

## Nineth directed work of biochemistry

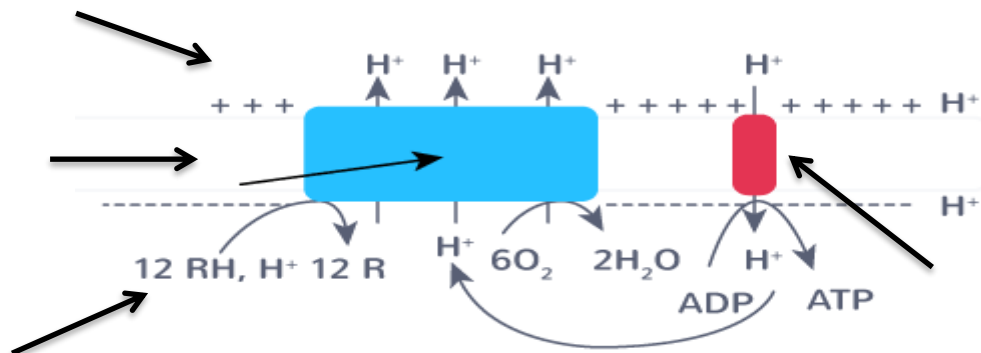
### Bioenergetic

**Exercise 1. Concerning the respiratory chain and oxidative phosphorylation, which of the following is (are) correct?**

- Cytochrome C transports electrons from complex III to complex IV.
- The F1 subunit of ATP synthase is not responsible for phosphorylating ADP into ATP.
- ATP synthetase participates in the reduction of  $O_2$  to  $H_2O$ .
- The different complexes of the respiratory chain pump protons from the inter-membrane space of the mitochondria to the matrix.
- The protons return to the matrix through a protein complex called ATP synthase.

**Exercise 2.**

What do the arrows indicate in the following diagram:



What are the electron transporters in the respiratory chain, specify the role of each.

**Exercise 3.**

Give the chemical name and structural formula of ATP, then indicate the chemical bonds that connect it and which is the most energetic bond.