

# From the House of the Whispering Winds



## Animal consciousness in theoretical context

Bjorn Merker

New York University, November 18, 2017

## APPROACH or PARADIGM

### "Additive" based

▪

Candidate  
"extra ingredient"

▪

CALCIUM WAVES IN GLIA  
GAMMA OSCILLATIONS  
ELECTROMAGNETIC FIELD  
QUANTUM SUPERPOSITION  
COSMIC PRIMITIVE

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### Structural approaches

#### COM- PLEXITY BASED

▪

TONONI et al.

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#### FORMAT BASED

global  
work-  
space  
theory

▪  
BAARS  
1988

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▪

▪

#### VIEWPOINT BASED

global  
best  
estimate  
theory

▪  
MERKER  
2012

▪  
pro-  
jective  
conscious-  
ness model

▪  
RUDRAUF,  
FRISTON, et  
al., 2017

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INTEGRA-  
TED INFOR-  
MATION

▪

TONONI et al.

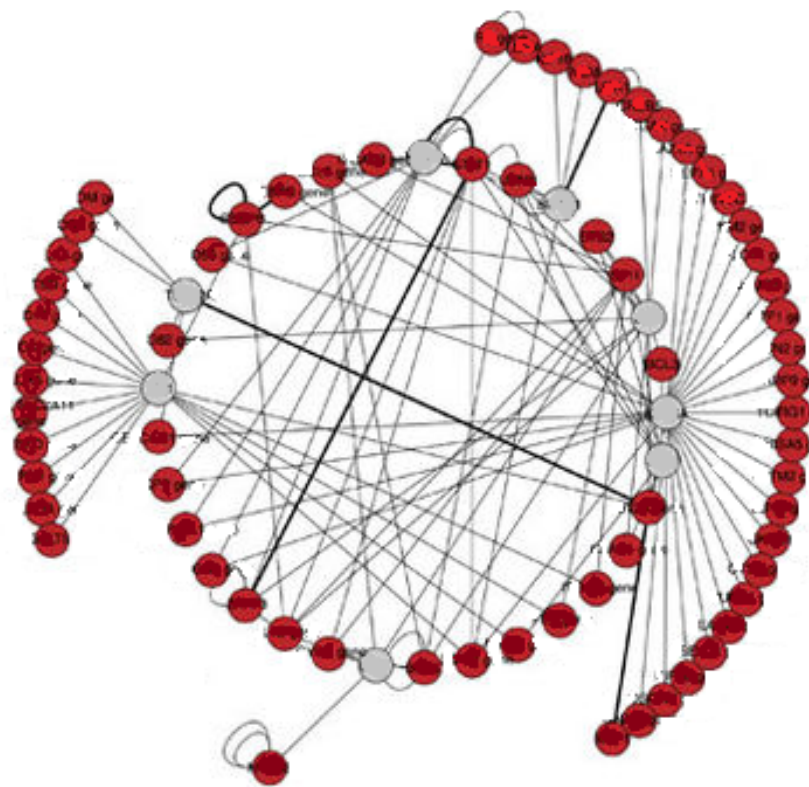
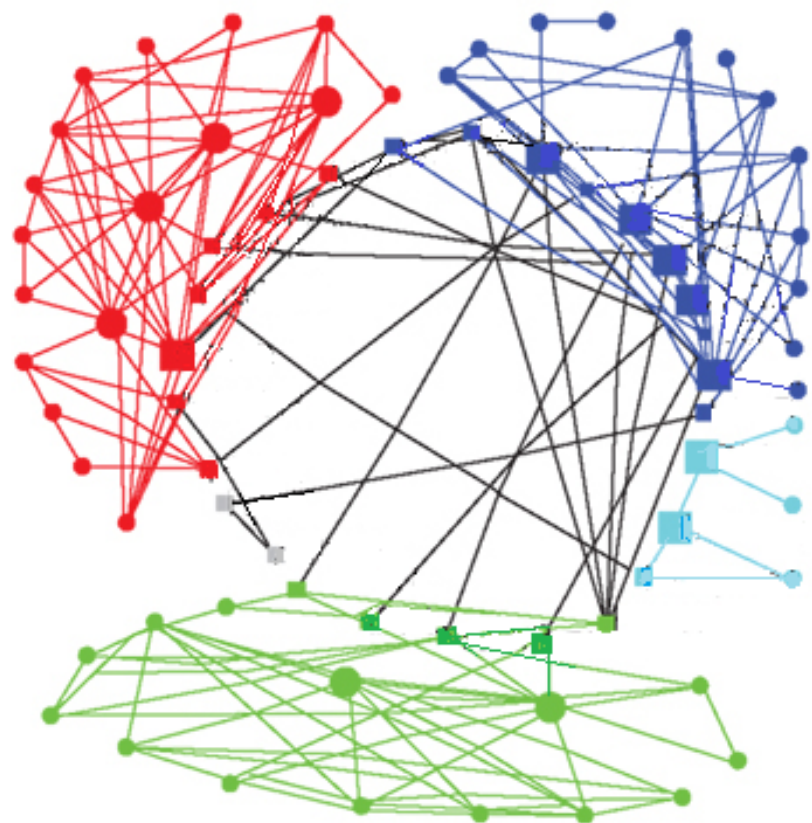
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From: Oizumi, Albantakis & Tononi, 2014

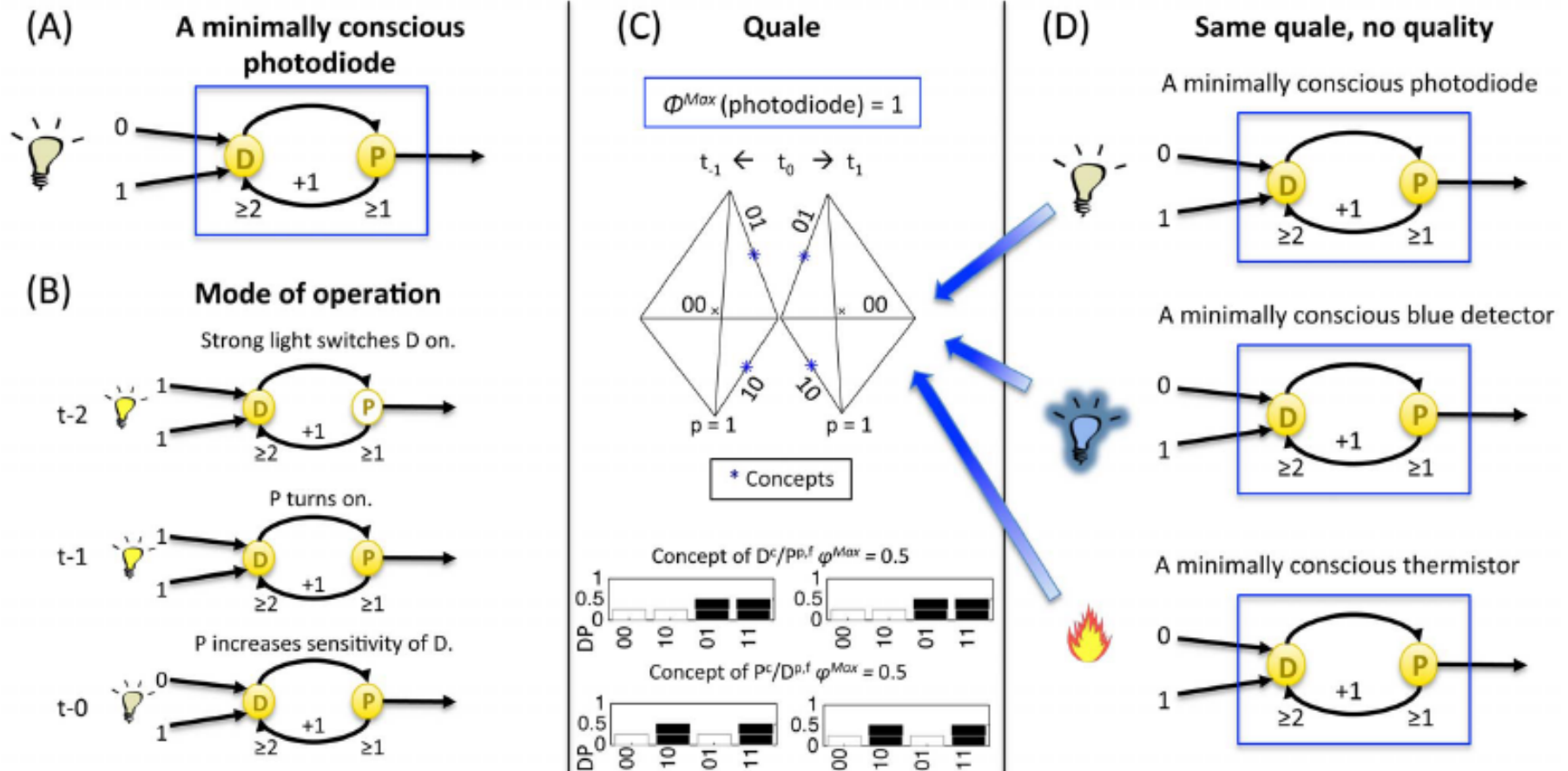


Figure 19. Quantity and quality of experience of a “minimally conscious” photodiode.



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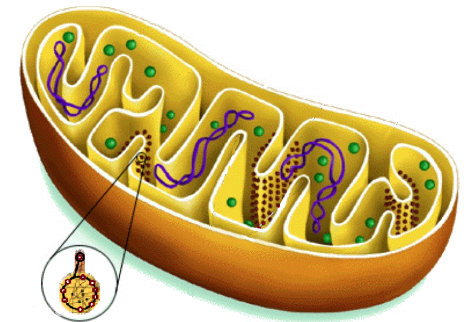
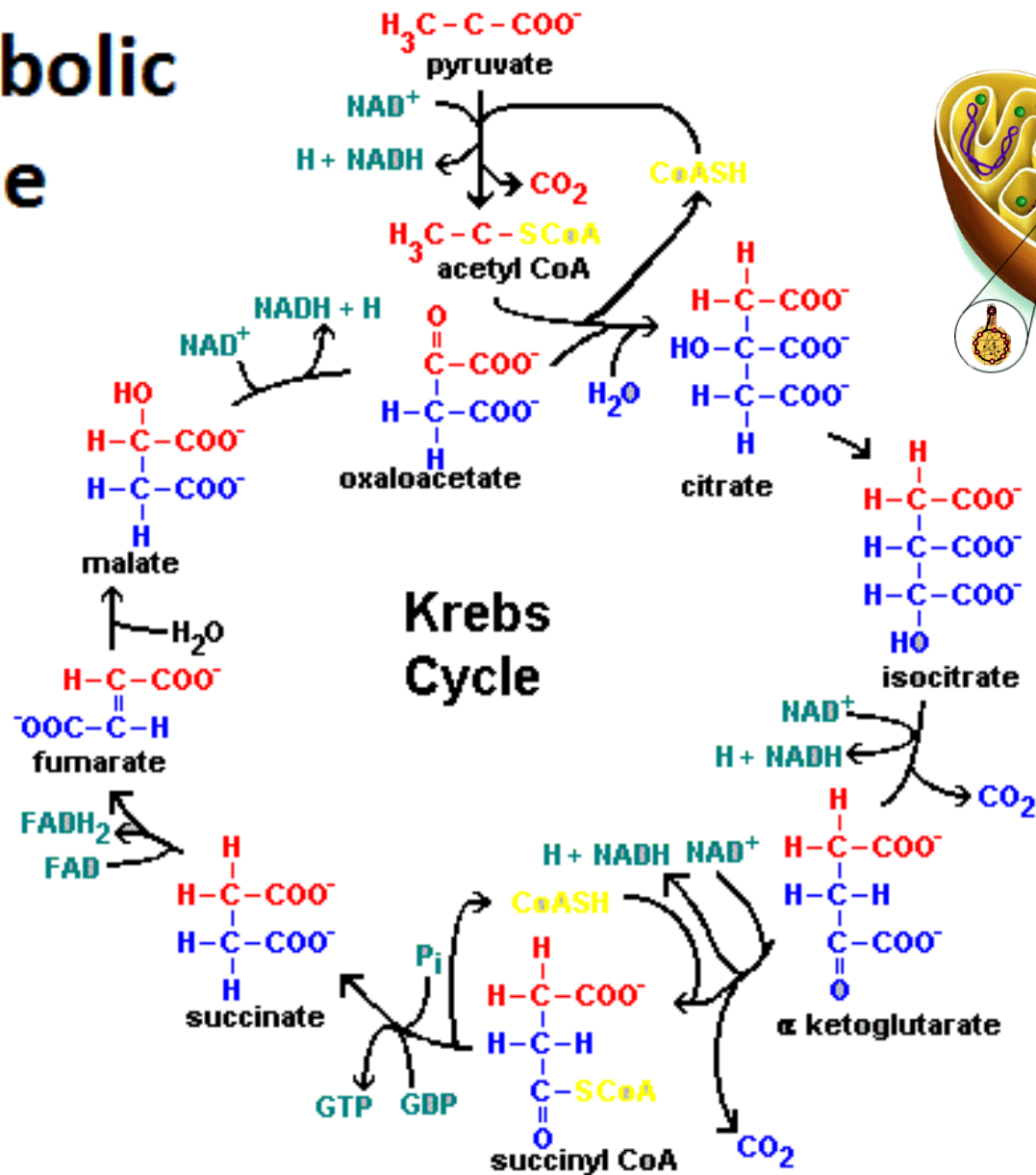
▪  
RUDRAUF,  
FRISTON, et  
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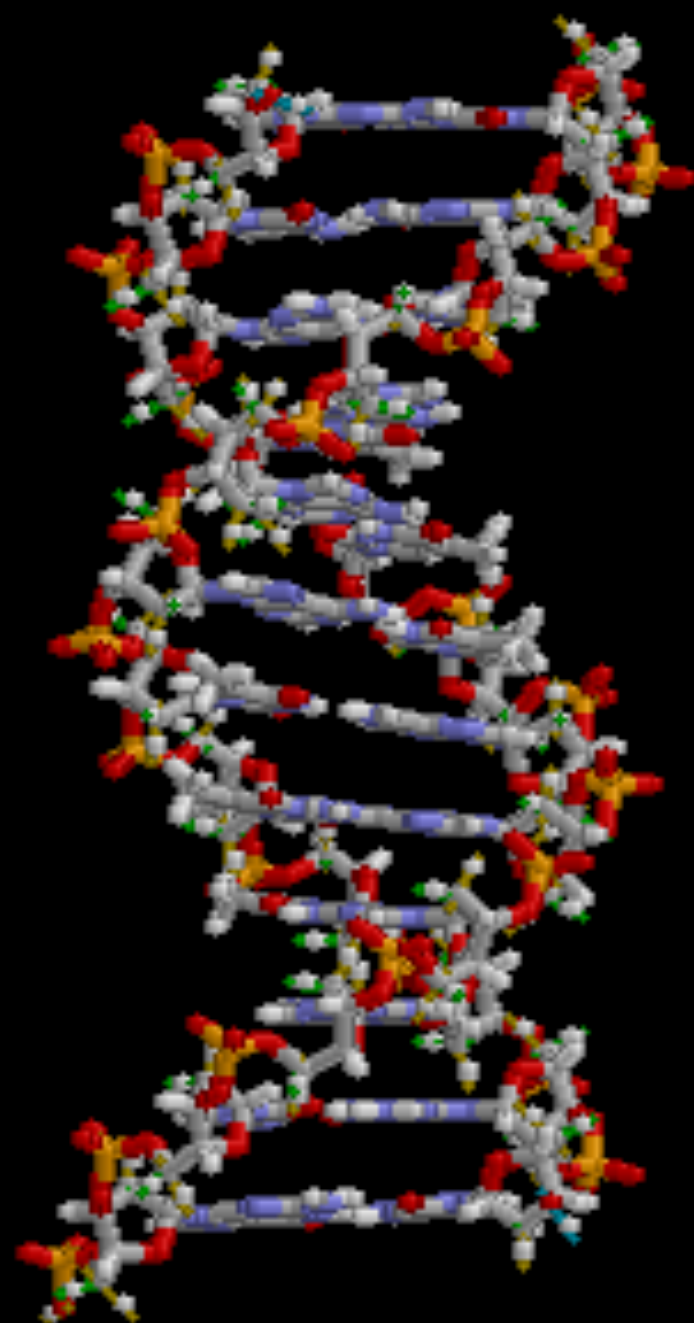
**It is  
"impossible to conceive that ever  
bare incogitative matter should  
produce a thinking intelligent  
being"**

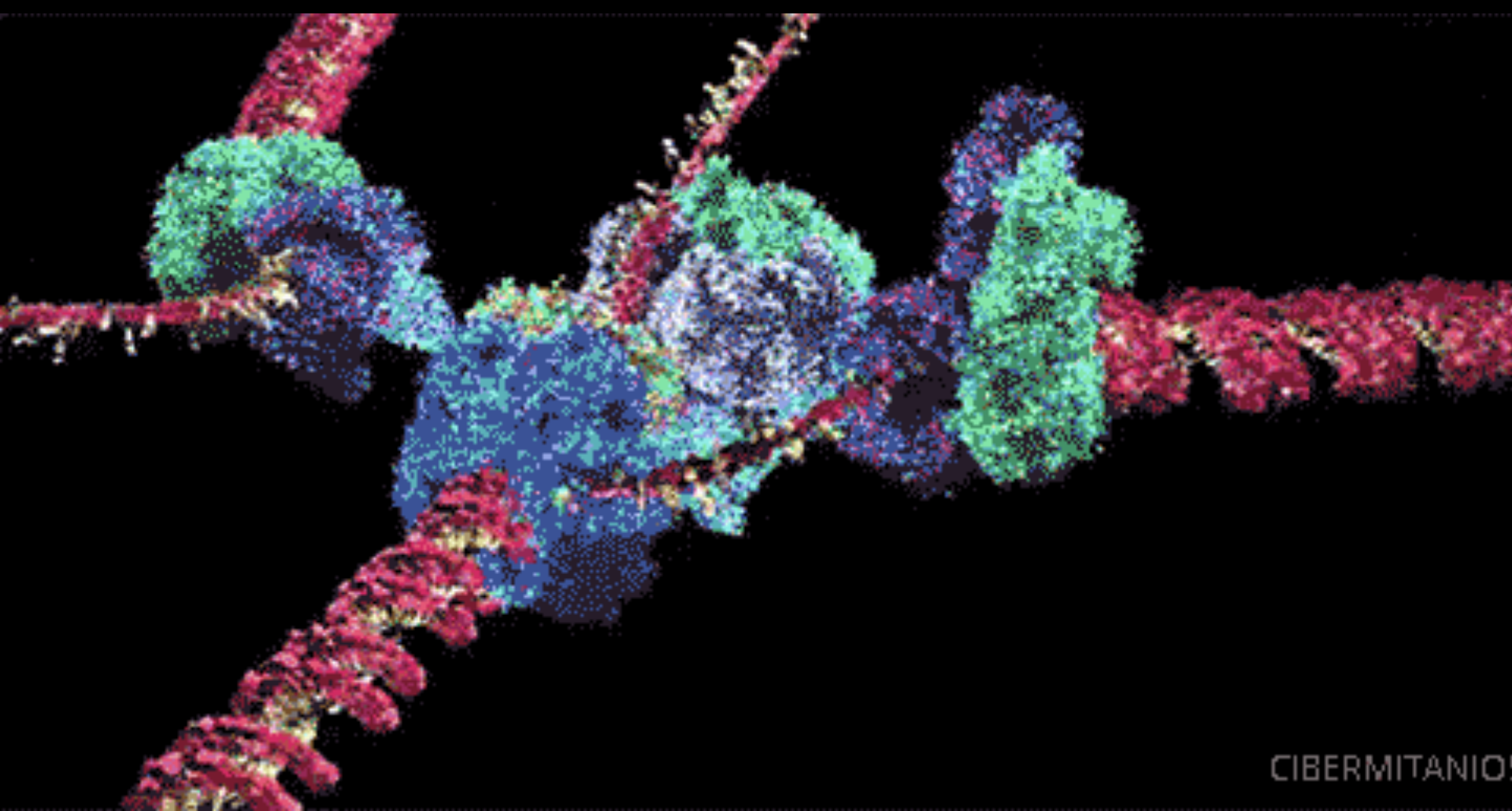
**(John Locke, 1690, Book IV, Chapt. 10).**

# Metabolic engine



Mitochondrion

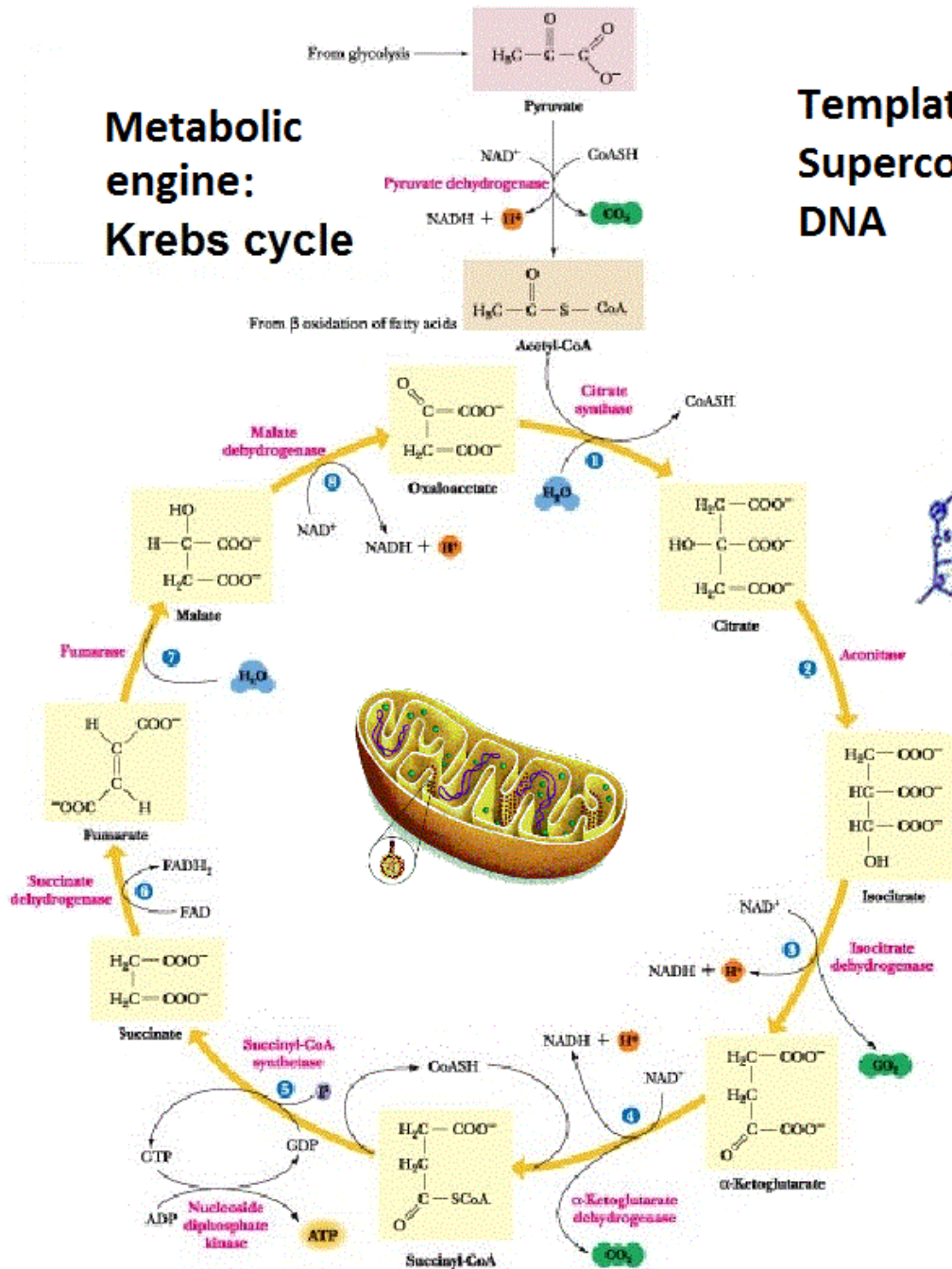




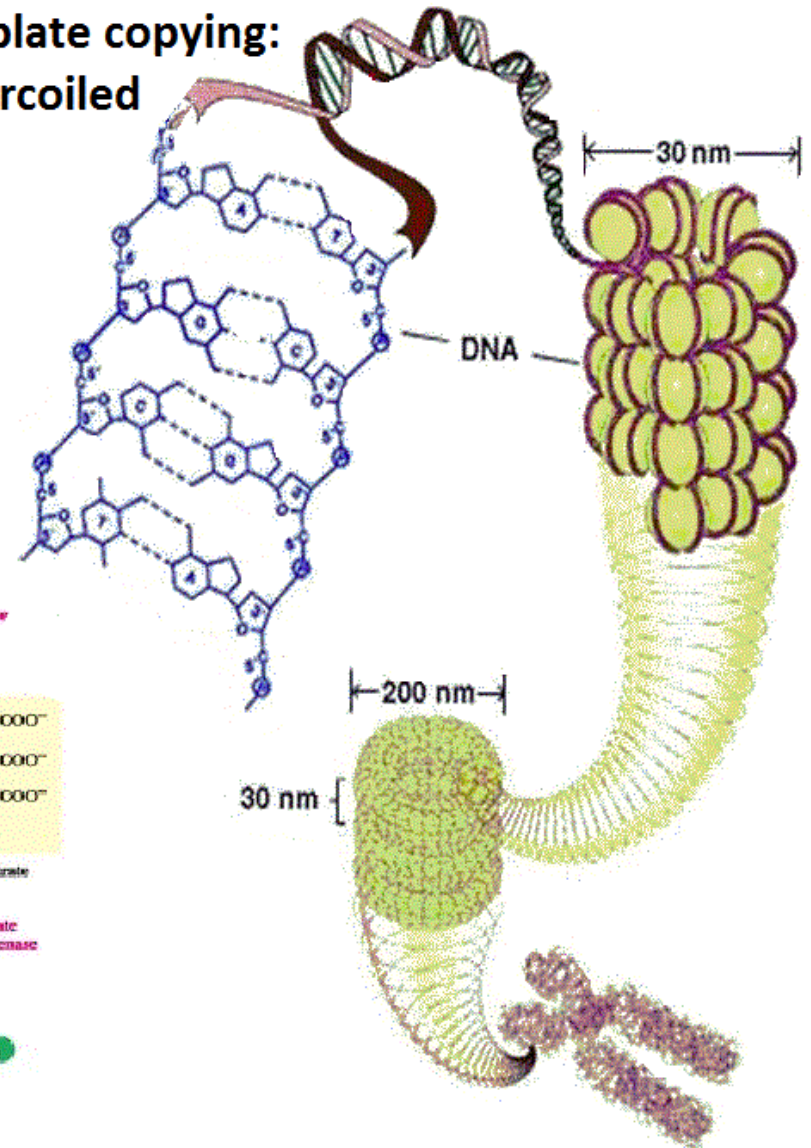
CIBERMITANIO



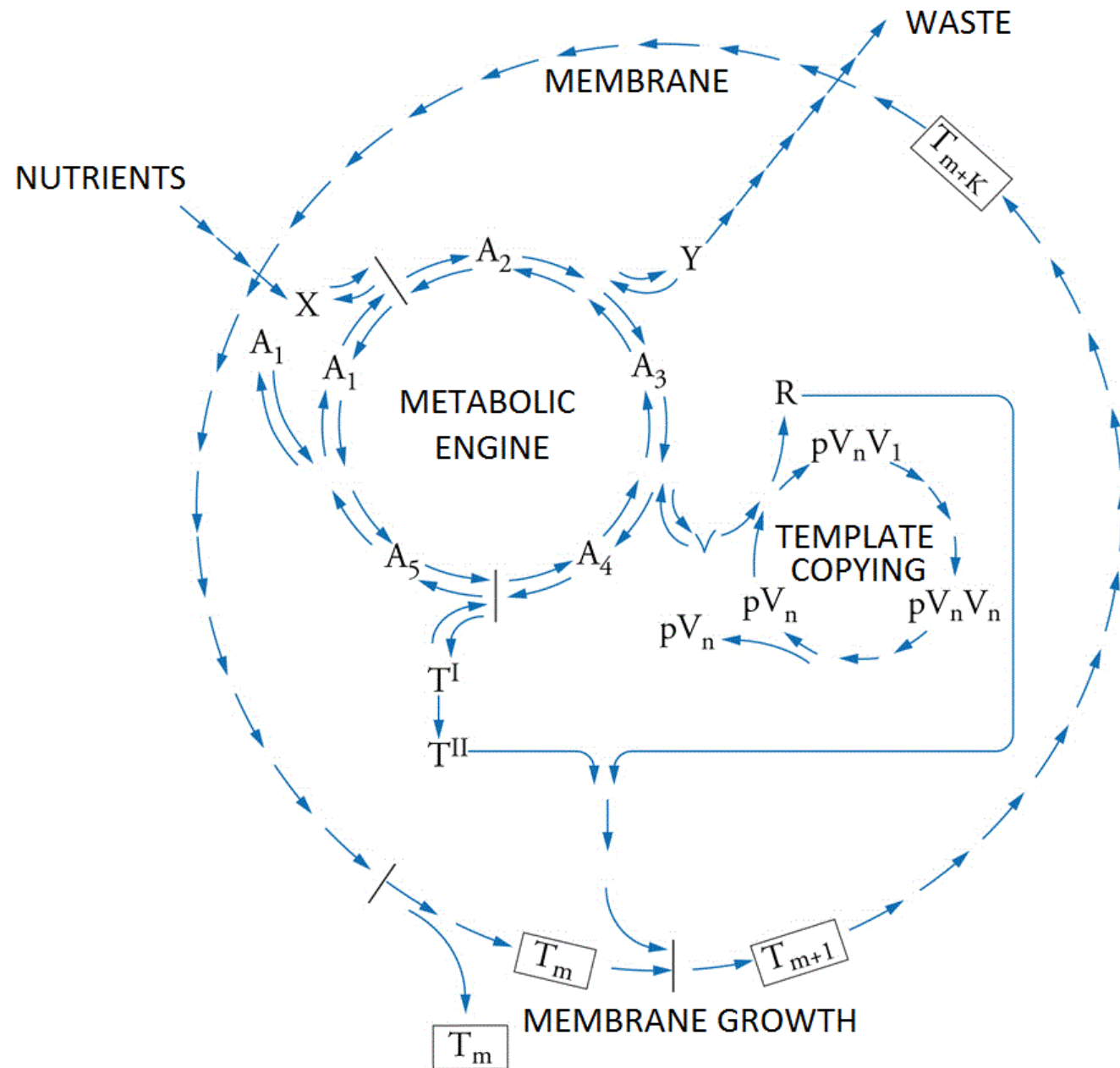
# Metabolic engine: Krebs cycle

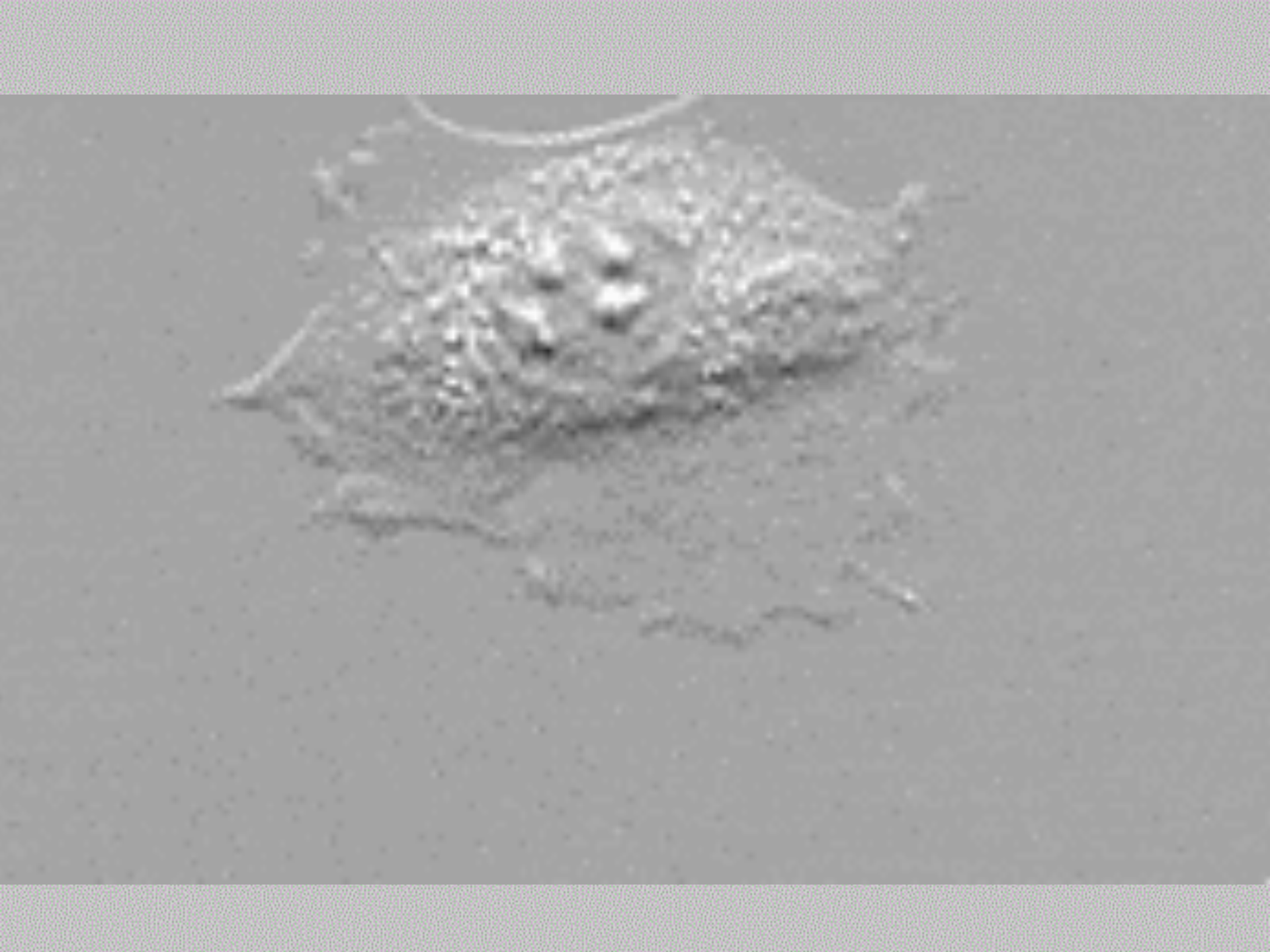


# Template copying: Supercoiled DNA

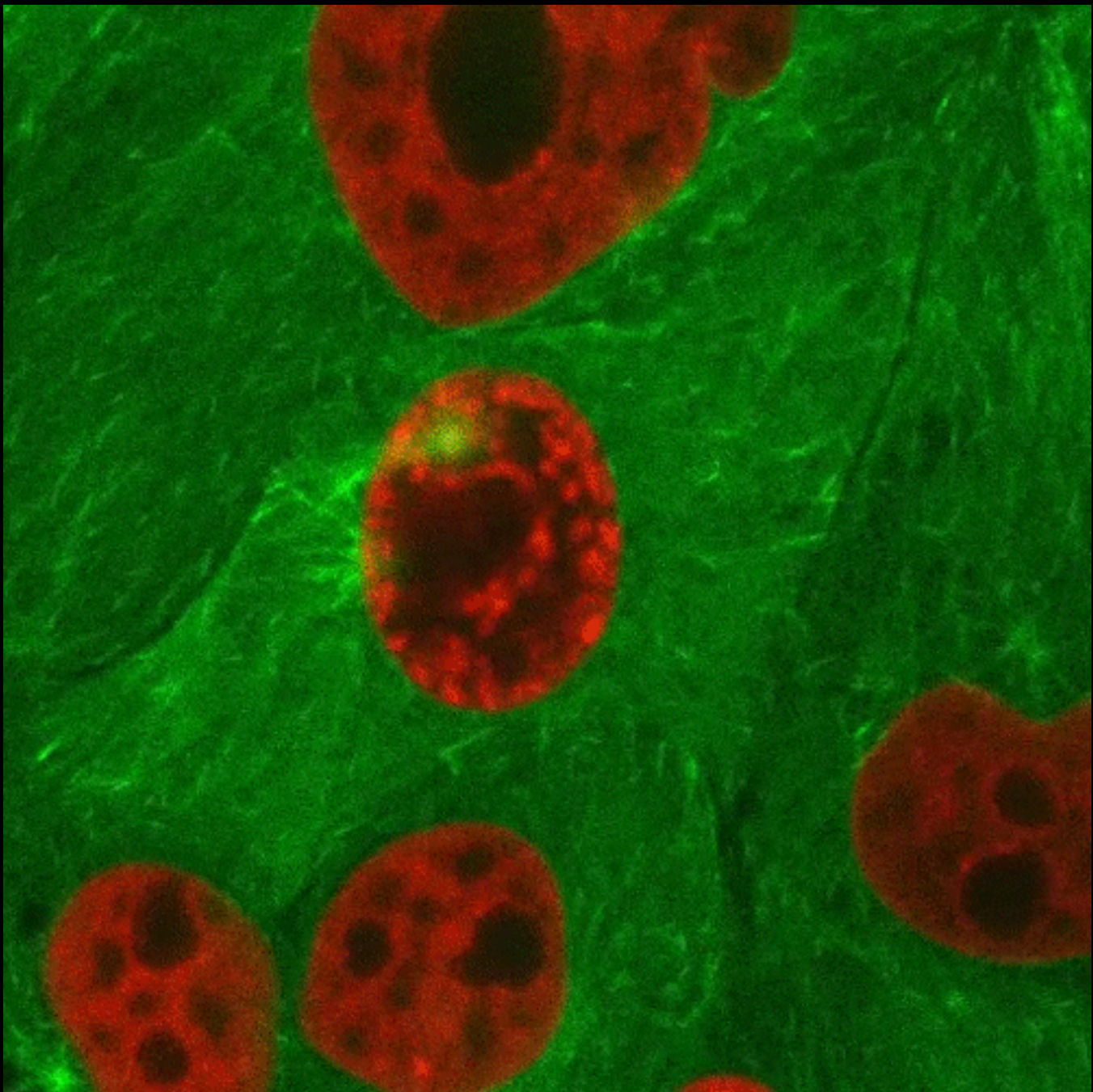


## The structure of life, minimal model









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