

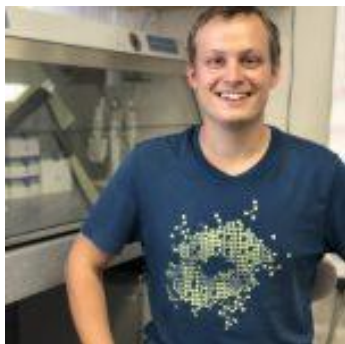


# Basics of theoretical and experimental medicine

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Institute of Molecular Biomedicine, LF UK

[www.imbm.sk](http://www.imbm.sk)



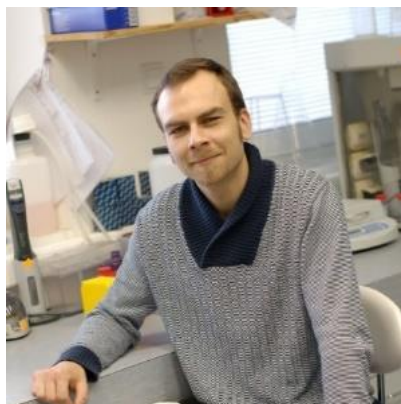
Mgr. Michal Pastorek, PhD.  
h-index: 12



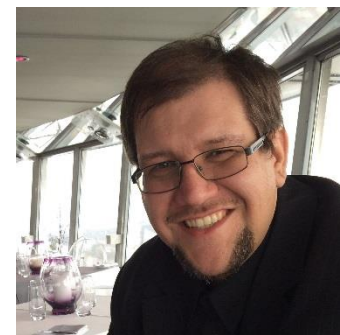
RNDr. Barbora Vlková, PhD.  
h-index: 15



Mgr. Veronika Borbélyová, PhD.  
h-index: 9



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h-index: 17





# Why?

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- Biomedical research
  - biology and medicine
  
- Future career
  - Master theses
  - PhD
  
- IMBM, BMC
  - Bidirectional



# What?

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



# Syllabus

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- > 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

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- Lectures
  - [www.imbm.sk](http://www.imbm.sk)
- Textbooks
  - Wikipedia
  - Pathophysiology, internal medicine
- Review articles
  - Pubmed
- CVTI
  - [www.cvtisr.sk](http://www.cvtisr.sk)



# Examination

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- Test
  - 5 major questions – 5x10 points
  - 10 minor questions – 10x5 points
- Bonus points
  - ...
- Evaluation
  - 100–91=A; 90–81=B; 80–71=C; 70–61=D;  
60–51=E; ≤50=Fx
- Examination
  - Oral

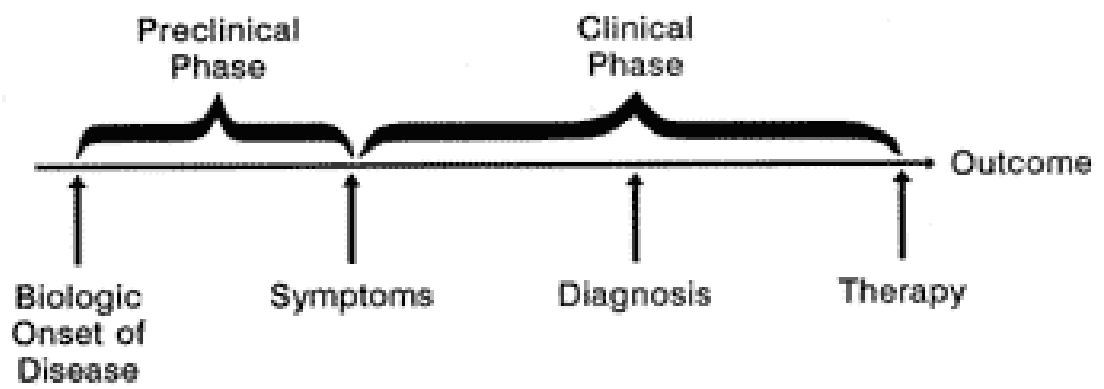
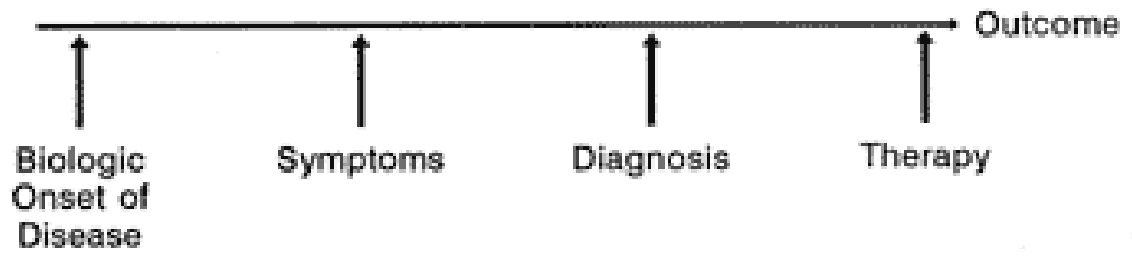
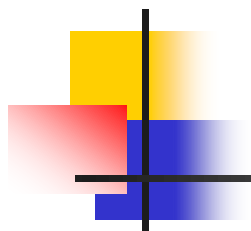


# Basic terms

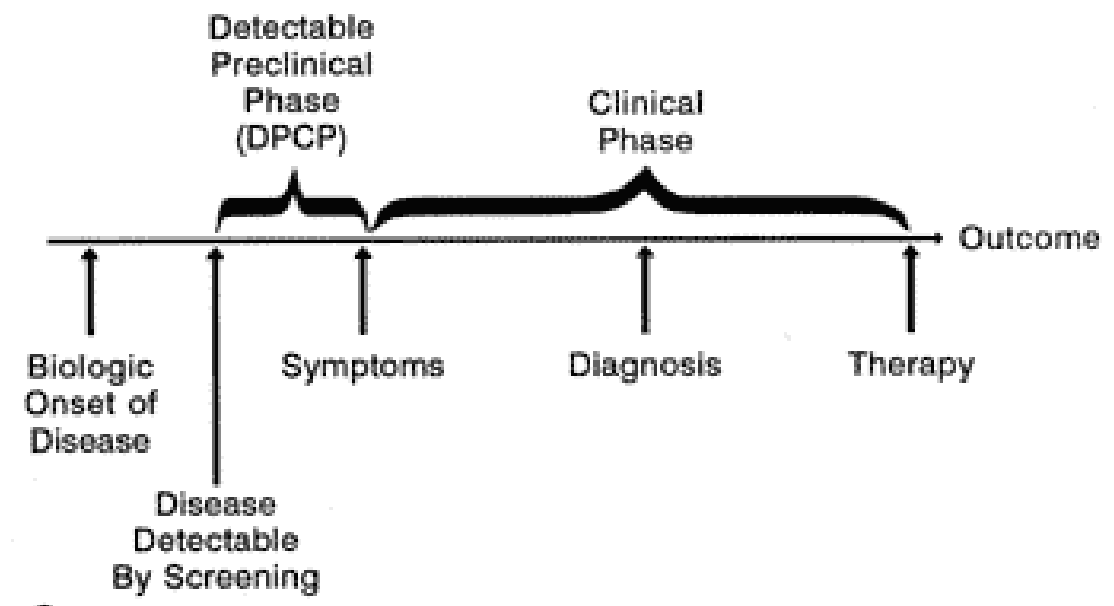
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- Physiology vs. Pathophysiology
- Pathology vs. Pathophysiology
- Etiology vs Pathogenesis
- Symptoms vs Signs
- Syndrome
- Health vs Disease
- Latin terms





B



C



# Latin I.

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- -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.

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- -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

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



# Syndrome

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- Anemic syndrome
  - Paleness
  - Fatigue
  - Dyspnea