

UČNI NAČRT PREDMETA / SUBJECT SPECIFICATION

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| Predmet: | Splošna patologija |
| Subject Title: | General Pathology |

| Študijski program Study programme | Študijska smer Study field | Letnik Year | Semester Semester |
|--|-------------------------------|----------------|----------------------|
| Dentalna medicina/Dental medicine 2. stopnja/2nd Degree | | 2 | 4 |

Vrsta predmeta / Course type

Obvezni/Obligatory

Univerzitetna koda predmeta / University subject code:

| Predavanja Lectures | Seminar Seminar | Sem. vaje Tutorial | Lab. vaje Labor work | Teren. vaje Field work | Samost. delo Individ. work | ECTS |
|------------------------|--------------------|-----------------------|-------------------------|---------------------------|-------------------------------|------|
| 45 | 27 | | 3 | | 45 | 4 |

Nosilec predmeta / Lecturer:

Red. prof. dr. Ksenija Jurinović

Jeziki / Predavanja / Lecture: Slovenski/slovenian

Languages: Vaje / Tutorial: Slovenski/slovenian

Pogoji za vključitev v delo oz. za opravljanje študijskih obveznosti:
Prerequisites:
Vsebina:

Uvod v patologijo
Značilnosti, klasifikacije, incidenca bolezni
Vzroki bolezni (genetski, okolje)
Diagnostična patologija v klinični praksi
Motnje rasti, diferenciacije in morfogeneze
Reakcije na celično okvaro
Motnje metabolizma in homeostaze
Ishemija, infarkt, šok
Imunologija in imunopatologija
Vnetje
Karcinogeneza in neoplazija
Staranje in smrt

Content (Syllabus outline):

Introduction to pathology
Characteristics, classification, and incidence of disease
Genetic and environmental causes of disease
Diagnostic pathology in clinical practice
Disorders of growth, differentiation, and morphogenesis
Response to cellular injury
Disorders of metabolism and homeostasis
Ischaemia, infarction, and shock
Immunology and immunopathology
Inflammation
Carcinogenesis and neoplasia
Ageing and death

Temeljni literatura in viri / Textbooks:
TEMELJNA LITERATURA:

- JCW Underwood. General and systematic pathology. 6 Ed. Churchill Livingstone, 2013, 7 Ed. 2019
- Robbins Basic Pathology. 10th Ed. Elsevier Saunders 2019

PRIPOROČENA LITERATURA

- Ivan Damjanov. Pathology secrets. 3 Ed. Elsevier Mosby 2008
- Osnove patologije. (N Zidar, N Gale) 1. izdaja, Katedra za patologijo Medicinske fakultete Univerze v Ljubljani 2011
- Klinično-patološki primeri, vaje iz patologije za študente medicine in dentalne medicine (N Zidar, M Popovič), 1. izdaja, Katedra za patologijo Medicinske fakultete Univerze v Ljubljani 2012
- Rosai and Ackerman's Surgical Pathology, 11Ed, Vol 1 and 2, Elsevier 2017
- Rubin's Pathology, Clinicopathologic Foundations of Medicine, 7Ed. Lippincott Williams &Wilkins, 2015

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| Cilji: Študent spozna klasifikacije bolezni in se seznanj z njihovimi vzroki in s pomenom diagnostične patologije v klinični praksi. Predmet temelji na klasični patologiji in na napredku celične in molekularne biologije. Študent spozna ob študiju mehanizmov bolezni procese pomembnih bolezenskih kategorij | Objectives: The student is introduced to the classification of diseases, their causes, and the importance of diagnostic pathology in clinical practice. The course is based on classical pathology as well as on the current knowledge of cellular and molecular biology. The student learns basic disease mechanisms which are fundamental to understand specific diseases. |
| Predvideni študijski rezultati: Študent bo spoznal osnovne morfološke in funkcijske značilnosti bolezni. | Intended learning outcomes: Basic understanding of morphological and functional characteristics of diseases. |

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| Znanje in razumevanje: Pripravljen bo na študij specifičnih patoloških procesov v različnih organih in organskih sistemih. | Knowledge and Understanding: The student is prepared for study of specific pathological processes in different organs and systems. |
| Prenesljive/ključne spretnosti in drugi atributi: Rezultati študija so pomembni predvsem za varno in uspešno izvajanje zdravljenja. | Transferable/Key Skills and other attributes: Results of the study are oriented primarily towards the practising medicine safely and effectively. |
| Metode poučevanja in učenja: | Learning and teaching methods: |

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| Predavanja Seminarji Vaje | Lectures Seminars Exercises |
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| Načini ocenjevanja: | Delež (v %) / Weight (in %) | Assessment: |
|---|------------------------------------|---|
| izpiti Pisni izpit, pisni kolokviji, ustno izpraševanje, naloge | | Colloquium, written exam, oral exam |
| Kolokviji - test proste izbire | 20% | Colloquia – multiple choice tests |
| Pisni izpit | 30% | Written exam |
| Ustni izpit | 50% | Oral exam |
| ŠTUDIJSKE OBVEZNOSTI ŠTUDENTOV | | ACADEMIC OBLIGATIONS OF STUDENTS |
| – Obvezna 50 % udeležba na predavanjih | | – Obligatory 50% attendance at lectures |
| – Obvezna priprava seminarjev | | – Obligatory preparation of previous coursework |
| – Obvezna 80% prisotnost na seminarjih in vajah | | – Obligatory 80% attendance at seminars, exercises, and autopsy |
| – Doseženih vsaj 50% na vseh kolokvijih za pristop k pisnemu izpitu | | – At least 50% score at all colloquia to access written exam |
| – Doseženih vsaj 50% na pisnem izpitu za pristop k ustnemu izpitu | | – At least 50% score from written exam to access oral examination |

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| Reference nosilca / Lecturer's references: KSENIJA JURINOVIĆ (Ex LUČIN) | | |
| <p>Hadžisejdić I, Babarović E, Vranić I, Načinović AD, <u>Lučin K</u> et al. Unusual presentation of plasmablastic lymphoma involving ovarian mature cystic teratoma: a case report. 2017. Diagnostic Pathology 12(1):83</p> <p>Grbčić P, Tomljanović I, Klobučar M, Pavelić SK, <u>Lučin K</u>, Sedić M. Dual sphingosine kinase inhibitor SKI-II enhances sensitivity to 5-FU in hepatocellular carcinoma cells via suppression of osteopontin and FAK/IGF-1R signalling. Biochemical and Biomedical Research Communications 2017. 487(4):782-788</p> <p>Valković T, Babarović E, <u>Lučin K</u> et al. Plasma levels of Monocyte Chemotactic Protein-1 Are Associated with Clinical Features and Angiogenesis in Patients with Multiple Myeloma. Biomed Res Int. 2016;2016:7870590. doi: 10.1155/2016/7870590</p> <p>Duletić-Načinović A, Gačić V, Valković T, <u>Lučin K</u> et al. Concurrent Elevations of VEGF, Osteopontin and MCP-1 Serum Levels Are Independent Predictors of Survival in Patients with Diffuse Large B-Cell Lymphoma. Acta Haematol. 2016;136(1):52-61.</p> <p>Babarović E, Valković T, Budisavljević I, Balen I, Štifter S, Duletić-Načinović A, <u>Lučin K</u>, Jonjić N. The expression of osteopontin and vascular endothelial growth factor in correlation with angiogenesis in monoclonal gammopathy of undetermined significance and multiple myeloma. Pathol Res Pract 2016 212(6):509-16</p> <p>Toni Valković, Emina Babarović, <u>Ksenija Lučin</u> et al. Plasma Levels of Osteopontin and Vascular Endothelial Growth Factor in Association with Clinical Features and Parameters of Tumor Burden in Patients with Multiple Myeloma. BioMed Res Int 2014 (2014) 13170 doi: 10.1155/2014/513170.</p> <p>Cristophe Štemberger, Koviljka Matušan-Ilijaš Manuela Avirović, Ljiljana Bulat, Aldo Ivančić, Nives Jonjic, <u>Ksenija Lučin</u>. Osteopontin expression is associated with decreased apoptosis and avb3 integrin expression in lung adenocarcinoma. 2013 Acta Histochemica 116:222-229</p> <p>Babarović E, Valković T, Štifter S, Budisavljević I, Seili-Bekafigo I, Duletić-Načinović A, <u>Lučin K</u>, Jonjić N: Assesment of Bone Marrow Fibrosis and Angiogenesis in Monitoring Patients With Multiple Myeloma. Am J Clin Pathol 2012; 137:870-8.</p> <p>Petranovic D, Pilic G, Peitl M, Cubranic A, Valkovic T, Nacinovic AD, Lucin K, Jonjic N. Primary gastric mantle cell lymphoma. Hematol Rep. 2012 4(1) doi: 10.4081/hr.2012.e1</p> <p>Banac S, Dessardo S, Lah-Tomulić K et al. Lethal respiratory failure due to a surfactant protein C gene mutation. Signa vitae 2012, 7(2):47-49</p> <p>Manuela Avirović, Koviljka Matušan-Ilijaš, Giuseppe Damante, Dora Fabbro, Robert Cerović, Mirna Juretić, Blaženka Grahovac, Nives Jonjić, and <u>Ksenija Lučin</u>. Osteopontin expression is an independent factor for poor survival in oral squamous cell carcinoma: a computer assisted analysis on TMA sections. J Oral Pathol Med. 2013 (8):620-6. doi: 10.1111/jop.12055.</p> <p>Matušan-Ilijaš K, Damante G, Fabbro D, Dorđević G, Hadžisejdić I, Grahovac M, Avirović M, Grahovac B, Jonjić N, <u>Lučin K</u>. EGFR expression is linked to osteopontin and Nf-κB signaling in clear cell renal cell carcinoma. Clin Transl Oncol. 2013 15(1):65-71. doi: 10.1007/s12094-012-0889-9.</p> <p>Mijandrusić-Sincić B, Licul V, Gorup L, Brncić N, Glazar I, <u>Lučin K</u>. Pyostomatitis vegetans associated with inflammatory bowel disease--report of two cases. Coll Antropol. 2010 Apr;34 Suppl 2:279-82</p> <p>Cicvarić T, <u>Lučin K</u>, Roth S, Ivancić A, Marinović M, Santić V. Giant pseudocyst of the rectus femoris muscle-repetitive strain injury in recreational soccer player. Coll Antropol. 2010 Apr;34 Suppl 2:53-5.</p> <p>Štifter S, Babarovic E, Valkovic T, Seili-Bekafigo I, Stemberger C, Nacinovic A, <u>Lučin K</u>, Jonjic N: Combined evaluation of bone marrow aspirate and biopsy is superior in the prognosis of multiple myeloma. Diagn Pathol 2010; 5:30-37.</p> <p>Matušan-Ilijaš, Koviljka; Damante, Giuseppe; Fabbro, Dora; Đorđević, Gordana; Hadžisejdić, Ita; Grahovac, Maja; Marić, Ivana; Španjol, Josip; Grahovac, Blaženka; Jonjić, Nives; <u>Lučin, Ksenija</u>. Osteopontin expression correlates with nuclear factor-kappa B activation and apoptosis downregulation in clear cell renal cell carcinoma. 2011. Path Res Pract. 207:104-110</p> <p>Jurišić-Eržen, Dubravka; <u>Lučin, Ksenija</u>; Lalić, Hrvoje; Ljubić, Spomenka; Ažman, Josip; Jerković, Romana. Tertiary Renal Hyperparathyroidism: The Case of Irradiation-Induced Hyperparathyroidism With Differential Diagnosis of Parathyroid Carcinoma in the Patient Occupationally Over Exposed to Ionizing Radiation. 2009. Endocrinologist. 19(5):226-228</p> | | |

Duletić-Načinović, Antica; Štifter, Sanja; Marijić, Blažen; Lučin, Ksenija; Valković, Toni; Petranović, Duška; Jonjić, Nives. Serum IL-6, IL-8, IL-10 and beta2-microglobulin in association with International Prognostic Index in diffuse large B cell lymphoma. 2008. Tumori. 94(4):511-517

Đorđević, Gordana; Matušan-Ilijaš, Koviljka; Sinožić, Emina; Damante, Giuseppe; Fabro, Dora; Grahovac, Blaženka; Lučin, Ksenija; Jonjić, Nives. Relationship between vascular endothelial growth factor and nuclear factor-kB in renal cell tumors. 2008. Croatian Medical Journal. 49(5):608-617

Matušan-Ilijaš, Koviljka; Behrem, Senija; Jonjić, Nives; Žarković, Kamelija; Lučin, Ksenija. Osteopontin expression correlates with angiogenesis and survival in malignant astrocytoma. 2008. Pathological Oncological Research. 14(3):293-298

Furge KA, Chen J, Koeman J, Swiatek P, Dykema K, Lučin K, Kahnoski R, Yang XJ, Teh BT. Detection of DNA copy number changes and oncogenic signaling abnormalities from gene expression data reveals myc activation in high-grade papillary renal cell carcinoma. 2007. Cancer Res. 67(7):3171-6

Matušan K, Đorđević G, Mozetić V, Lučin K. Osteopontin expression correlates with prognostic variables and survival in clear cell renal-cell carcinoma. 2006. J Surg Oncol. 4:325-331

Matana A, Zaputović L, Lučin K, Kastelan ZM. Persistent and progressive ST segment elevation caused by myocardial metastasis. Tumori. 2006 Sep-Oct;92(5):452-4.

Kovacevic M, Simic O, Medved I, Lučin K, Padovan M. Ochronosis of the aortic valve and aorta. J Heart Valve Dis. 2006 Sep;15(5):730-2.

Katalinić D, Valković T, Lučin K, Rudez J. Intravascular lymphoma and thyroid gland. Coll Antropol. 2006 Mar;30(1):239-41.

Kovacević M, Simić O, Matana A, Lučin K, Štifter S. Pulmonary valve papillary fibroelastoma. A case report. Tumori. 2005 Jul-Aug;91(4):364-5.

Matušan K, Đorđević G, Mozetić V, Lučin K. Expression of osteopontin and CD44 molecule in papillary renal-cell tumors. 2005. Path Oncol Res. 11(2):108-113

Lučin K, Matušan K, Đorđević G, Stipić D. Prognostic significance of CD44 molecule in renal cell carcinoma. 2004. Croatian Med J, 45(6):703-708

Lučin K, Mustać E, Jonjić N. Breast sarcoma showing myofibroblastic differentiation. 2003. Virchows Arch, 443:222-224

Jonjić N, Valković T, Lučin K, Iternička Z, Krstulja M, Mustać E, Dobi-Babić R, Sasso F, Melato M. Comparison of microvessel density with tumor associated macrophages in invasive breast carcinoma. 1998. Anticancer Res, 18:3767-3770

Valković T, Lučin K, Krstulja M, Dobi-Babić R, Jonjić N. Expression of monocyte chemotactic protein-1 in human invasive ductal breast cancer. 1998. Pathol Res Pract, 194:335-340

Lučin K, Iternička Z, Jonjić N. Prognostic significance of T-cell infiltrates, expression of beta2-microglobulin and HLA-DR antigens in breast carcinoma. 1994. Path Res Pract, 190:1134-1140

Jonjić N, Lučin K, Krstulja M, Iternička Z, Mustać E.. Expression of beta-1 integrins on tumor cells of invasive ductal breast carcinoma. 1993. Path Res Pract, 189:979-984

Jonjić N, Lučin K, Jonjić S, Schnurer T, Čulo F, Stipčić-Šolić N, Rukavina D. Both T-cell subsets are required for resistance to secondary tumor challenge. 1990. Period. Biol, 92(1):144-145