

## **Tutorial I: autumn semester 2015/2016**

<b>Group No. 30</b>	<b>9/21/2015</b>	<b>13:30 - 15:10</b>	Campus, Department of Physiology, room 207
<b>Group No. 33</b>	<b>9/22/2015</b>	<b>16:00 - 17:40</b>	Campus, Department of Physiology, library
<b>Group No. 31</b>	<b>9/23/2015</b>	<b>13:30 - 15:10</b>	Campus, Department of Physiology, room 207
<b>Group No. 32</b>	<b>9/23/2015</b>	<b>16:00- 17:40</b>	Campus, Department of Physiology, room 207
<b>Group No. 37</b>	<b>9/29/2015</b>	<b>16:00 - 17:40</b>	Campus, Department of Physiology, library
<b>Group No. 34</b>	<b>9/30/2015</b>	<b>13:30 - 15:10</b>	Campus, Department of Physiology, room 207
<b>Group No. 35</b>	<b>#####</b>	<b>13:30 - 15:10</b>	Campus, Department of Physiology, room 207
<b>Group No. 36</b>	<b>#####</b>	<b>16:00- 17:40</b>	Campus, Department of Physiology, room 207

The tutorial takes place **in the Department of Physiology, building A 20, Campus, Kamenice 5, Brno-Bohunice**

The tutorial will be held by Professor M. Nováková, PhD.

Program:

### **Intercellular contact**

Mechanical, electrical and humoral coupling, ligands and receptors.

Second messengers.

### **Resting membrane potential**

Na/K ATP-ase, diffusion currents, electro-chemical gradient, equilibrium potential.

Physiological importance of resting membrane potential.

### **Action potential**

Local responses, selective conductivity of membrane channels, mechanism of depolarization, transpolarization and repolarization.

### **Principles of muscle contraction**

Contractile proteins, troponin and tropomyosin, role of calcium, mechanism of relaxation. Differences between smooth, skeletal and heart muscle.

All students are obliged to read the theory prior to the tutorial (Barrett: Ganong's Review of Medical Physiology, Section I-chapters 1,2; Section II-chapters 4,5).

The tutorials are obligatory, the presence is the condition for obtaining the credit.

All students are allowed to substitute only one tutorial during one semester - those who will have more than one absence will not obtain the credit from tutorials.

doc. PharmDr. Petr Babula, Ph.D.  
Head of the Department of Physiology