

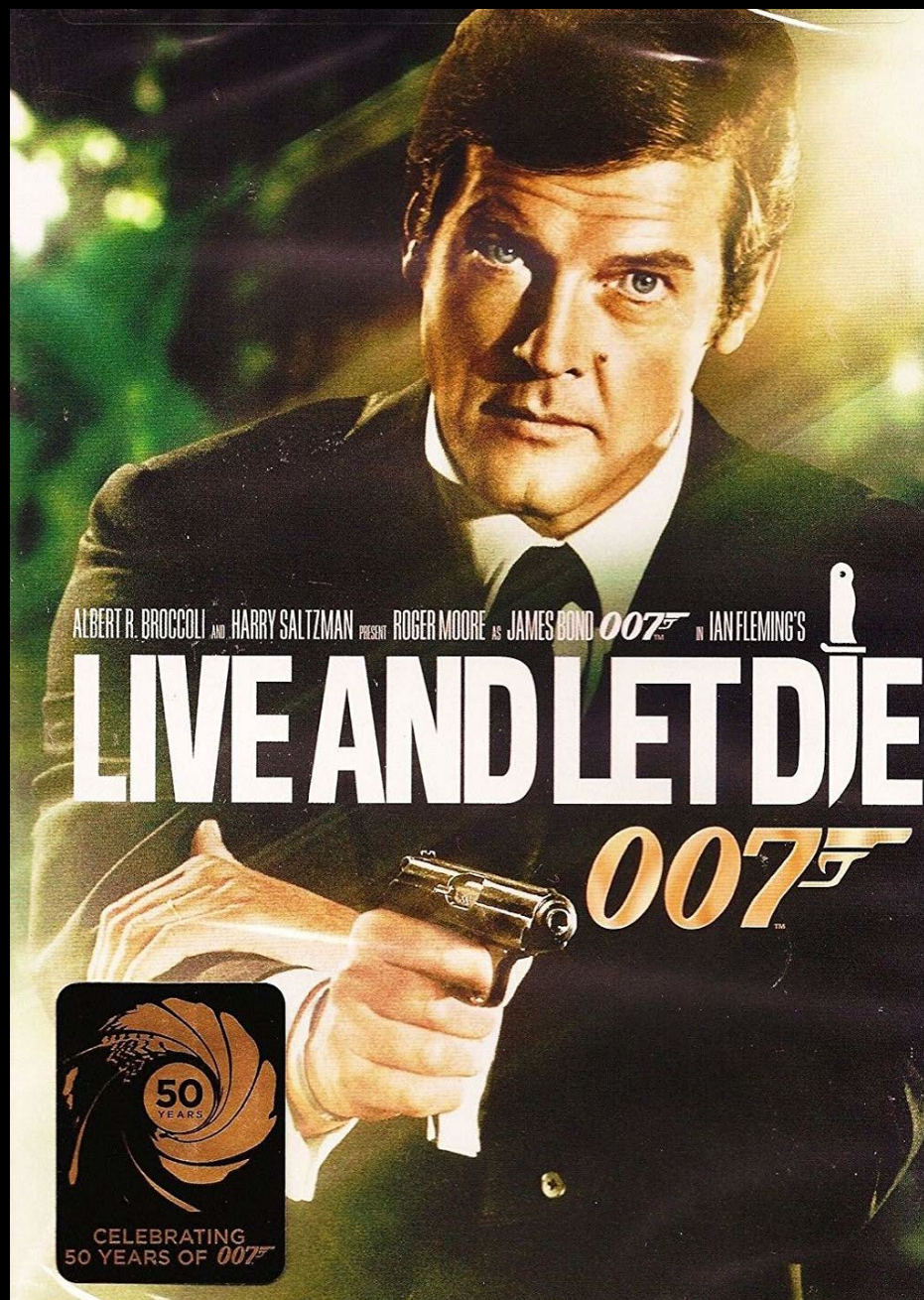


# Živi in pusti umreti:

*o biokemiji življenja in minljivosti*

Marina Klemenčič  
UL FKKT

6. februar 2020  
SAZU



Kako do nas

Poslanstvo

Študij na FKKT

Organiziranost

Zaposleni

Zunanji sodelavci

Javna naročila

Pravilniki in akti

Varstvo osebnih  
podatkov

Izvolitev v naziv-  
HABILITACIJA

Katalog informacij  
javnega značaja

Zgodovina

Založba UL FKKT

Prodajalna študijske  
literature in  
fotokopirnica UL FKKT

Študentski svet

Študentska organizacija

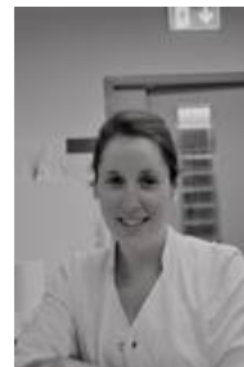
Športno društvo FKKT

Alumni UL FKKT

Koledar dogodkov na  
FKKT

## Zaposleni

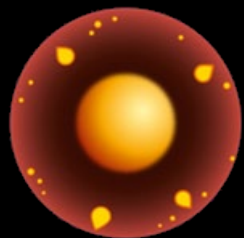
### Klemenčič, Marina



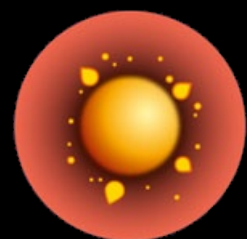
Naziv	doc. dr.
Delovno mesto	docent za biokemijo
Oddelek	za kemijo in biokemijo
Katedra	za biokemijo
Organizacija	Fakulteta za kemijo in kemijsko tehnologijo
Naslov	Večna pot 113
Številka sobe	K2.007
Govorilne ure	po predhodni najavi preko elektronske pošte
Telefon:	+386 1 479 8542
Faks:	+386 1 2419 487
E-pošta:	Marina.Klemencic(at)fkkt.uni-lj.si
Osebna stran:	www.marinaklemencic.com



# Nastanek Zemlje

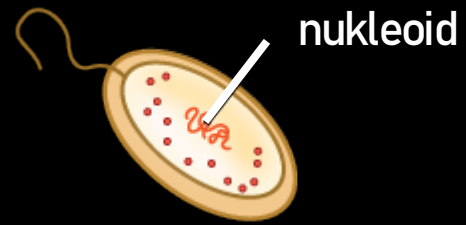


## Oblikovanje kontinentov



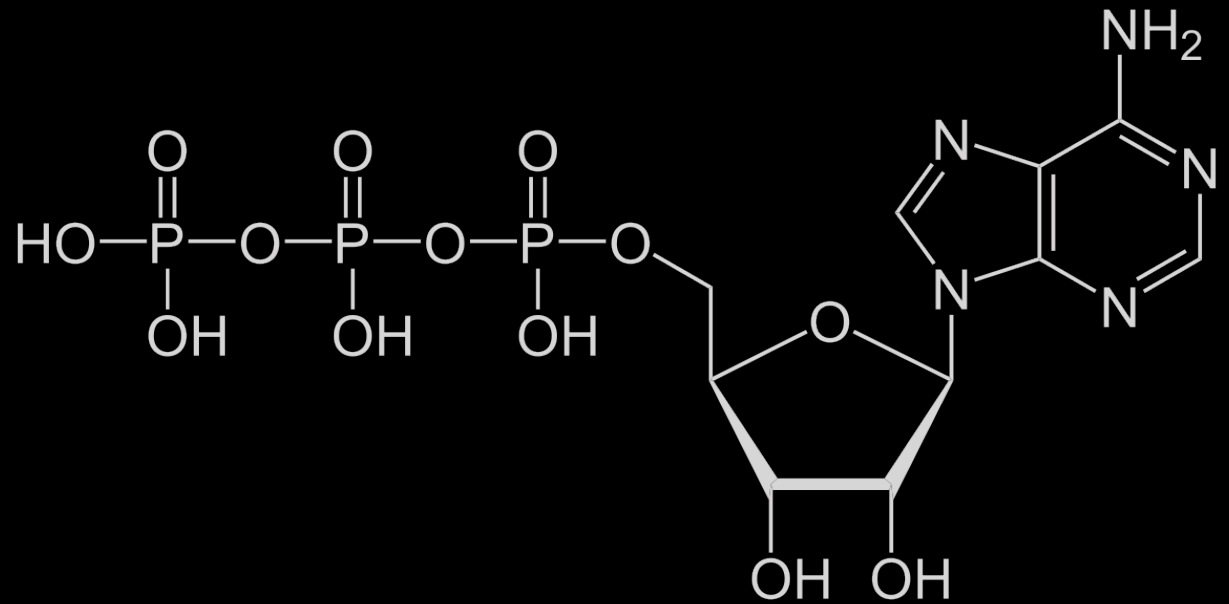
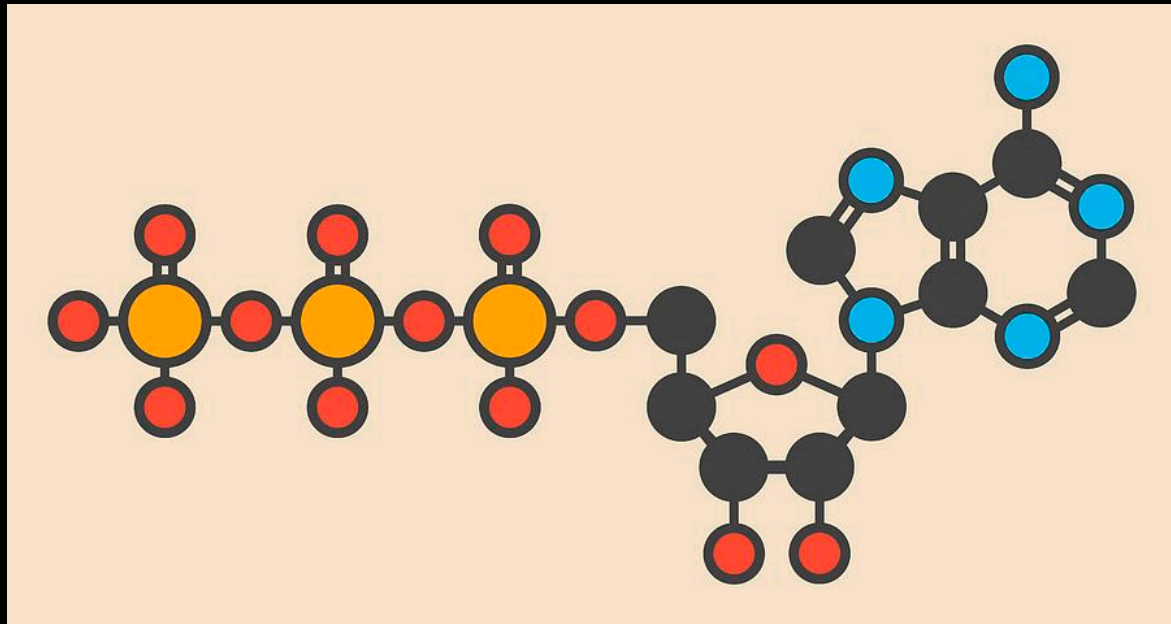
# Nastanek zemeljske skorje

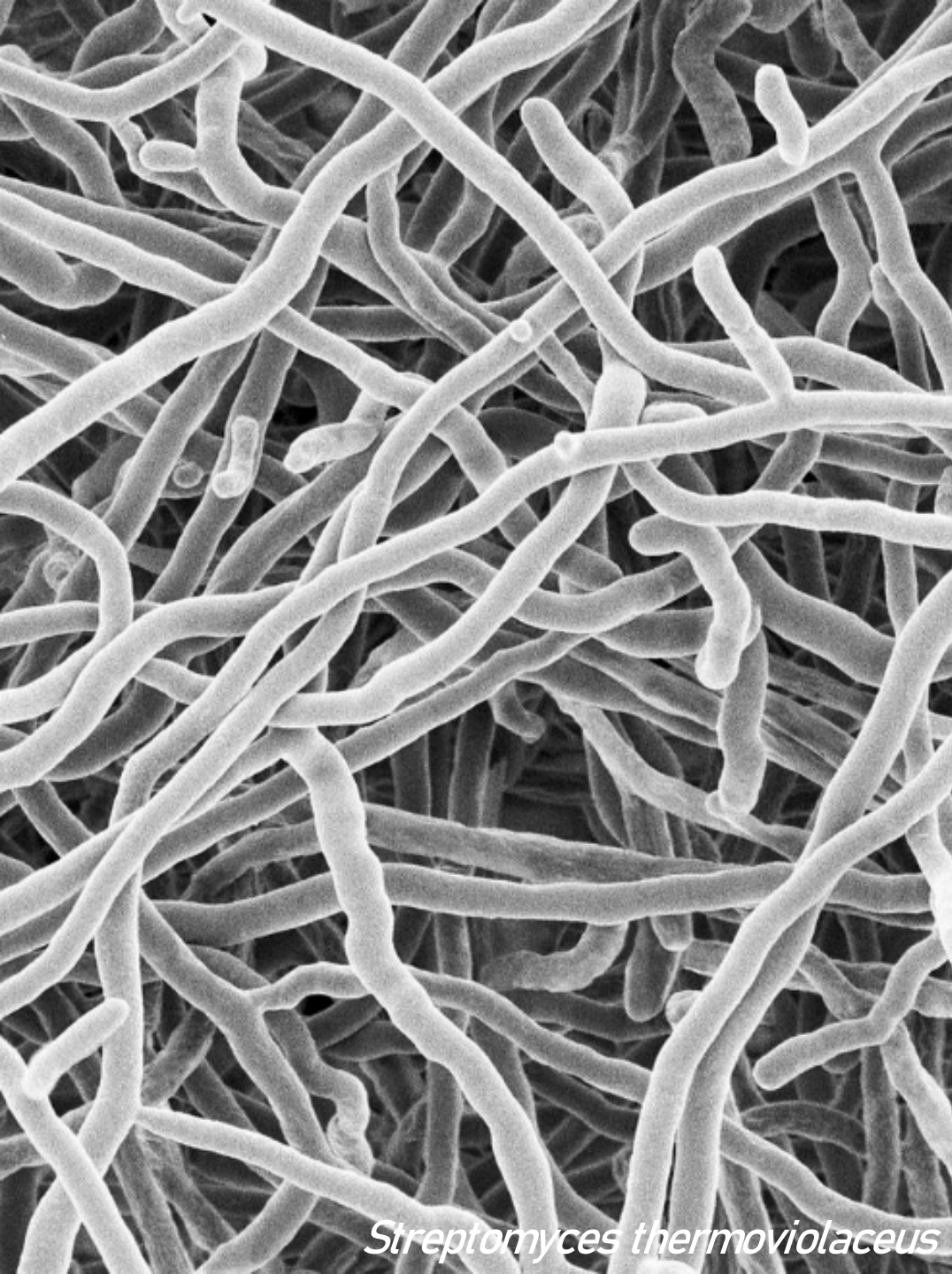




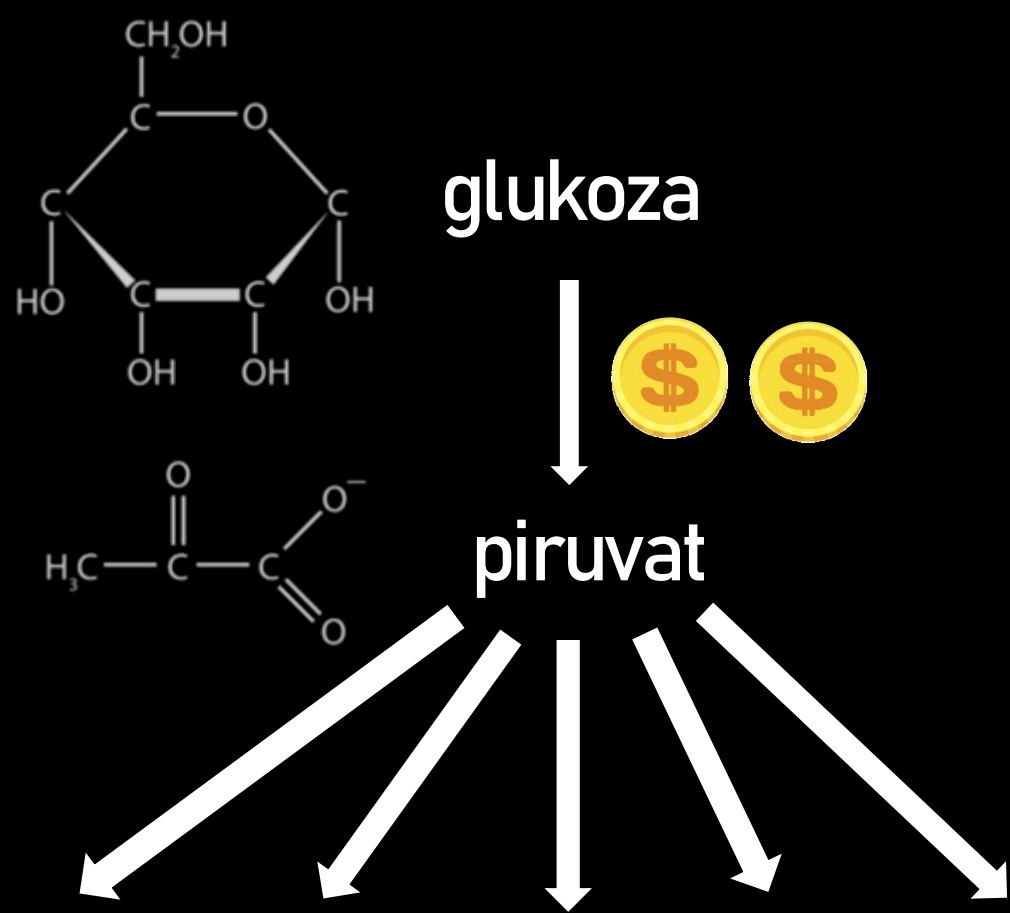
prokariont

ATP = 



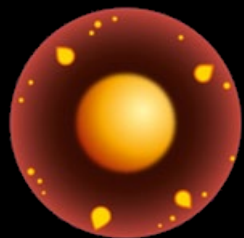


*Streptomyces thermoviolaceus*

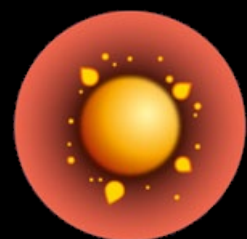




# Nastanek Zemlje



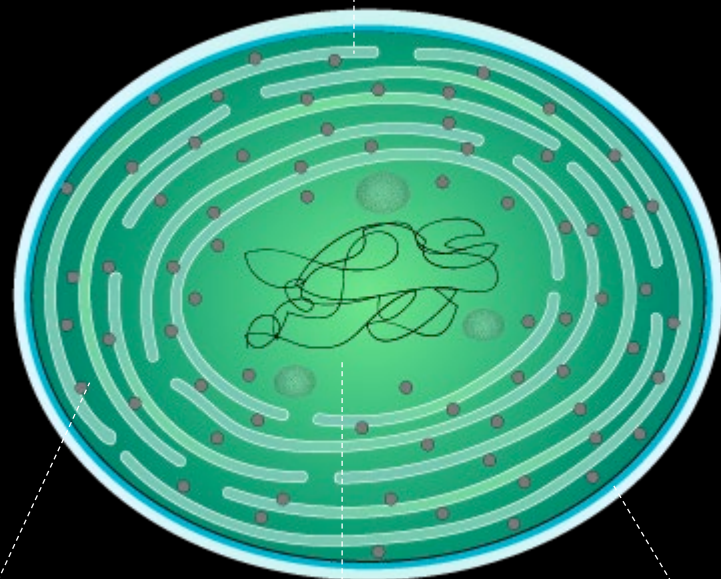
## Oblikovanje kontinentov



# Nastanek zemeljske skorje



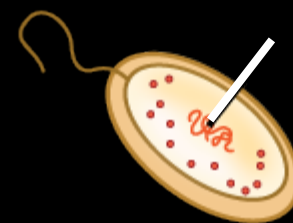
tilakoidna membrana



ribosom

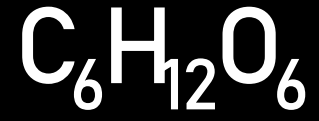
DNA

celična stena

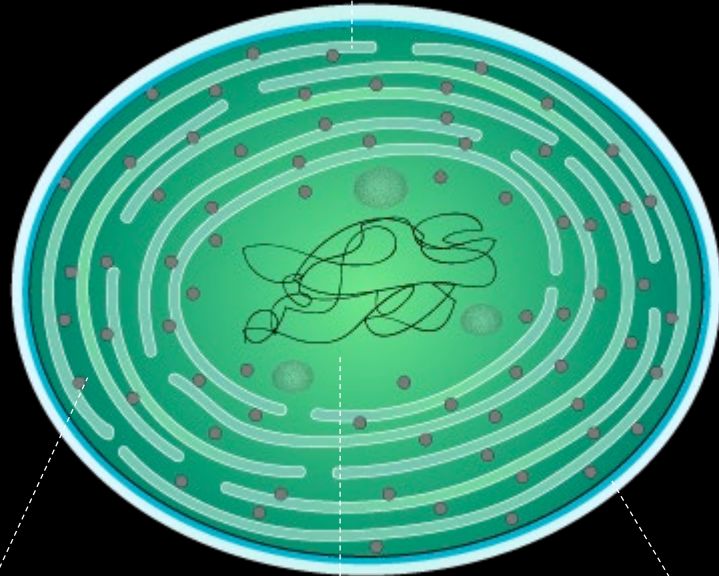


nukleoid

prokariont



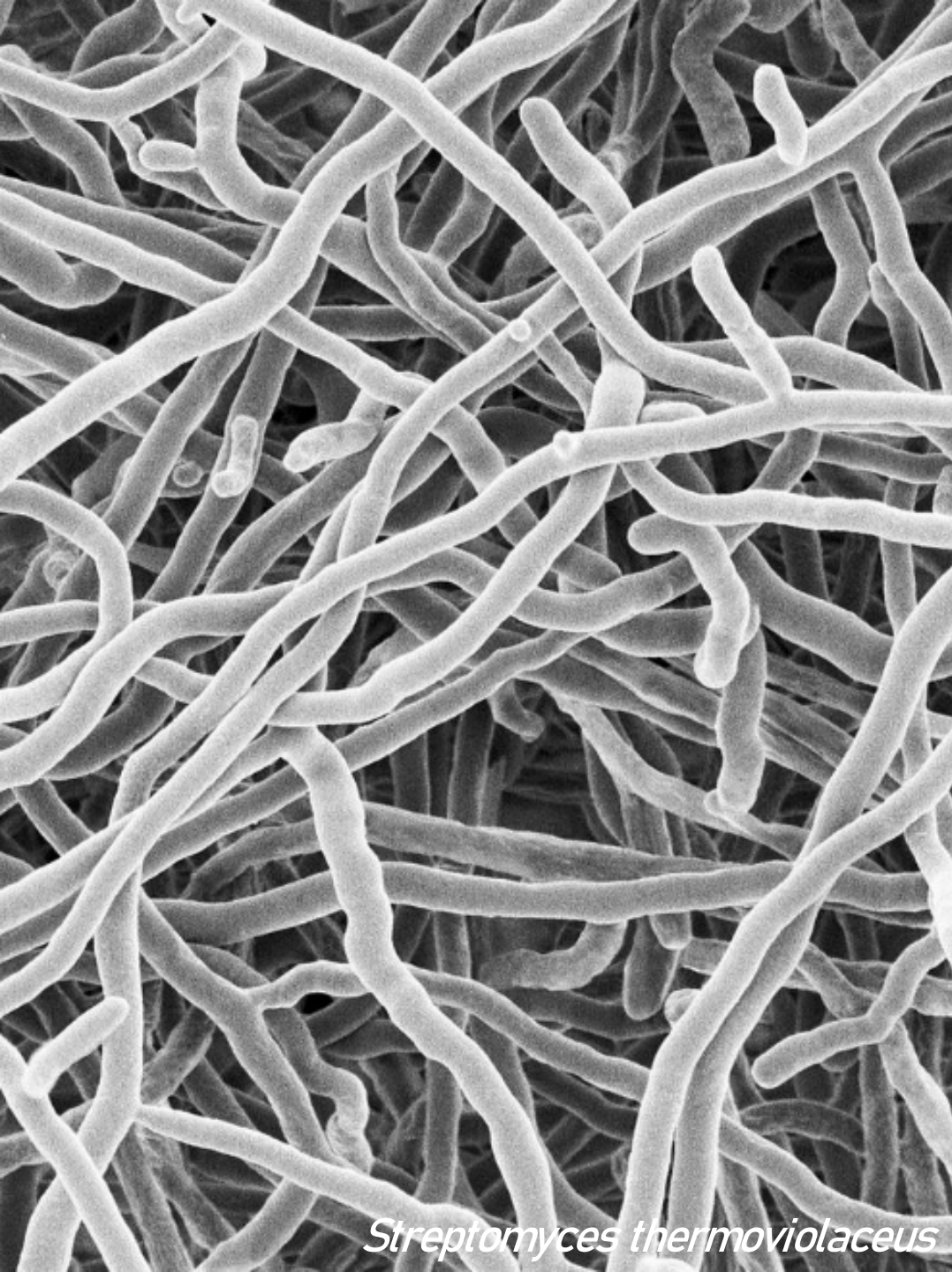
tilakoidna membrana



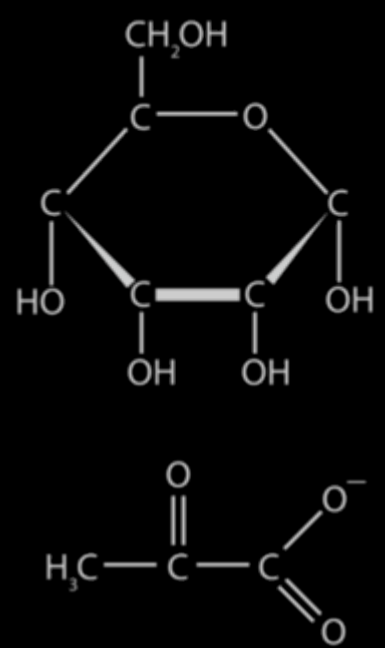
ribosom

DNA

celična stena



*Streptomyces thermoviolaceus*



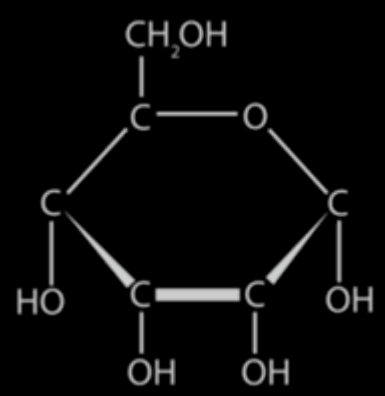
glukoza



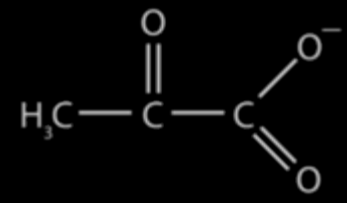
piruvat



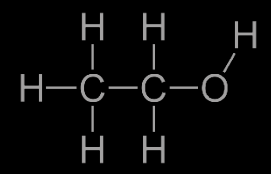
*Saccharomyces cerevisiae*



glukoza



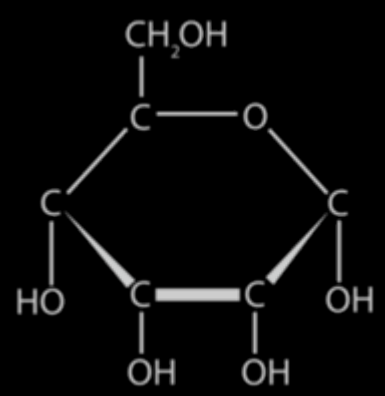
piruvat



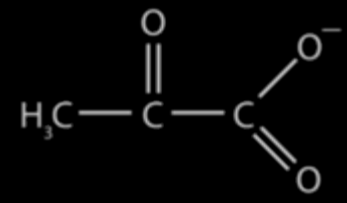
etanol + CO<sub>2</sub> O=C=O



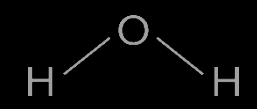
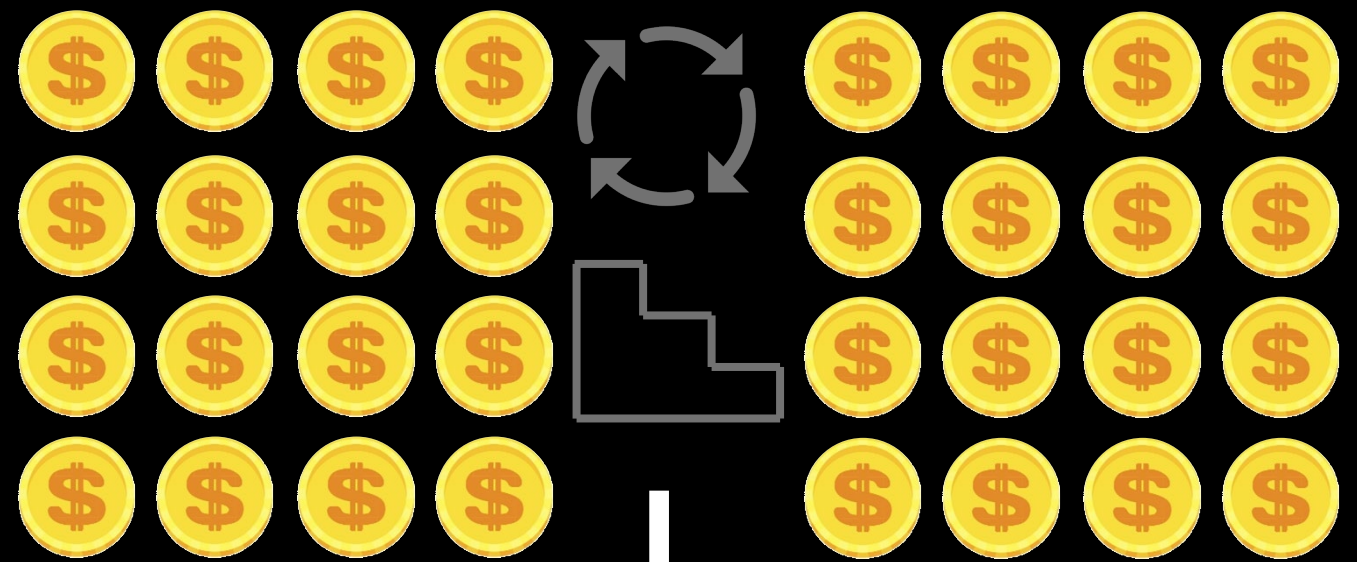
*Saccharomyces cerevisiae*



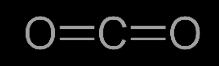
glukoza

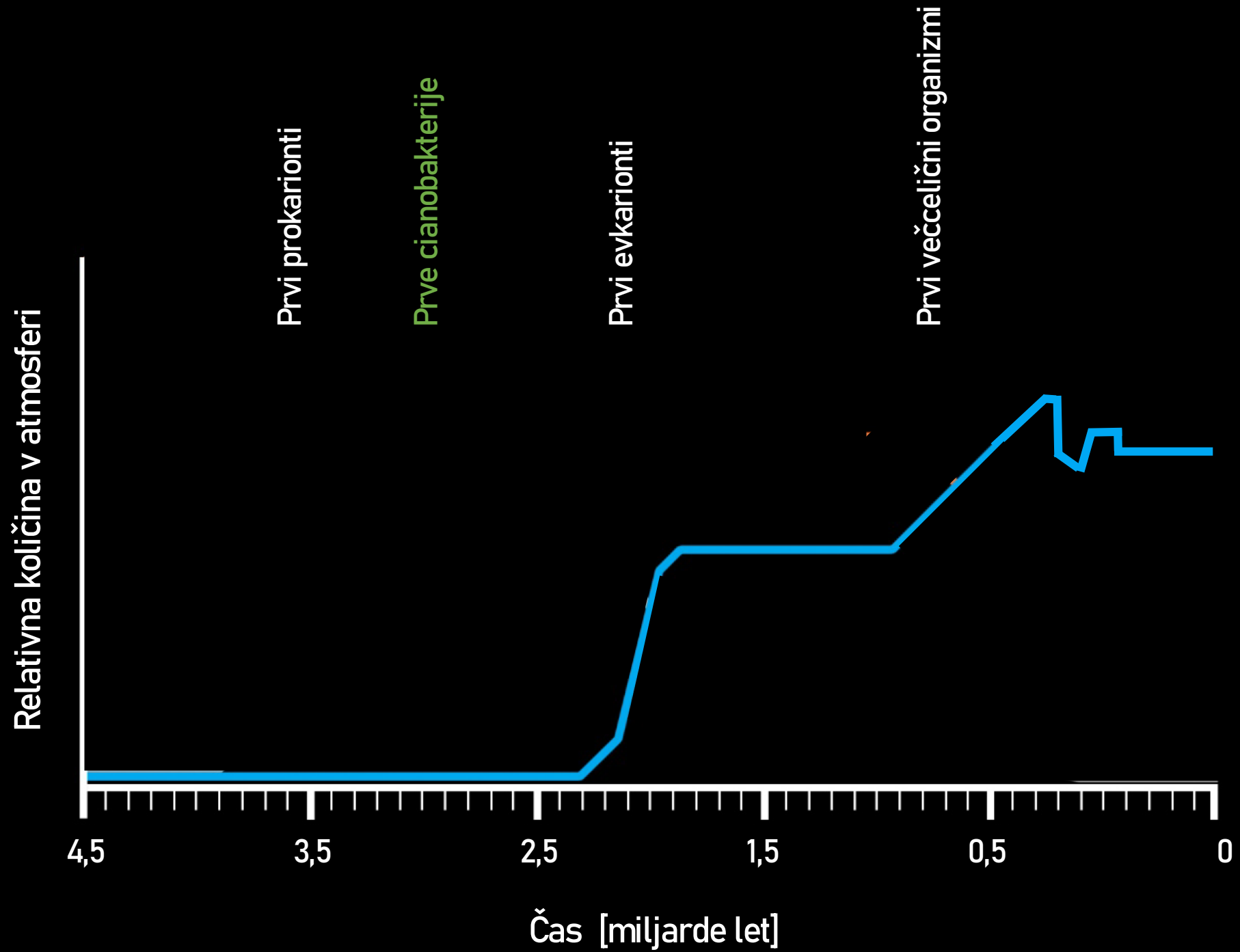


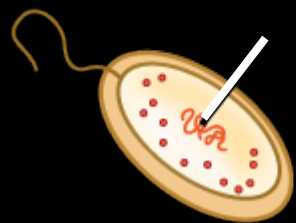
piruvat



H<sub>2</sub>O + CO<sub>2</sub>







nukleoid

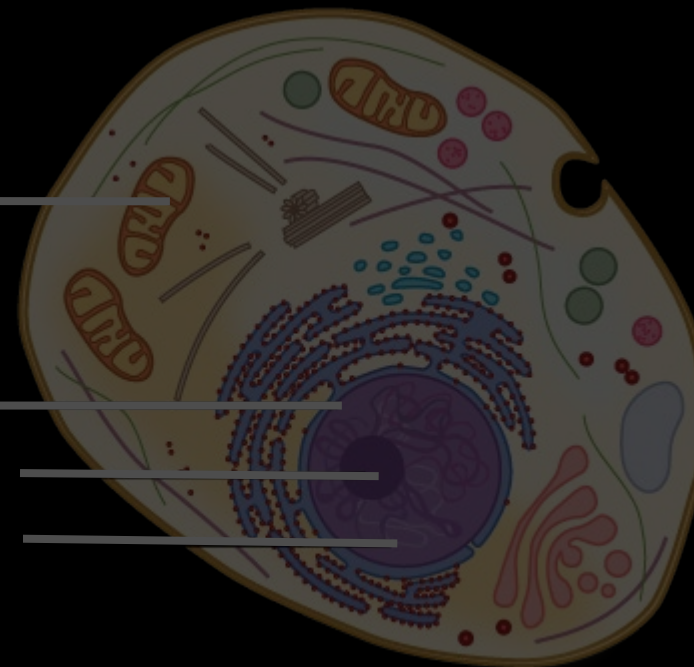
prokariont

mitochondrij

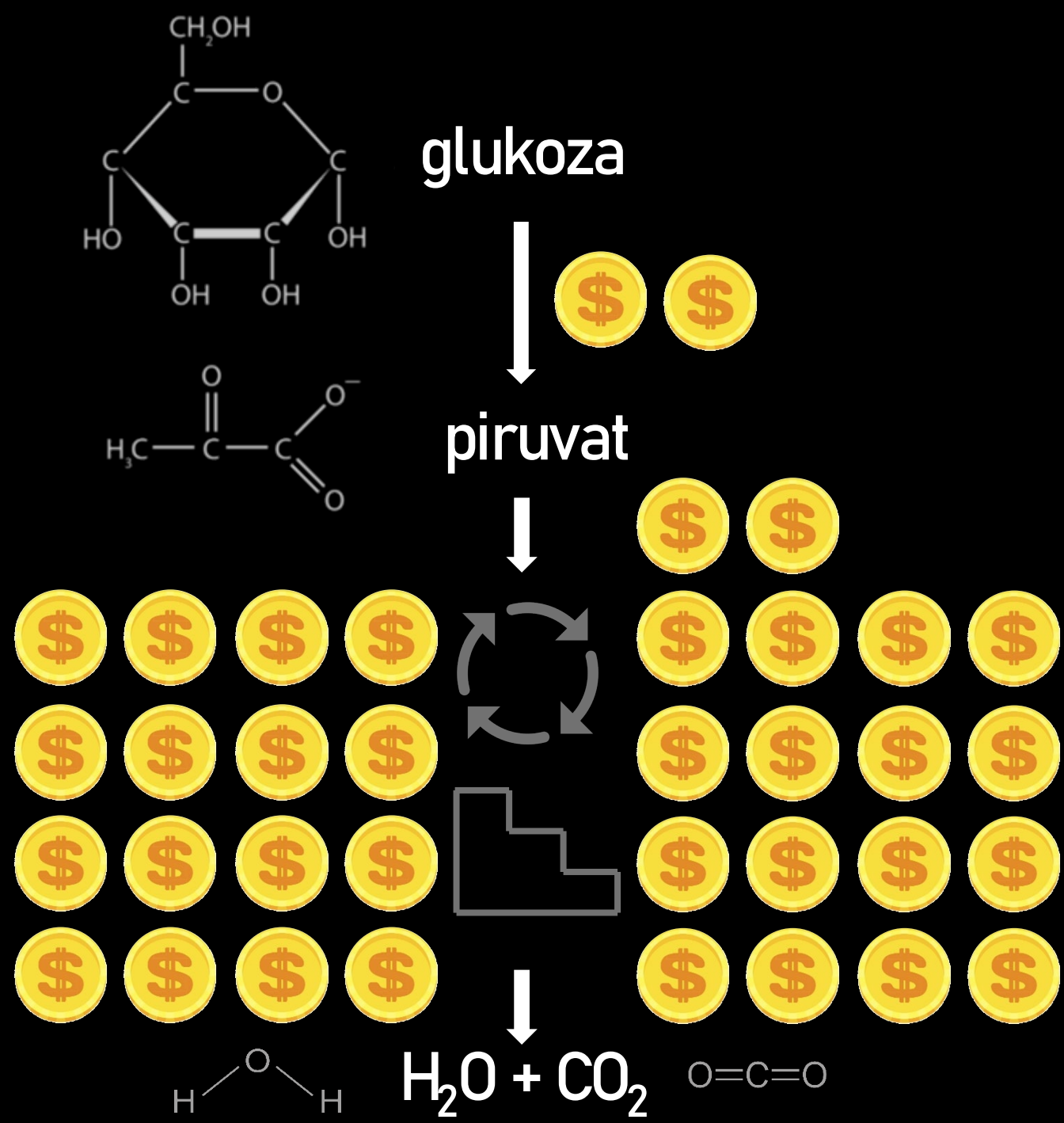
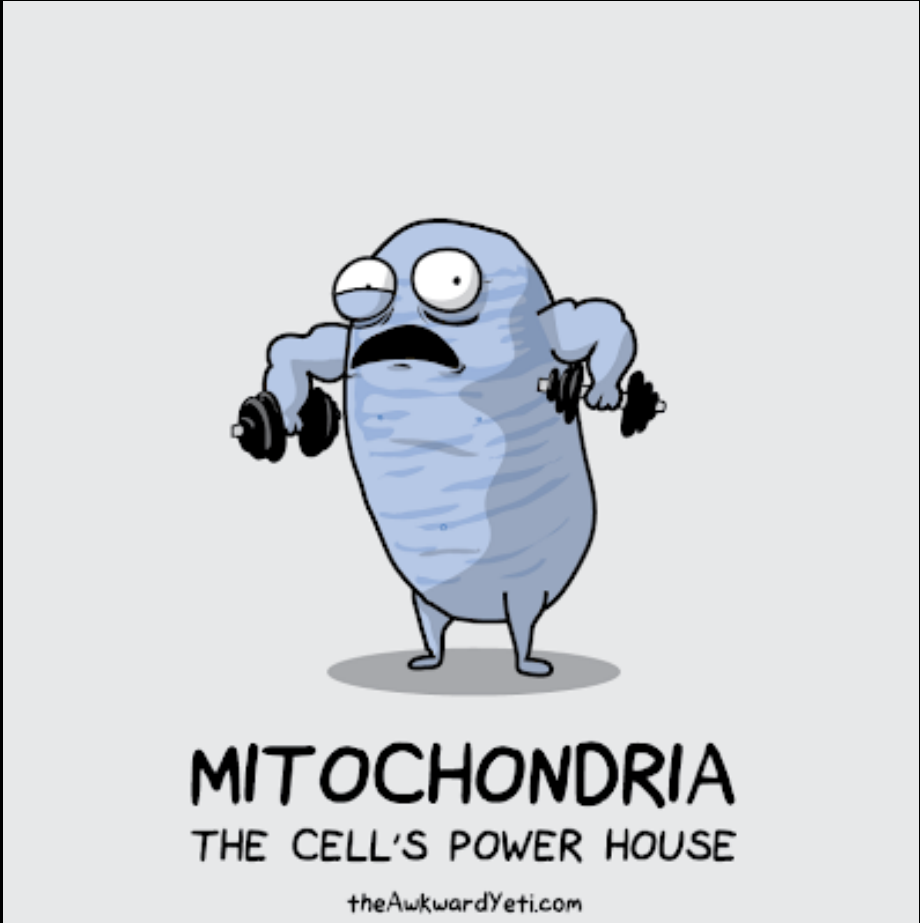
jedro

jedrce

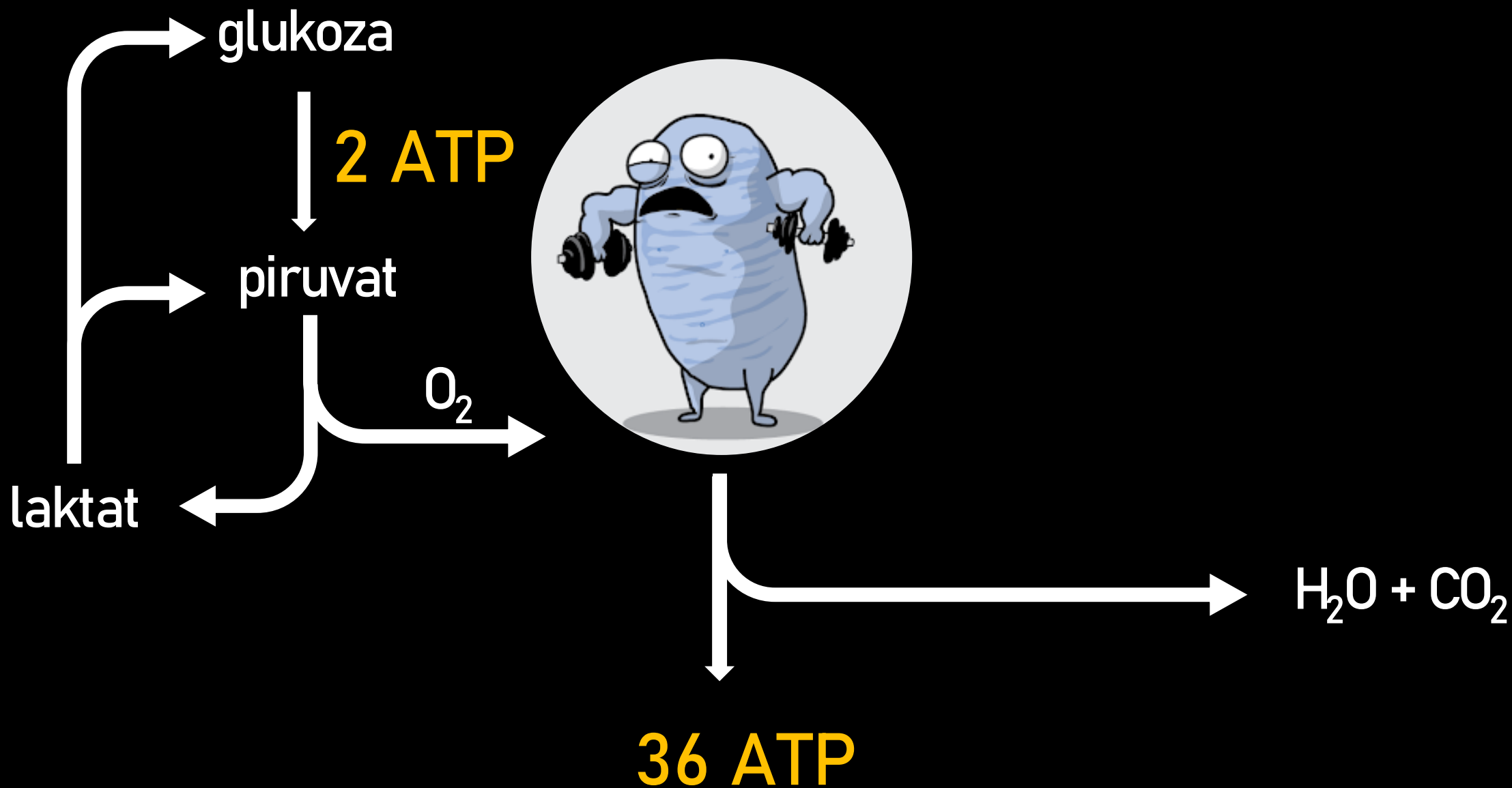
kromatin



evkariont





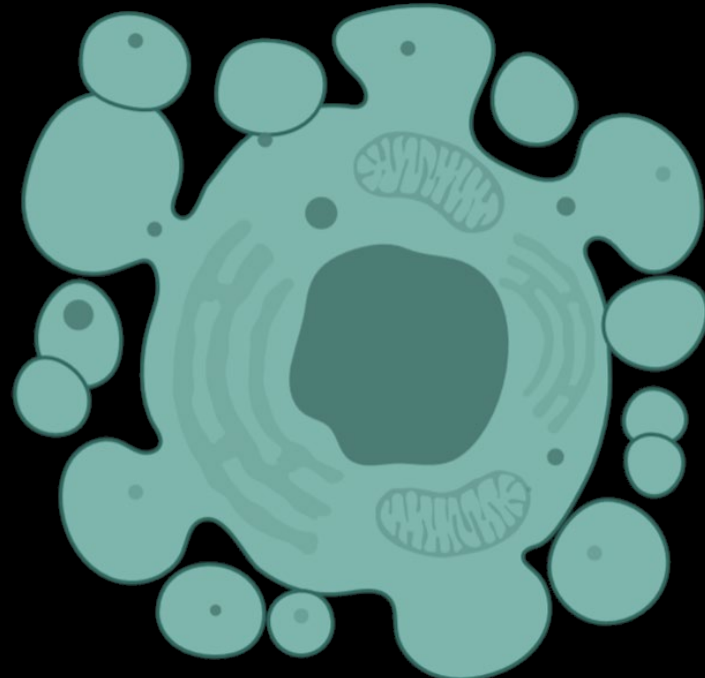
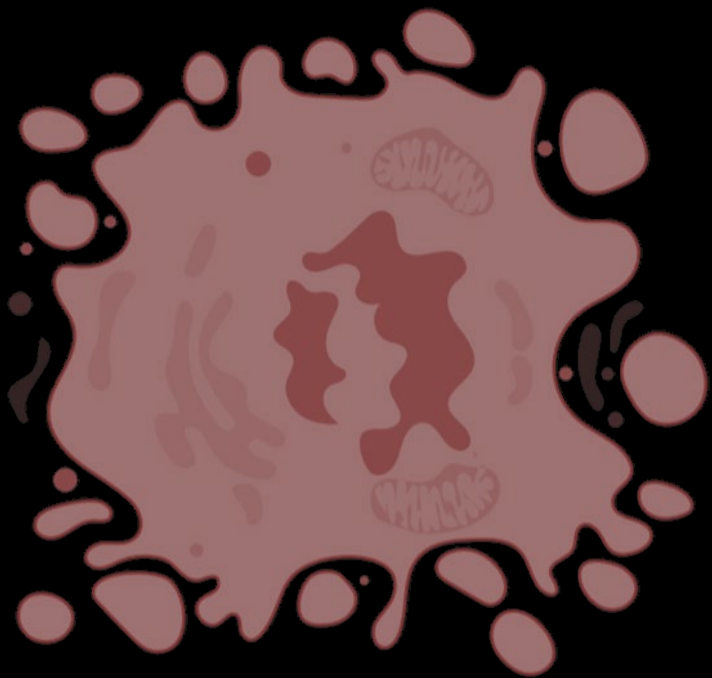
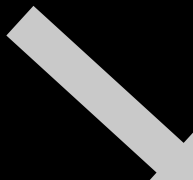
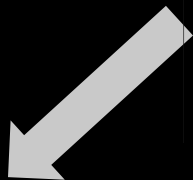
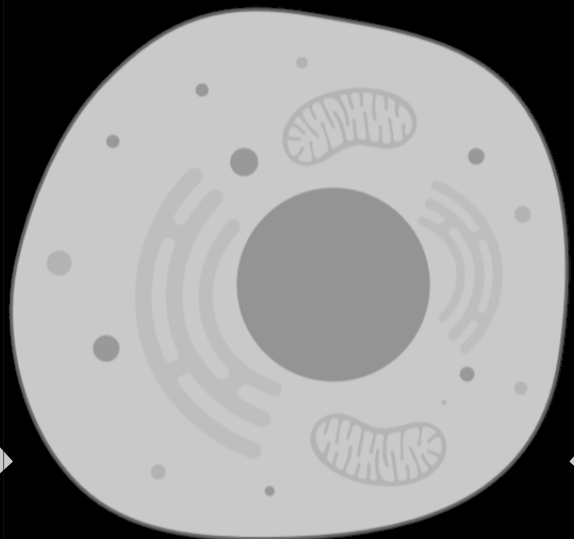


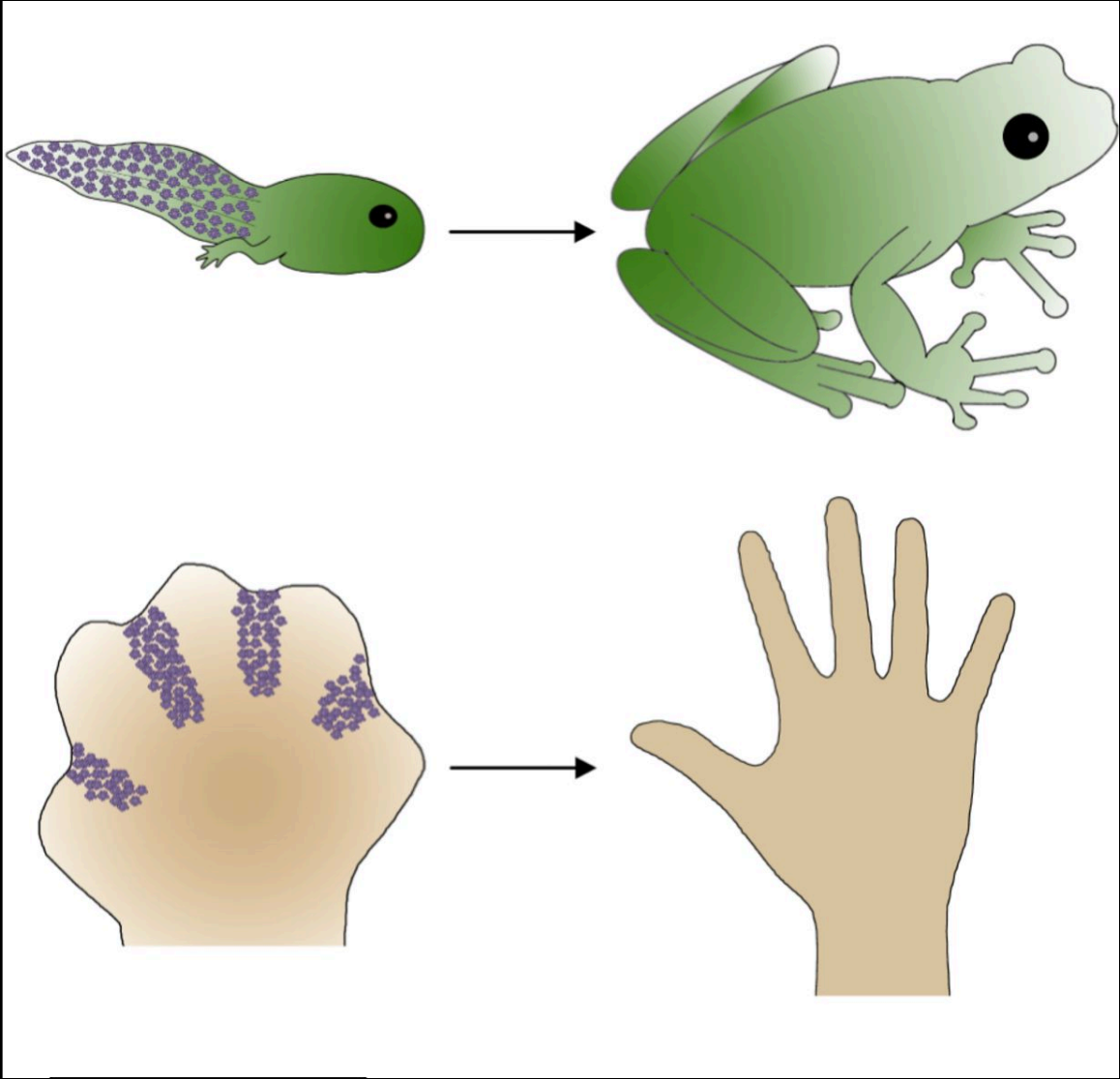
$O_2$



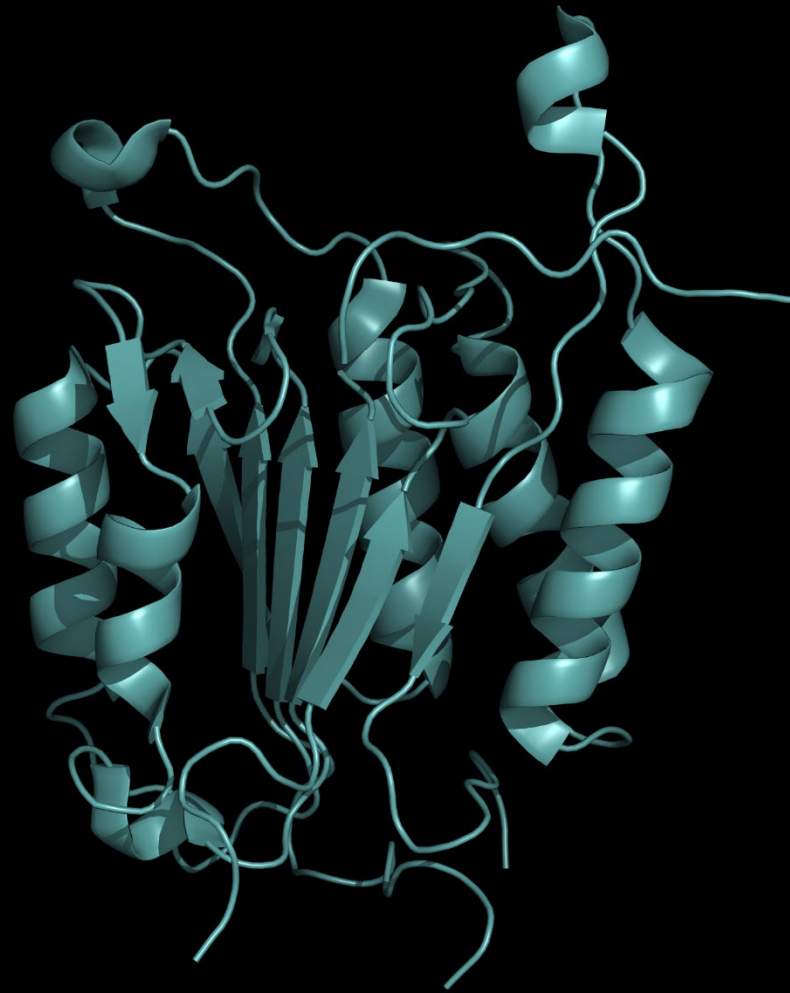
življenje

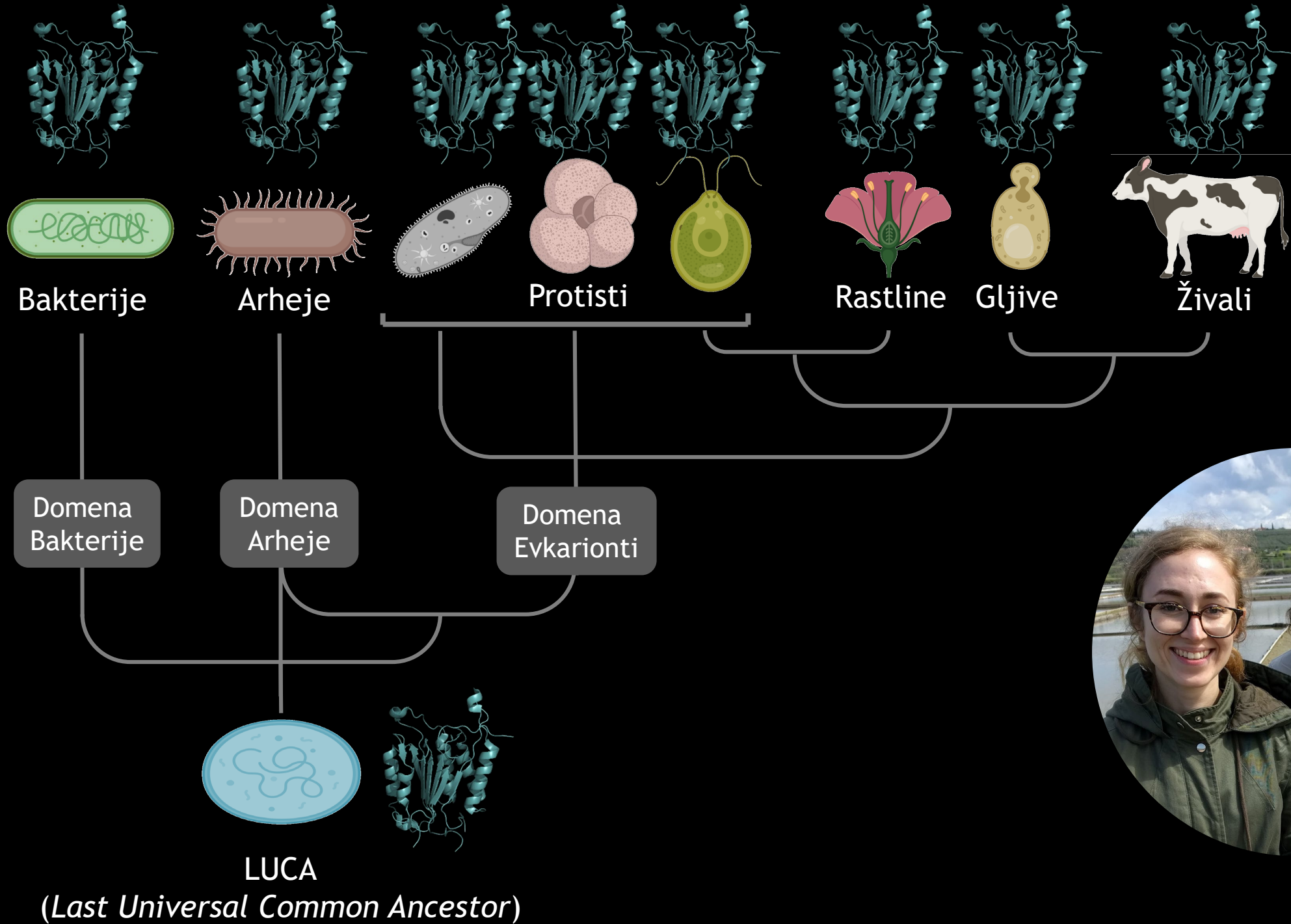
smrt

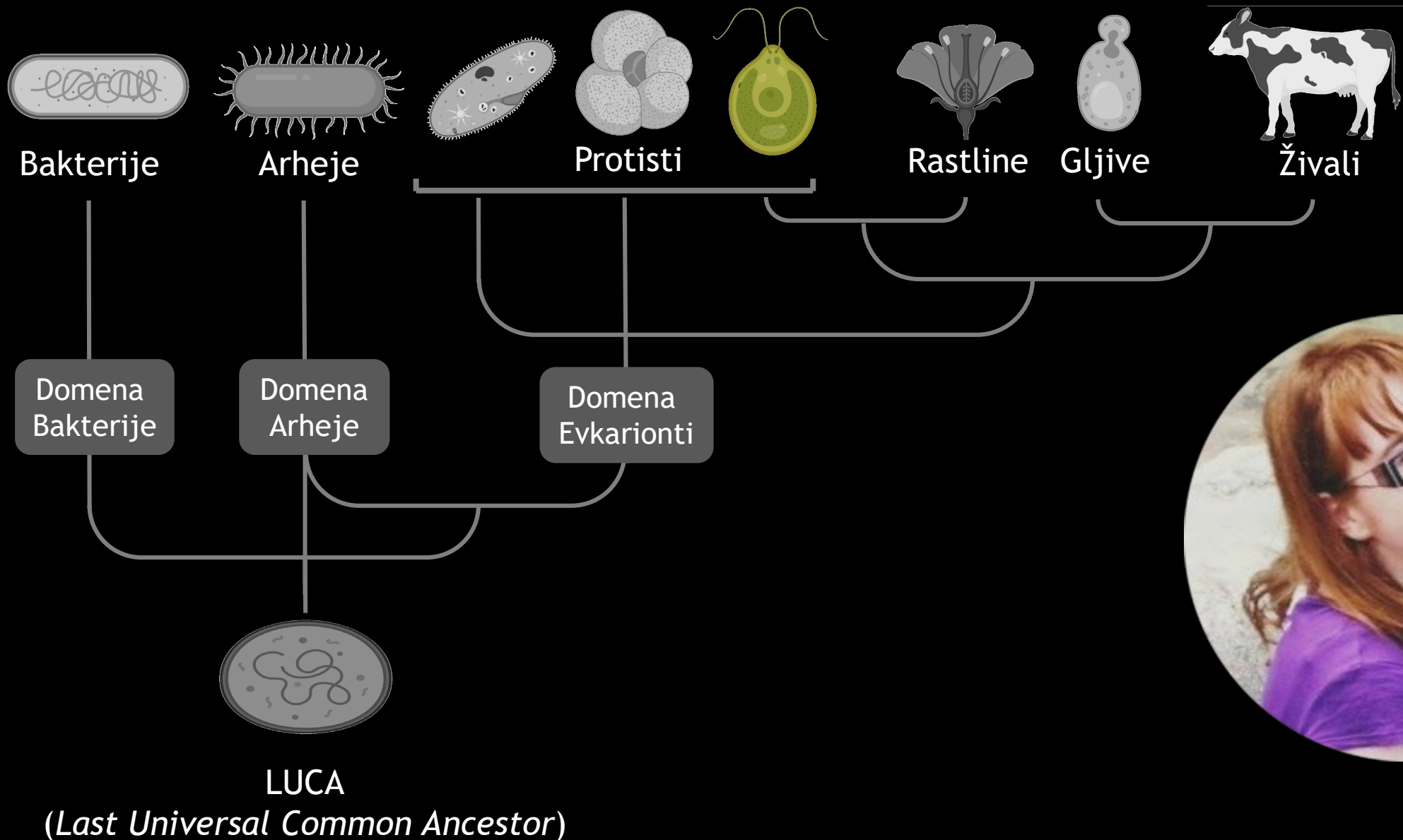




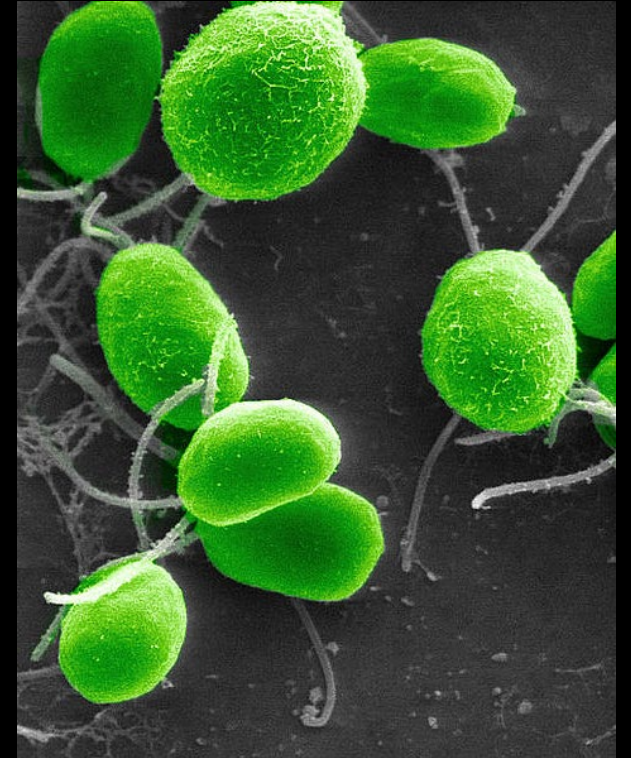
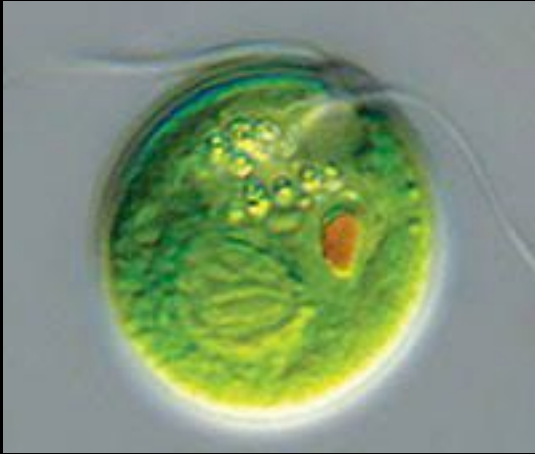
# REGULIRANA CELIČNA SMRT







# *Chlamydomonas reinhardtii*







stres!!!



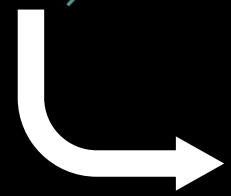
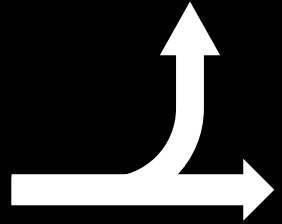
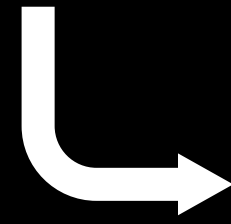
ROS

Ca<sup>2+</sup>



preživetje populacije

regulirana celična smrt



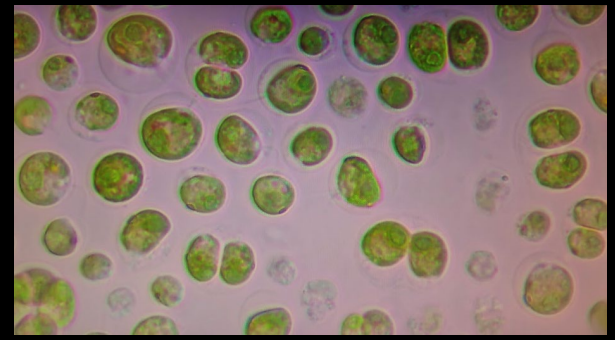
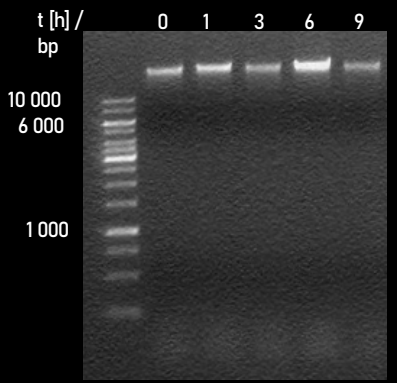
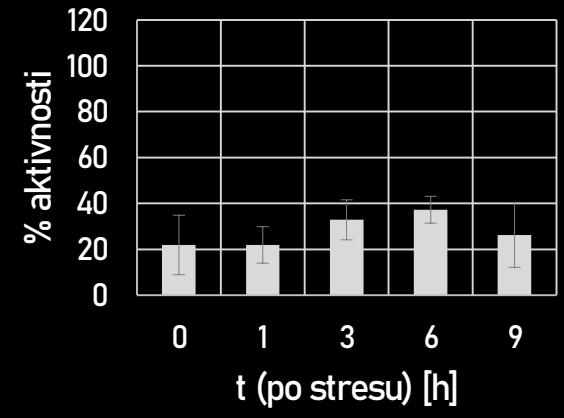
### proteolizna aktivnost

### nukleolizna aktivnost

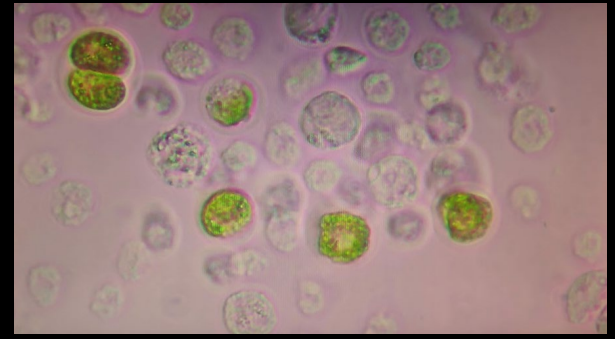
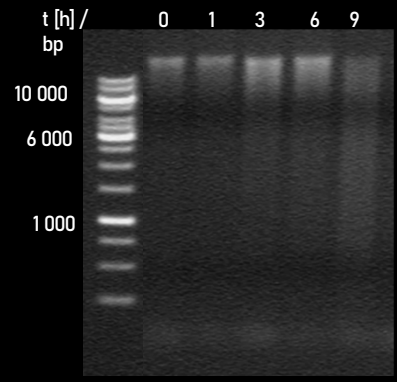
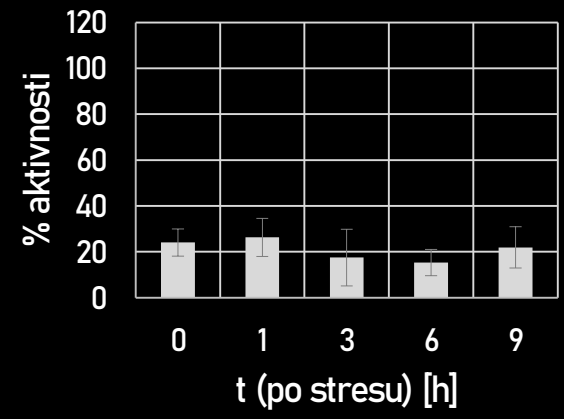
### preživetje kulture

### 1000x povečava

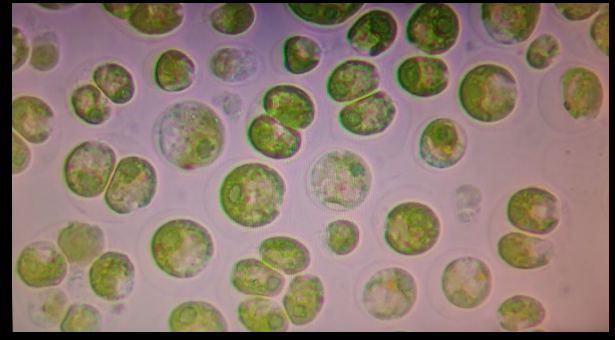
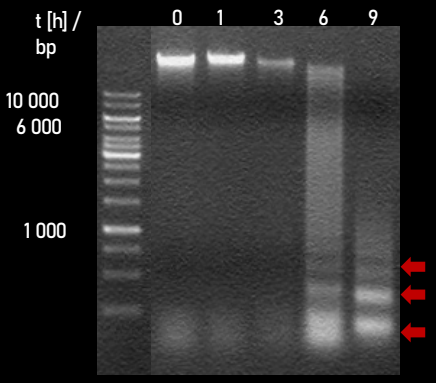
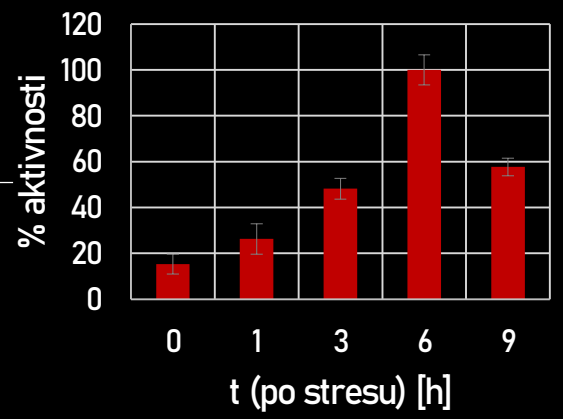
brez stresa

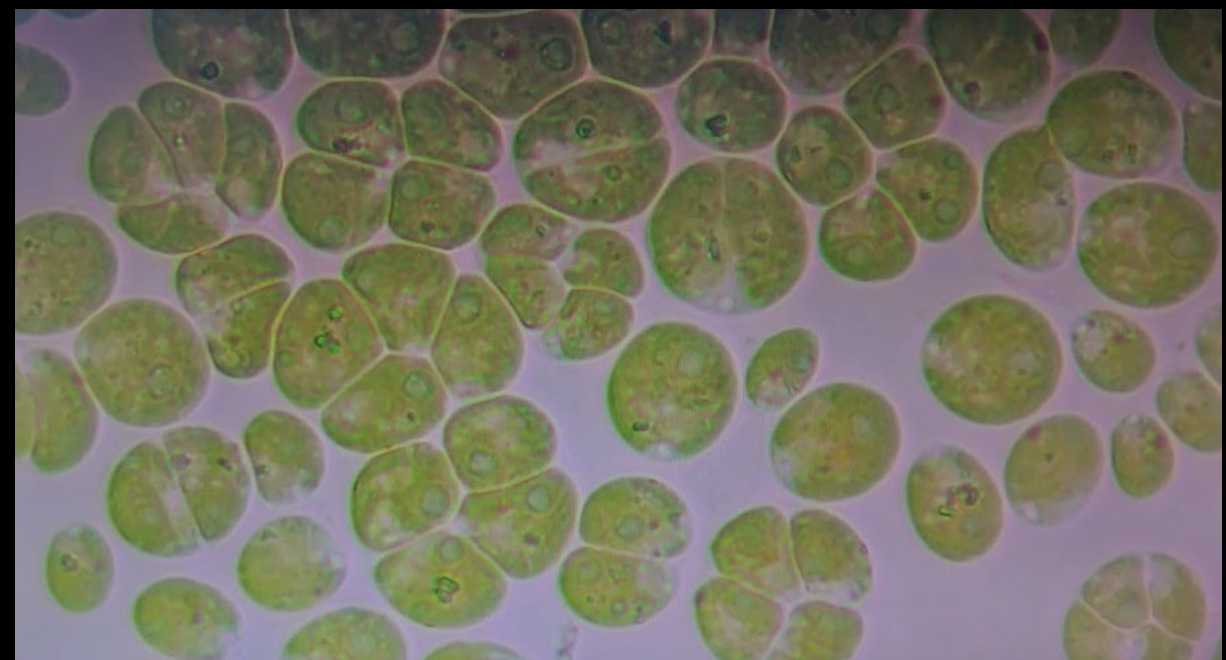
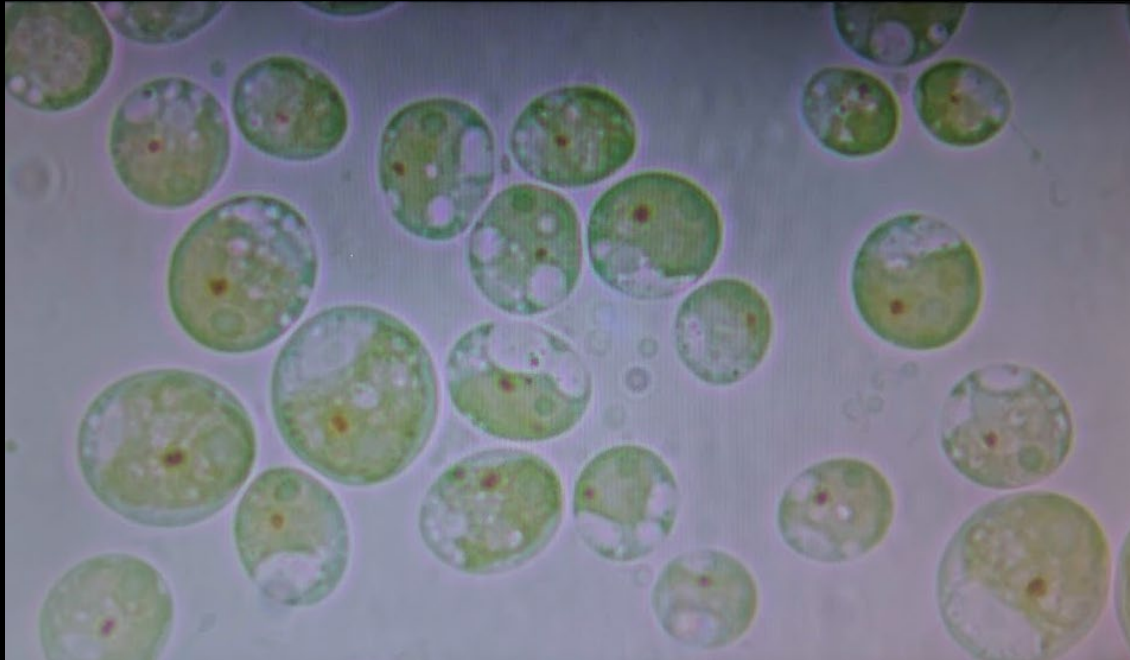
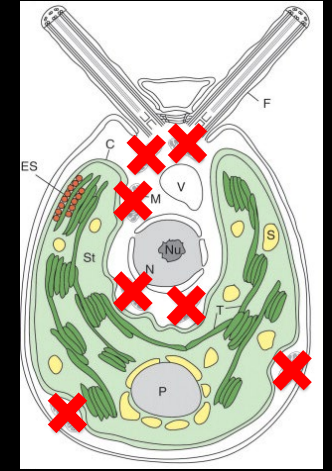
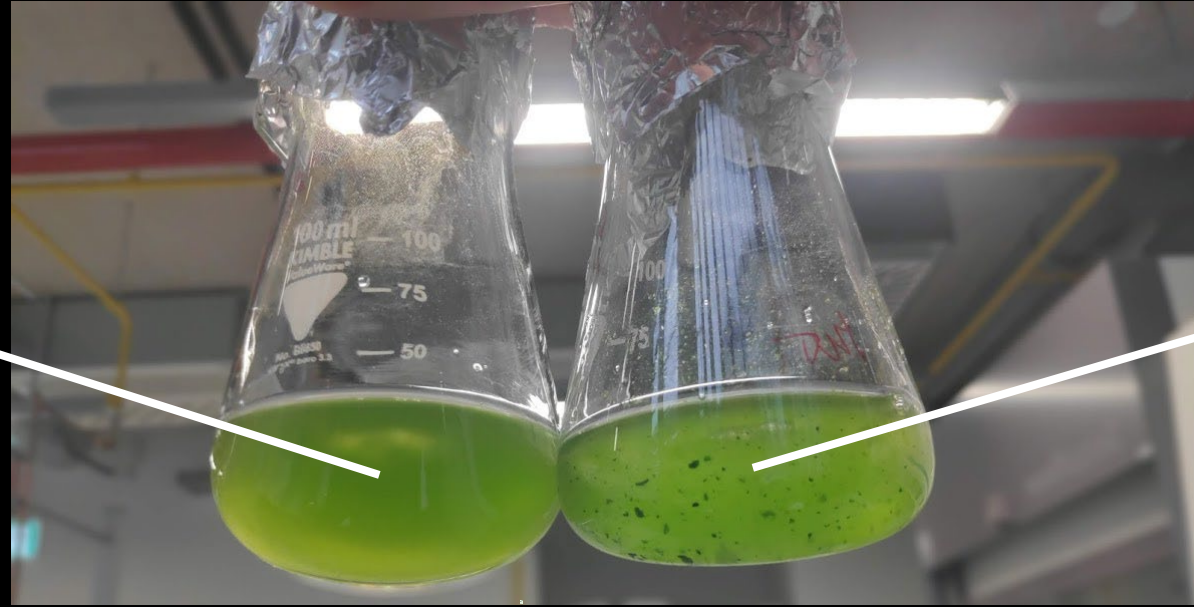
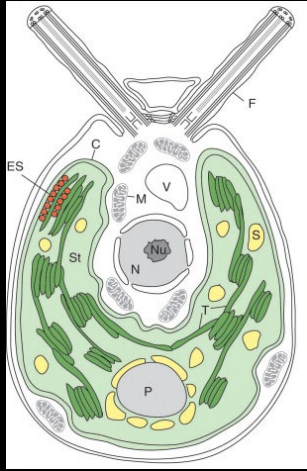


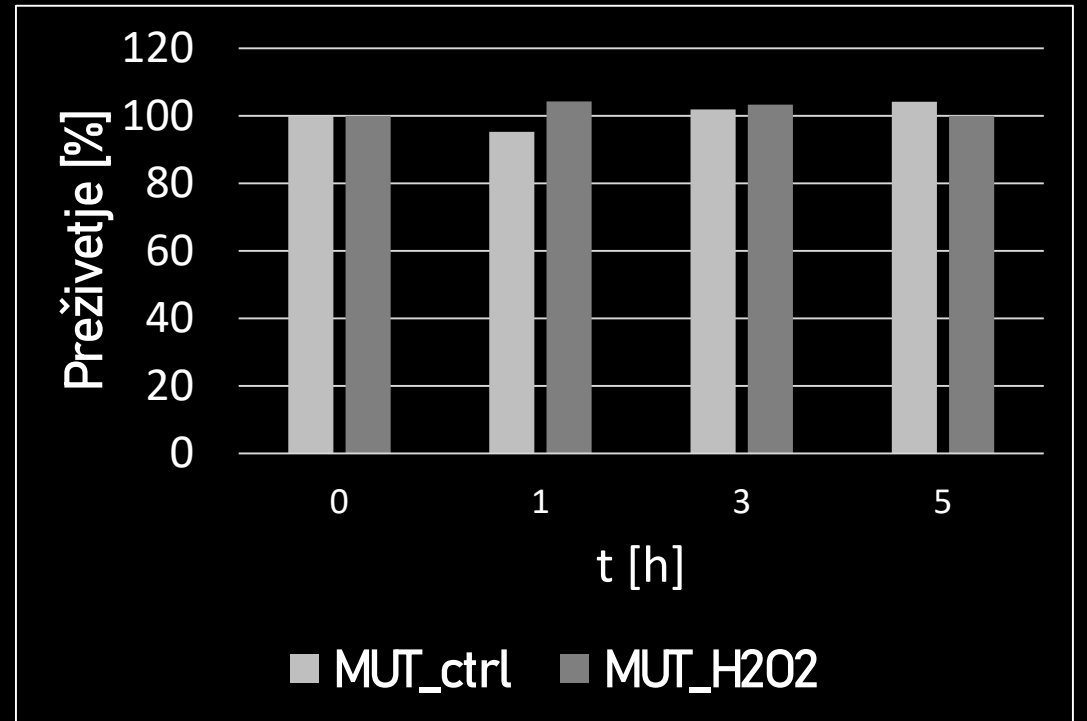
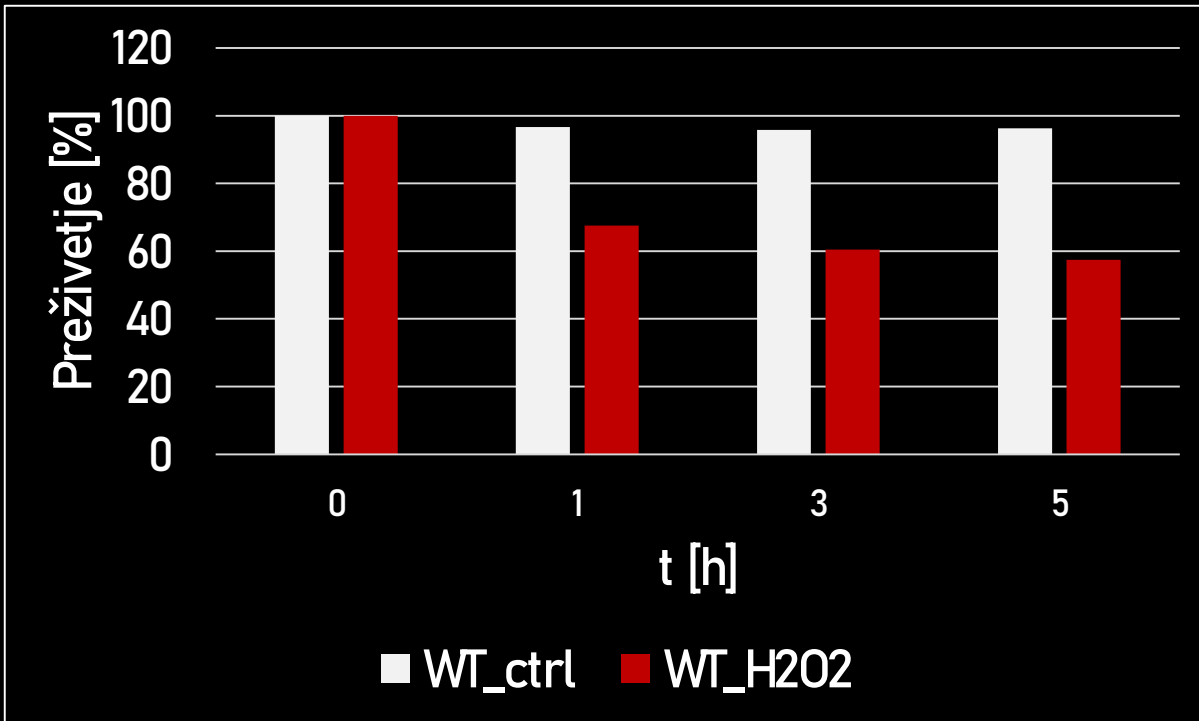
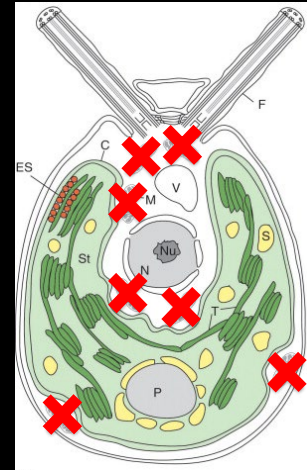
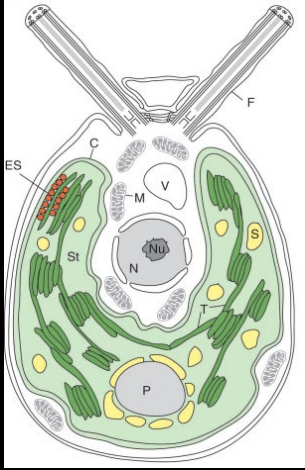
solen stres



oksidativen stres









Koncentracija CO<sub>2</sub> v zraku [ppm]

5000

3000

1000

ogljikov dioksid

kisik

Koncentracija O<sub>2</sub> v zraku [%]

25

20

10

5

550

450

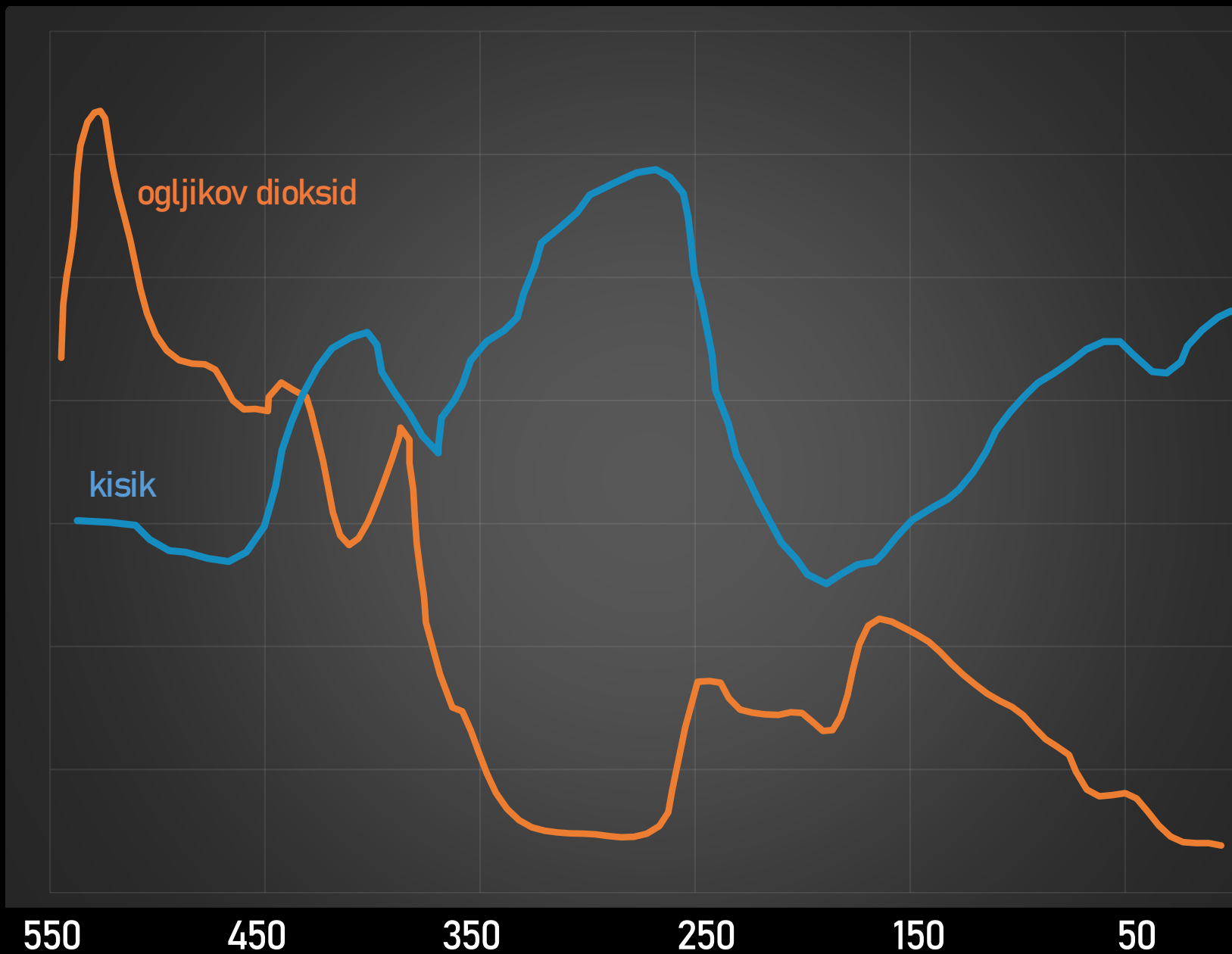
350

250

150

50

Čas pred sedanostjo [milijoni let]



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**KO ZAGOTAVLJAŠ VEČ KOT 75% VSEGA  
KISIKA V OZRAČJU, A LJUDI SKRBIJO LE DREVESA**

**\*ŽALOSTNI ALGNI GLASKI\***



Univerza v Ljubljani  
Fakulteta za kemijo in kemijsko tehnologijo

# Marina Klemencič

## UL FKKT



[www.marinaklemencic.com](http://www.marinaklemencic.com)



@klemencicmarina







