**PHARMACOLOGY AND TOXICOLOGY 2/3**

**CLASSES/SEMINARS-III YEAR of MEDICINE; SEMESTER V English Division, WINTER 2024**

**(30hrs seminars, 30hrs classes; duration of classes 4 x 45 min)**

TUTOR FOR THE SEMESTER: Piotr Jakubowski, PhD

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| **No** | **Date, duration of classes** | **Topic** | **Lecturer** |
| 1 | (Classes)  **3.10**  Gr 1: 8,30 – 11,30  Gr 2: 11,45 – 14,45 | Basics pharmacology. Definition of drug and poison. Drug production, clinical trials. Branches and divisions of pharmacology. Generic name, trade name | Piotr Jakubowski, PhD |
| 2 | (Seminar)  **10.10**  Gr 1,2, *12 – 15* | Pharmacokinetics (basics pharmacokinetics - routes of administration, processes of absorption, distribution, metabolism and excretion, pharmacokinetic parameters: half-life, volume of distribution, drug clearence, drug interactions, therapeutic monitoring of drugs ) | Piotr Jakubowski, PhD |
| 3 | (Classes)  **17,10**  gr 1: 8,45 – 11,45  gr 2: 12 - 15 | Antibiotics part 1. Concepts in antibiotic pharmacology. Bacteriostatic vs Bacteriocidal antibiotics. Mechanism of Action of antibiotics. Complications of antimicrobial therapy. Rational use of antibiotics. Antimicrobial resistance | Klaudia Kitala,PhD |
| 4 | (Seminar)  **24.10**  12,45 – 15,45 | Antibiotics part 2 –characteristics of specific groups of antibiotics | Piotr Jakubowski, PhD |
| 5 | (Classes)  **7.11**  gr 1: 8,45 – 11,45  gr 2: 12 - 15 | Antiviral, Antifungal and  Antiparasitic drugs  drugs –classification, mechanism of use, indications and contraindications. Adverse effects and interactions.  Disinfectants, antiseptics, sterilants | Piotr Jakubowski, PhD |
|  | 13.11  Colloquium  13 – 13.45 | Topics 1 - 5 | Piotr Jakubowski, PhD |
| 6 | (Seminar)  **14.11**  Gr 1,2, *12 – 15* | Drugs affecting the autonomic nervous system | Michał Majewski, prof UWM |
| 7 | (Classes)  **21.11**  Gr 1: 8,30 – 11,30  Gr 2: 11,45 – 14,45 | Drugs used in the treatment of blood diseases:  - Anemia treatment; hematopoietic growth factors  -Drugs used in the treatment of coagulation disorders | Klaudia Kitala,PhD |
| 8 | (Seminar)  **28.11**  Gr 1,2, *12 – 15* | Introduction to cardiovascular pharmacology:  a)Antihypertensive drugs  b)Diuretics  c)Vasoactive peptides | Piotr Jakubowski, PhD |
| 9 | (Classes)  **5.12**  Gr 1: 8,30 – 11,30  Gr 2: 11,45 – 14,45 | a) Vasodilators and treatment of coronary artery disease  b) Nitric oxide  c) Dyslipidemia treatment | Piotr Jakubowski, PhD |
| 10 | (Seminar)  **12.12**  Gr 1,2, *12 – 15* | a) Drugs for heart failure  b) Treatment of arrhythmia  c) Treatment of acute myocardial infarction | Michał Majewski, prof UWM |
|  | **18.12**  Colloquium  13 – 13.45 | Topics 6 - 10 | Piotr Jakubowski, PhD |
| 11 | (Classes)  **19.12**  Gr 1: 8,30 – 11,30  Gr 2: 11,45 – 14,45 | Introduction to CNS pharmacology:  a) neurotransmitters and receptors  b) blood-brain barrier  c) classification of psychotropic drugs  Sedatives & hypnotics | Piotr Jakubowski, PhD |
| 12 | (Seminar)  **9.01**  Gr 1,2, *12 – 15* | Antipsychotics and Antidepressants | Michał Majewski, prof UWM |
| 13 | (Classes)  **12.01**  Gr 1,2, *12 – 15* | a) Anticonvulsants  b) Pharmacological treatment of Parkinson's disease and other movement disorders.  c) Medicines used in dementia syndromes | Piotr Jakubowski, PhD |
| 14 | (Classes)  **15.01**  Gr 2: 9,00 – 12,00  **16.01**  Gr 1: 8,30 – 11,30 | a) general anesthetics  b) local anesthetics  c) skeletal muscle relaxants  d) spasmolytic drugs | Michał Majewski, prof UWM |
|  | **22.01**  Colloquium  13 – 14.30 | Topics 11 - 14 | Piotr Jakubowski, PhD |

Literature:

1. Katzung, Basic and Clinical Pharmacology - 15th edition, McGraw Hill

2. Rang & Dale’s Pharmacology – 9th edition, Elsevier