



Základ teoretickej a experimentálnej medicíny

Ústav molekulárnej biomedicíny, LF UK

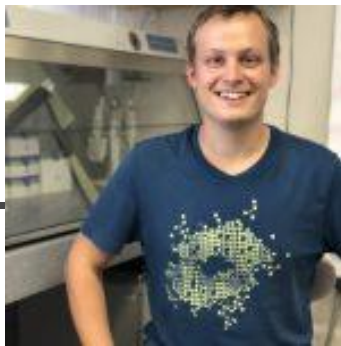
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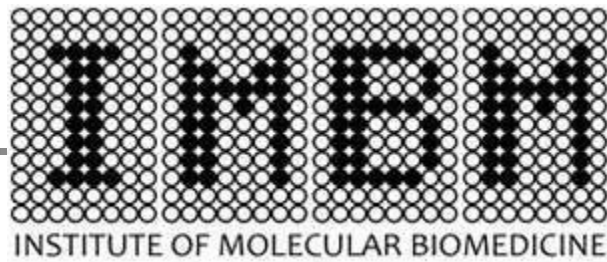
Basics of theoretical and experimental medicine

Institute of Molecular Biomedicine, LF UK

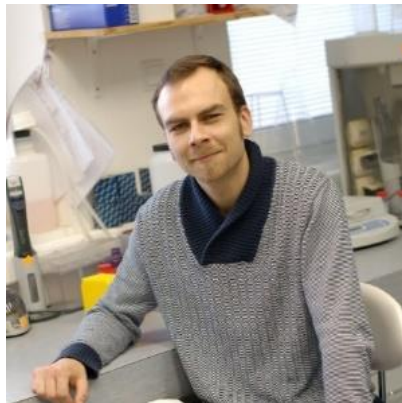
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Why?

- Biomedical research
 - biology and medicine

- Future career
 - Master theses
 - PhD

- IMBM, BMC
 - Bidirectional



What?

- Principles of common diseases
- Etiology
- Pathogenesis
- Symptoms & signs
- Treatment approaches
- Models



Syllabus

- > Introduction
 - > Syllabus, motivation, examination
- > Cardiovascular diseases
 - > Heart failure, hypertension, atherosclerosis, coronary artery disease, shock
- > Respiratory diseases
 - > Asthma, COPD, emphysema, pulmonary edema, acid base balance
- > Gastrointestinal diseases
 - > Ulcers, diarrhea, constipation, icterus, pancreatitis, portal hypertension, liver failure
- > Nephrology and disorders of the urinary tract
 - > Renal failure, glomerulonephritis, urinary tract infection
- > Hematological disorders
 - > Anemia, leukemia
- > Immune disorders
 - > Immunosuppression, autoimmune diseases, allergy
- > **Cancer diseases**
 - > **Carcinogenesis, Paraneoplastic syndrome, solid tumors**
- > Neuropsychiatric disorders
 - > Stroke, multiple sclerosis, epilepsy, migraine, autism, depression, schizophrenia, neurodegeneration
- > **Metabolic & endocrine diseases**
 - > **Diabetes mellitus, gout, hemochromatosis, Disorders of the thyroid, adrenal and pituitary gland, hypogonadism, hypergonadism**
- > Musculoskeletal diseases
 - > Osteoporosis, rheumatoid arthritis, osteoarthritis, psoriasis
- > Gynecological diseases
 - > Preeclampsia, endometriosis, PCOS, preterm birth, amenorrhea



Information sources

- Lectures
 - www.imbm.sk
- Textbooks
 - Wikipedia
 - Pathophysiology, internal medicine
- Review articles
 - Pubmed
- CVTI
 - www.cvtisr.sk



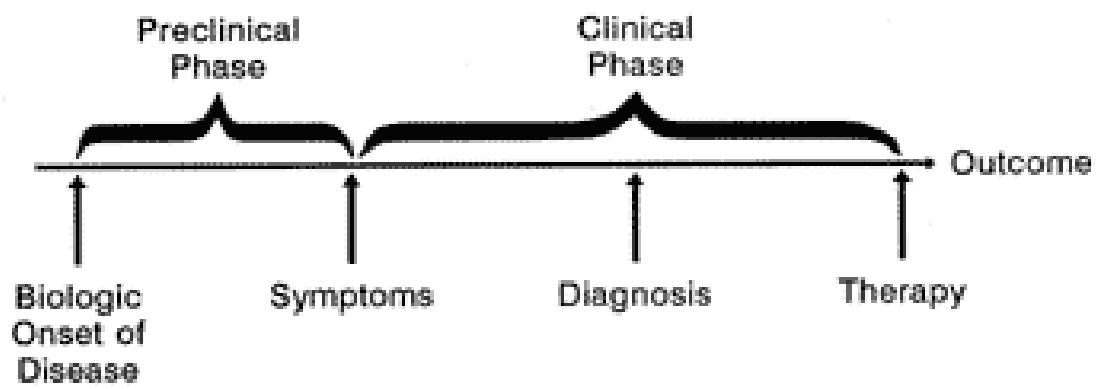
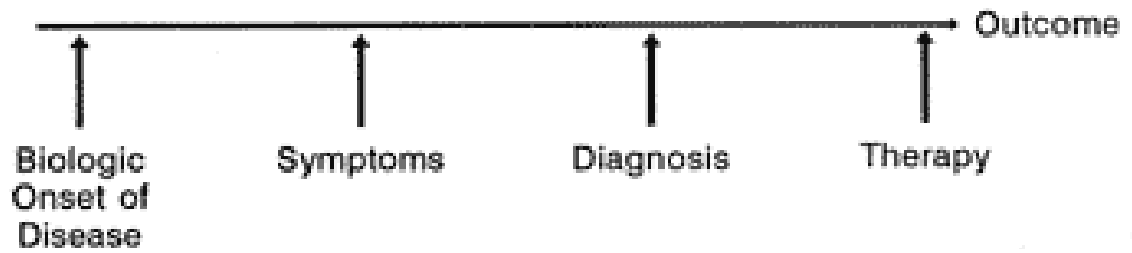
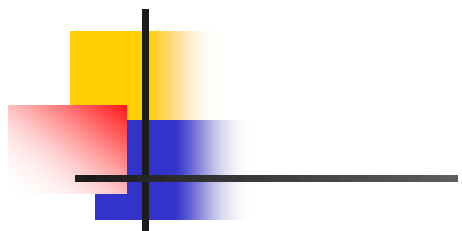
Examination

- Oral exam
 - No written test
- Seminar paper or experiment
 - 1.12.
 - Mini-review
 - 3000 words, 2 tables/figures
 - Animal experiment
 - Group of 5
 - Presentation of the results

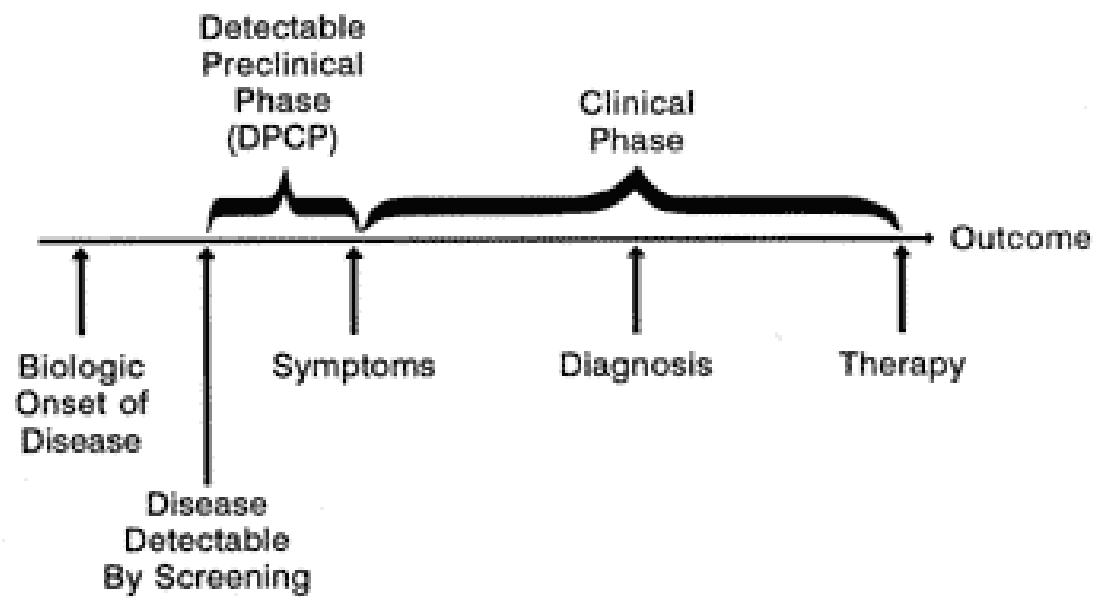


Basic terms

- Physiology vs. Pathophysiology
- Pathology vs. Pathophysiology
- Etiology vs Pathogenesis
- Symptoms vs Signs
- Syndrome
- Health vs Disease
- Latin terms



B



C



Latin I.

- -brady – bradypnoe, bradykardia
- -tachy – tachypnoe, tachykardia
- -hypo – hypopnoe, hypoglycemia
- -hyper – hyperpnoe, hyperglycemia
- -poly – polydipsia, polyphagia
- -oligo – oliguria, oligofrénia
- -a/an – apnoe, anuria
- -pseudo – pseudocyst
- -endo – endoscopy
- -ecto – ectopic



Latin II.

- -osis – degeneration - arthrosis
- -itis – inflammation - hepatitis
- -oma – tumor - myoma
- -algia – pain - arthralgia
- -stenosis – narrowing - pylorostenosis
- -pathia – disease - hepatopatia
- -lithiasis – stone - nephrolithiasis
- -rrhagia – bleeding - metrorrhagia
- -emia – blood - glycemia, natriemia, kaliemia
- -uria – urine - glykosuria, natriuria



Selected symptoms & signs

- Cyanosis
- Dyspnoea
- Icterus
- Struma
- Edema
- Palpitations
- Syncope
- Ascites



Syndrome

- Anemic syndrome
 - Paleness
 - Fatigue
 - Dyspnea