Faculty of Medical Sciences in Kragujevac

Integrated Academic Studies of Medicine

Sports medicine

2nd week

1. Neuromuscular junction.

2. Acetylcholine receptors in skeletal muscles and the connection of the potential of the end plate with the excitation of the skeletal muscle fiber.

3. Propagation of action potentials in skeletal muscles.

4. Sarcoplasmic reticulum and Ca2+ in skeletal muscles.

5. Functional structure of the skeletal muscle.

6. Contractile filaments in the skeletal muscles.

7. Sarcomere as a functional unit of skeletal muscle. The effect of sarcomere length on muscle contraction.

8. The "cross-bridge" cycle.

9. Motor unit. Summation of muscle contractions and mechanism of tetanization.

10. Classification of smooth muscle fibers. Characteristics of multi-unit and single-unit (visceral) smooth muscles.

11. Functional structure of smooth muscles.

12. Excitation and contraction of the smooth muscle.

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