

## STUDY PLAN in Immunology for Faculties of Medicine and Dentistry

### Week 1.

Intracellular and extracellular markers of immune cells. Immunophenotyping. Cytometry. Discussion of clinical cases about vaccination.

### Week 2.

**Cells and organs of immune system** (Abbas, Chapter 1 pp.15-21, 33-39; Chapter 4 pp.83-94) Discussion of clinical cases about phases of maturation of T and B cells and clonal selection of lymphocytes.

### Week 3.

**Inflammation and complement** (Abbas, Chapter 2 pp.39, Chapter 8 pp. 164-171) Discussion of clinical cases about mechanisms of inflammation and complement system. *Daily test 1* for the assessment of class activity.

### Week 4.

**Antigen presentation and recognition** (Abbas, Chapter 2 pp. 24-27; Chapter 3 pp.51-71, Chapter 4 pp. 73-76, 80-83) Discussion of clinical cases about TCR and MHC class I and II molecules.

### Week 5.

**Antibodies** (Abbas, Chapter 4 pp. 76-80, Chapter 8 pp. 159-164, pp. 171-173, Chapter 11 pp.226-227) Discussion of clinical cases about generation and structure of antibodies. *Daily test 2* for the assessment of class activity.

### Week 6.

**Adaptive immune response.** (Abbas, Chapter 1 pp.4-14; Chapter 5 pp. 96-117, Chapter 6 pp. 119-132; Chapter 7 pp.137-156) Discussion of clinical cases about processing and presentation of antigen; generation of primary immune response and immunologic memory.

### Week 7.

**Tolerance. Regulation of the immune response** (Abbas, Chapter 9 pp. 177-189)

### Week 8.

*Midterm Quiz 1* (cells and organs of immune system, complement and inflammation, adaptive immune response).

### Week 9.

**Defence against infectious agents** (Richard Coico, Chapter 21 pp. 328- 336; Abbas, Chapter 2 pp.23-32; Chapter 6 pp.132-134) Discussion of clinical cases about immune response against pathogens.

### Week 10.

**Hypersensitivity (type I, type II)** (Richard Coico, Chapter 15 pp. 233-246; Chapter 16 pp. 249-252; Abbas, Chapter 11 pp. 218-229) Discussion of clinical cases about haemolytic anemia of newborns and allergic reactions caused by drugs.

**Week 11.**

**Hypersensitivity (type III and type IV)** (Richard Coico, Chapter 16 pp. 252-257; Chapter 17 pp. 259-265; Abbas, Chapter 11 pp. 229-234)

Differentiation of types of hypersensitivity reactions in clinical cases.

*Daily test 3* for the assessment of class activity.

**Week 12.**

Immunity to cancer. Autoimmunity and autoimmune disease (Abbas, Chapter 9 pp. 189-194; Chapter 10 pp.196-207)

Daily test for the assessment of class activity. Discussion of clinical cases about experimental treatment of cancer. Discussion of clinical cases about autoimmune diseases.

**Week 13.**

**Immunodeficiencies** (Abbas, Chapter 12 pp.235-250)

Discussion of clinical cases about T cell and complement deficiencies in patients.

*Daily test 4* for the assessment of class activity.

**Week 14.**

**Transplantation and rejection** (Abbas, Chapter 10 pp.207-216)

Discussion of clinical cases about clinical forms of rejection, post-transplantation treatment.

*Daily test 5* for the assessment of class activity.

**Week 15.**

**Midterm Quiz 2 (Week 9-Week 14)**