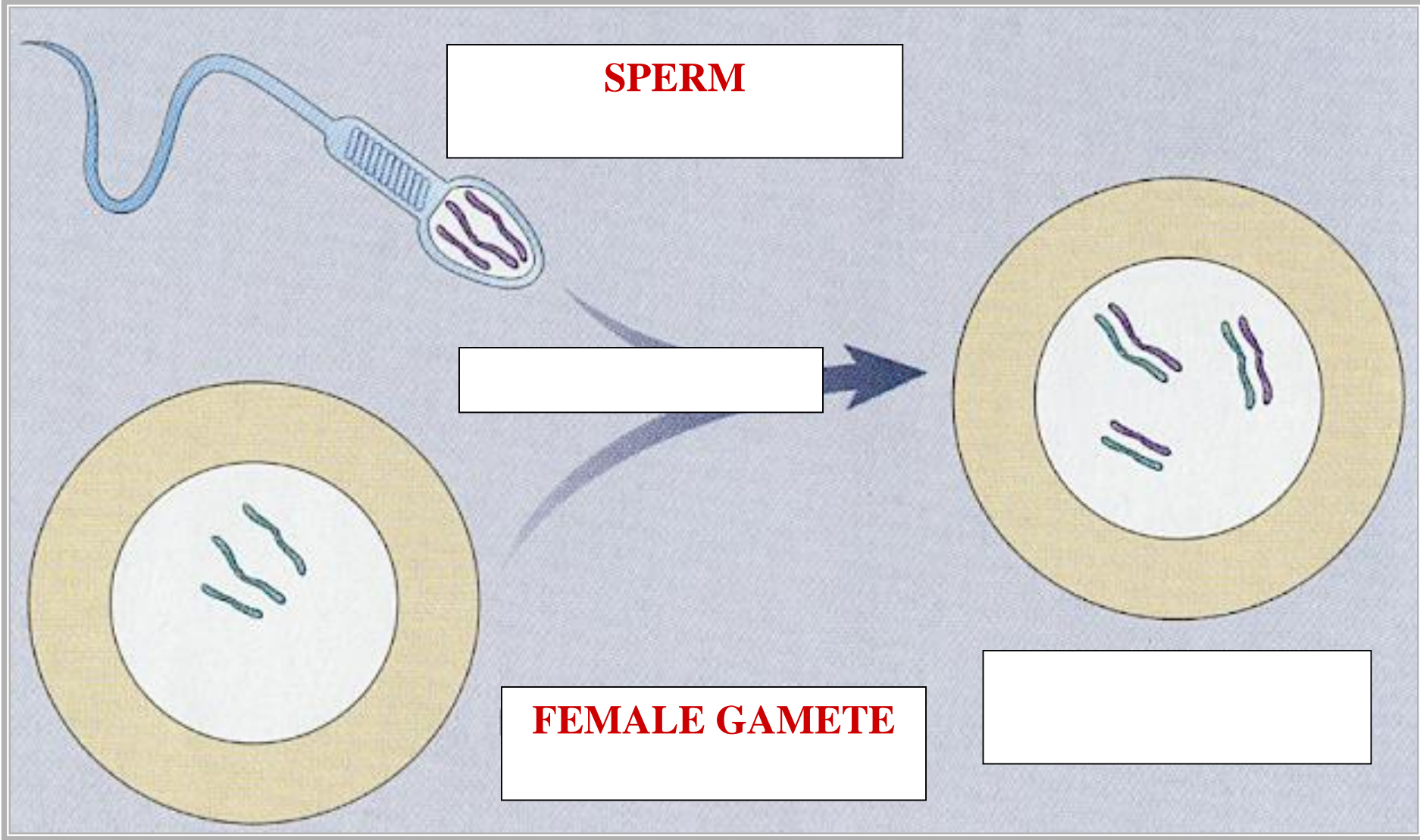
*HOMO SAPIENS*



# SYNGAMY FERTILIZATION

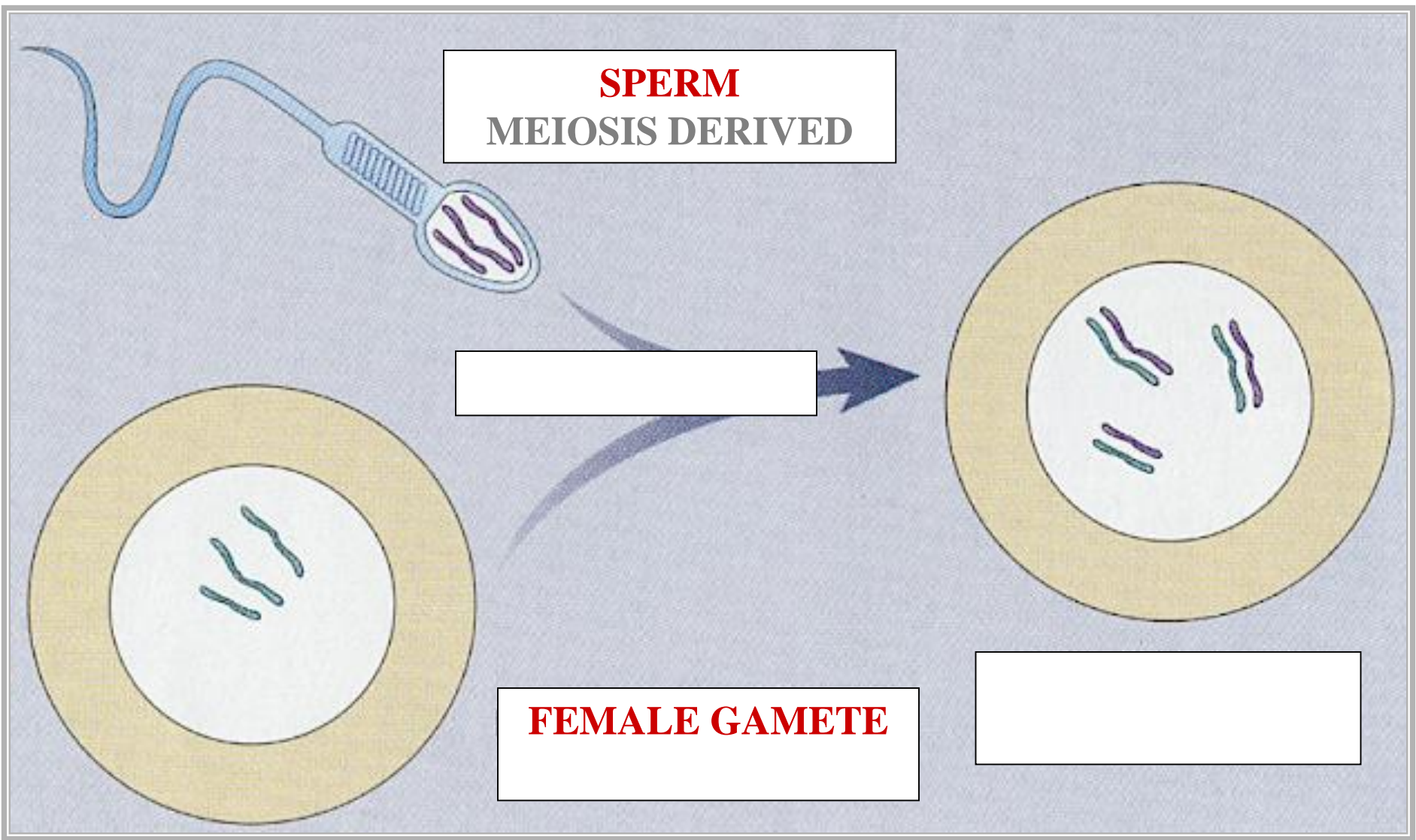


# SYNGAMY FERTILIZATION





# SYNGAMY FERTILIZATION



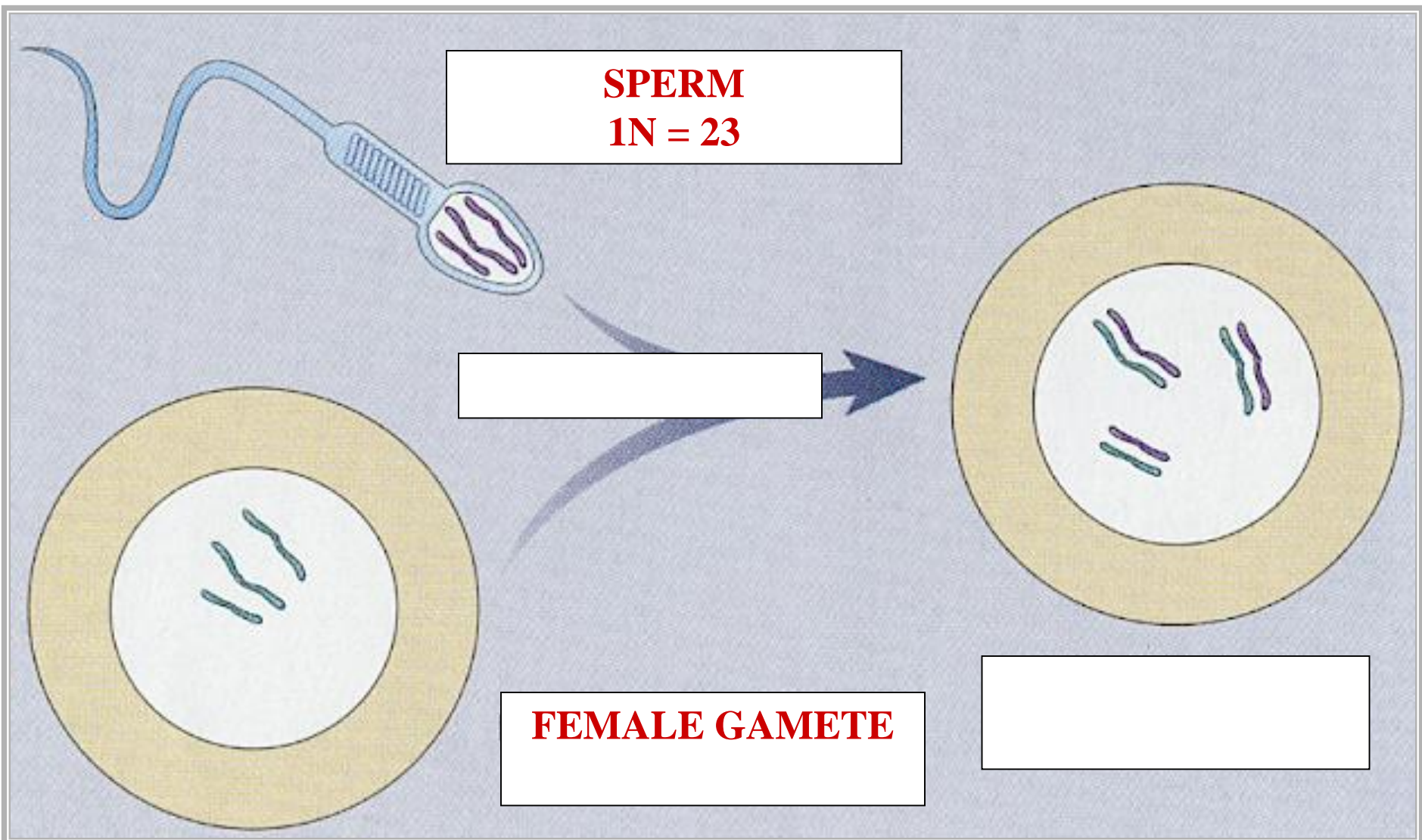
**SPERM**  
MEIOSIS DERIVED

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**FEMALE GAMETE**

[Empty white box]

# SYNGAMY FERTILIZATION

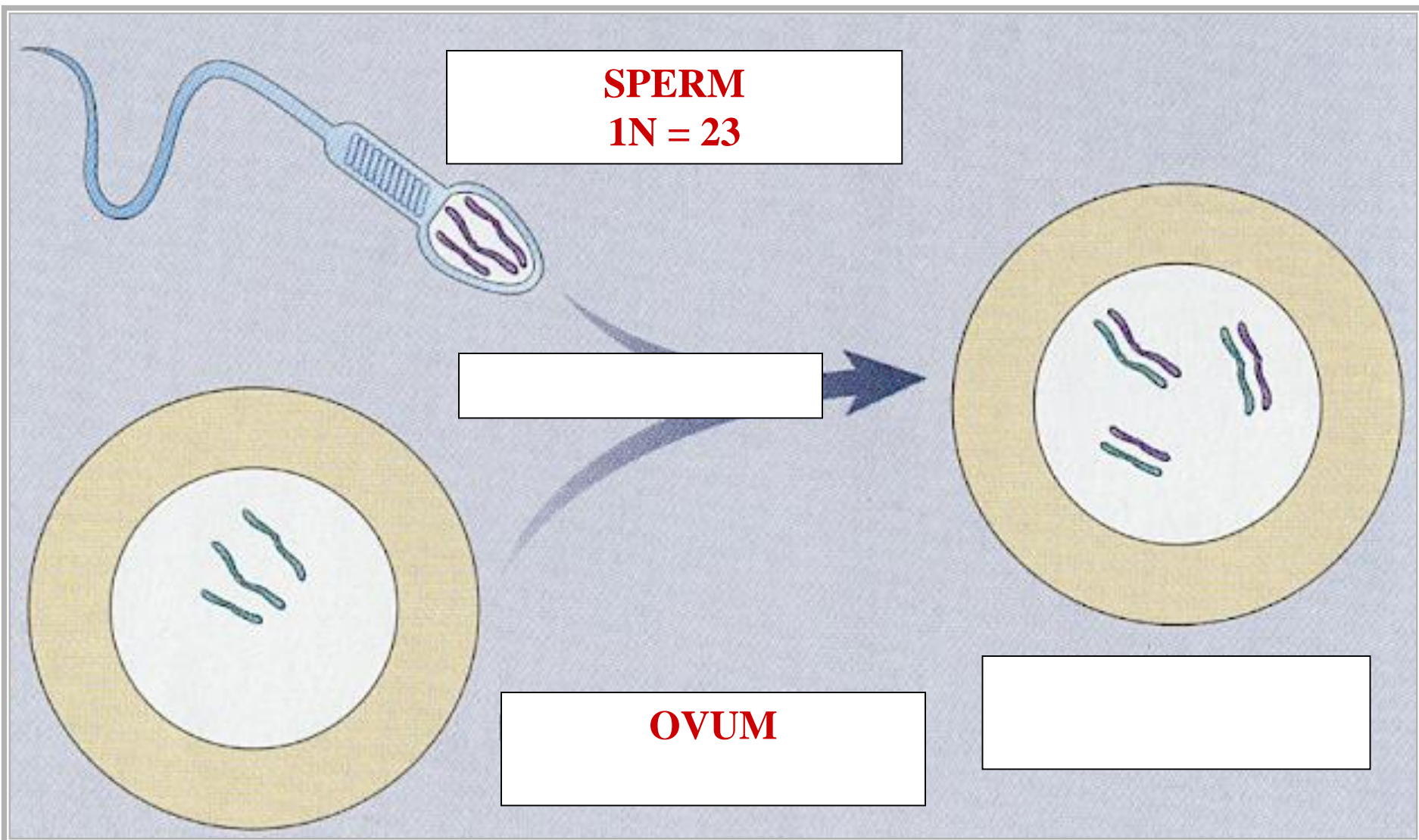


**SPERM**  
**1N = 23**

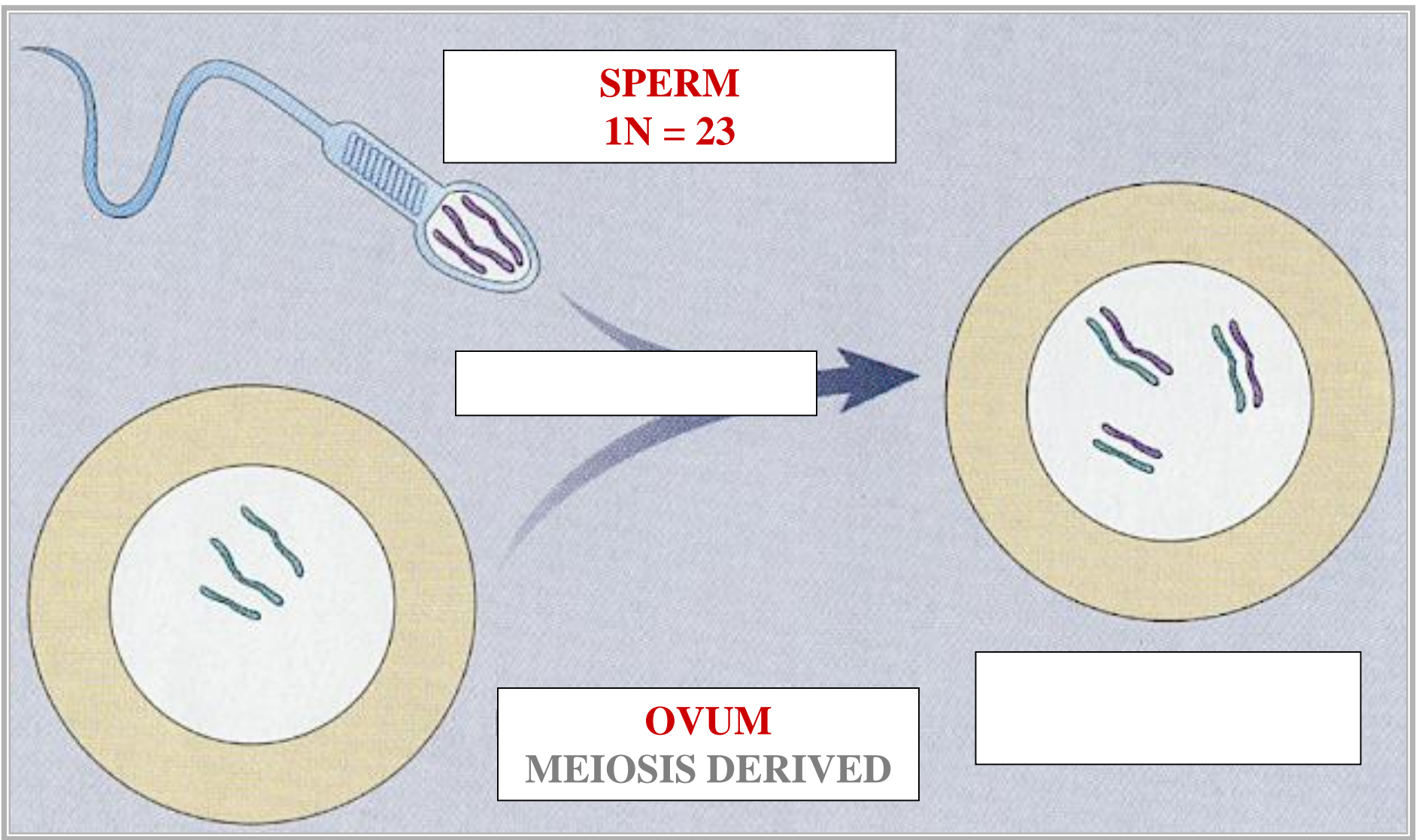
**FEMALE GAMETE**



# SYNGAMY FERTILIZATION

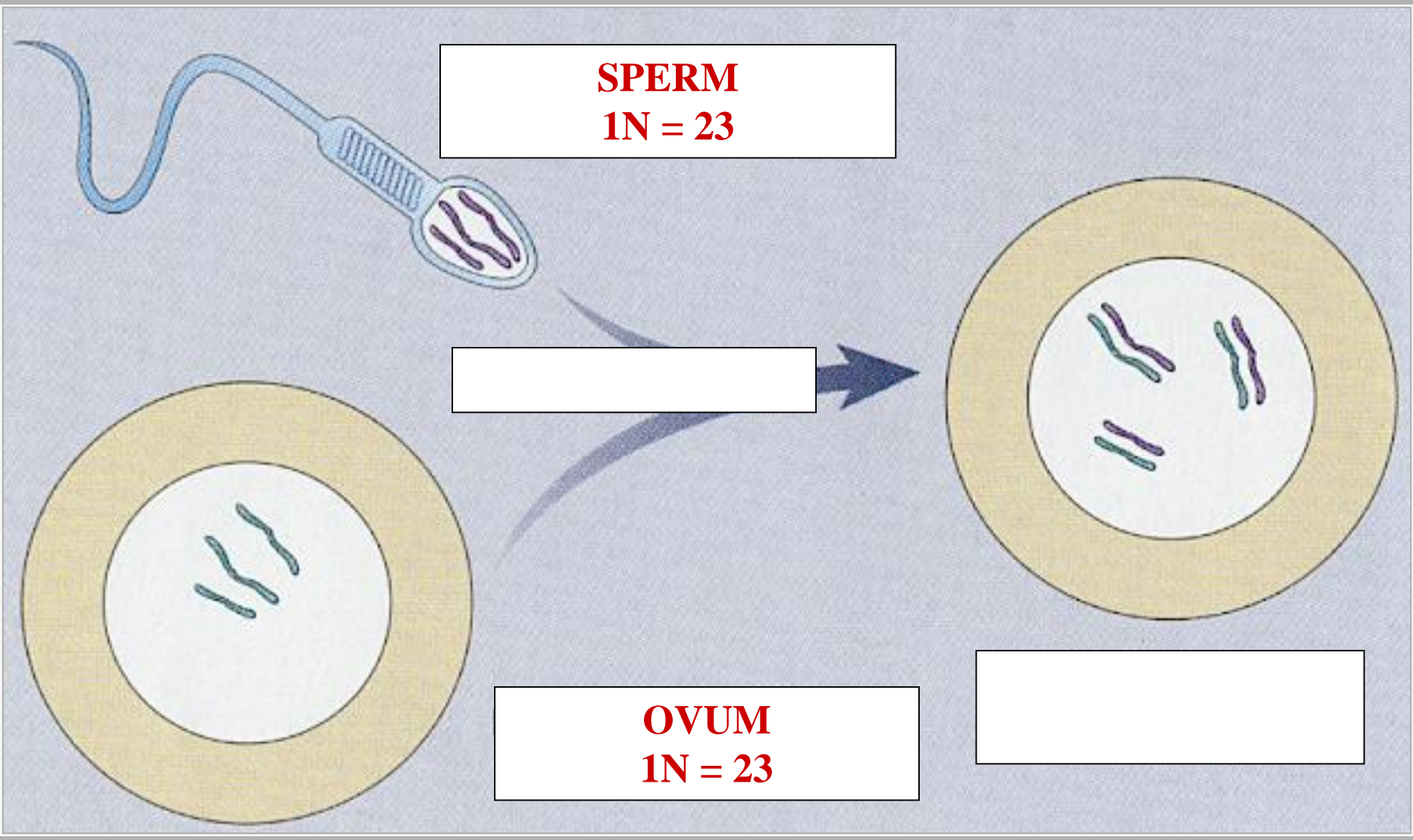


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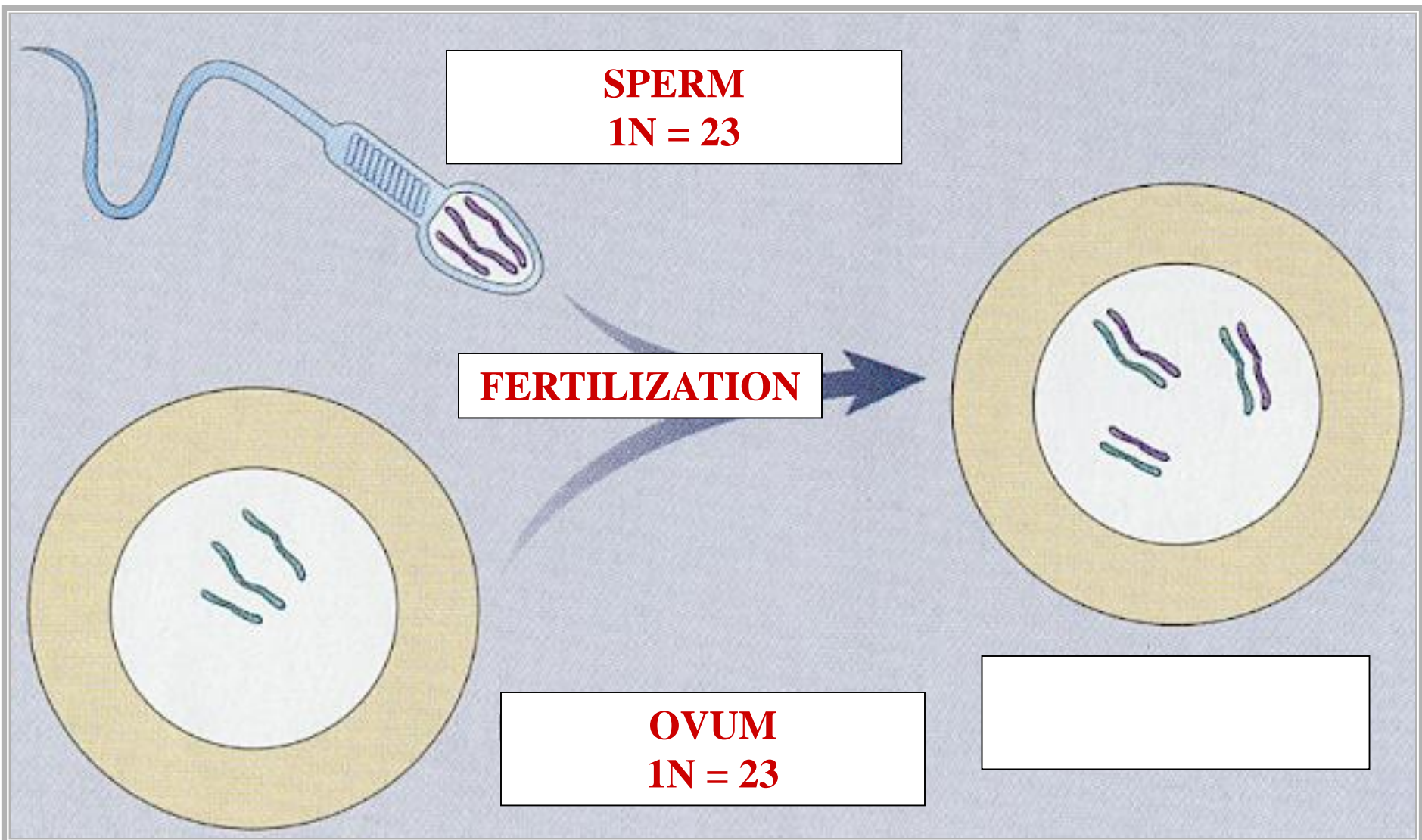




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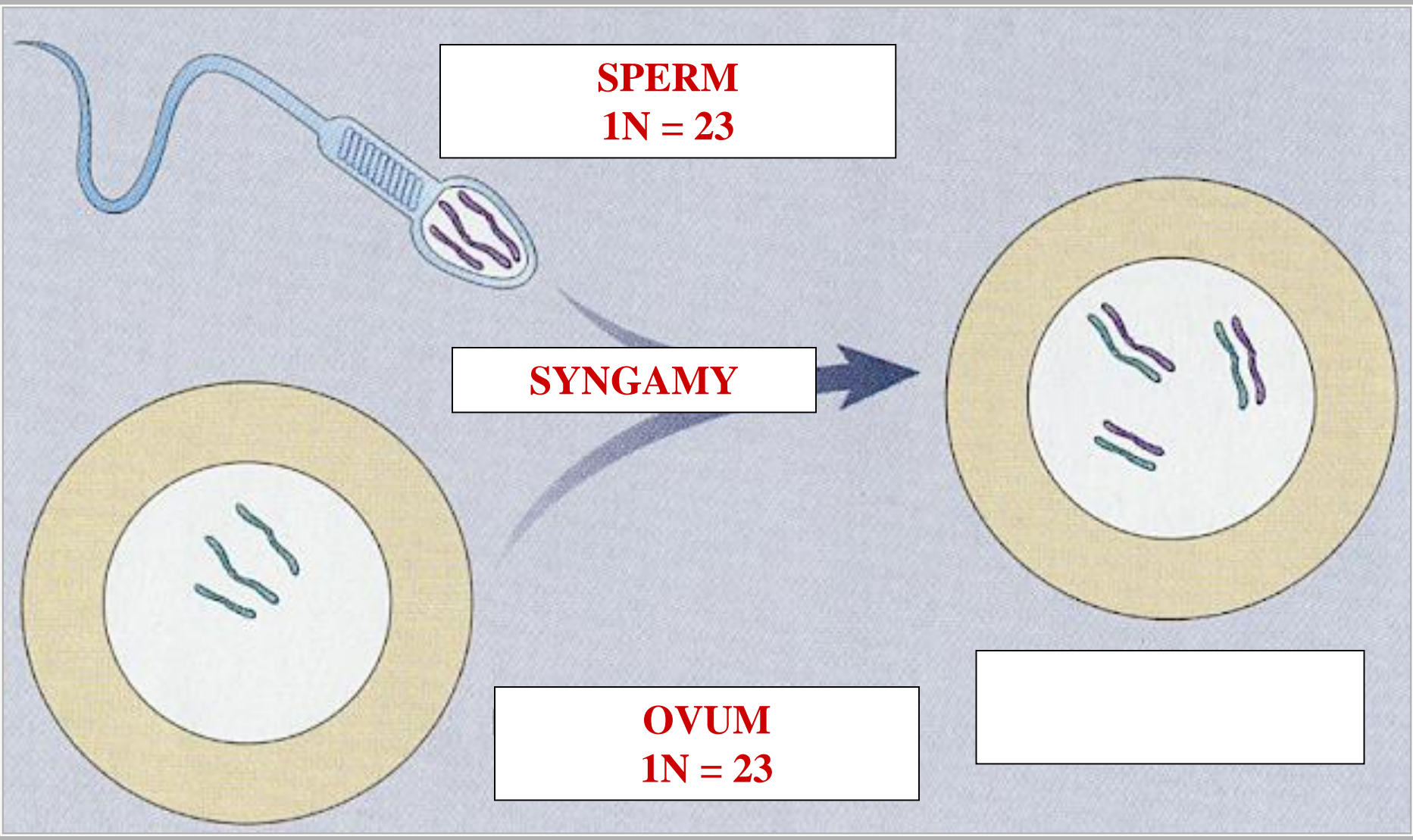


# SYNGAMY FERTILIZATION

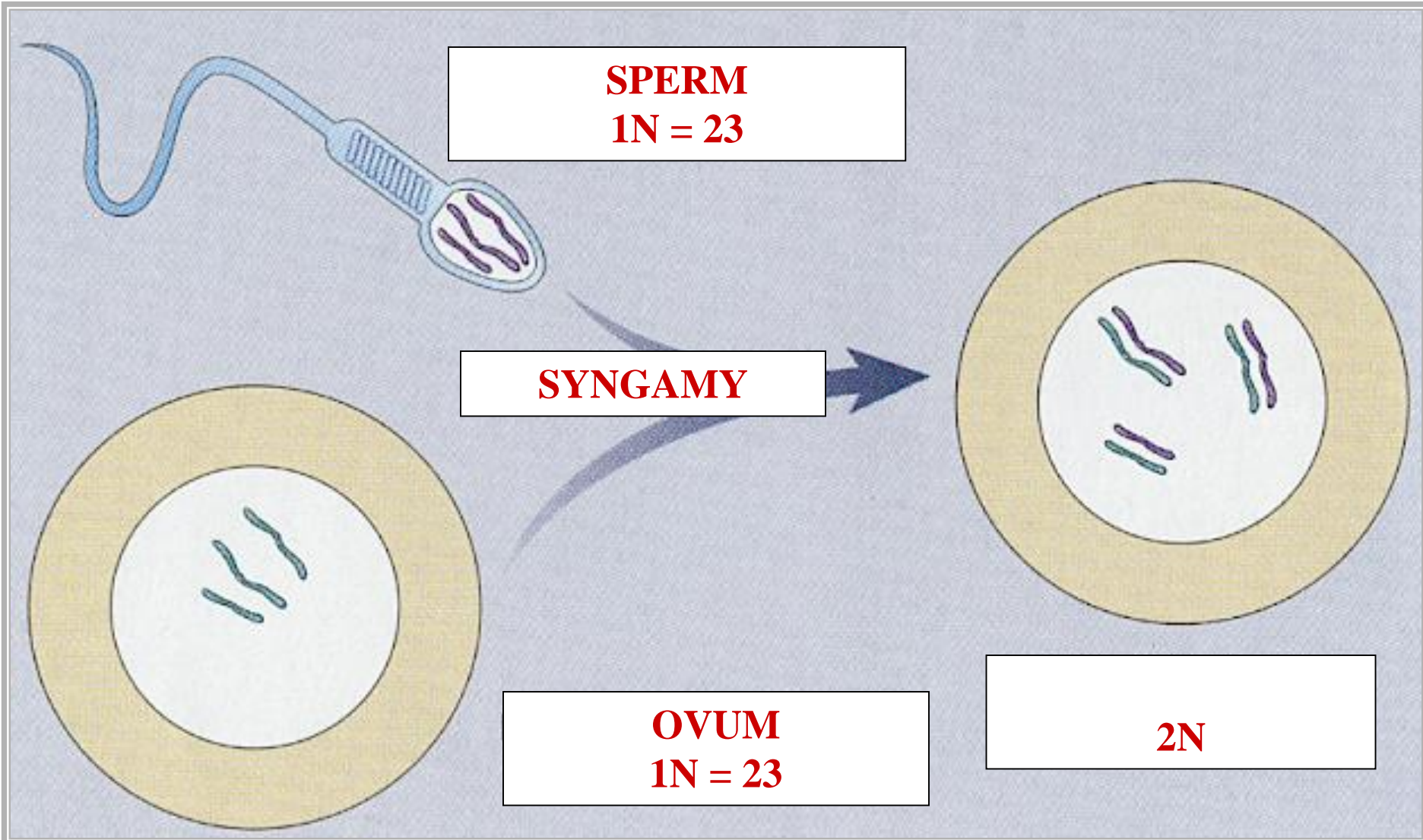




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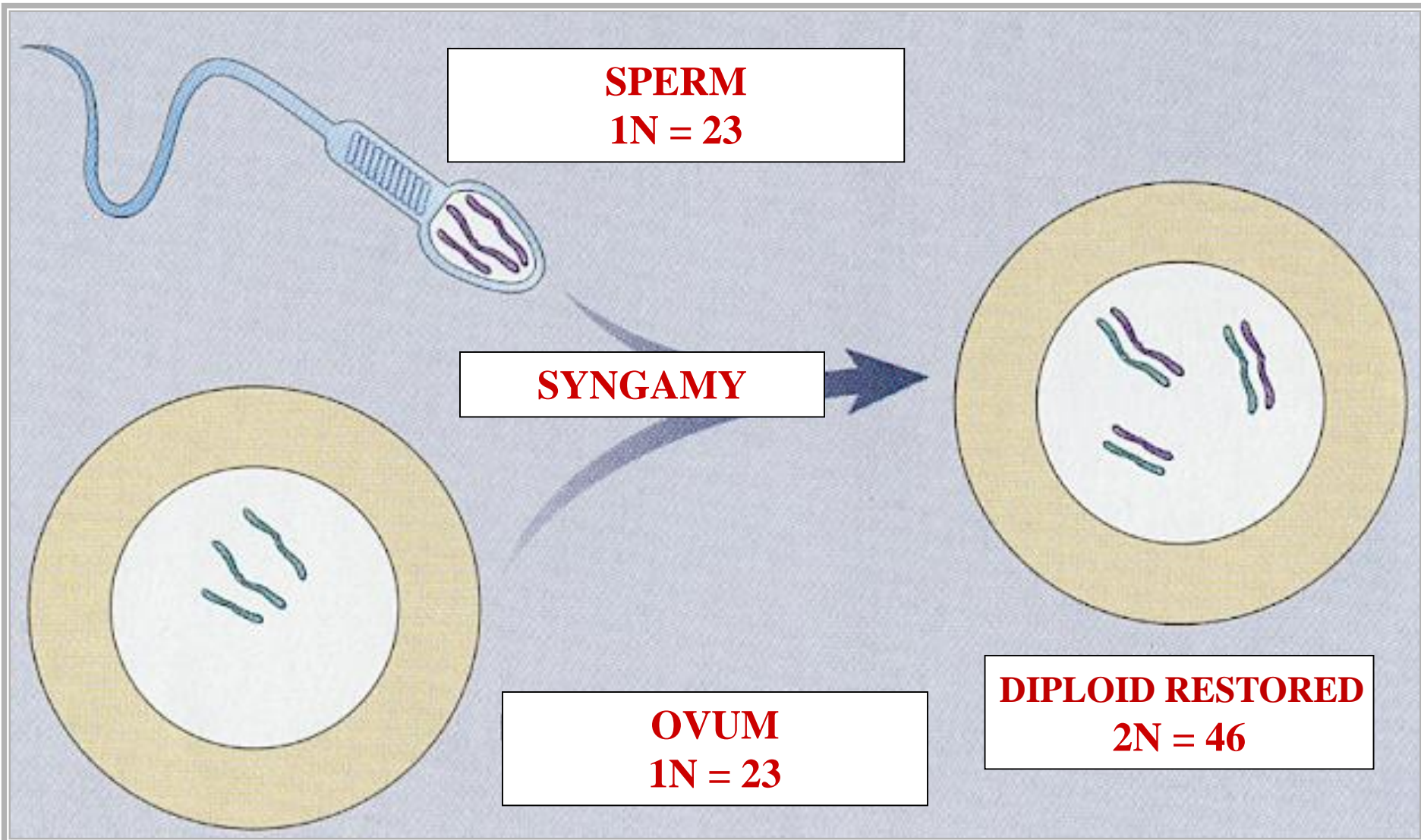


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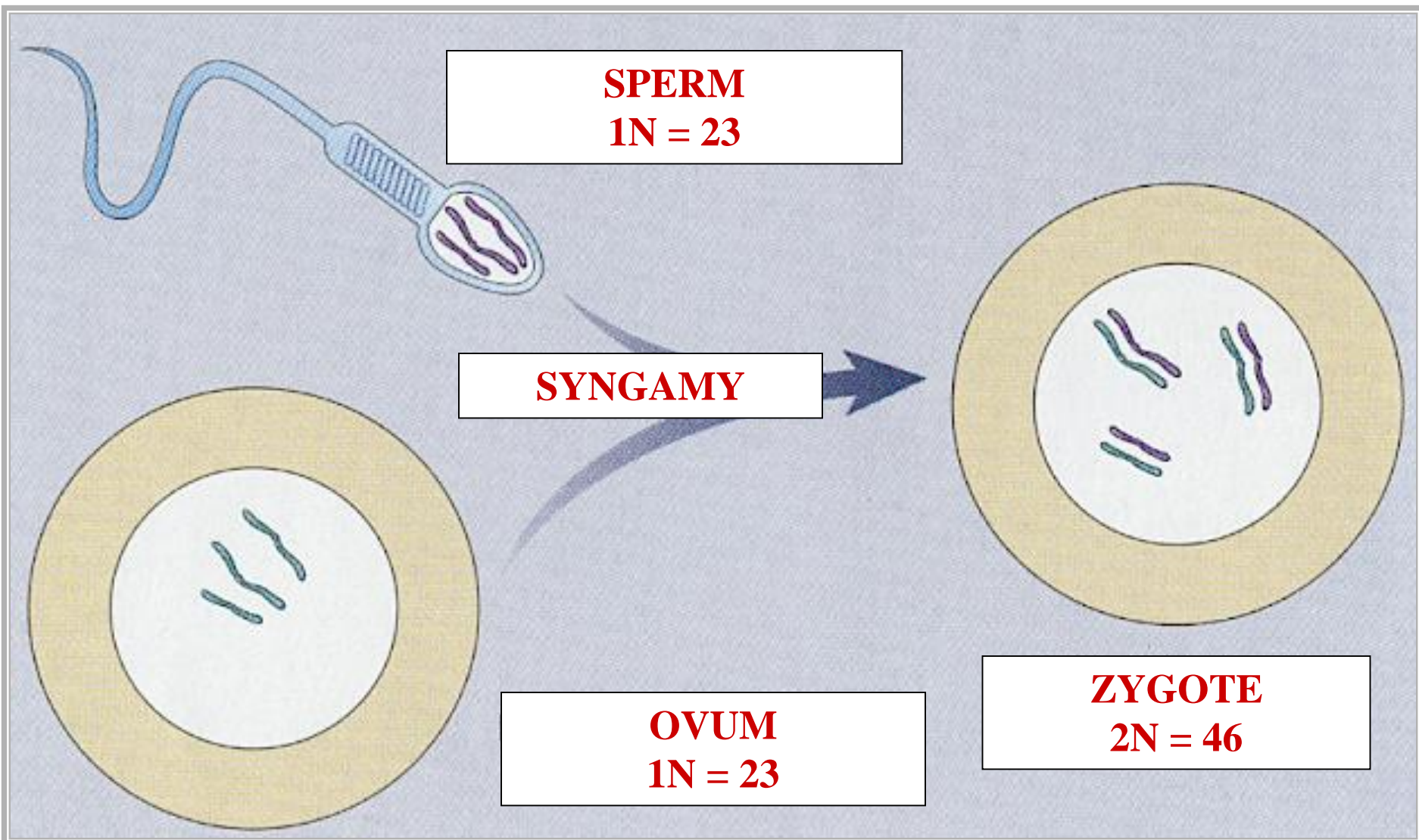


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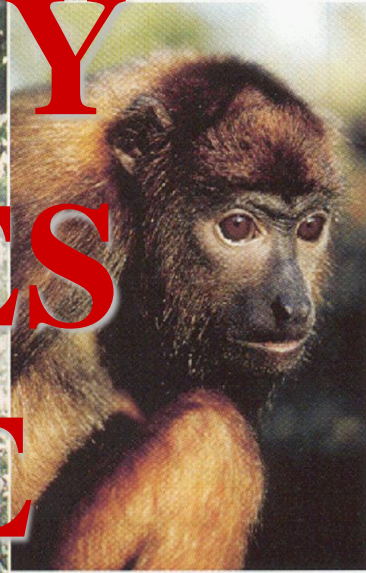
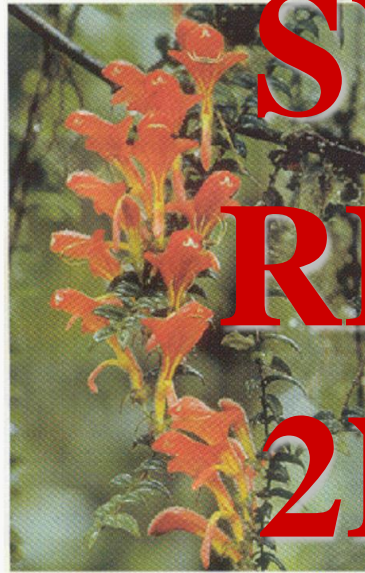




# SYNGAMY FERTILIZATION

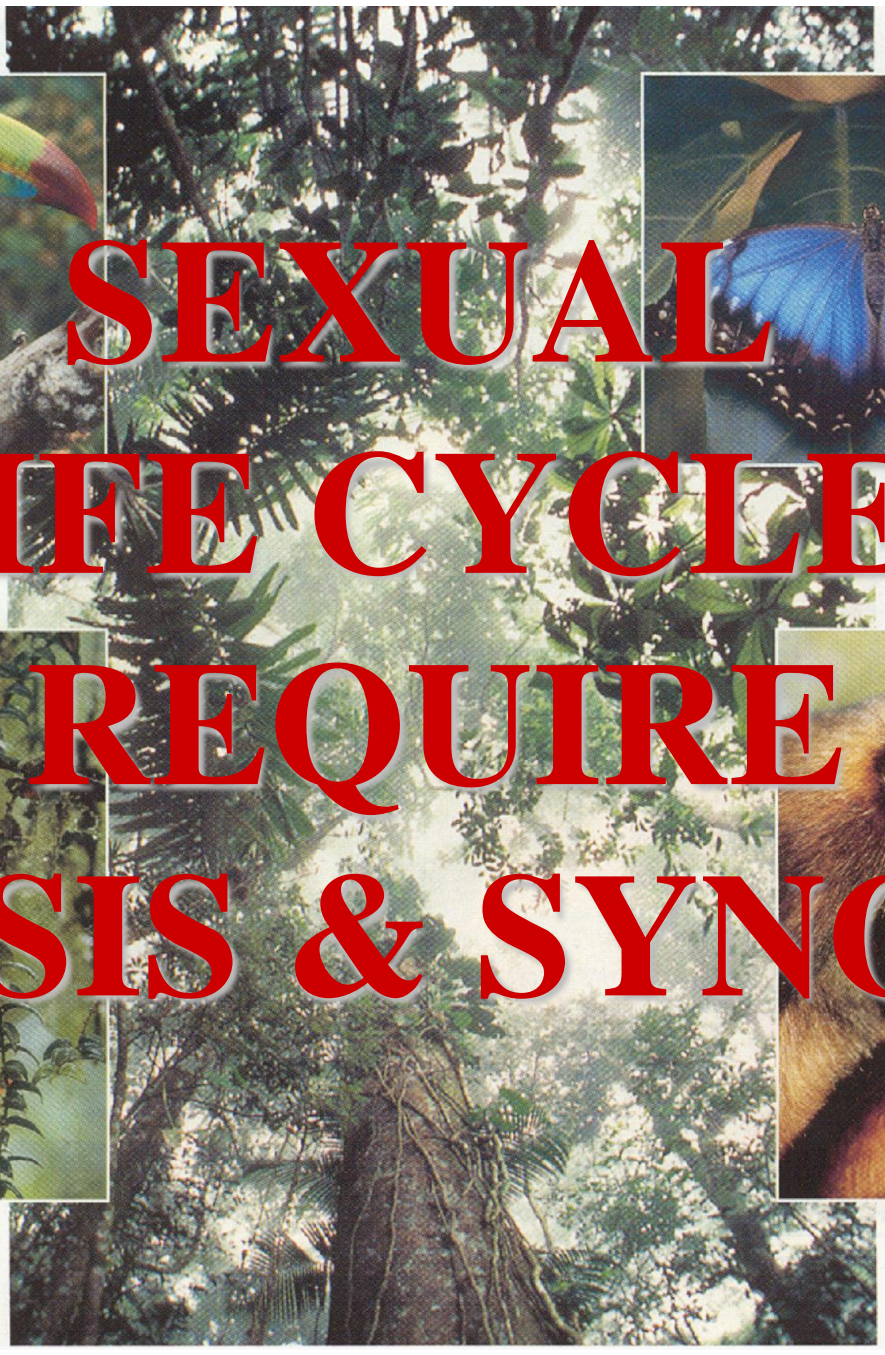
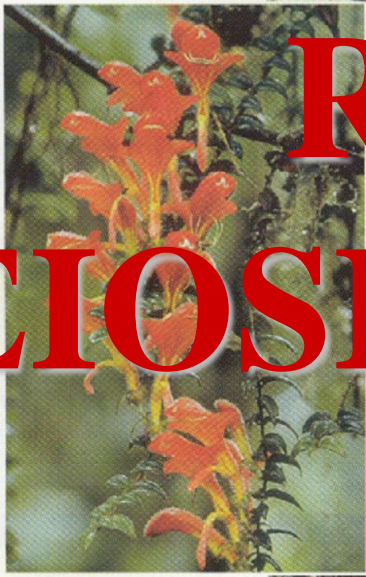
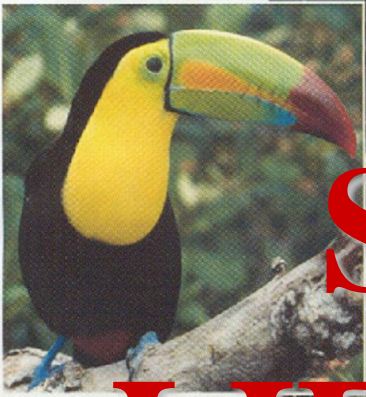






**SEXUAL  
LIFE CYCLES  
SYNGAMY  
RESTORES  
2N STATE**





**SEXUAL  
LIFE CYCLES  
REQUIRE  
MEIOSIS & SYNGAMY**





# SEXUAL LIFE CYCLES

# SEXUAL LIFE CYCLE TYPES

# **SEXUAL LIFE CYCLE TYPES**

**GAMETIC LIFE CYCLE**

# **SEXUAL LIFE CYCLE TYPES**

# **SEXUAL LIFE CYCLE TYPES**

**GAMETIC LIFE CYCLE  
ZYGOTIC LIFE CYCLE**

**SEXUAL LIFE CYCLE  
TYPES**

# **SEXUAL LIFE CYCLE TYPES**



**GAMETIC LIFE CYCLE**  
**ZYGOTIC LIFE CYCLE**  
**SPORIC LIFE CYCLE**

**SEXUAL LIFE CYCLE  
TYPES**



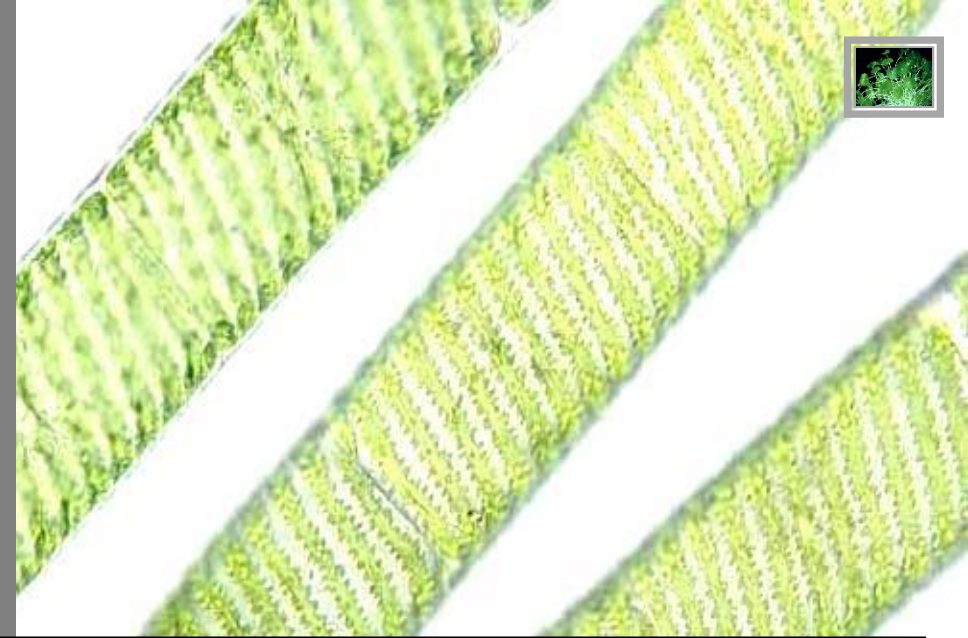
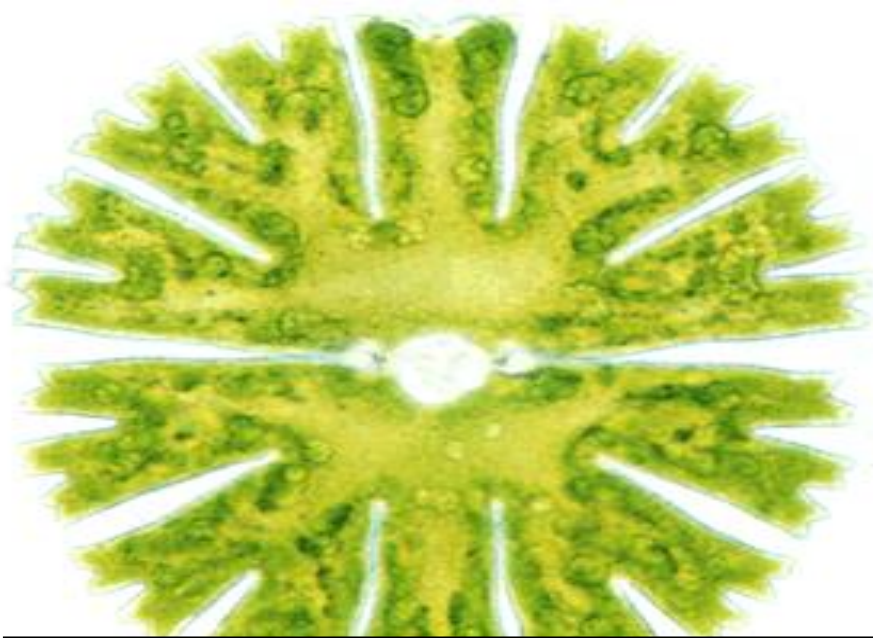
# GAMETIC LIFE CYCLE



# ANIMAL LIFE CYCLE







# GREEN ALGAE





***ACETABULARIA***  
**GREEN ALGA**  
**GAMETIC LIFE CYCLE**



# *ACETABULARIA*

## GAMETIC LIFE CYCLE



# *ACETABULARIA*

## GAMETIC LIFE CYCLE



# *ACETABULARIA*

## GAMETIC LIFE CYCLE



# *ACETABULARIA*

## GAMETIC LIFE CYCLE



GAMETANGIA

# *ACETABULARIA*

## GAMETIC LIFE CYCLE



GAMETOCYTES

# *ACETABULARIA*

## GAMETIC LIFE CYCLE



GAMETOCYTES 2N

# *ACETABULARIA*

## GAMETIC LIFE CYCLE

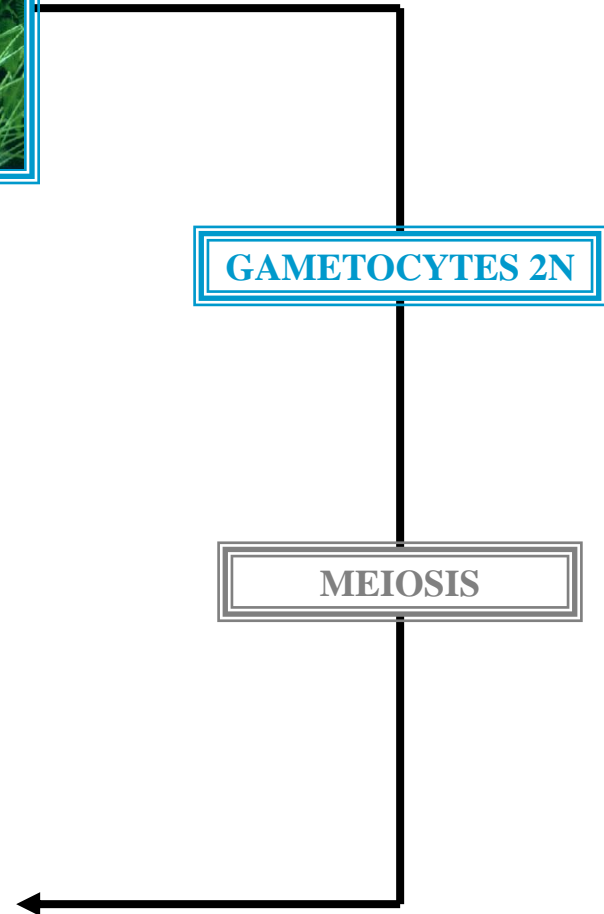


GERM CELLS



# *ACETABULARIA*

## GAMETIC LIFE CYCLE



# *ACETABULARIA*

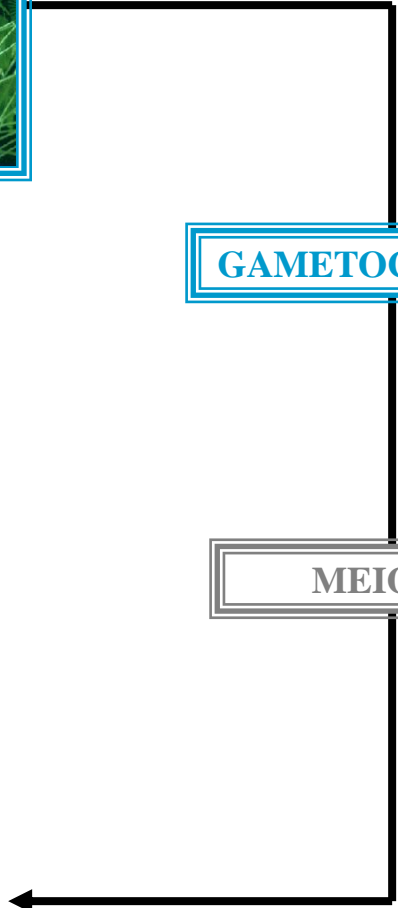
## GAMETIC LIFE CYCLE



GAMETOCYTES 2N

MEIOSIS

GAMETES



# *ACETABULARIA*

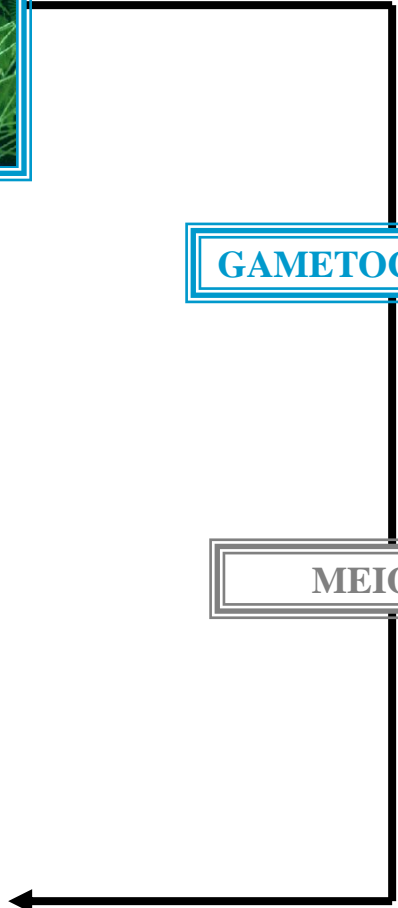
## GAMETIC LIFE CYCLE



GAMETOCYTES 2N

MEIOSIS

GAMETES 1N



# *ACETABULARIA*

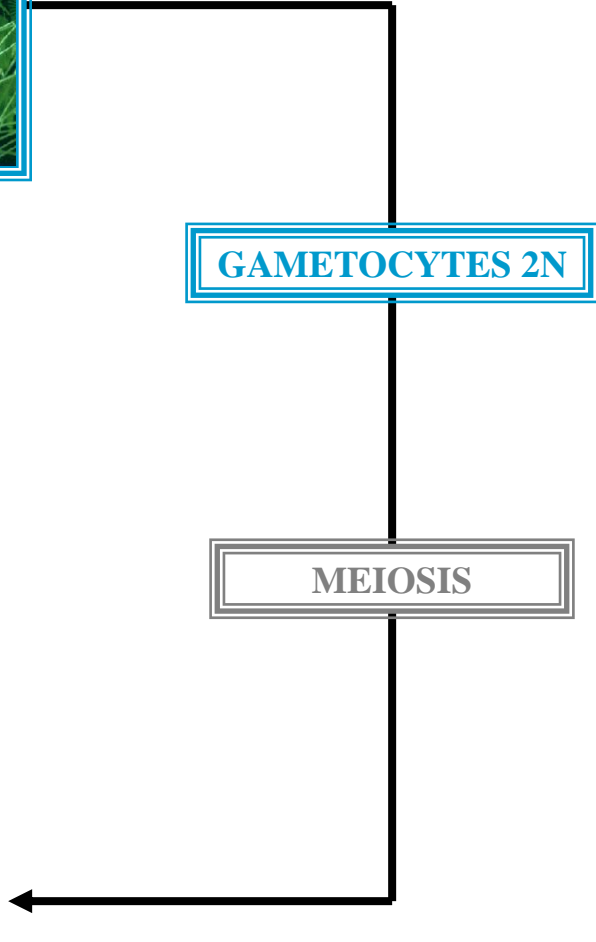
## GAMETIC LIFE CYCLE



GAMETOCYTES 2N

MEIOSIS

1N PHASE



# *ACETABULARIA*

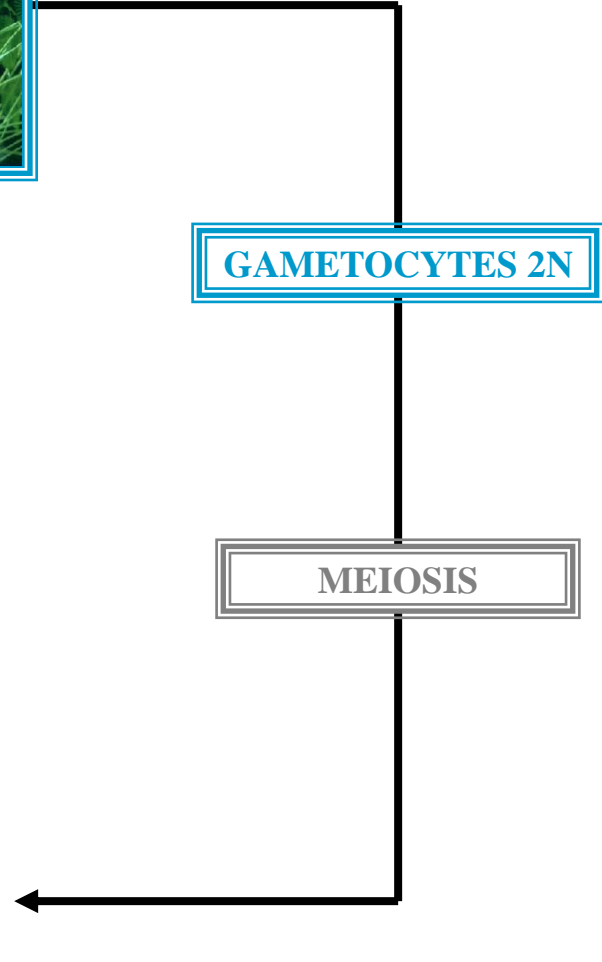
## GAMETIC LIFE CYCLE



GAMETOCYTES 2N

MEIOSIS

1N PHASE  
UNICELLULAR





# *ACETABULARIA*

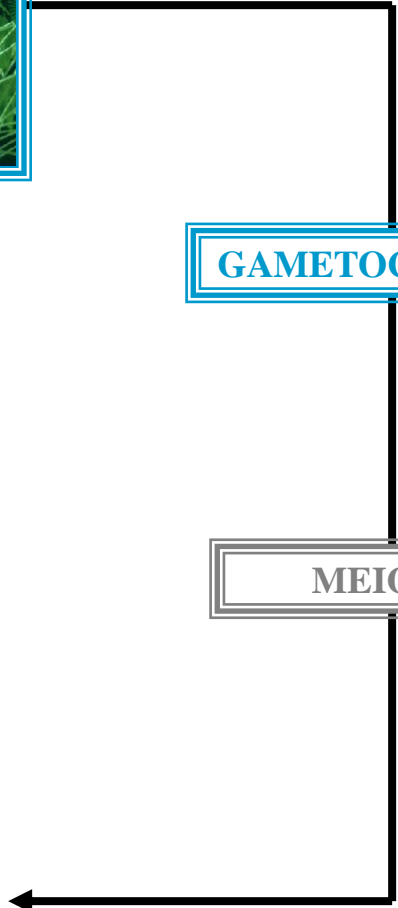
## GAMETIC LIFE CYCLE



GAMETOCYTES 2N

MEIOSIS

1N PHASE  
UNICELLULAR  
GAMETES



# *ACETABULARIA*

## GAMETIC LIFE CYCLE



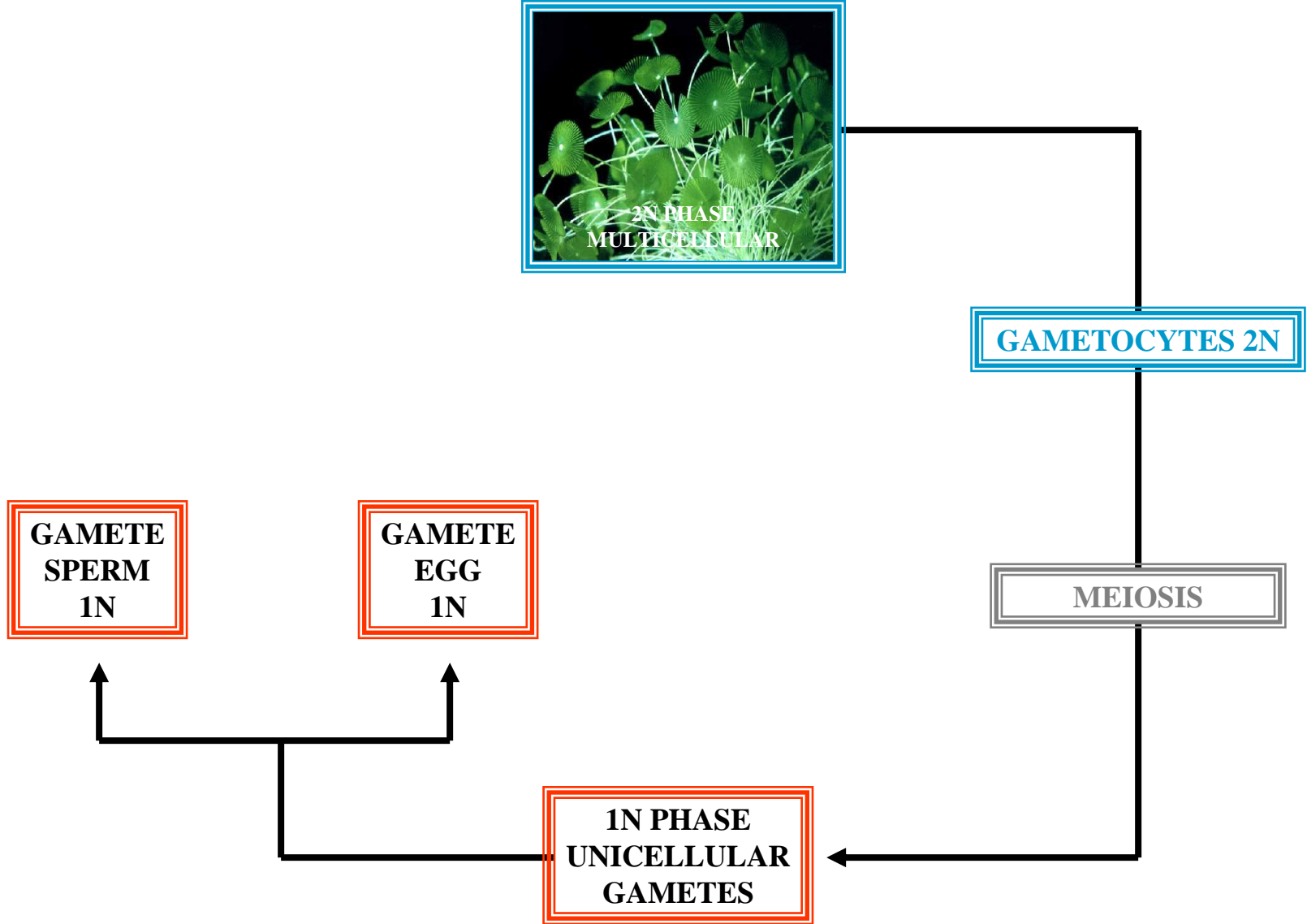
GAMETOCYTES 2N

MEIOSIS

GAMETE  
SPERM  
1N

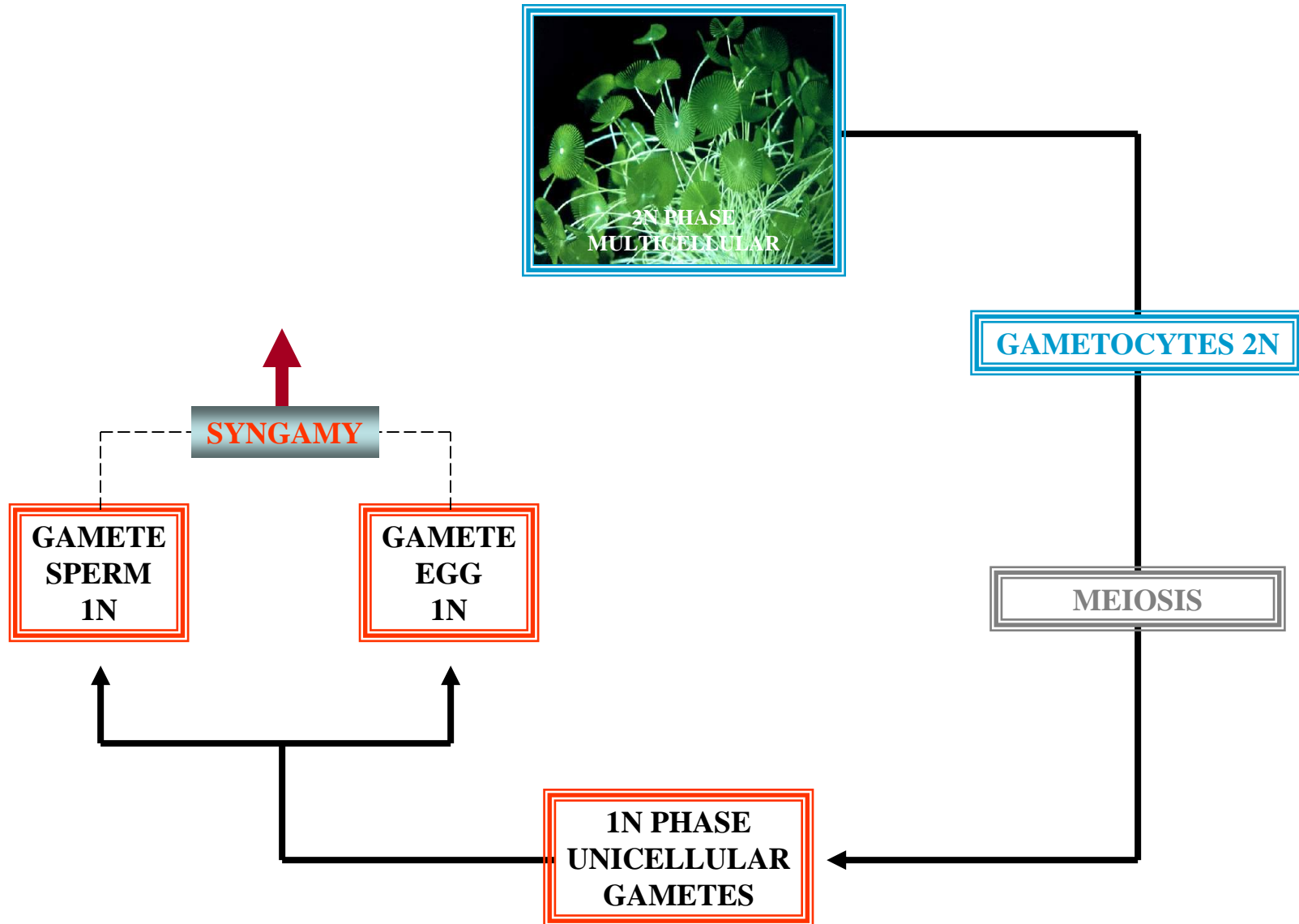
GAMETE  
EGG  
1N

1N PHASE  
UNICELLULAR  
GAMETES



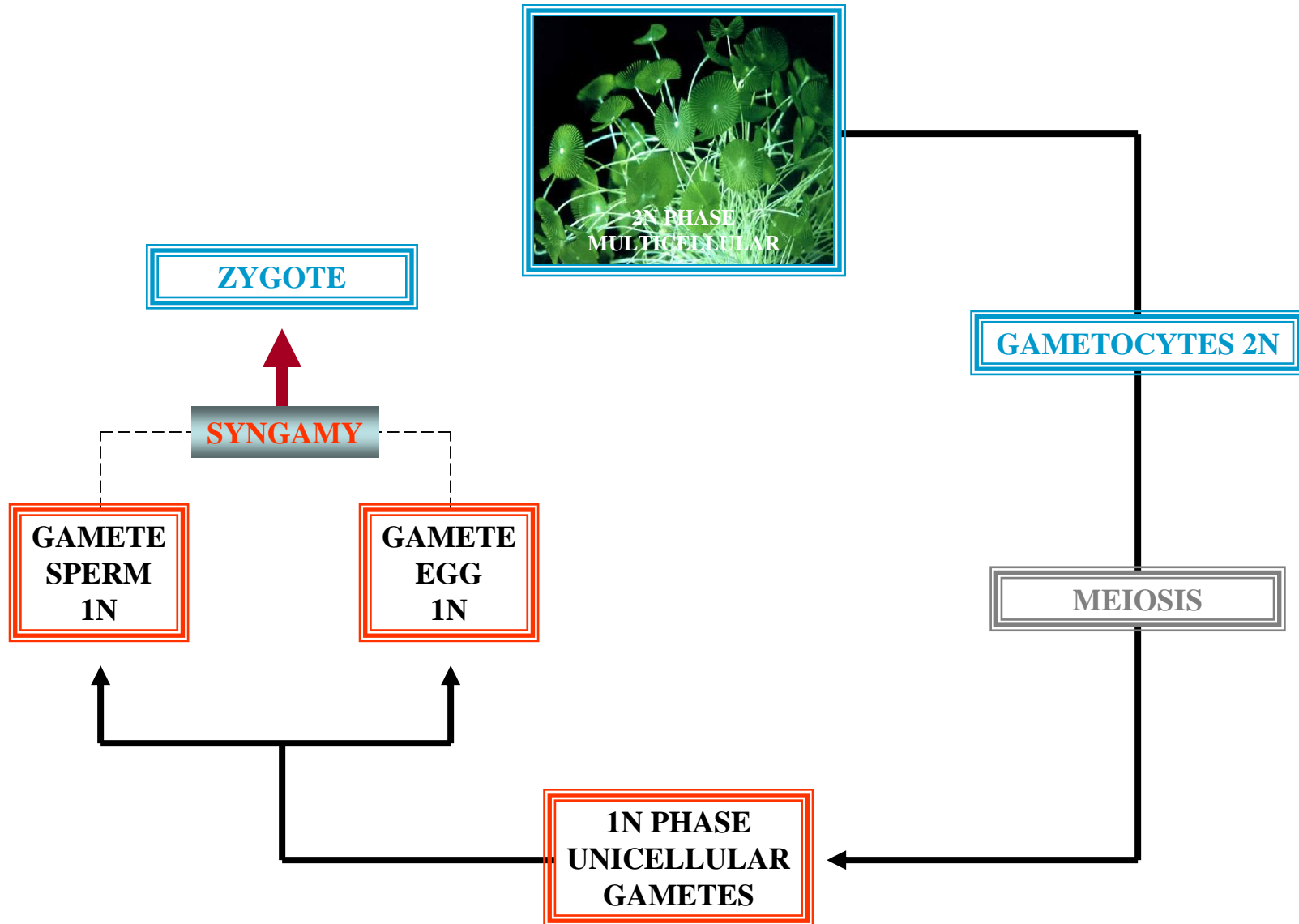
# ACETABULARIA

## GAMETIC LIFE CYCLE



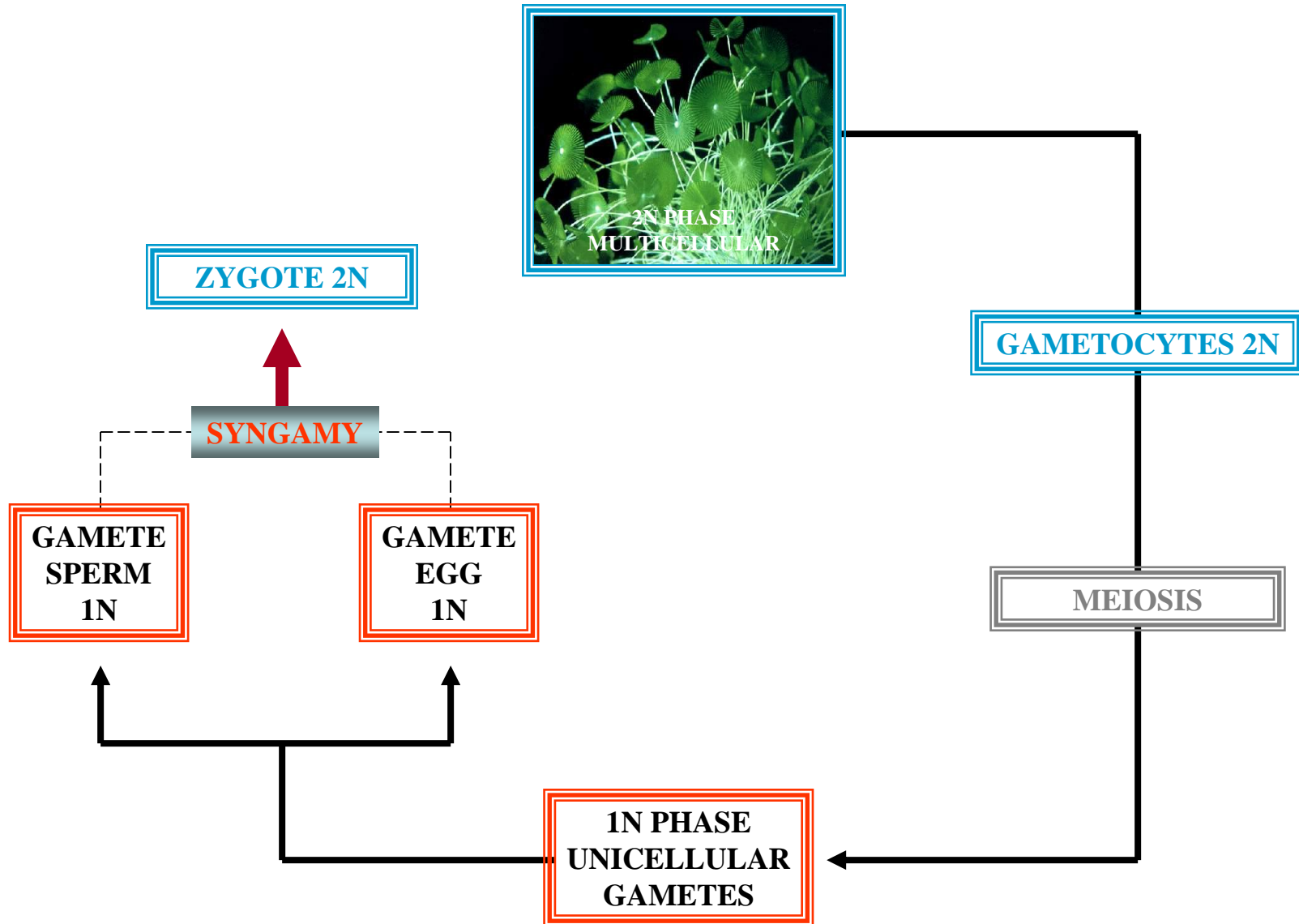
# ACETABULARIA

## GAMETIC LIFE CYCLE



# ACETABULARIA

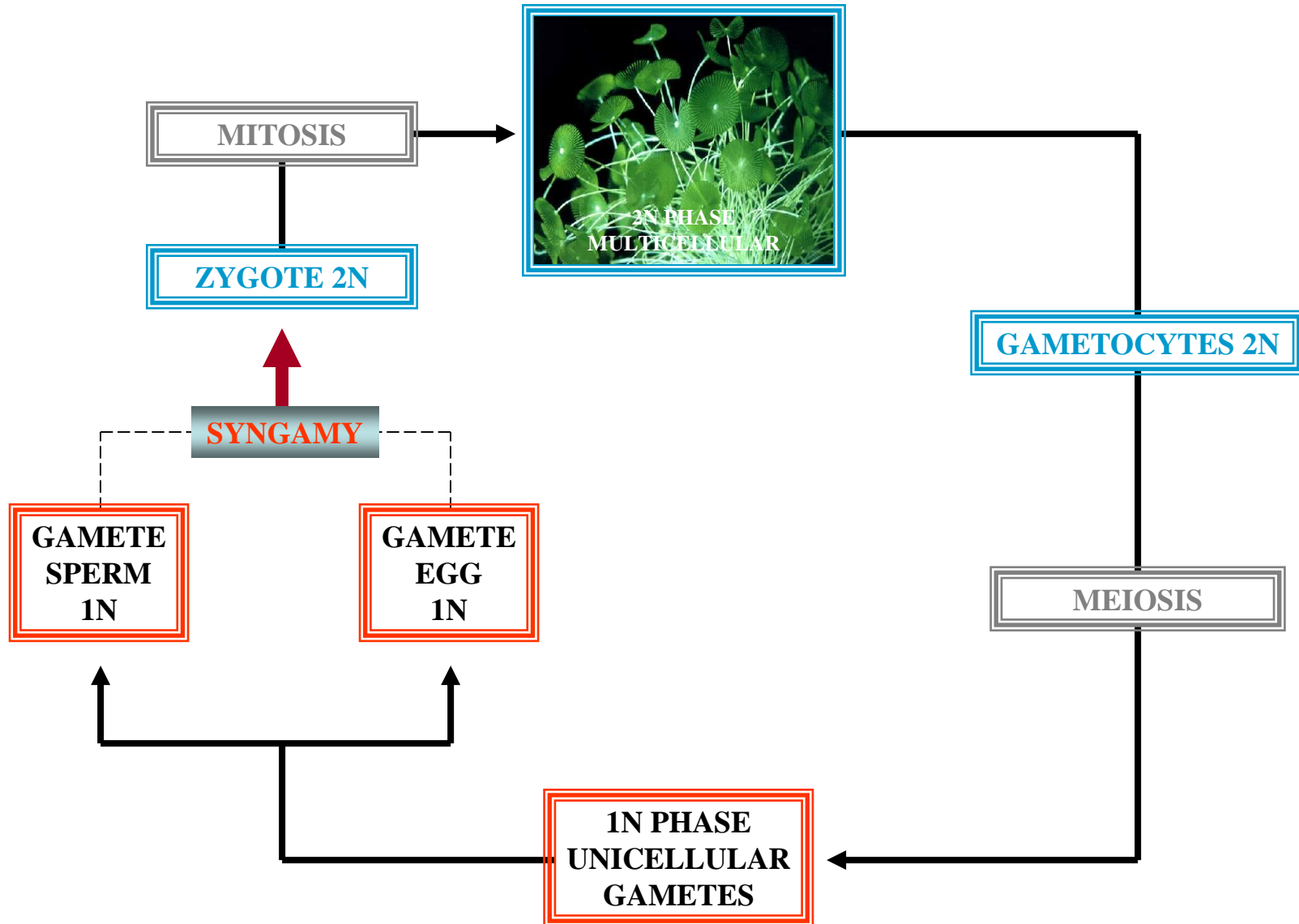
## GAMETIC LIFE CYCLE





# ACETABULARIA

## GAMETIC LIFE CYCLE





# ZYGOTIC LIFE CYCLE

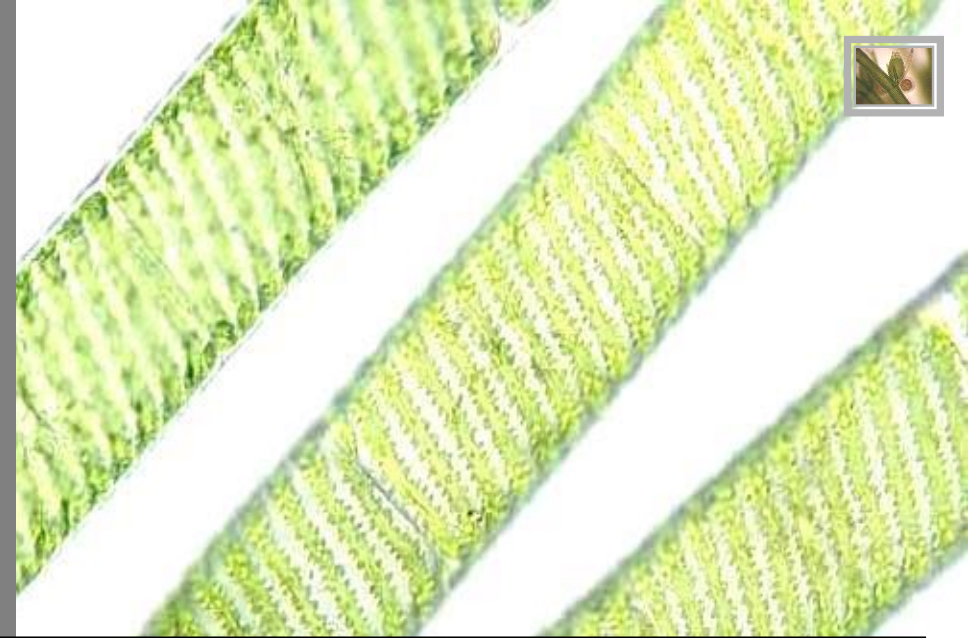
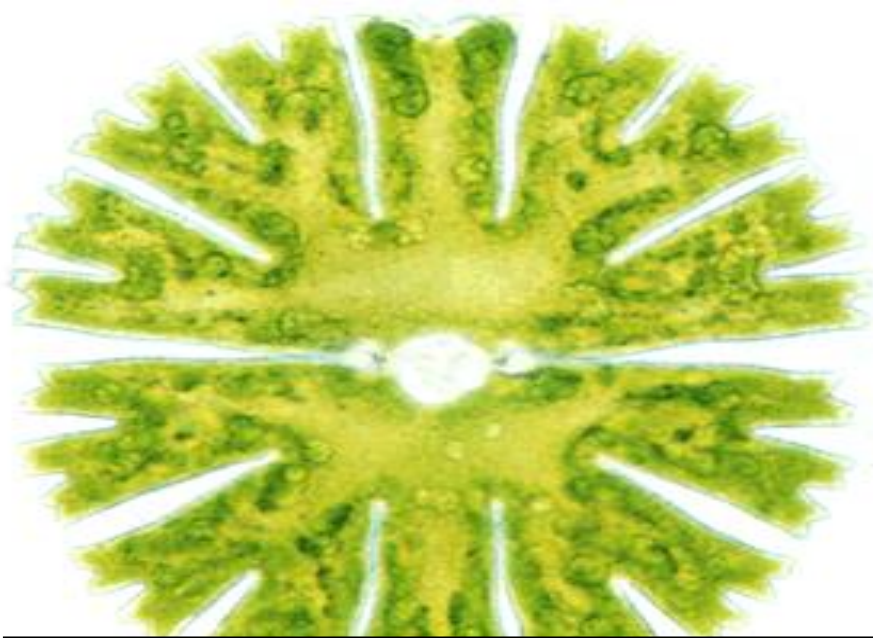




# FUNGUS LIFE CYCLE







# GREEN ALGAE







*CHARA*  
GREEN ALGA  
ZYGOTIC LIFE CYCLE



# *CHARA* ZYGOTIC LIFE CYCLE



# *CHARA* ZYGOTIC LIFE CYCLE



# *CHARA* ZYGOTIC LIFE CYCLE





# *CHARA* ZYGOTIC LIFE CYCLE

**GAMETANGIA**



IN PHASE  
MULTICELLULAR

# *CHARA* ZYGOTIC LIFE CYCLE

**GAMETOCYTES**



IN PHASE  
MULTICELLULAR

# *CHARA* ZYGOTIC LIFE CYCLE

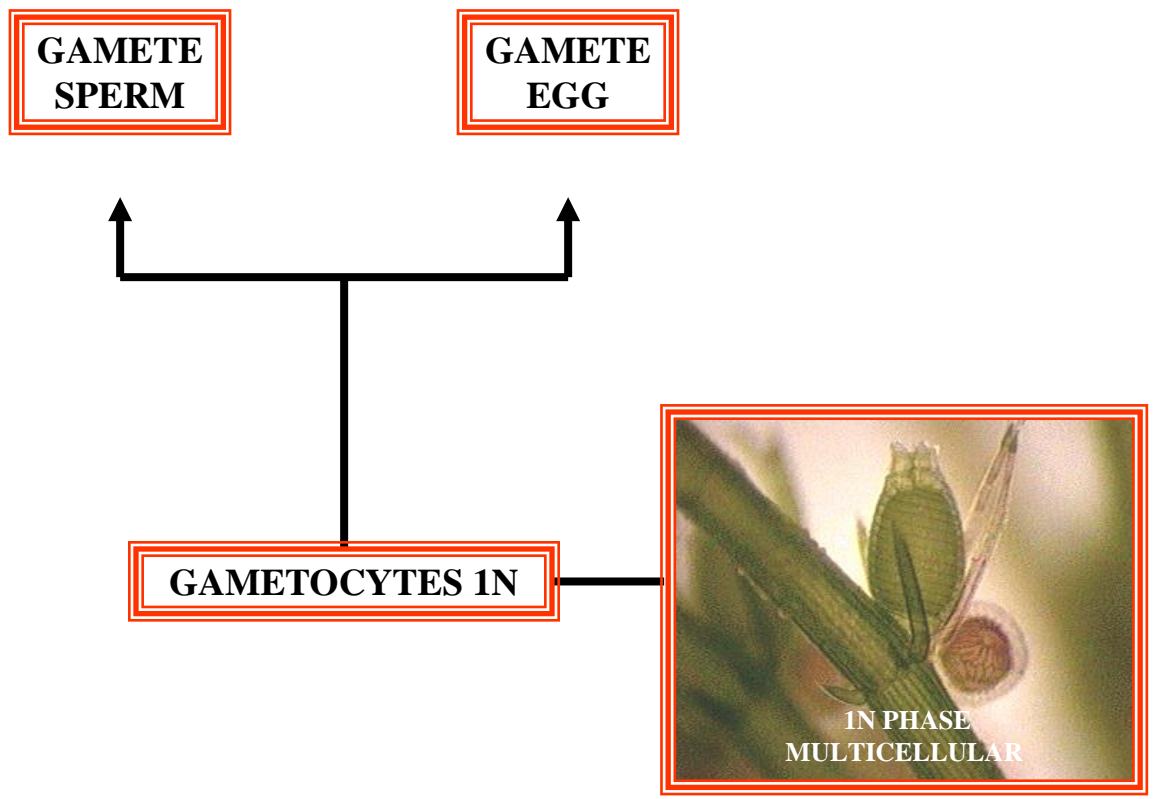


GAMETOCYTES 1N



1N PHASE  
MULTICELLULAR

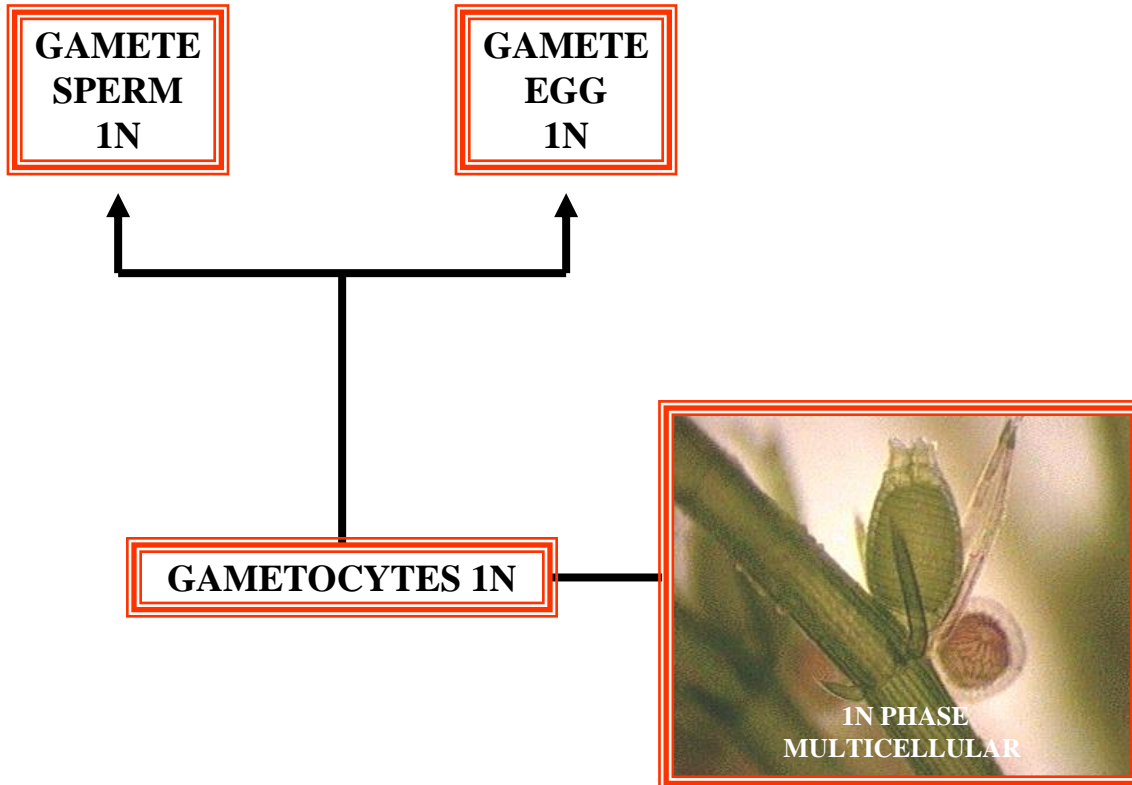
# CHARA ZYGOTIC LIFE CYCLE





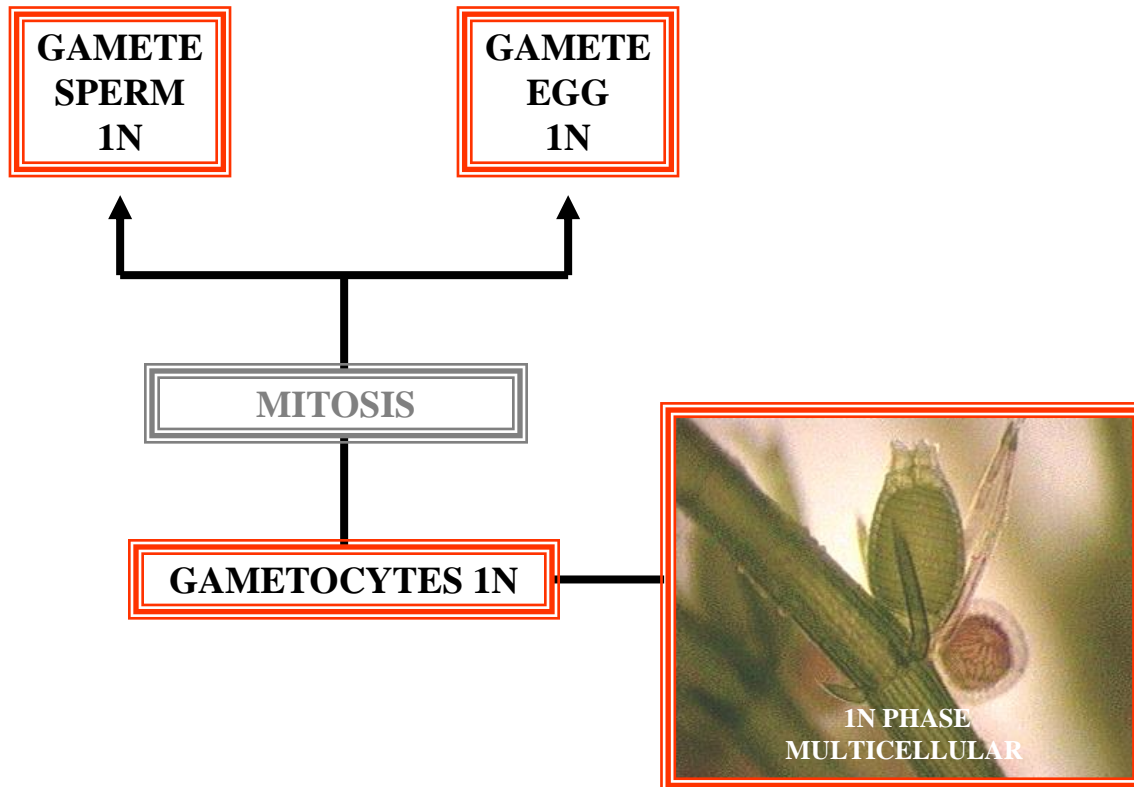
# CHARA

## ZYGOTIC LIFE CYCLE



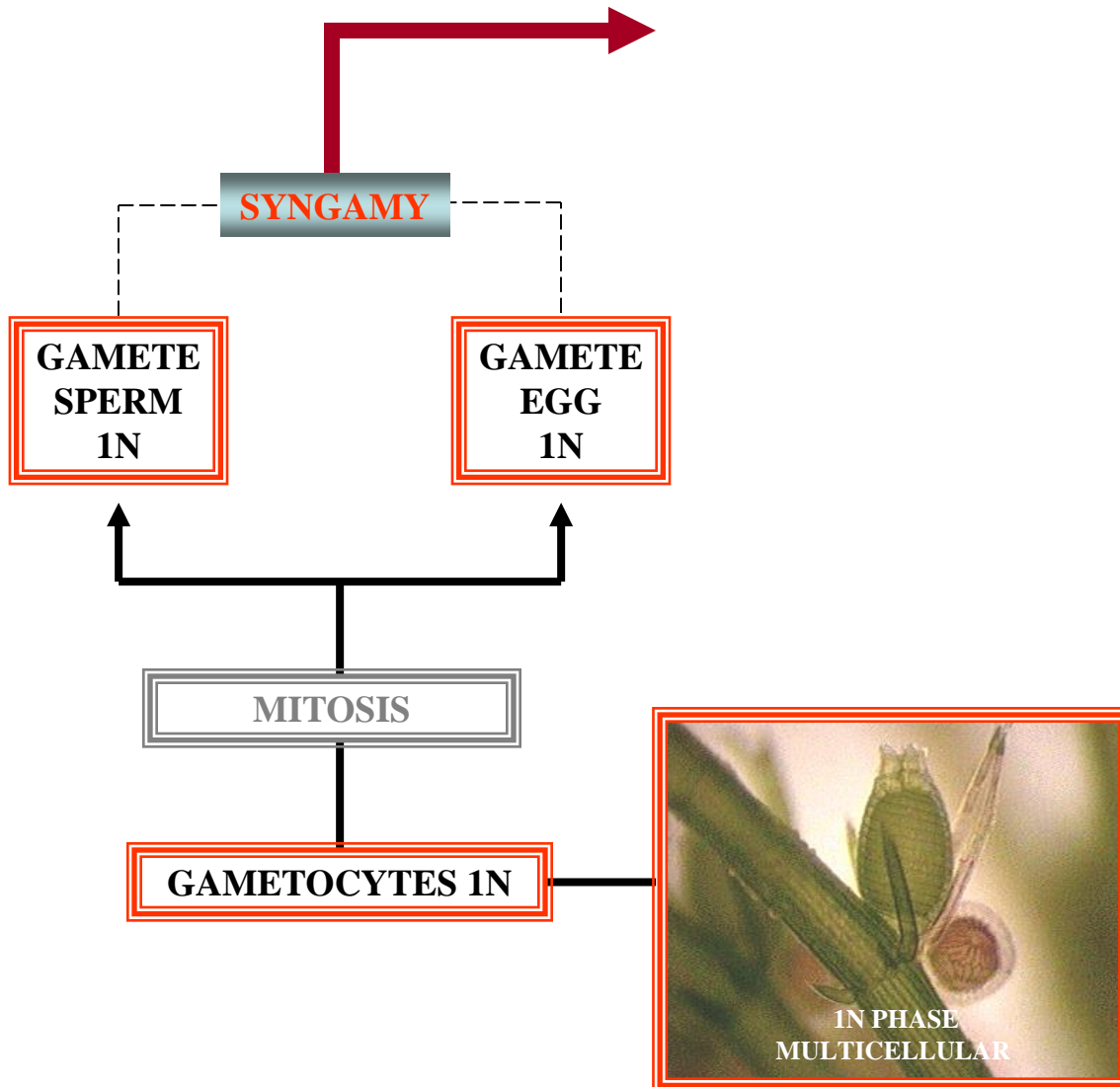
# CHARA

## ZYGOTIC LIFE CYCLE



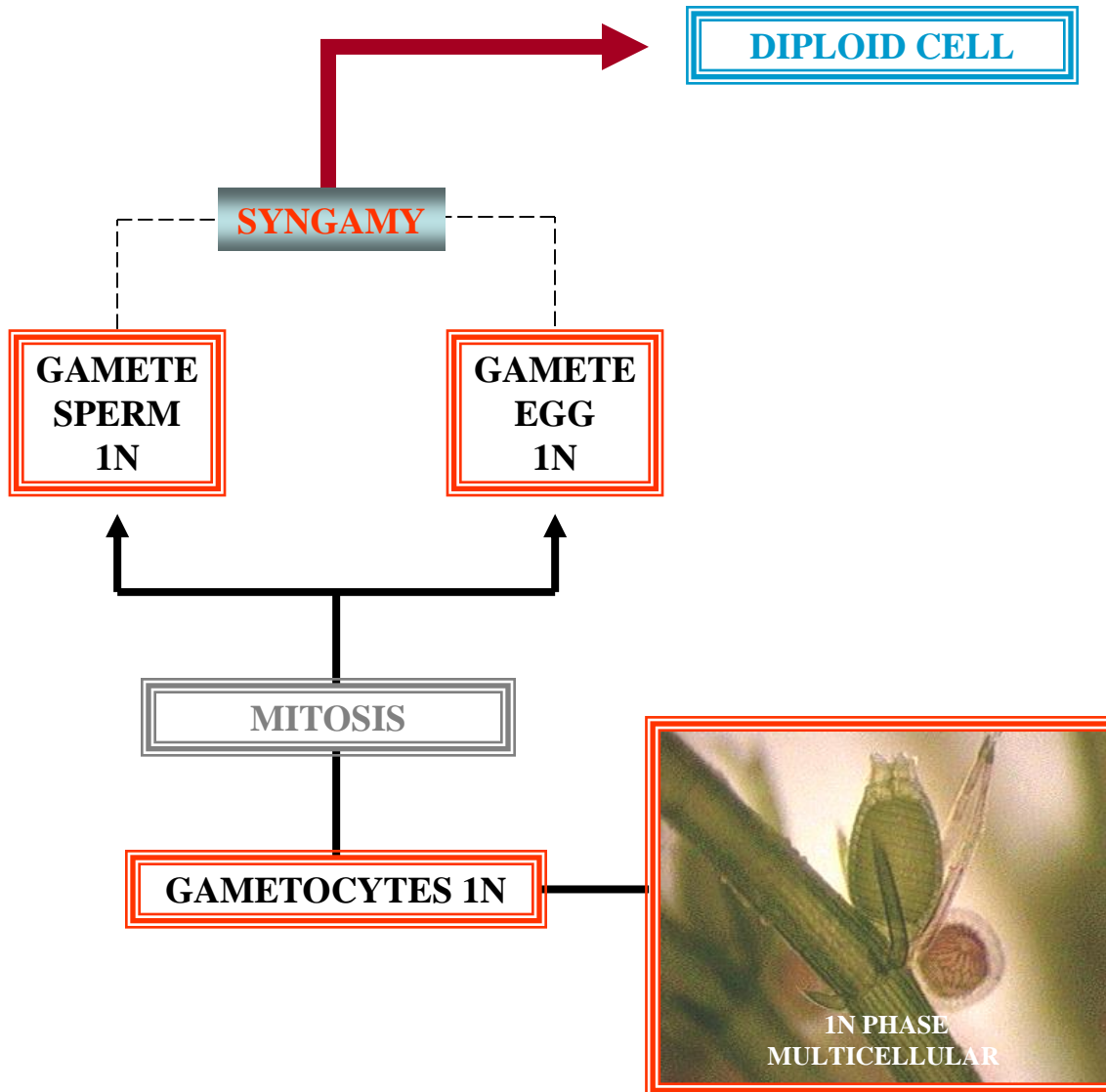
# CHARA

## ZYGOTIC LIFE CYCLE



# CHARA

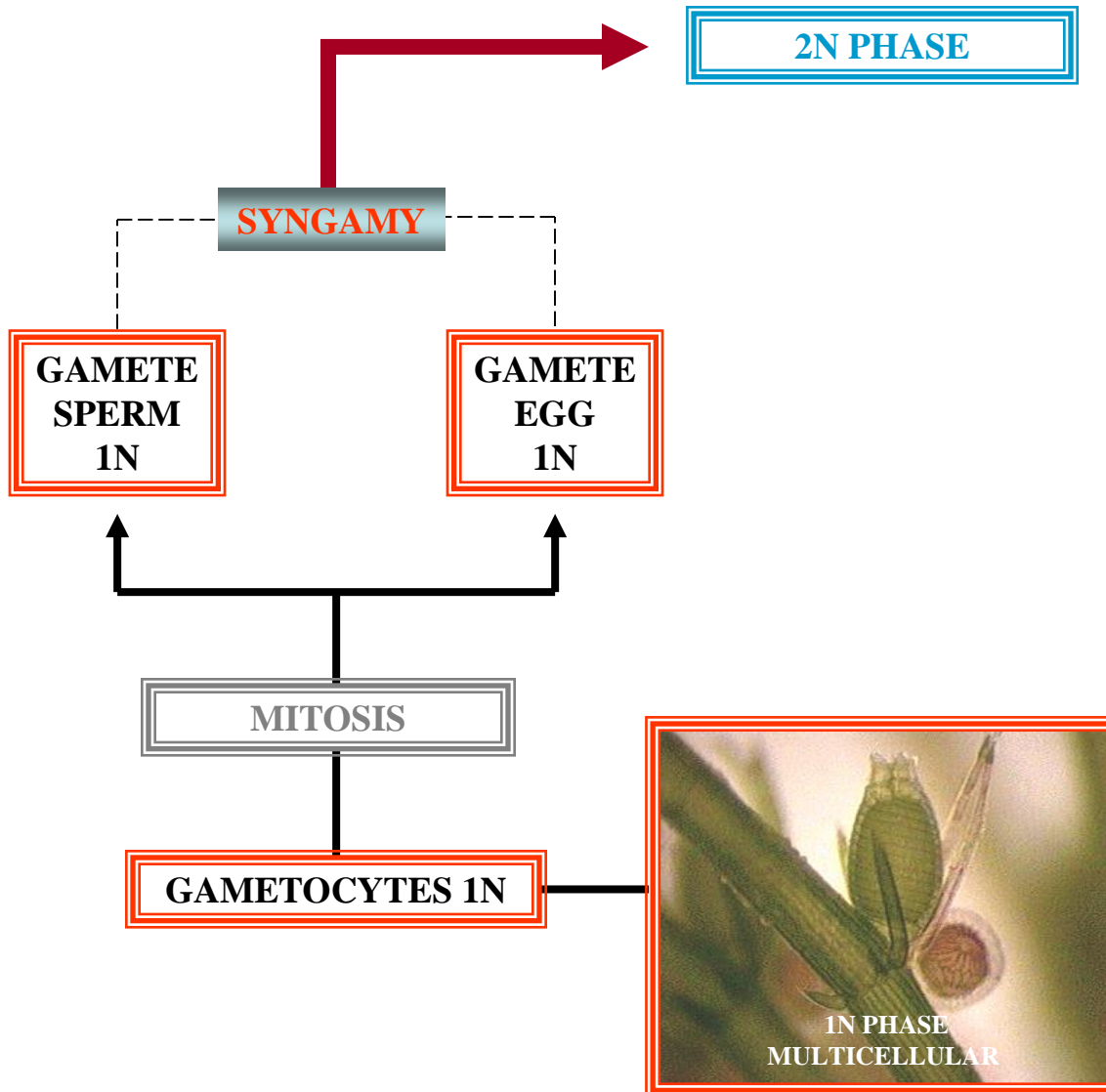
## ZYGOTIC LIFE CYCLE





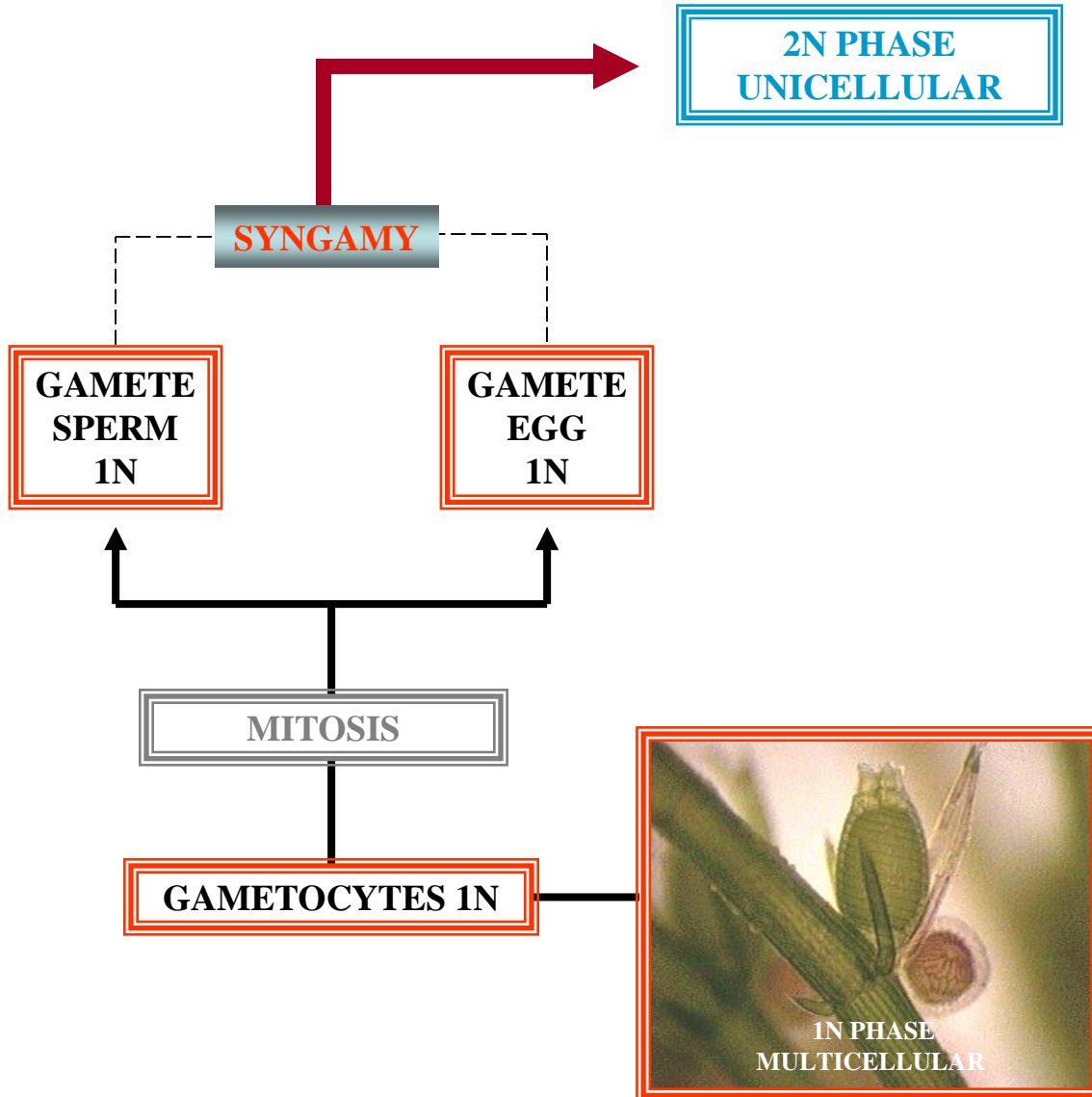
# CHARA

## ZYGOTIC LIFE CYCLE



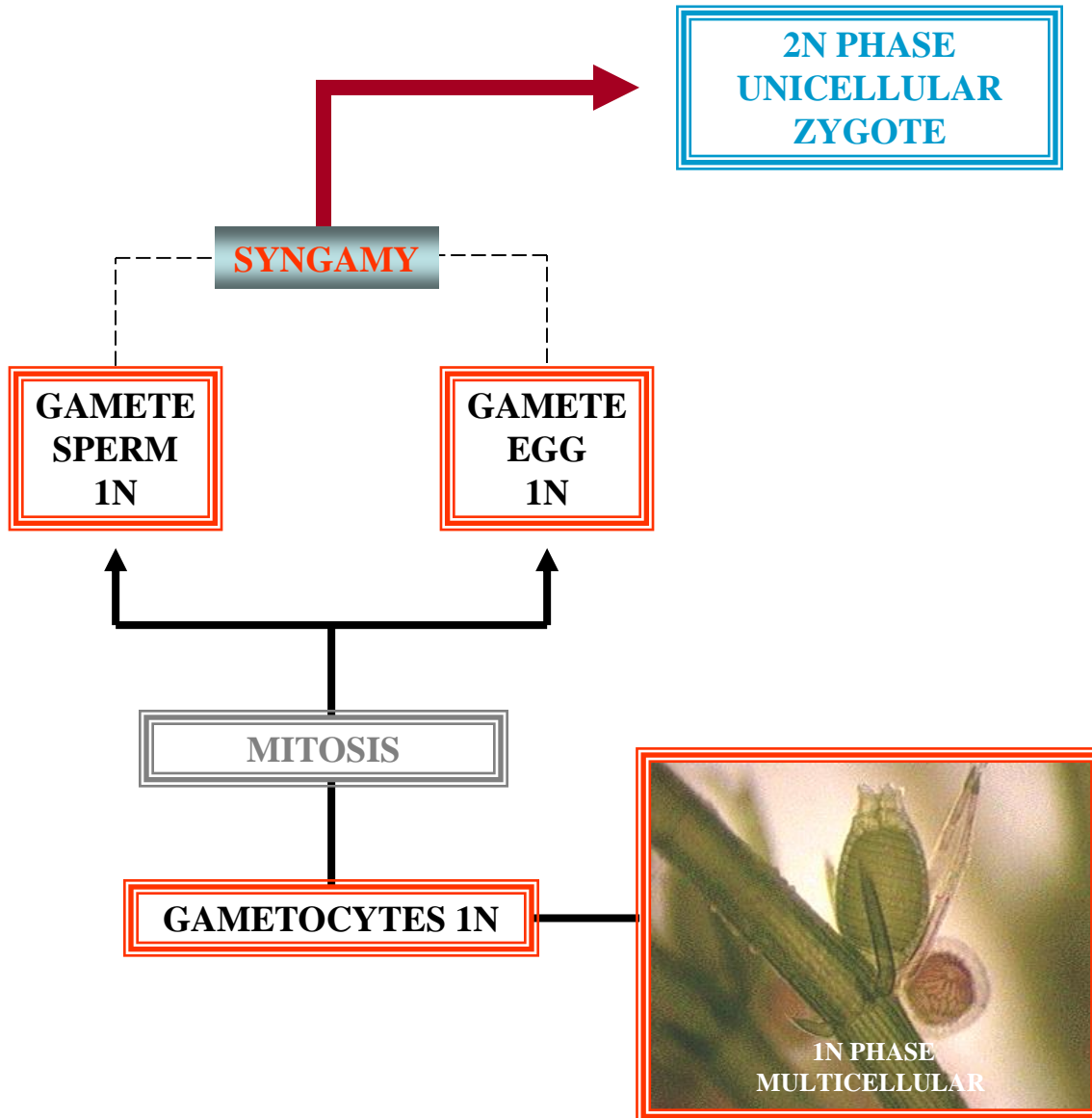
# CHARA

## ZYGOTIC LIFE CYCLE



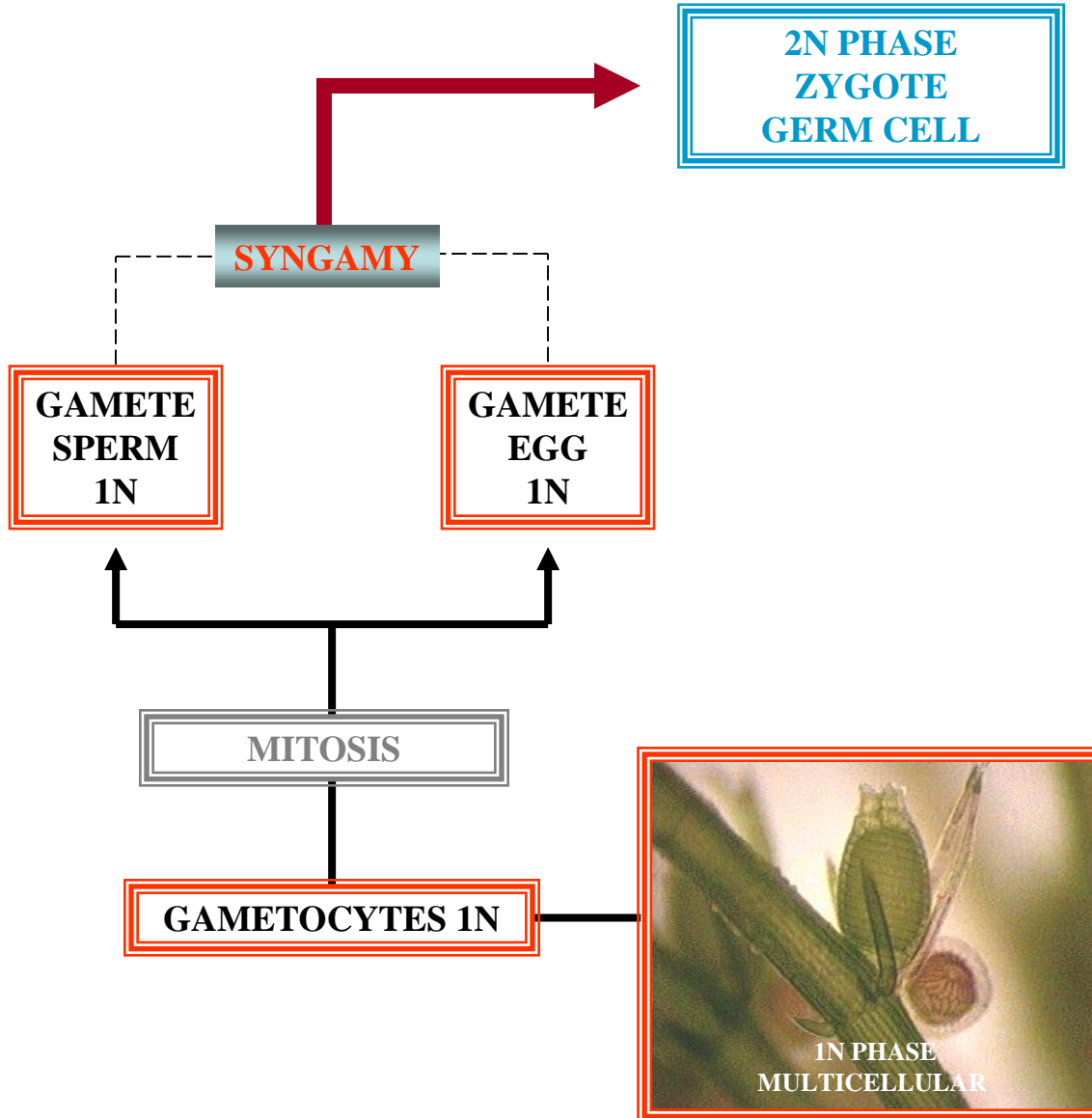
# CHARA

## ZYGOTIC LIFE CYCLE



# CHARA

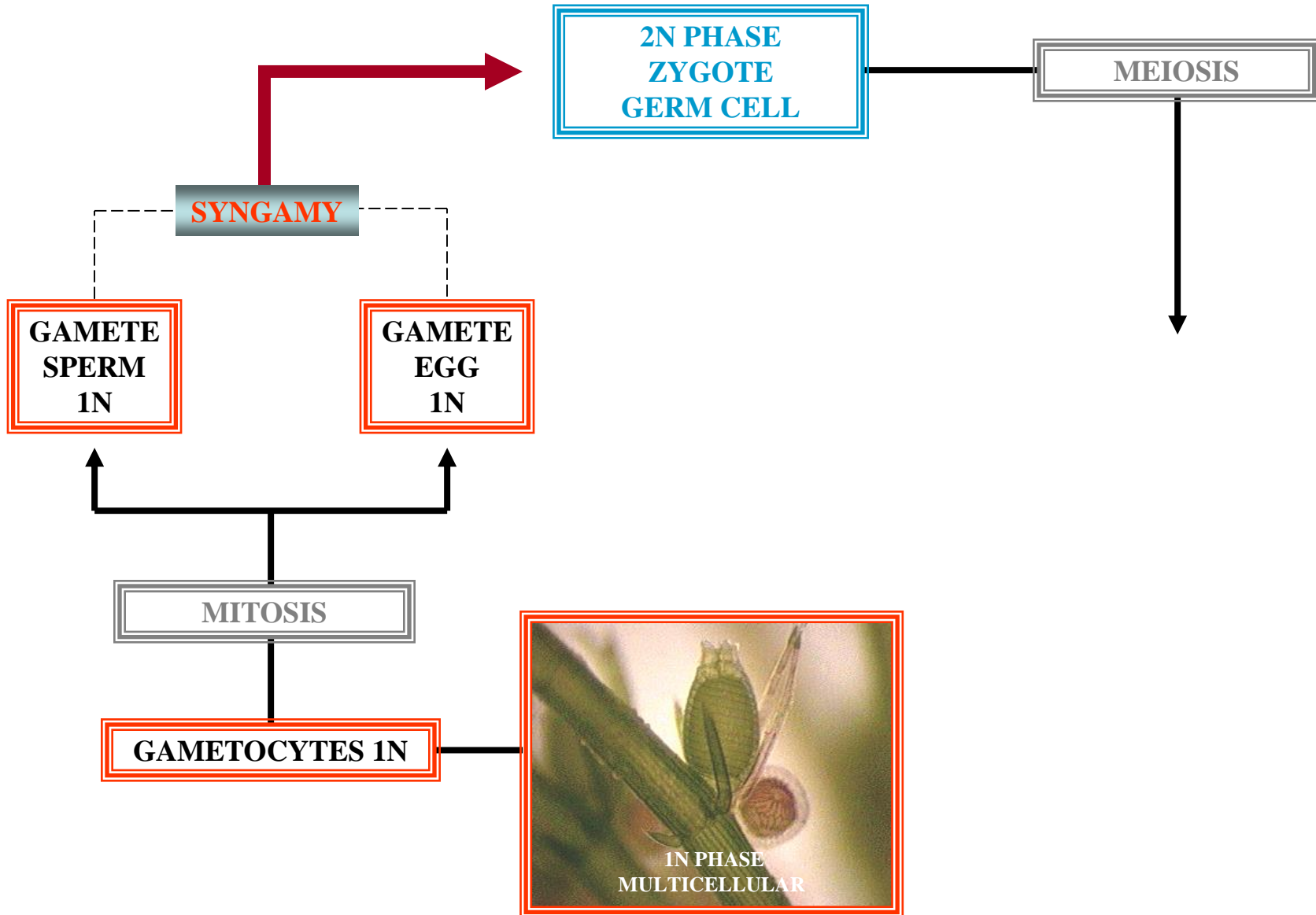
## ZYGOTIC LIFE CYCLE





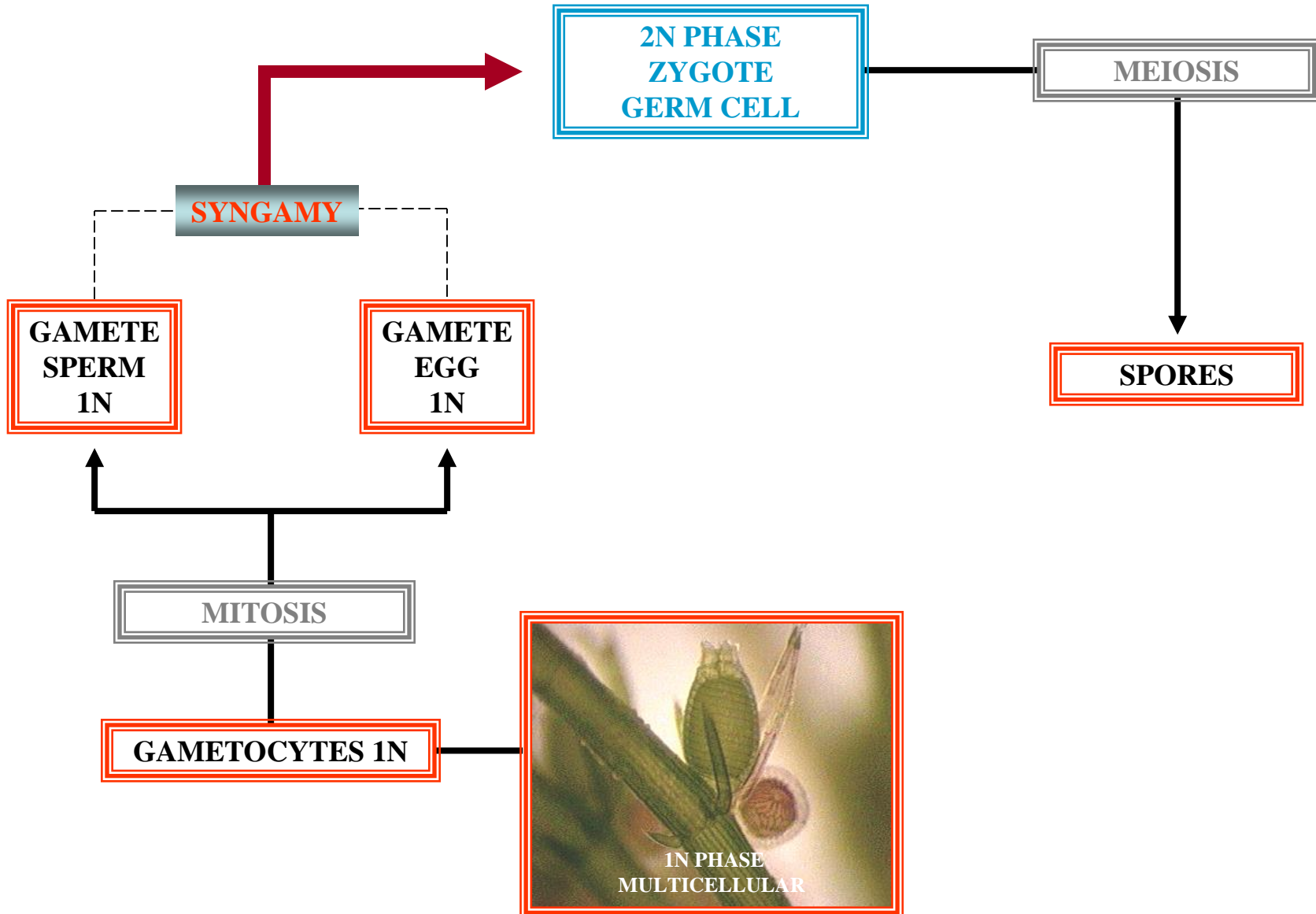
# CHARA

## ZYGOTIC LIFE CYCLE



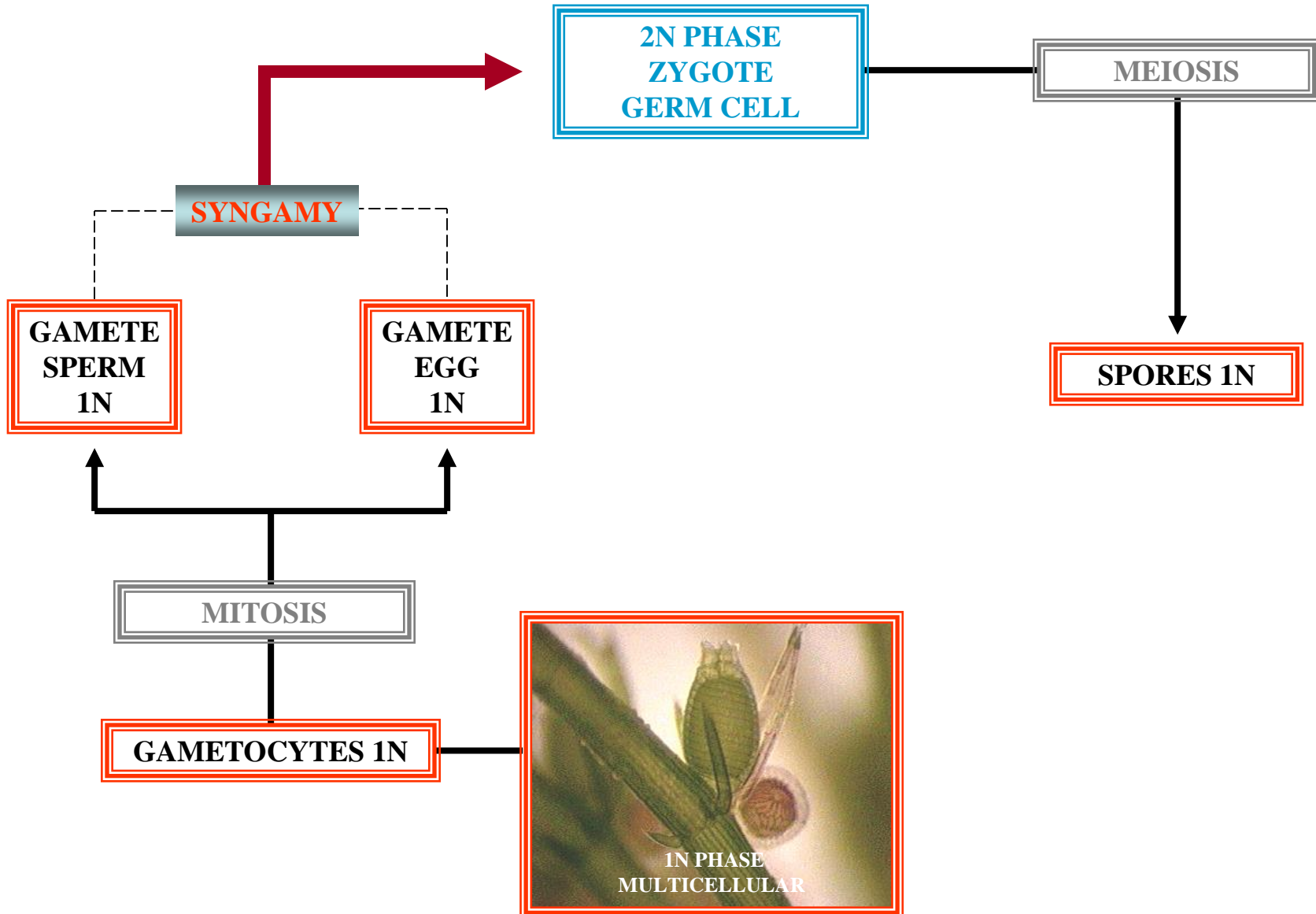
# CHARA

## ZYGOTIC LIFE CYCLE



# CHARA

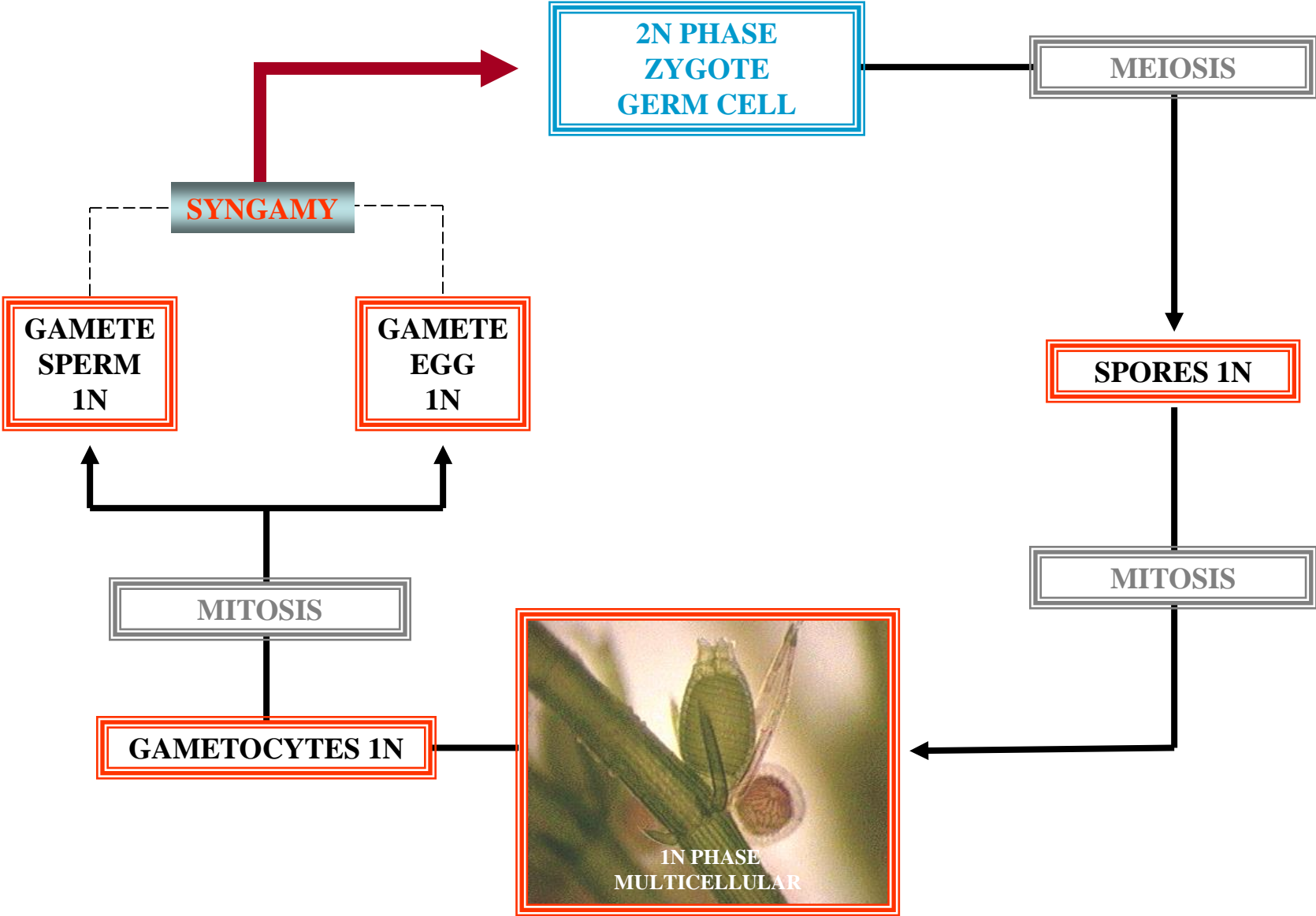
## ZYGOTIC LIFE CYCLE





# CHARA

## ZYGOTIC LIFE CYCLE







**GAMETIC  
LIFE CYCLE  
VS  
ZYGOTIC  
LIFE CYCLE  
SUMMARY**

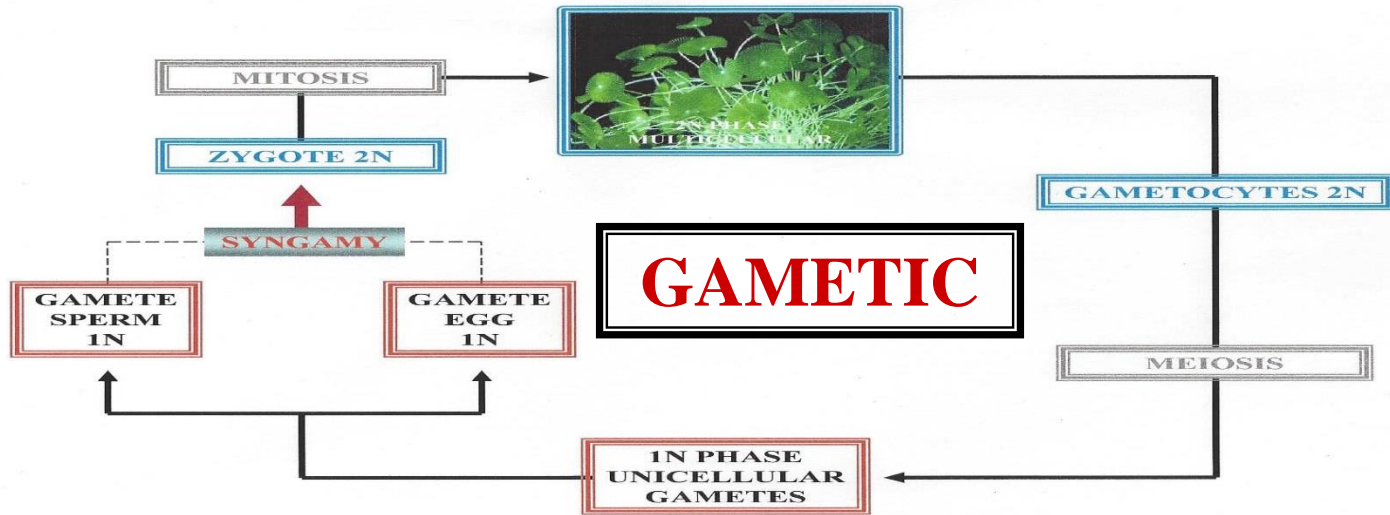


**QUESTION**

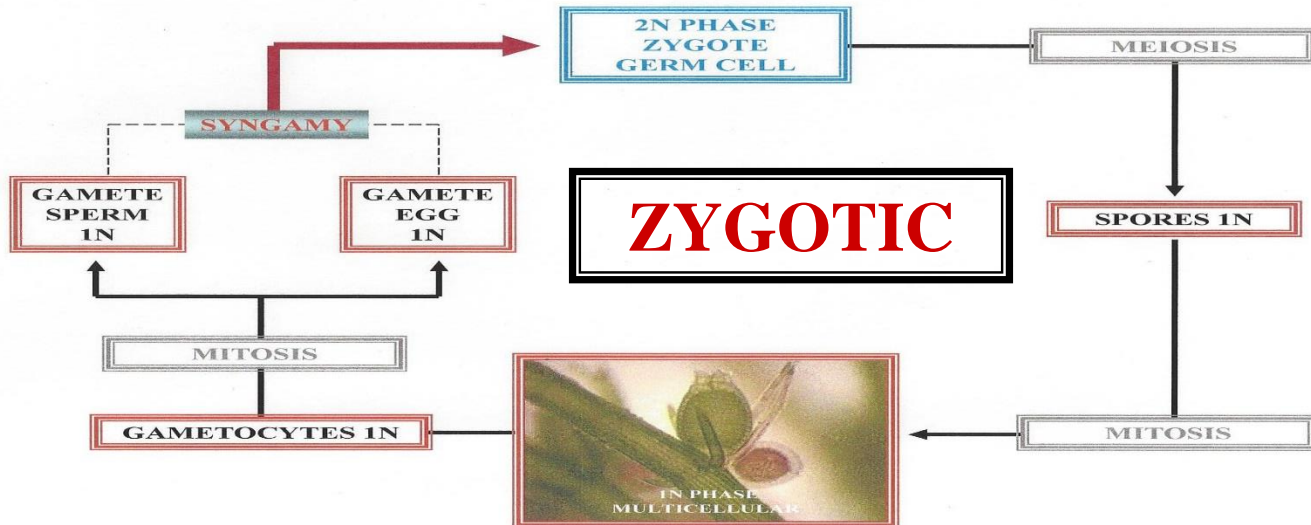
**WHICH LIFE CYCLE  
IS THE  
MULTICELLULAR  
PHASE DIPLOID?**

**QUESTION**

# ACETABULARIA GAMETIC LIFE CYCLE

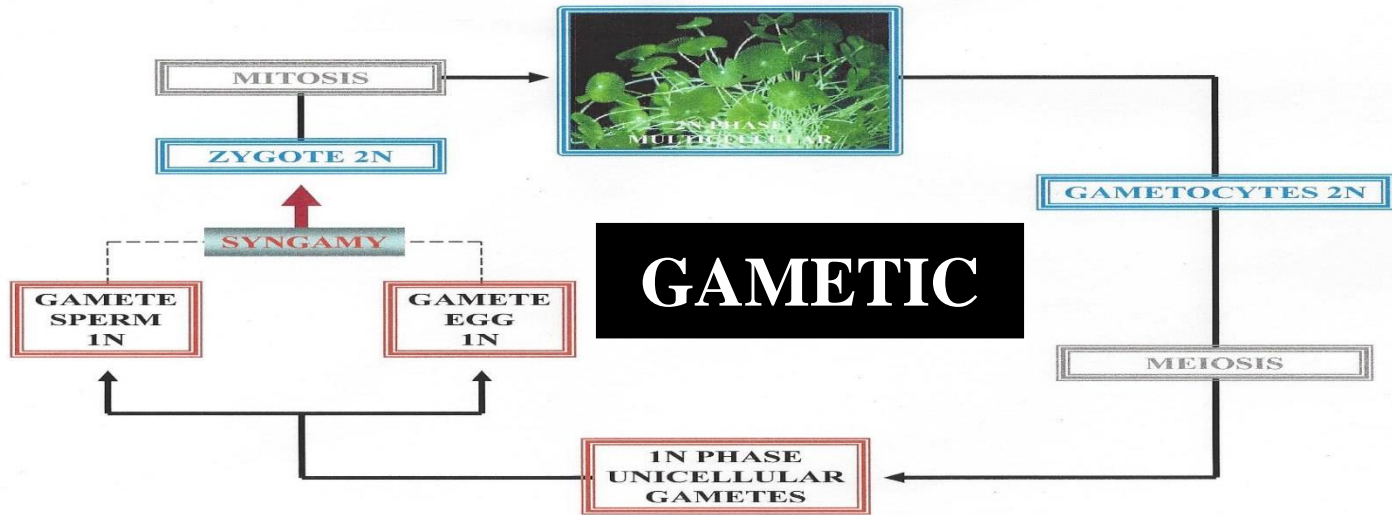


# CHARA ZYGOTIC LIFE CYCLE

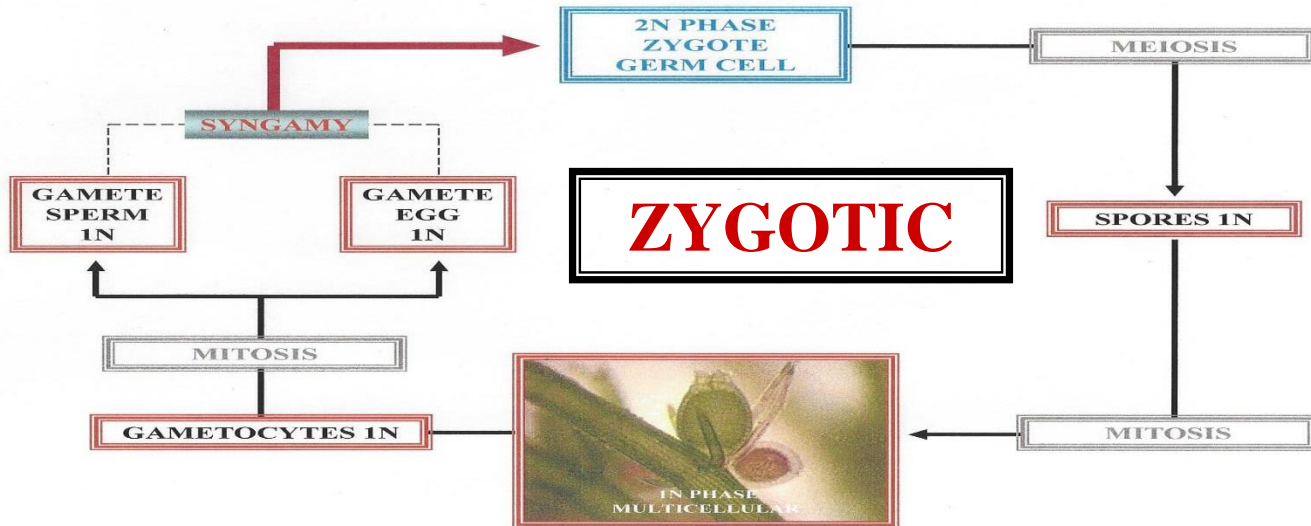




# ACETABULARIA GAMETIC LIFE CYCLE



# CHARA ZYGOTIC LIFE CYCLE





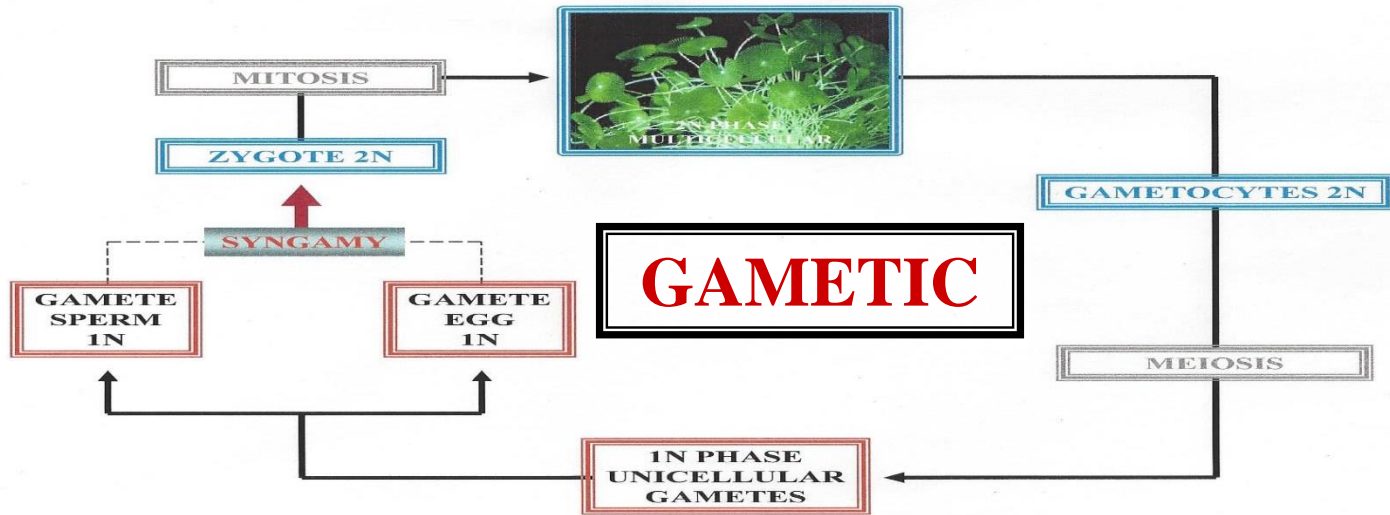
**QUESTION**

**WHICH LIFE CYCLE  
IS THE  
MULTICELLULAR  
PHASE HAPLOID?**

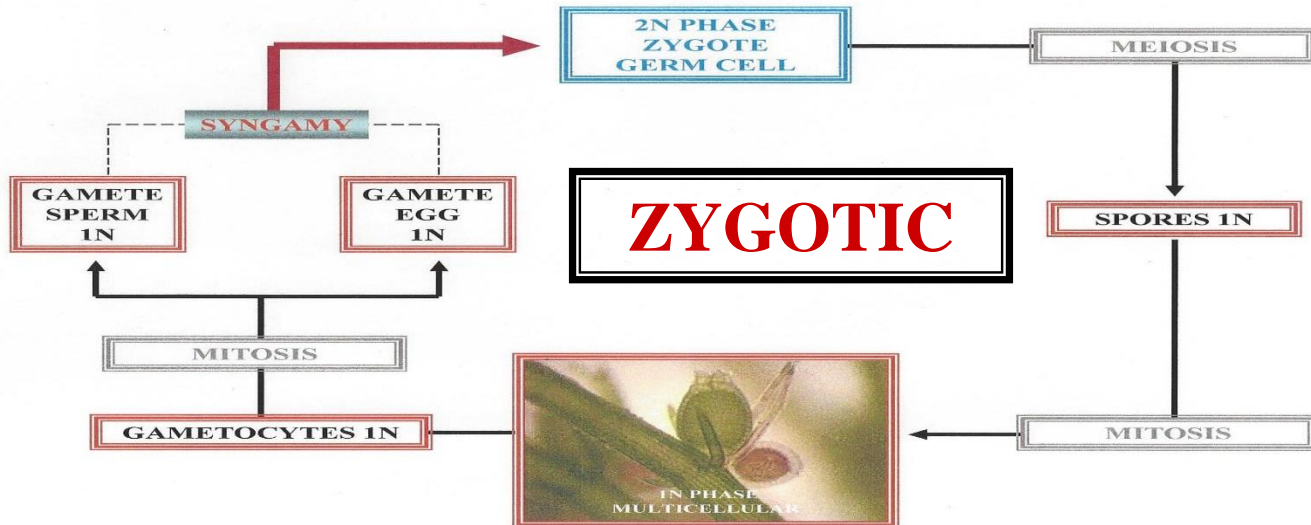
**QUESTION**



# ACETABULARIA GAMETIC LIFE CYCLE

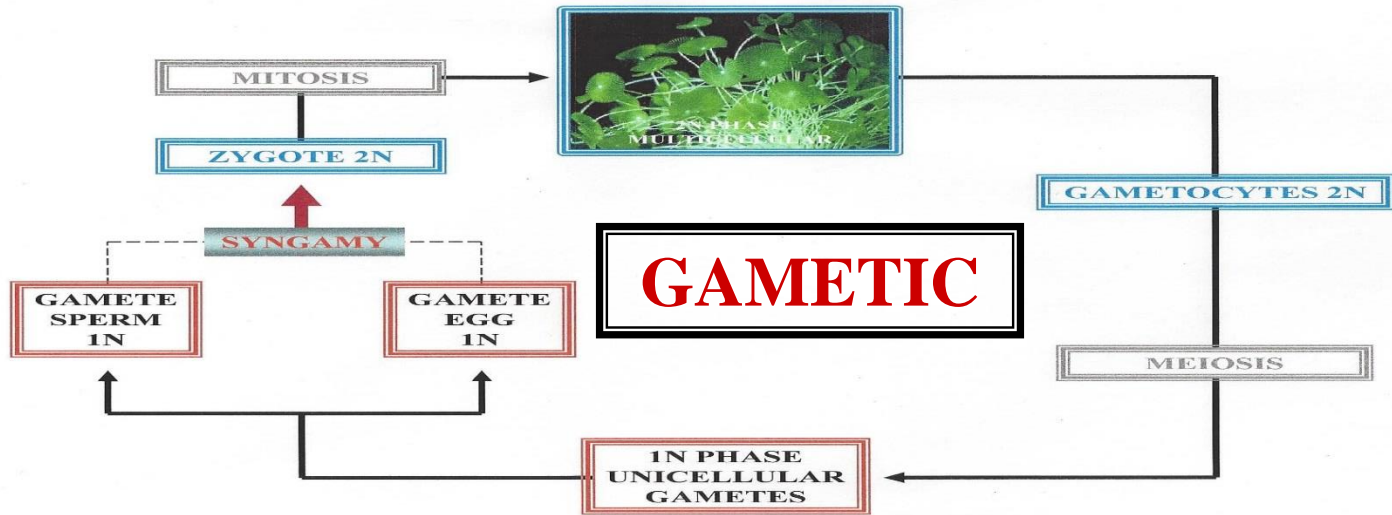


# CHARA ZYGOTIC LIFE CYCLE

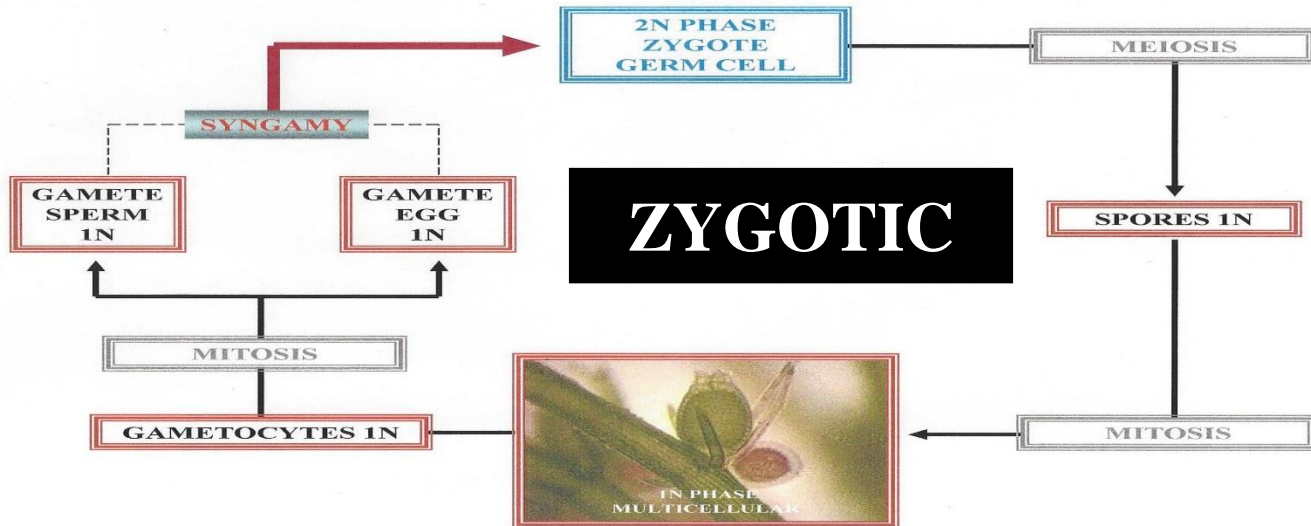




# ACETABULARIA GAMETIC LIFE CYCLE



# CHARA ZYGOTIC LIFE CYCLE



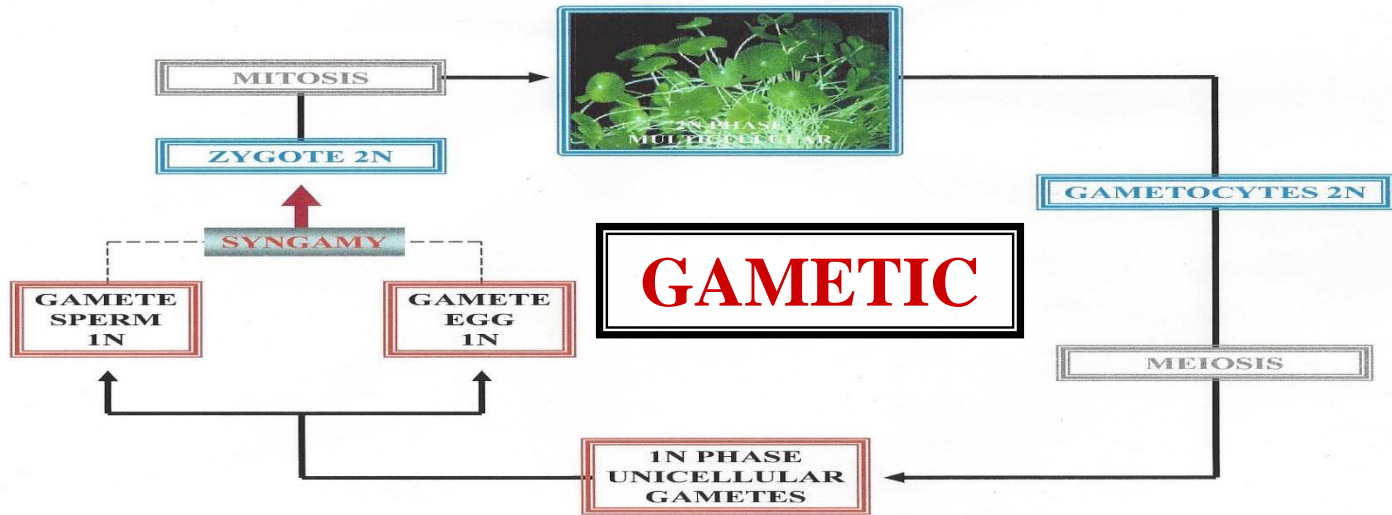


# QUESTION

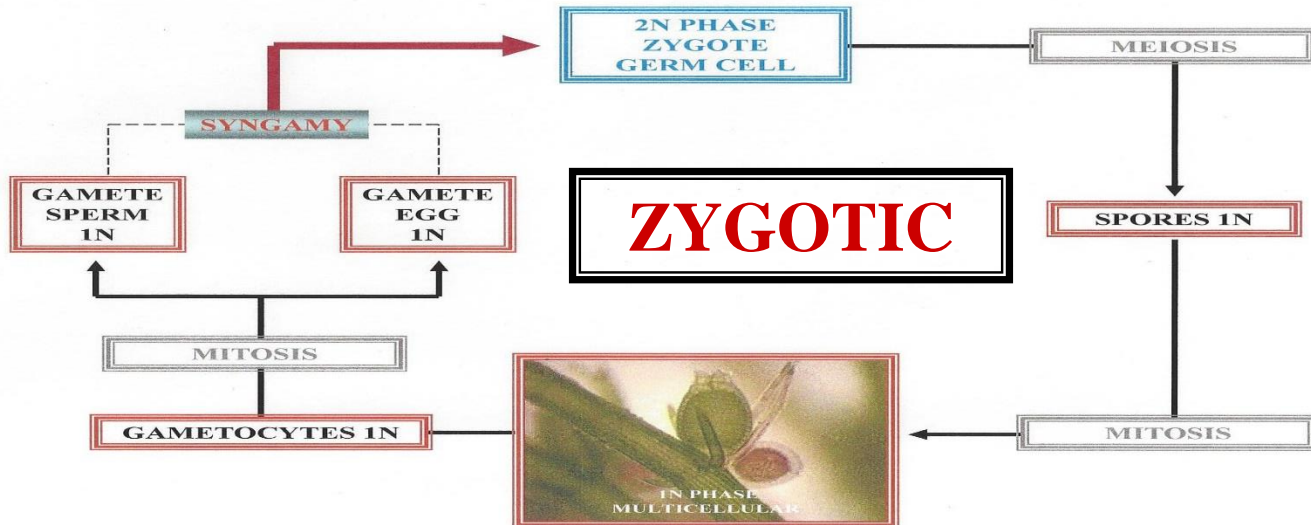
WHICH LIFE CYCLE  
ARE THE GAMETES  
DERIVED BY  
MEIOSIS?

# QUESTION

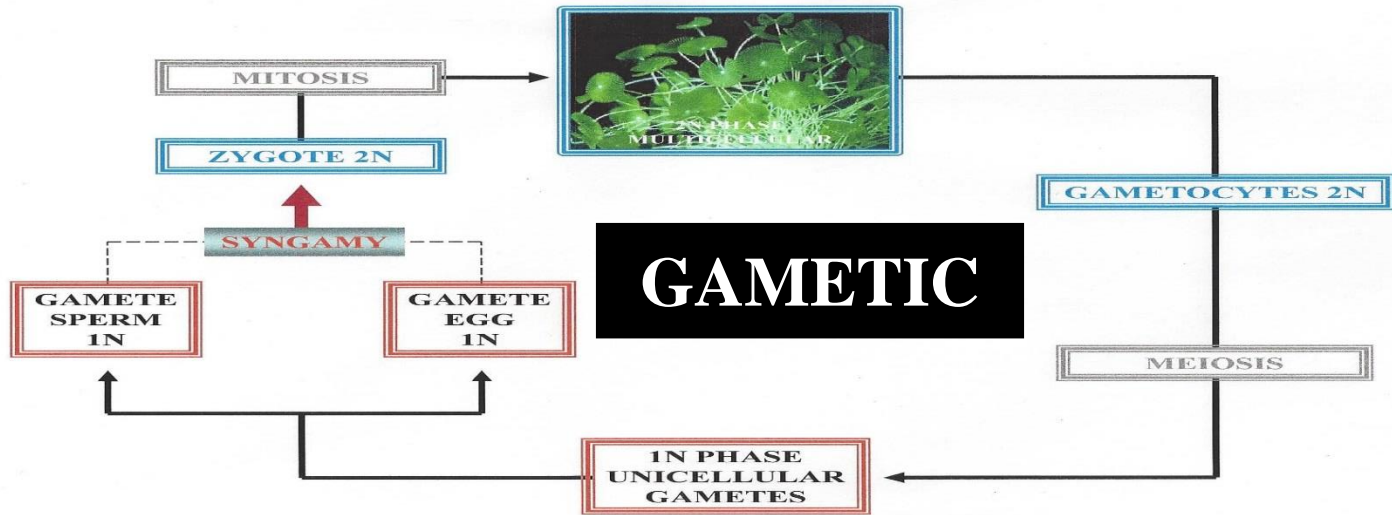
# ACETABULARIA GAMETIC LIFE CYCLE



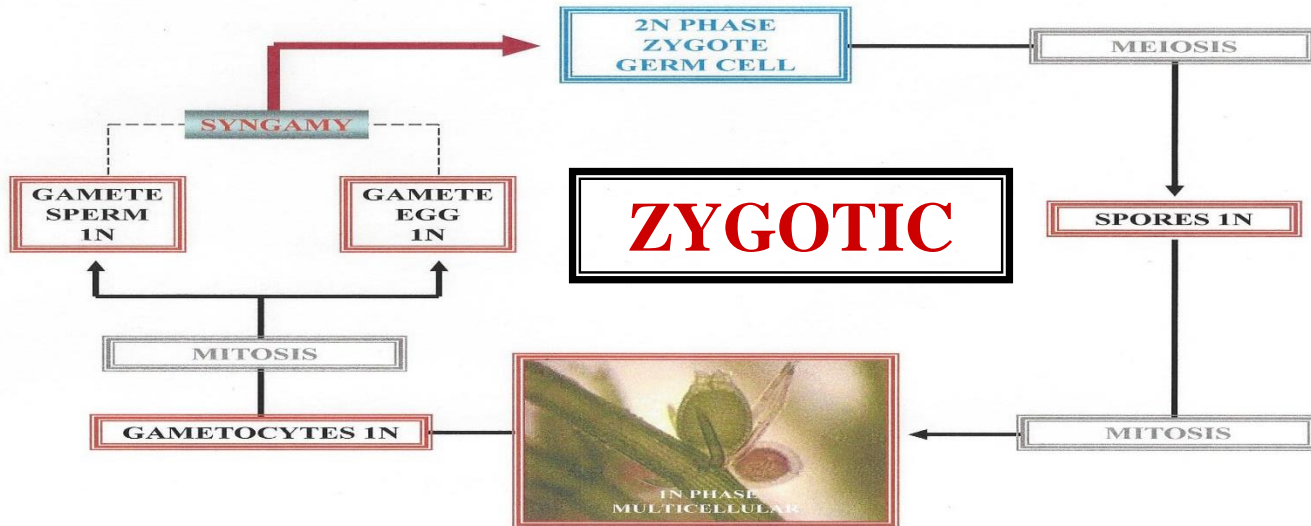
# CHARA ZYGOTIC LIFE CYCLE



# ACETABULARIA GAMETIC LIFE CYCLE



# CHARA ZYGOTIC LIFE CYCLE





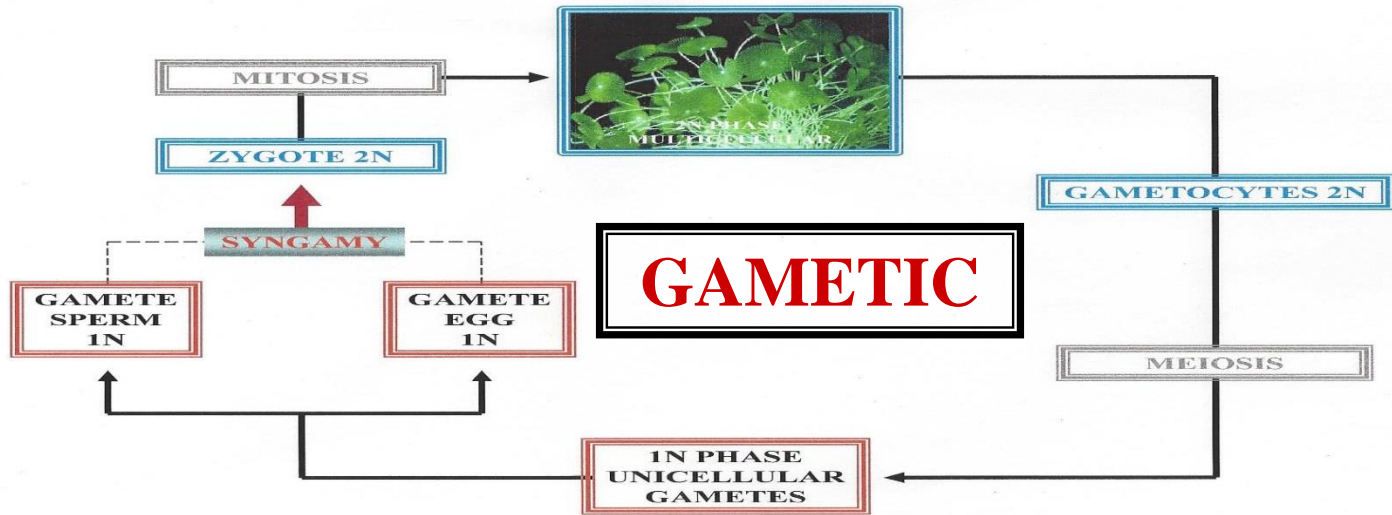


# QUESTION

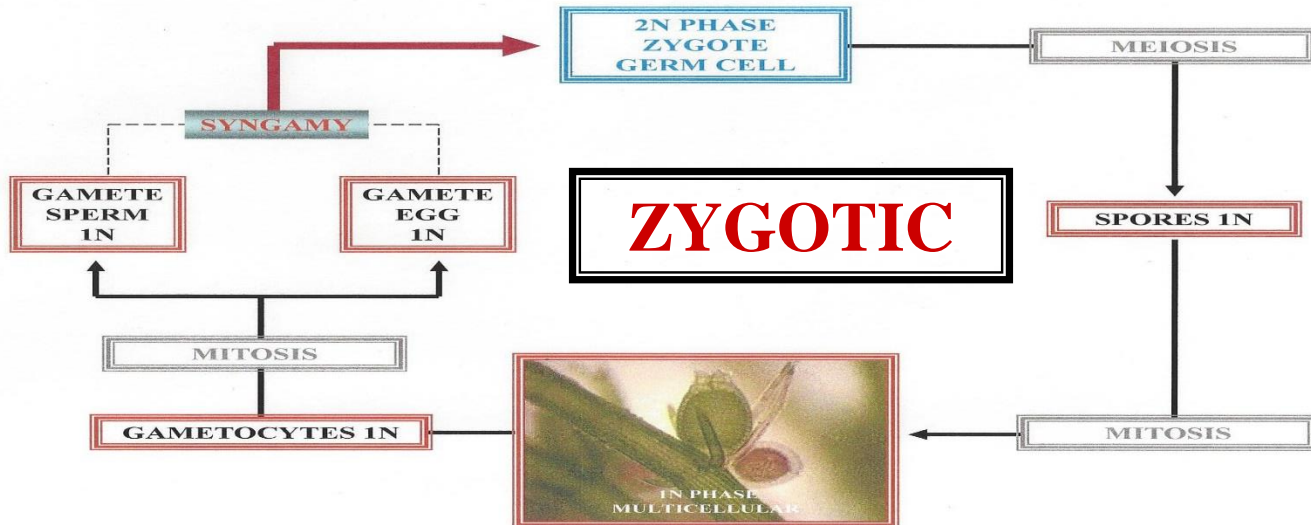
WHICH LIFE CYCLE  
ARE THE GAMETES  
DERIVED BY  
MITOSIS?

# QUESTION

# ACETABULARIA GAMETIC LIFE CYCLE

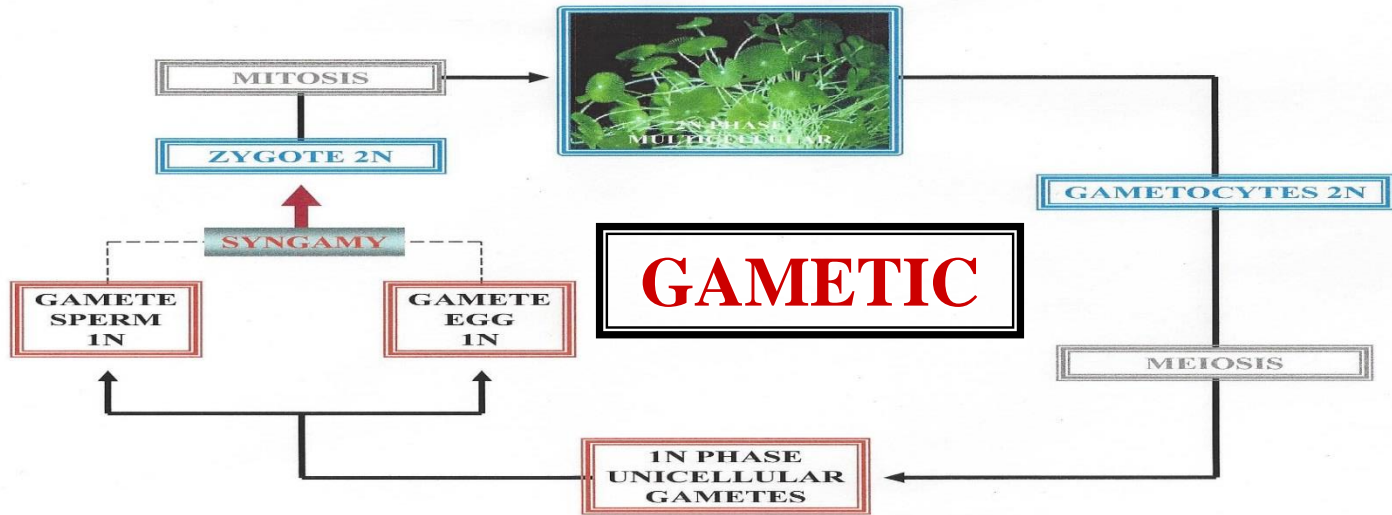


# CHARA ZYGOTIC LIFE CYCLE

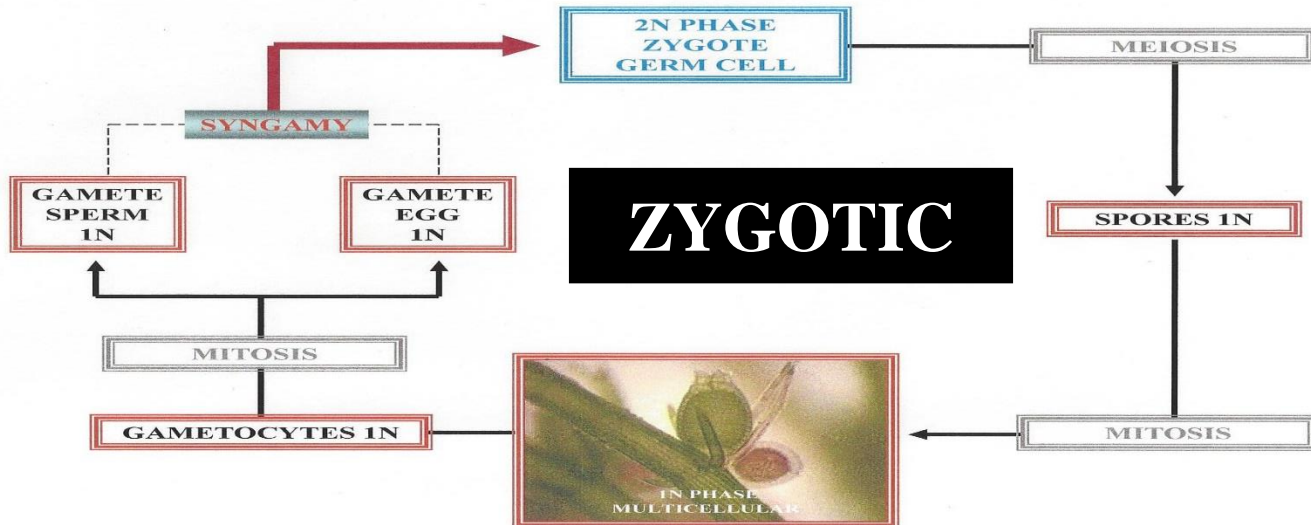




# ACETABULARIA GAMETIC LIFE CYCLE



# CHARA ZYGOTIC LIFE CYCLE



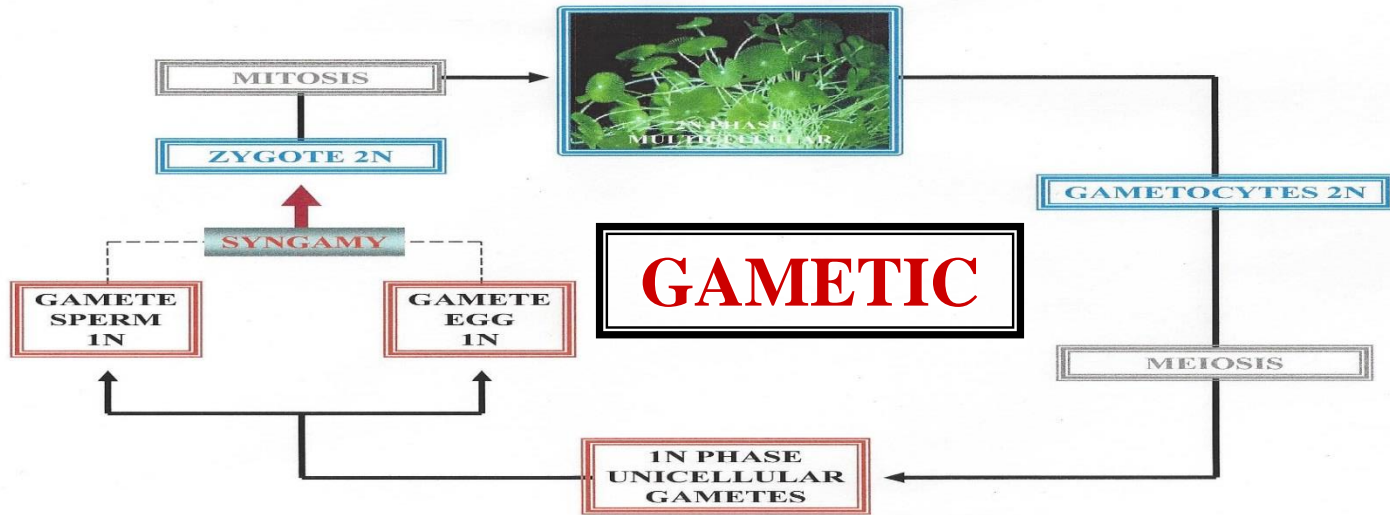


# QUESTION

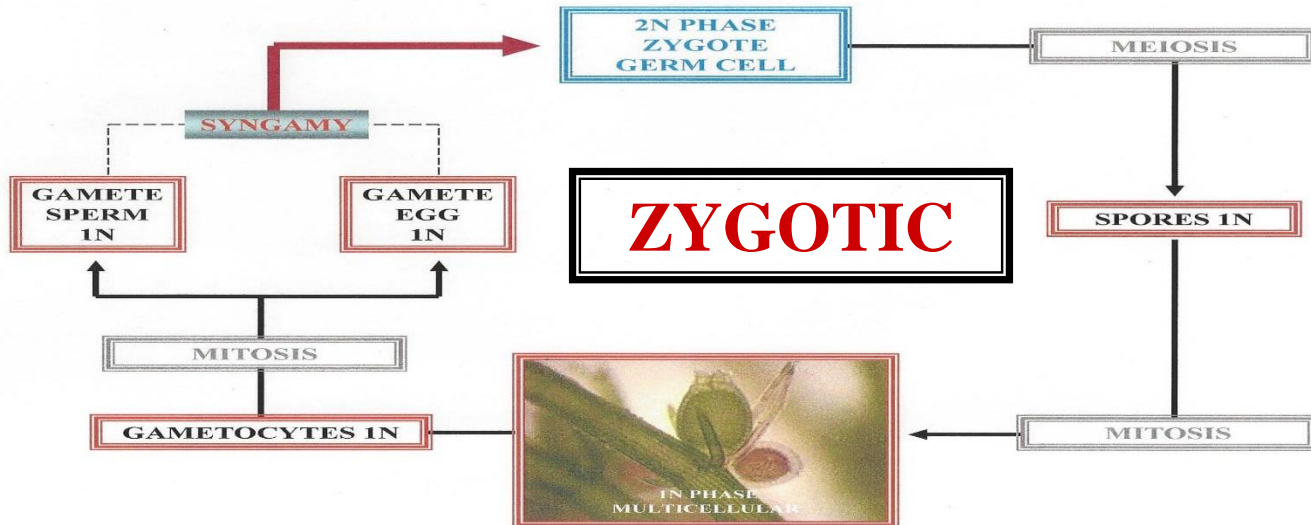
WHICH LIFE CYCLE  
ARE THE GAMETES  
THE ONLY  
HAPLOID CELLS?

# QUESTION

# ACETABULARIA GAMETIC LIFE CYCLE



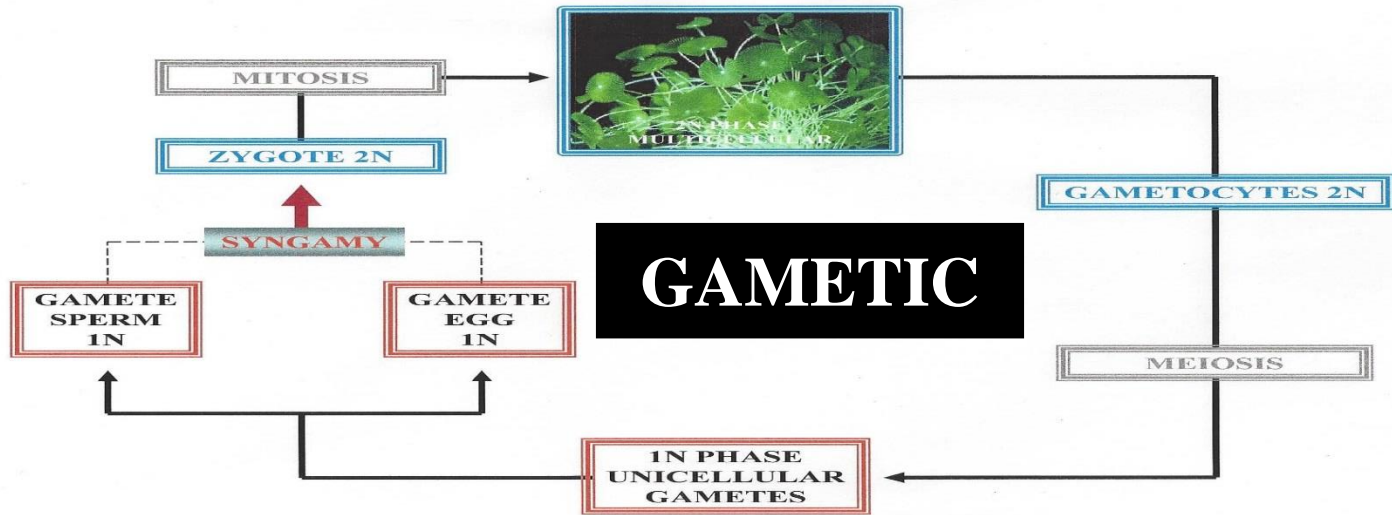
# CHARA ZYGOTIC LIFE CYCLE



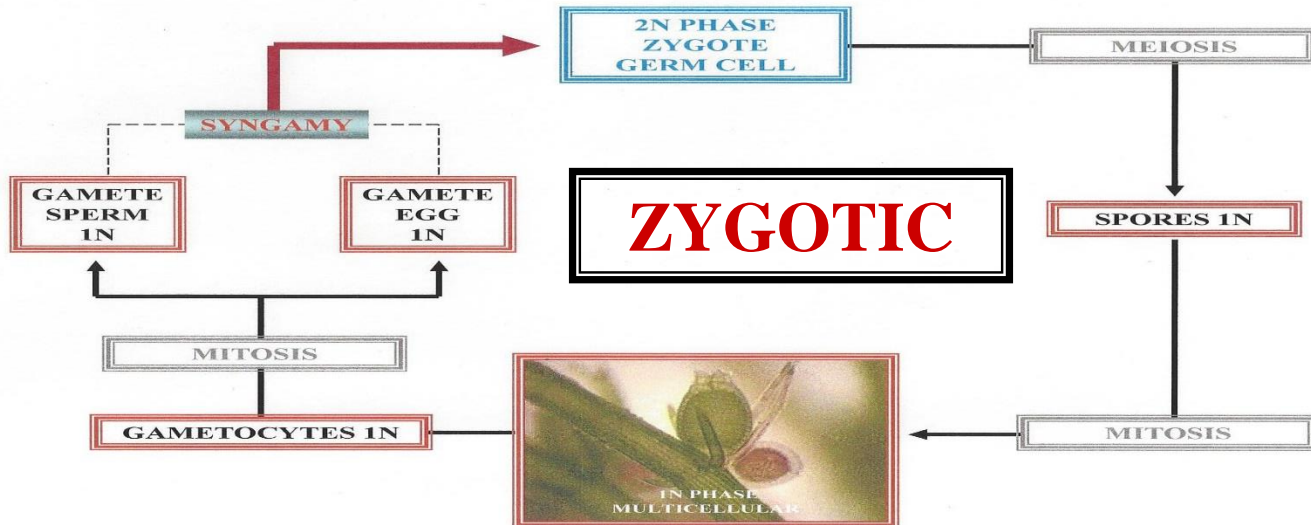




# ACETABULARIA GAMETIC LIFE CYCLE



# CHARA ZYGOTIC LIFE CYCLE



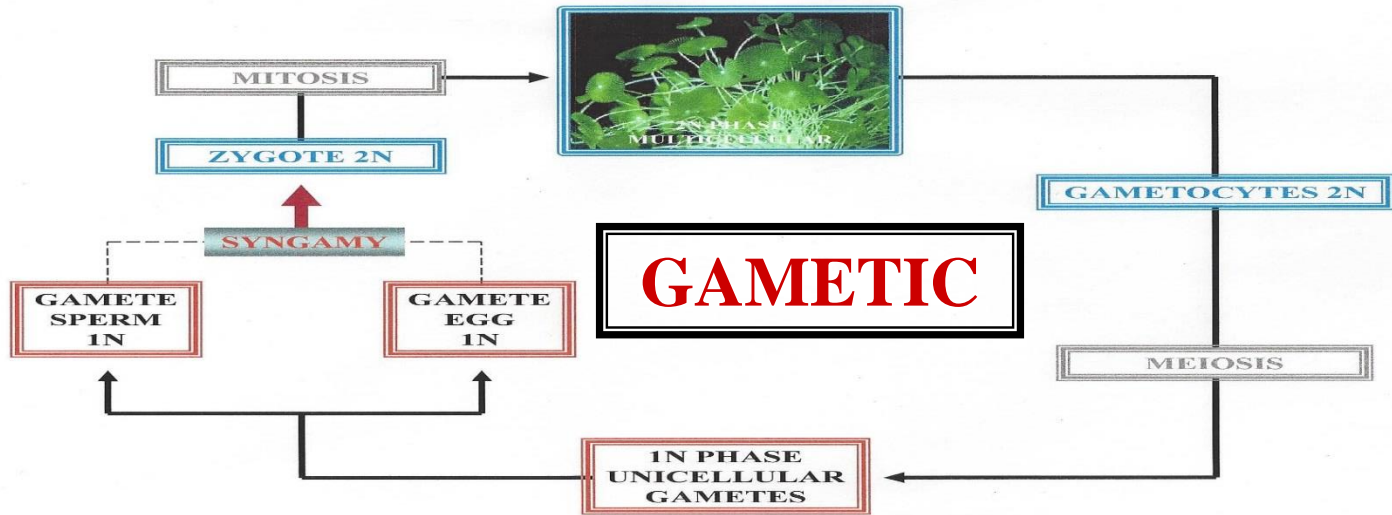


# QUESTION

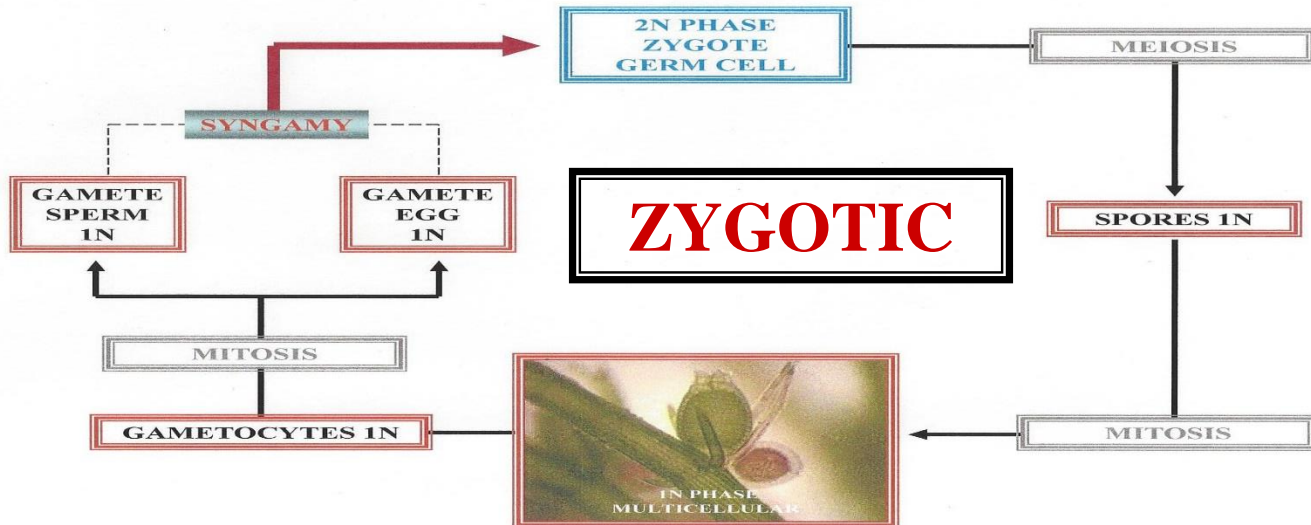
WHICH LIFE CYCLE  
IS THE ZYGOTE  
THE ONLY  
DIPLOID CELL?

# QUESTION

# ACETABULARIA GAMETIC LIFE CYCLE

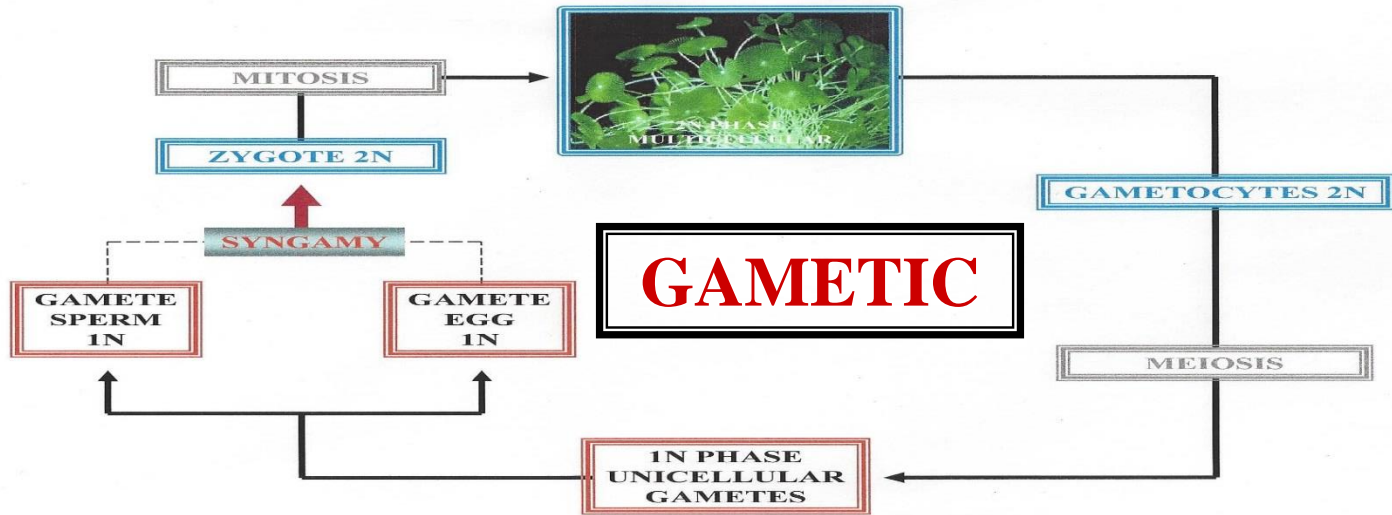


# CHARA ZYGOTIC LIFE CYCLE

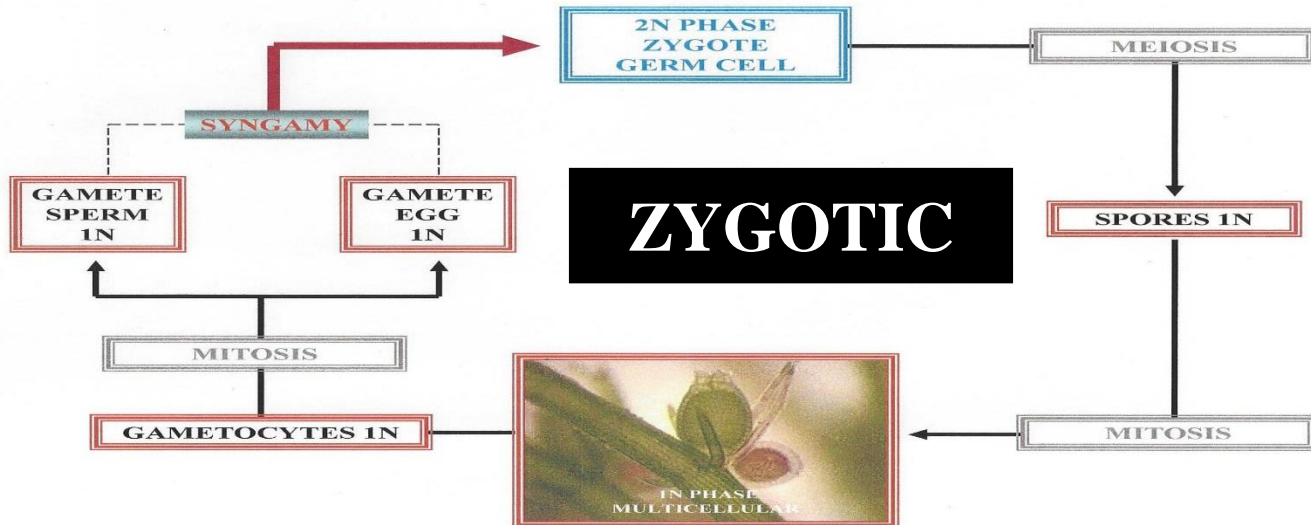




# ACETABULARIA GAMETIC LIFE CYCLE



# CHARA ZYGOTIC LIFE CYCLE





# QUESTION

GAMETIC LIFE CYCLE  
AND

ZYGOTIC LIFE CYCLE

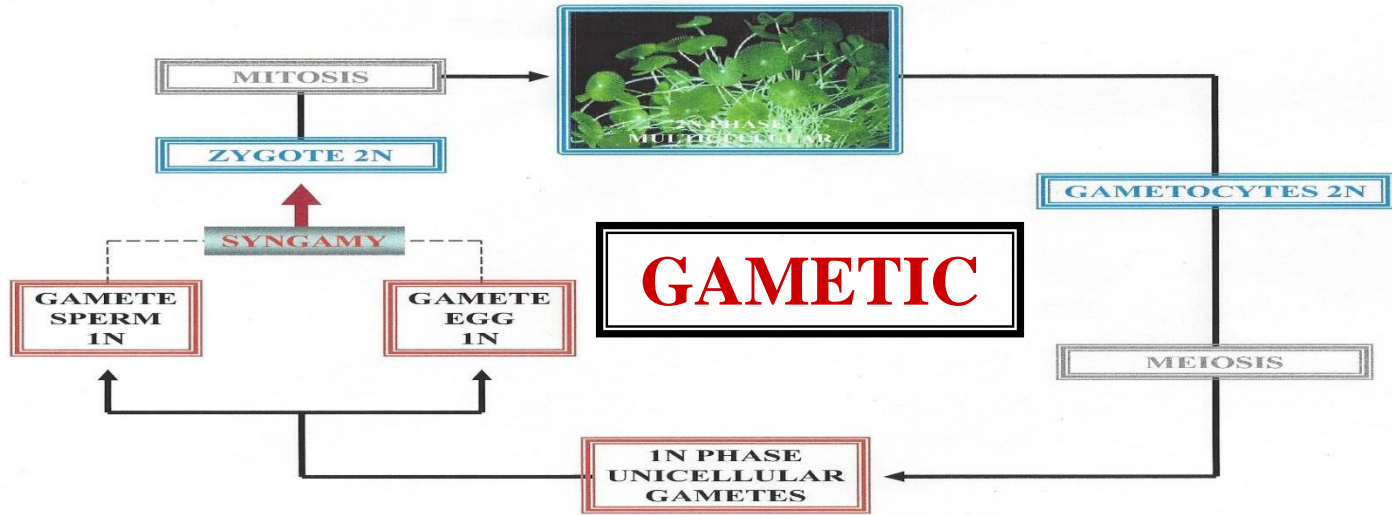
ARE WHAT WITH RESPECT  
TO ONE ANOTHER?

# QUESTION

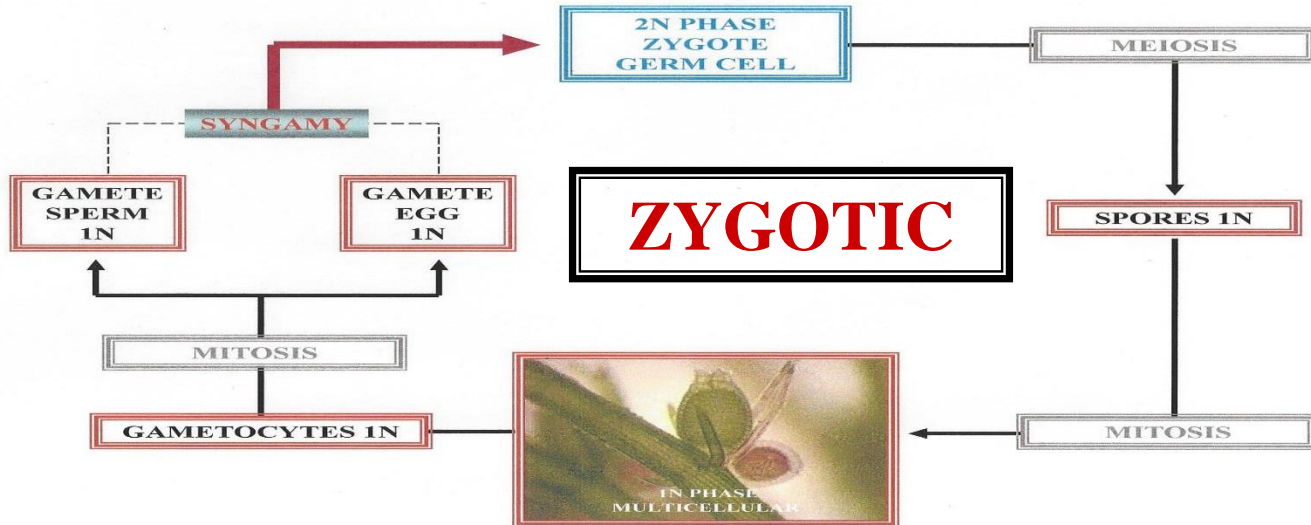




# ACETABULARIA GAMETIC LIFE CYCLE

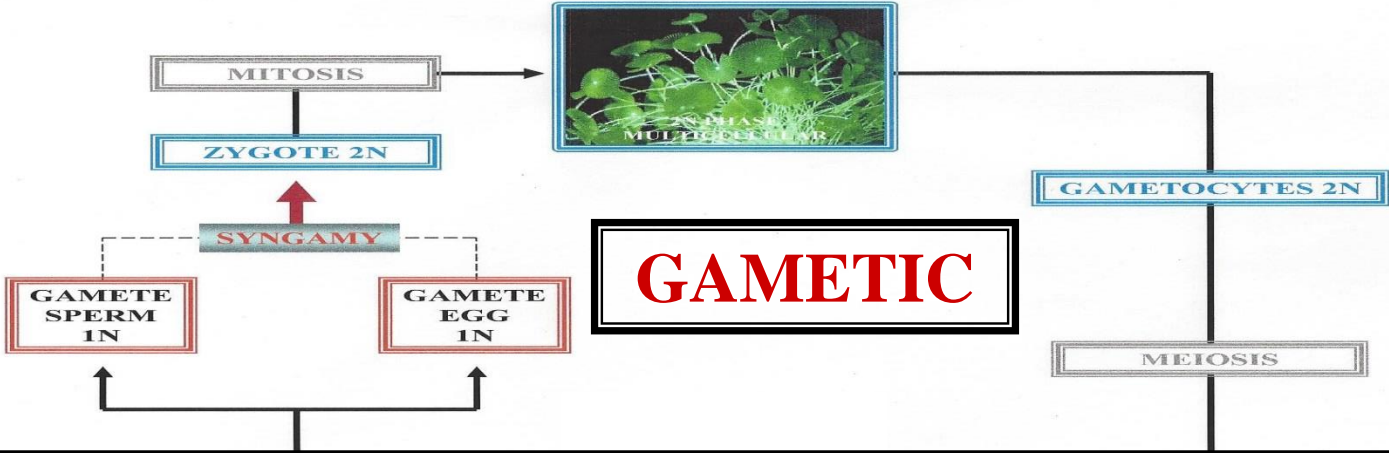


# CHARA ZYGOTIC LIFE CYCLE

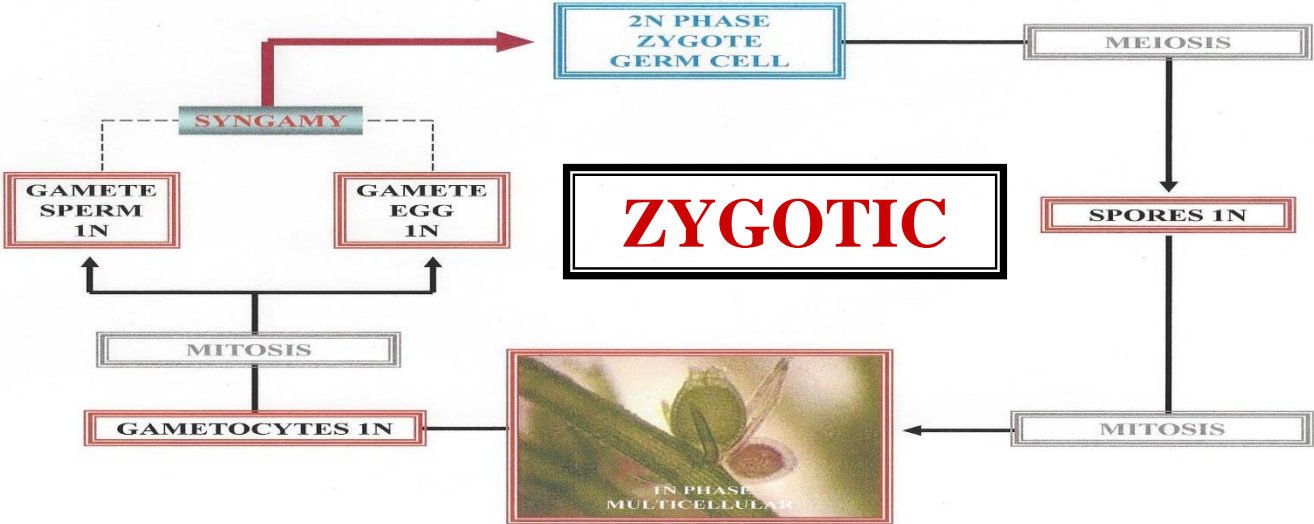




# ACETABULARIA GAMETIC LIFE CYCLE



# INVERSE LIFE CYCLES





# SPORIC LIFE CYCLE





# PLANT LIFE CYCLE



# SPORIC LIFE CYCLE



A

A large, detailed photograph of a white magnolia flower in full bloom, showing its numerous petals, a prominent red stigma, and a cluster of yellow stamens. The flower is set against a dark background with green leaves visible around it.

**EMBRYOPHYTES**



# SPORIC LIFE CYCLE



M



**ANGIOSPERMS**

# SPORIC LIFE CYCLE



**MAGNOLIA**

# PLANT SPORIC LIFE CYCLE



# PLANT SPORIC LIFE CYCLE



# PLANT SPORIC LIFE CYCLE

