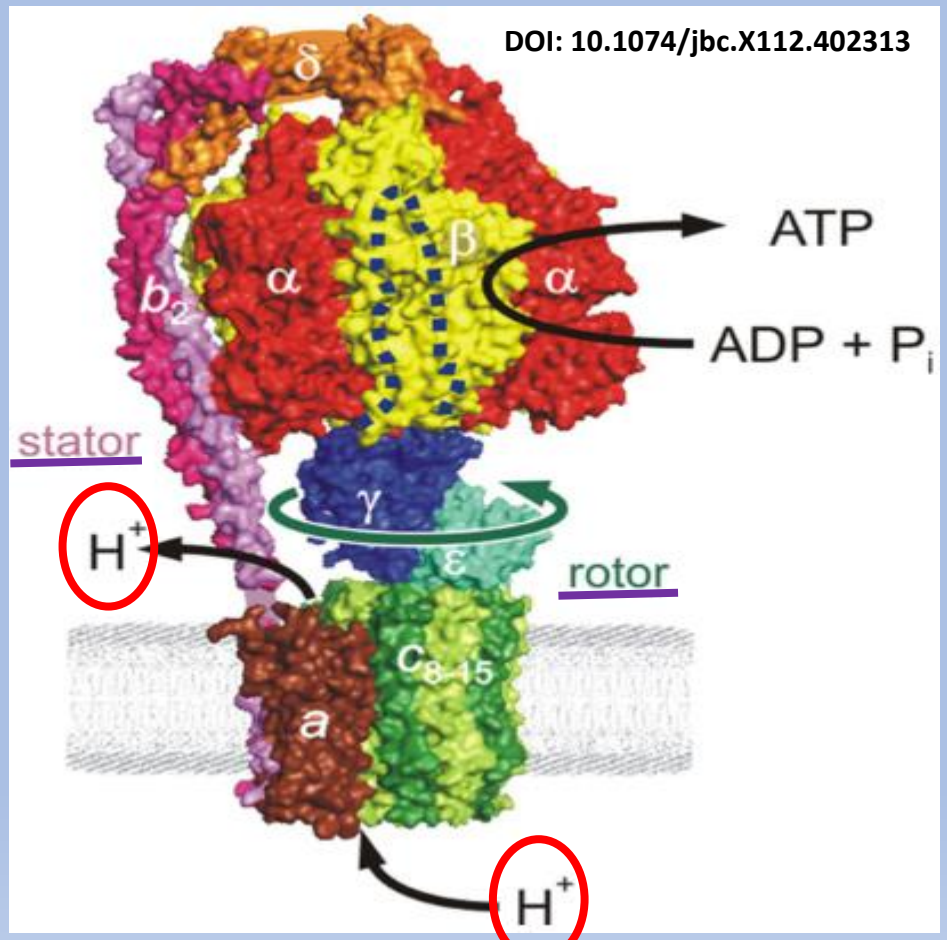
mt ADENOSINE 5’-TRIPHOSPHATE SYNTHASE

UNIVERSAL NANOMOTOR USER GUIDE

proton powered ATPase (there isn’t other kind)

deuterons break this mt enzyme

Reading:
https://doi.org/10.1186/1742-4682-4-9



it produces ATP from ADP and inorganic phosphate via the isotopic control of cellular energy

protons are consequently used for deuterium free inclusion zone water production with O_2 after being transferred in the mt matrix

ADENOSINE 5’-TRIPHOSPHATE SYNTHASE

- the ATPase stator-rotor system is a proton-fueled internal combustion nano-engine

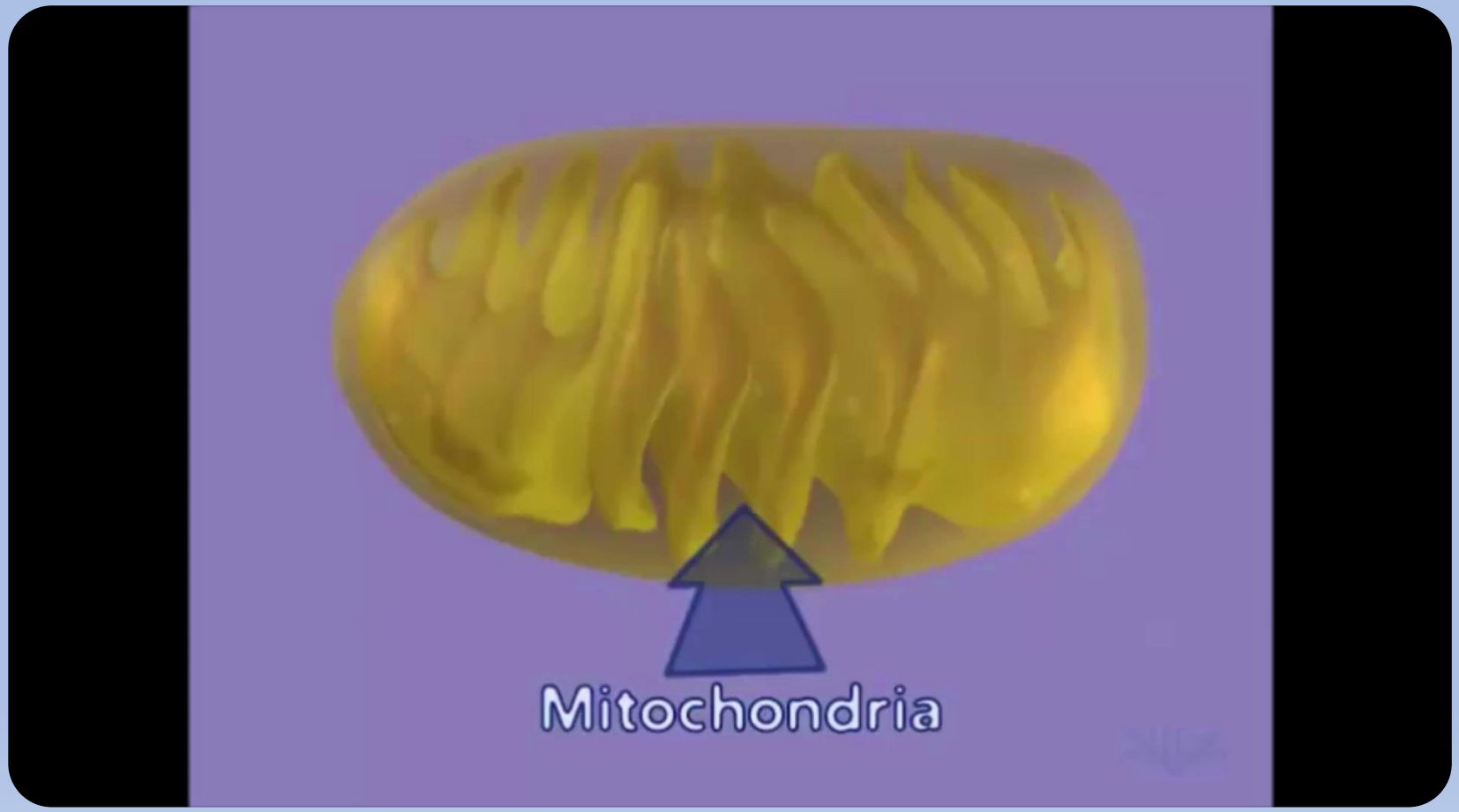
- ATPase is powered by the kinetic energy of the universal proton mass constant in quantum physics, determined by monoallelic genetic inheritance (maternal cloning) with regard of its proton tunnel proteins with no evolutionary footprints described

DEUTERONS BREAK DOWN ATPase

UNIVERSAL NANOMOTOR USER GUIDE

see in motion how a deuteron breaks down ATPase:

https://drive.google.com/file/d/1LBr1OW1aItDY1Z8d0pNpegrvfPDKnMlS/view?usp=sharing



Reading:
https://doi.org/10.1186/1742-4682-4-9

https://youtu.be/3y1dO4nNaKY?si=DBJLTIUbG1ycAqkr (share and cite, modified by Eszter Anna Boros for educational purposes)

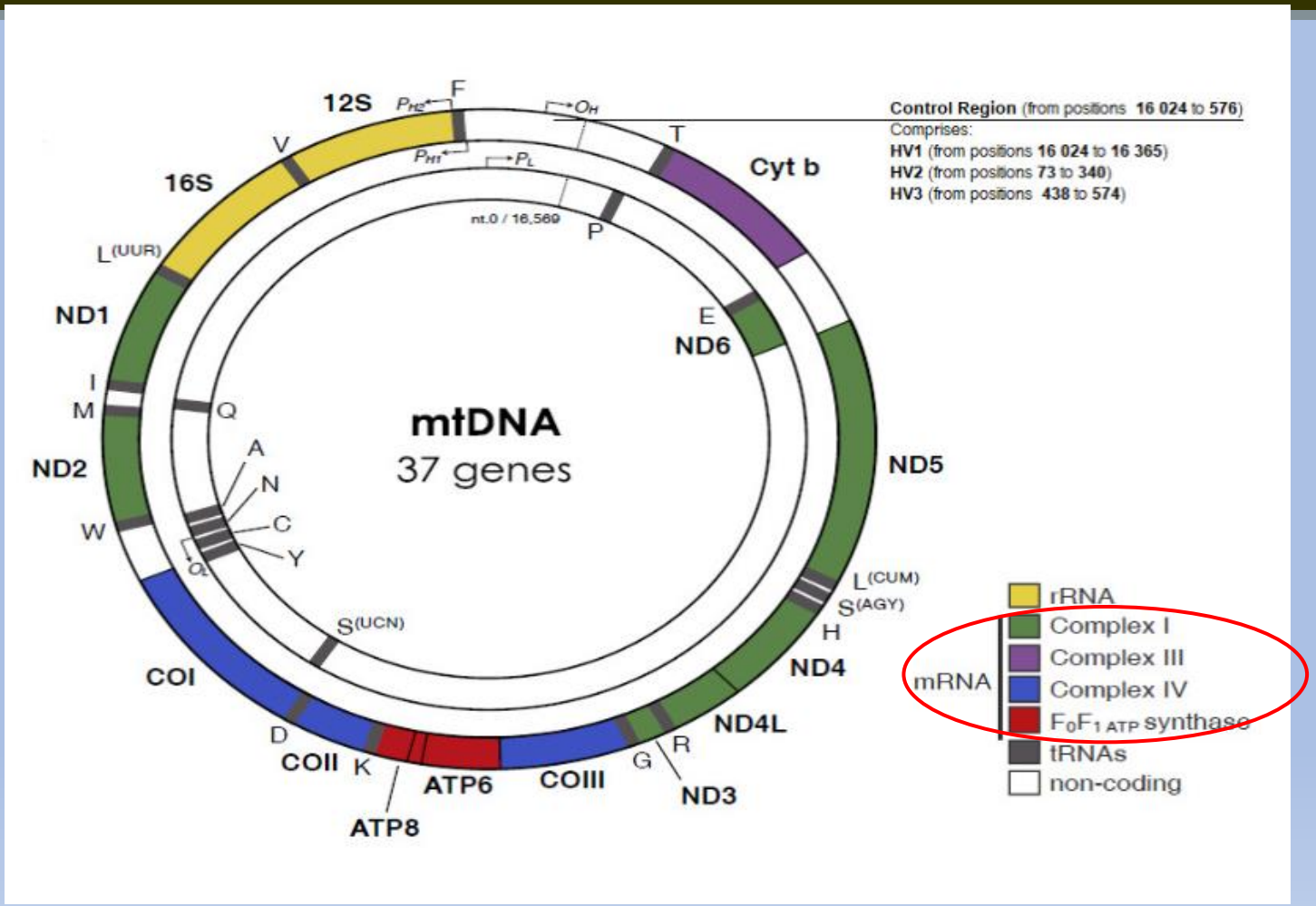
ATP SYNTHASE – STRUCTURE/GENETICS

- the same structure of ATPase nanomotors are present in all kingdoms of life[1]

- human mitochondria carry a single intron-free circular DNA with 16,568 basepairs[2, 3] and 37 genes that code 13 proton tunneling proteins

MITOCHONDRIAL (MATERNAL) DNA

UNIVERSAL NANOMOTOR USER GUIDE



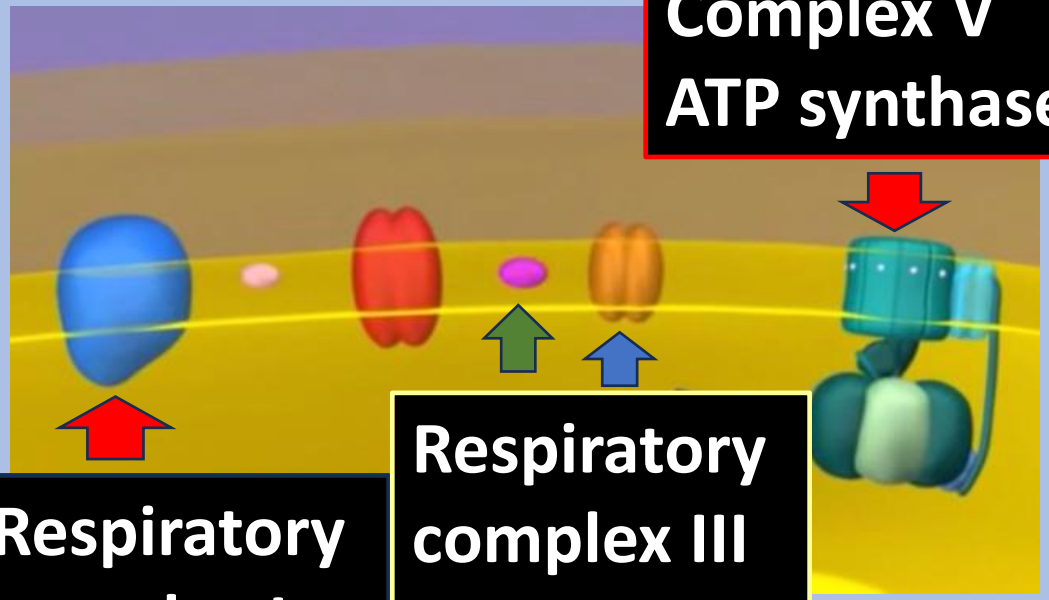
https://ena.our-dogs.info/facts-sh.html

Crop your image. Facts about Shutterstock.

mitochondrial DNA preserves and transcribes ATPase proton tunneling proteins into mRNA only

MITOCHONDRIAL PROTON CONTROL

UNIVERSAL NANOMOTOR USER GUIDE



proton, e^- and oxygen harvesting complexes coded by mtDNA

proton loading onto the ATP synthase nanomotors is a strict mtDNA coded process

MITOCHONDRIAL PROTON TUNNELS BY

UNIVERSAL NANOMOTOR USER GUIDE

mitochondrial DNA (mtDNA) coded proton tunneling ATP synthase fueling proteins:

1 ATP synthase, Fo complex V subunit 8

2 ATP synthase, Fo complex V subunit 6

3-5 Cytochrome c oxidase, subunits 1-3 (complex IV)

6 Cytochrome b (complex III)

7-13 NADH dehydrogenase subunits 1-4L-6 (complex I)

these proteins have not been and can not be altered by evolution as they are monoallelic clones of maternal inheritance

ATP SYNTHASE – GENETICS/PROTEOMICS

- mitochondria-encoded proteins inherently gate out deuterons due to their size to supply protons only for ATPase

- the inner mitochondrial membrane is designed to harvest protons from nutrients by its NADH reductases (7-13) for the mitochondrial matrix compartment

ATP SYNTHASE – FUNCTION

UNIVERSAL NANOMOTOR USER

- ATP synthase and/or decoupling proteins (brown adipose tissue) tunnel protons back into the matrix to react with oxygen during metabolic (living) water formation

- matrix water is likely the most deuterium-depleted (deupleted) water source for highly differentiated eukaryotic cells during energy and molecule production

ATPase PROTON TUNNELING IS PRESERVED

- mitochondrial proton tunneling is preserved in biology due to monoallelic asexual maternal inheritance by the **13 proteins** coded by mtDNA

- all human mitochondria carried by the male gamete (sperm cell) are destroyed by the female gamete (ovum or egg cell) via its Corona Radiata and Zona Pellucida upon fertilization for the zygote to survive

mtATPase CAN NOT ADAPT TO DEUTERIUM

- humans adapted and utilize mitochondria as preferential ketosis powered natural carnivores
- human mitochondria can not adapt to high deuterium containing refined sugars and plant-based nutrients
- deuterium depletion is a shared biological responsibility among prokaryote gut microbes and epithelial cells[1]