2018/2019 year
Developmental Biology I (fall semester)

Director of course: *Imre Oláh MD, PhD*
Code: AOVANT457_1A
Credit points: 3
Type of course: elective
Topics of the course: Molecular regulation of ontogeny and developmental malformations. Teratogenesis.
Place and time of course: Huzella Auditorium in the Department of Anatomy, Histology and Embryology (Tűzoltó u.58),
second floor, every Thursday, 16:30-18:00.

1) Introduction to developmental biology and its significance in medical curriculum
13th September (*Imre Oláh)*

2) Experimental methods of developmental biology
20th September (*Nándor Nagy*)

3) Beginning of developmental biology. Organization centers, Spemann organiser and its molecular background.
27 th September *(Ildikó Bódi)*

4) Regulatory factors in ontogeny I. Transcription factors and Hox genes, segmentation of the body.
4th October (*Krisztina Herberth-Minkó*)

5) Regulatory factors in ontogeny II. Signal molecules. Growth factors.
11th October *(Krisztina Herberth-Minkó*)

6). Stem cell biology and regeneration
18th October *(Nándor Nagy)*

7) Regulatory factors in ontogeny III. Epigenetic effects, DNA metilation, imprinting
25th October (*Krisztina Herberth-Minkó*)

8) Holiday
1st November

9). Epithelial morphogenesis: role of basal membrane in cell migration, branching of epithelia.
8th November (*Katalin Kocsis*)

10) Germ cell line determination: specification, migration, development
15th November (Dávid Dóra)

11) Gastrulation
22th November (*Katalin Kocsis*)

12) Patterning of mammalian embryo: antero-posterior and dorso-ventral patterning
29th November (*Nándor Nagy*)

13) Formation of embryonic mesoderm
6th December (*Imre Oláh*)

14) Human reproductive biology (Brain sex)
13th December (*Imre Oláh*)