* **1. Which amino acids are the most frequent at the contact surfaces of protein interacting partners?**
* a. polar
* b. charged
* c. hydrophobic
* d. aromatic
* **2. Which secondary structures are involved in *coiled-coil* binding mode?**
* a. beta-sheets
* b. beta-sheets and helices
* c. loops
* d. intertwining helices
* **3. interactom is**
* a. Network of protein-protein interactions (in a given organism)
* b. Network of interactions of a given protein
* c. Interaction database of all biomolecules
* d. Interactions involved in protein complexes
* **4. What parameters must contact surfaces of binding partners fulfill?**
* a. they must (only) have oposite charges
* b. they must (only) have complementary surfaces
* c. they must have complementary characteristics (both shape and polarity)
* d. they must be hydrophobic
* **5. Provide at least 2 examples of coiled-coil containing proteins:**
* **6. What is the complexom?**
* a. network of interacting proteins in one cell
* b. all interactions of one protein
* c. all protein complexes of a given organism
* d. network of strong interactions
* **7. How can a post-translational modification of the protein directly influence protein-protein interaction?**
* a. no way to do it directly
* b. only via protein conformational change
* c. can block or enhance the interaction
* d. by degradation of the protein
* **8. What are the advantages of the protein complex composed of several small subunits (compared to macromolecule composed one big protein)?**
* a. higher dynamics, modularity, regulation
* b. higher protein stability
* c. better access to the protein
* d. better degradation
* **9. How does the mitochondrial ATP pump work during ADP/ATP conversion?**
* a. transports Na+ across the membrane
* b. utilizes cGMP
* c. transports K+ across the membrane
* d. generates rotation when transporting H+ across the membrane
* **10. Provide at least 2 examples of molecular machines:**

Send your answers to: [jpalecek@sci.muni.cz](mailto:jpalecek@sci.muni.cz)