EM II MIDTERM ANNOUNCEMENTS

The second midterm is an e-learning type written test held during the 10th study week.

<table>
<thead>
<tr>
<th>Time and place:</th>
<th>Date</th>
<th>Time</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>EM 1-6</td>
<td>November 12, 2019</td>
<td>12.45 – 13.30</td>
<td>Histology laboratory</td>
</tr>
<tr>
<td>EM 7-12</td>
<td>November 15, 2019</td>
<td>12.00 – 12.45</td>
<td>Histology laboratory</td>
</tr>
<tr>
<td>EM 13-17</td>
<td>November 15, 2019</td>
<td>14.00 – 14.45</td>
<td>Histology laboratory</td>
</tr>
</tbody>
</table>

Course of the midterm examination

The test is composed of altogether 20 simple and multiple choice questions. Altogether 20 points may be collected, passing rate is 50%. Writing time: 30 minutes.

There will be several question associated with drawings including a „drag and drop” task where the correct answers will have to be selected and pulled to the boxes attached to arrows.

(See the sample/practice test in moodle https://itc.semmelweis.hu/moodle/course/view.php?id=1003 or the brain maps/cross sections at semmelweis.hu/anatomia/files/2019/10/brainstem-engl.doc)

Detailed topic list:

**Cell types of the CNS and PNS** - type of neurones, receptors, synapses, neurotransmitters;

**Microscopy of the parts of the CNS**

- spinal cord - grey matter: nuclei and Rexed laminae; white matter: content of the columns, tracts; dorsal root ganglia, dorsal roots, ventral roots, communicating branches; proprioceptive, nociceptive, autonomic reflexes;
- brain stem - location and character/type of the nuclei; ascending and descending pathways; reflex arc of mastication;
- cerebellum – composition/parts of the cerebellum; cell types, microcircuitry of the cortex; deep nuclei, connectivity - afferent and efferent tracts contained in the cerebellar peduncles;
- diencephalon – nuclei and connectivity of the thalamus (hypothalamus)
- cerebral cortex – Brodmann areas; cortical types (granular – agranular, paleo-, archi-, neocortices); cortical laminations; connectivity of the cortical areas (transmitters);
- deep cerebral grey matter – components and connectivity of the basal ganglia (transmitters);

**Functional systems**

- sensory tracts/systems - epicritical and protopathic sensitivity;
- motor tracts/systems – pyramidal and „extra”pyramidal connections
- location of the tracts within the internal capsule, cerebral peduncle, cerebellar peduncles etc;

**Cranial nerves**

Nuclei and branches, innervation pattern (n.b. only the name of the extraocular muscles)

**Autonomic nervous system**

parasympathetic and sympathetic parts (nuclei and ganglia)

The further topics **will not form part** of the midterm examination: development of the nervous system; limbic system; organs of special senses; hypothalamo – hypophysial and endocrine systems.

Please make sure you know your SeKA name and password. Attendance at the midterm is obligatory, in case of an absence a retake test will be offered during the following Histology laboratory class.

Dr. Andrea D. Székely
Associate Professor
Course Director