



WARSZTAT: „PEPTYDY”

[chemia (synteza, synteza specyficznych peptydów, analityka i diagnostyka nowotworowa peptydów), biologia (aktywność biologiczna niektórych hormonalnych peptydów, jady, leki), farmakologia (farmakokinetyka, receptory, projektowanie leków peptydowych)]

Prowadzący: prof. Witold Neugebauer (Université de Sherbrooke, KANADA)

Plan zajęć:

1. Peptide Chemistry (3 hours)
 - Amino Acid Analysis
 - Sequence determination
 - Secondary and Tertiary Structure
 - Formation of the Peptide Bond
 - Protection of Functional Groups
 - Undesired Reactions during Synthesis
 - Racemization
 - Design of Schemes for Peptide Synthesis
 - Solid Phase Peptide Synthesis
2. Medicinal Chemistry (3 hours)
 - Classification of Drugs
 - Phases of Drugs Discovery
 - Targets of Drugs
 - enzymes
 - receptors
 - transporting Proteins
 - structural Proteins
 - nucleic Acids
 - lipids
 - carbohydrates
3. Pharmacokinetics of Drugs (1 hour)
 - absorption
 - distribution
 - metabolizm
 - elimination



4. Specific peptide analogous synthesis (1 hour)
 - dimers
 - pseudo peptides
 - peptoids
 - others
5. Receptors (2 hours)
 - ion channels
 - GPCR
 - tyrosine kinase receptors
 - intercellreceptors
6. Cone Snail and other Poisonous Venoms (1 hour)
 - dangerous species
 - peptidic nature of these venoms
 - drugs design based on venom structure
7. Parathyroid hormon (1 hour)
 - biological function of PTH
 - therapeutic perspectives
8. Bradykinin and their analogous (1 hour)
 - biological function of BK
 - therapeutic perspectives
9. Proprotein convertases (1 hour)
 - classification
 - PACE4 inhibitor
10. Cancer diagnostic with fluorescent and NMR markers (1 hour)
 - synthesis of fluorescent peptide analogous
 - synthesis of NMR marked peptides
 - surgery with fluorescent probe

Reserved

11. Synthesis and use of specific peptide derivatives : chloromethyl ketons and 7amido 4metyl peptides (1 hour)



KAPITAŁ LUDZKI
NARODOWA STRATEGIA SPÓJNOŚCI

UNIA EUROPEJSKA
EUROPEJSKI
FUNDUSZ SPOŁECZNY



TERMINY ZAJĘĆ			
Data	Dzień tygodnia	Godzina	Sala
2015-05-25	Pn	13.00-16.00	LUWR
2015-05-26	Wt	13.00-16.00	LUWR
2015-05-27	Śr	13.00-16.00	LUWR
2015-05-28	Cz	15.00-18.00	LUWR
2015-05-29	Pt	12.00-15.00	LUWR