

Course title

RESEARCH IN ALLERGOLOGY

Department

Department of Dermatovenereology, Sestre milosrdnice University Hospital Center.

Address

Vinogradska cesta 29, Zagreb

Total 4 ECTS points

Course leader

Prof. Liborija Lugović Mihić, PhD

Course associates

Prof. Livije Kalogjera, PhD
Doc. Marija Buljan, PhD
Doc. Iva Mihatov Štefanović, PhD

Teaching plan

	No. classes
Lecture	9
Seminar	3
Practical	3
Total	15

1 class = 45 minutes

Course description

The aim of this course is to introduce the latest findings and research possibilities of allergic diseases which dentists and medical doctors encounter during their clinical practice. This course will also in detail introduce students to the research area of allergic diseases of the skin, as well as allergic diseases of other systems, for example allergies in the nasal area and sinuses, upper respiratory tract, as well as allergies in special groups (i.e. children) and allergies occurring under special conditions, for example during surgical procedures. The students will be introduced to pathogenetic mechanisms of diseases (immediate and delayed types of hypersensitivity), their diagnostics (*in vivo* and *in vitro* methods) and treatment procedures according to authoritative current guidelines. This course will also demonstrate current scientific findings and possible application of the latest diagnostic/therapeutic methods for allergies which may occur on the skin and mucous membranes, and which can be encountered in the clinical practice of medical doctors and dentists. The students will also become familiar with current knowledge and latest research possibilities in the field of allergology.

Learning outcomes

1. The student needs to be able to define allergic reactions, describe the most common allergic reactions which are encountered while working with patients, identify the most common allergic diseases. Furthermore, the student needs to be able to explain the mechanism of allergic reactions, give an example of diseases which can occur as a result of allergies, differentiate between allergic and non-allergic inflammatory dermatoses, evaluate the results of research in the field of allergology.
2. The student needs to be able to apply the acquired knowledge of allergic reactions, demonstrate the acquired scientific findings of allergic reactions in practice, confidently employ the most important diagnostic tests (skin prick test for diagnosing food and inhalant allergens, patch testing for contact allergens, RIST, RAST, etc.) and methods used for research purposes (assessment of skin pH, TEWL, filaggrin testing, proteomes, nanotechnology, etc.) , as well as therapeutic procedures, apply the acquired scientific knowledge when approaching the patient in practice, create a research plan in the field of allergology.
3. The student needs to be able to describe the mechanism of allergic reactions by applying current scientific knowledge, give an example of allergic reactions in everyday practice, differentiate between allergic and non-allergic diseases/conditions, evaluate the possibility of applying certain diagnostic procedures for scientific purposes.
4. The student needs to be able to assemble certain diseases with possible causative allergens and mechanism of occurrence, plan diagnostic procedures and allergy tests for scientific purposes,
5. The student needs to be able to appraise the particular allergic disease, compare allergic and non-allergic diseases of the skin using scientific knowledge, justify the results of research conducted in the field of allergology

Course content

Lecture

	Lecture topics	Number of classes/hours
1.	- Professor Liborija Lugović Mihić, PhD, MD: Fundamental characteristics of allergic reactions	1
2.	- Professor Liborija Lugović Mihić, PhD, MD: Allergic reactions with manifestations in the oral and perioral region and presentation of scientific research in the field of allergology	1
3.	- Professor Liborija Lugović Mihić, PhD, MD: The most common allergens involved in the appearance of allergic diseases in the oral and perioral region	1
4.	- Professor Liborija Lugović Mihić, PhD, MD: Occupational diseases of the skin in dentists and other medical professionals and current methods of their research	1
5.	- Assistant Professor Marija Buljan, PhD, MD: Allergic reactions as a result of surgical procedures with presentation of scientific knowledge	1
6.	- Professor Livije Kalogjera, PhD, MD: The most common allergic reactions in the nasal and sinus cavities	1

7.	- Professor Livije Kalogjera, PhD, MD: Therapeutic procedures in patients with allergic rhinitis and sinusitis – latest scientific research	1
8.	- Assistant Professor Iva Mihatov Štefanović, PhD, MD: Recurrence of obstructive bronchitis in children 1 recognizing asthma and allergies, as well as current research results	1
9.	- Assistant Professor Iva Mihatov Štefanović, PhD, MD: Approach to children who may suffer from asthma and allergic rhinitis	1

1 h = 45 m

	Seminar topics	Number of classes/hours
1.	- Professor Liborija Lugović Mihić, PhD, MD: Approach to allergic reactions with manifestations in the oral and perioral region	1
2.	- Professor Livije Kalogjera, PhD, MD: Practical approach to implementing guidelines in patients with allergic reactions with manifestations in the nasal and sinus cavities	1
3.	- Assistant Professor Iva Mihatov Štefanović, PhD, MD: Practical approach to implementing guidelines in children who may suffer from asthma and allergic rhinitis	1

1 h = 45 min

Vježbe

	practicals topics	Number of classes/hours
1.	- Professor Liborija Lugović Mihić, PhD, MD: Practical approach to occupational diseases of the skin in dentists and other medical professionals	1
2.	- Professor Liborija Lugović Mihić, PhD, MD: Performing and reading allergy tests in patients who may suffer from allergies and occupational skin diseases	1
3.	- Assistant Professor Marija Buljan, PhD, MD: Allergic reactions as a result of surgical procedures	1

1 class = 45 min

Literature

Obligate:

Lugović-Mihić L, Šitum M, i sur. Bolesti kože s promjenama na licu i usnoj šupljini. Zagreb: Medicinska naklada; 2017.

Lugović Mihić L. Značajke alergijskih reakcija. U: Šitum M, i sur. Dermatovenerologija. Zagreb: Medicinska naklada; 2017. Str. 104-108.

Lugović Mihić L, Šitum M, Buljan M. Profesionalne bolesti kože u stomatološkoj praksi. U: Vodanović M, ur. Profesionalne bolesti i bolesti vezane uz rad kod stomatologa, Zagreb: Naklada Slap. Str. 261-266.

Kalogjera L. Rinitis u odraslih. Acta Medica Croat 2011; 65(2), 181-186.

Cingi C, Gevaert P, Mösges R, Rondon C, Hox V, Rudenko M, Muluk NB, Scadding G, Manole F, Hupin C, Fokkens WJ, Akdis C, Bachert C, Demoly P, Mullol J, Muraro A, Papadopoulos N, Pawankar R, Rombaux P, Toskala E, **Kalogjera L**, Prokopakis E, Hellings PW, Bousquet J. Multi-morbidities of allergic rhinitis in adults: European Academy of Allergy and Clinical Immunology Task Force Report. Clin Transl Allergy. 2017;7:17. –

Facultative:

Lugović Mihić L. Atopija. In: Šitum M, et al. Dermatovenerologija. Zagreb: Medicinska naklada; 2017. Str 117-122.

Lugović Mihić L. Urtikarija, angioedem i specifična imunoterapija. In: Šitum M, et al. Dermatovenerologija. Zagreb: Medicinska naklada; 2017. str 109-116.

Bacharier LB, Boner A, Carlsen KH, Eigenmann PA, Frischer T, Götz M, et al; European Pediatric Asthma Group. Diagnosis and treatment of asthma in childhood: a PRACTALL consensus report. Allergy 2008; 63:5-34.

Bacharier LB, Boner A, Carlsen KH, Eigenmann PA, Frischer T, Götz M, et al; European Pediatric Asthma Group. Diagnosis and treatment of asthma in childhood: a PRACTALL consensus report. Allergy 2008; 63:5-34.

Budimir J, Mravak-Stipetić M, Bulat V, Ferček I, Japundžić I, **Lugović-Mihić L**. Allergic reactions in oral and perioral diseases-what do allergy skin test results show? Oral Surg Oral Med Oral Pathol Oral Radiol. 2018 Aug 18. pii: S2212-4403(18)31122-2.

Japundžić I, Vodanović M, **Lugović-Mihić L**. An analysis of skin prick tests to latex and patch tests to rubber additives and other causative factors among dental professionals and students with contact dermatoses. Int Arch Allergy Immunol. 2018;177(3):238-44.

CV (*curriculum vitae*) and bibliography of course leader

Professor Liborija Lugović-Mihić, MD, PhD was born in Šibenik in 1968, where she attended primary and secondary school. She graduated from the Faculty of Medicine of the University

of Rijeka in 1992. In 1995 she defended her master's thesis entitled "Meaning of routine immune tests in the recognition and follow-up of atopic dermatitis" and in 2002 her dissertation entitled "Determination of immune factors as confirmation of impaired immunity in atopic dermatitis" at the University of Zagreb (UZ) School of Medicine.

She did her internship at the University Hospital Centre Zagreb from 1992 to 1993, and from 1994 to 2000 she worked as a general physician at the Emergency Medical Service, Medical Centre in Kutina where she was Head of the Emergency Medical Service in 1996. She finished her dermatology and venereology residency in 2005 at Sestre Milosrdnice University Hospital Centre in Zagreb. She has been working as a Dermatovenereologist at the Department of Dermatology and Venereology, Sestre Milosrdnice University Hospital Centre since 2005, where she is Head of Clinic and Head of the Laboratory. Since 2005 she has been employed at the School of Dental Medicine, UZ.

Her teaching activities are as follows: 2004 and 2005 - Lecturer in Dermatology at the Nursing High School in Zagreb; 2005 - Research Associate at the School of Dental Medicine, Department of Dermatovenereology, UZ; 2005 - Senior Associate at the School of Dental Medicine, Department of Dermatovenereology, UZ; 2007 - Assistant Professor at the School of Dental Medicine, Department of Dermatovenereology, UZ; 2013 - Associate Professor at the School of Dental Medicine, Department of Dermatovenereology, UZ; 2019 - Full Professor at the School of Dental Medicine, Department of Dermatovenereology, UZ.

Since 2007 she has been a mentor for 16 undergraduate and 5 completed doctoral theses (at the School of Dental Medicine and School of Medicine), mostly focusing on inflammatory skin diseases, especially of the oral and perioral region (9 of which were at the School of Dental Medicine, UZ). She is currently a mentor for 6 approved doctoral theses.

In 2015 she received the Ministry of Health Award for most efficient dermatologist (the only research of physician's efficacy conducted in Croatia). In 2016 she was a mentor for the research study "Unwanted reactions during use of latex gloves" whose authors (Iva Japundžić, DMD and Dario Novak, DMD (School of Dental Medicine, UZ)) received the Rector's Award. In 2020 she was mentor for a research study on psychological factors and allergies whose author (Nives Pondeljok) received the Dean's Award. The same year she was a mentor for the research study "The analysis of the influence of patients' habits, accompanying diseases and conditions, allergic reactions, and mental stress on the appearance of lip inflammation cheilitis" whose author (Tadeja Blagec, DMD (School of Dental Medicine, UZ)) received the Rector's Award.

In 2019 she received a scholarship for advanced professional training at the Department of Dermatology and Allergy, Charité-Universitätsmedizin in Berlin.

She has published numerous scientific and professional publications, as well as book chapters and has been cited by many authors (Google Scholar - 1430 citations; Web of science – 630 citations). She has contributed to many national and international scientific projects as head researcher and associate researcher.

Completed publications: <https://scholar.google.hr/citations?user=vcUVJ44AAAAJ&hl=en>

Personal website: <http://www.kbcm.hr/klinike/klinika-za-kozne-i-spolne-bolesti/>

CROSBILINK <https://www.bib.irb.hr/pregled/znanstvenici/215056>