

MEDICAL MICROBIOLOGY, VIROLOGY AND IMMUNOLOGY

Edited by the Honored Scientist of Ukraine, Academician
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The textbook for English-speaking students
of higher medical educational institutions



**Vinnytsia
Nova Knyha
2019**

UDC 579.61:518.7 (075.8)

M42

Recommended by the Ministry of Education and Science, Youth and Sports of Ukraine as a textbook for students of higher medical educational institutions of the IV level of accreditation (letter No. 1 / 11-4851 of 15.06.2011)

Recommended by the Ministry of Health of Ukraine as a textbook for students of higher medical educational institutions of the IV level of accreditation (Minutes No. 5 of 28.12.2010 of the meeting of the scientific and methodological commission on medicine of the Ministry of Education and Science of Ukraine)

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M42 **Medical microbiology, virology and immunology = Медична мікробіологія, вірусологія та імунологія** : a textbook for English-speaking students of higher medical schools: translation from ukr. Published / [T. V. Andrianova, V. V. Bobyr, V. V. Danyleichenko, etc.]; Ed. by V. P. Shyrobokov. – Vinnytsia: Nova Knyha, 2019. – 744 p. : ill.

ISBN 978-966-382-800-8

The textbook was compiled in accordance with officially approved teaching programs for microbiology, virology and immunology in all faculties of higher medical schools. Questions of general microbiology (basic methods of studying microorganisms, morphology, structure and classification of bacteria, their physiology, the influence of physical, chemical and biological factors on microorganisms, microbial genetics and biotechnology, antimicrobials and the concept of infection) and special microbiology (morphology, physiology, pathogenic properties of pathogens of many infectious diseases, modern methods of their diagnostics, specific prevention and therapy). The textbook also contains sections on virology, protozoology, mycology and helminthology, which examine the basic biological properties of the causative agents and the diseases they cause. A significant part of the textbook is devoted to questions of immunology (nonspecific resistance of the organism, the doctrine of antigens, the immune system of the body, immune response, immunity reactions, allergy and other types of immune responses, immunodiagnostics and immunocorrection, immunoprophylaxis and immunotherapy). The textbook contains sections on clinical and sanitary microbiology, examines the ecology of microorganisms, the normal microbiota of the human body and the effect of microorganisms on the fetus. Separate sections are devoted to the microbiota of the oral cavity and microbiological research in stomatological and pharmaceutical fields.

The textbook is intended for students of medical universities, relevant departments of higher education of doctors, interns and microbiologists of all specialties.

UDC 579.61:518.7 (075.8)

ISBN 978-966-382-800-8

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Підручник складено у відповідності з офіційно затвердженими програмами викладання мікробіології, вірусології та імунології на всіх факультетах вищих медичних навчальних закладів.

Послідовно розглянуті питання загальної мікробіології (основні методи дослідження мікроорганізмів, морфологія, структура і класифікація бактерій, їх фізіологія, вплив фізичних, хімічних та біологічних факторів на мікроорганізми, генетика мікробів та біотехнологія, протимікробні препарати та поняття про інфекцію) та спеціальної мікробіології (відомості про морфологію, фізіологію, патогенні властивості збудників багатьох інфекційних захворювань, сучасні методи їх діагностики, специфічної профілактики і терапії). Також підручник містить розділи з вірусології, протозоології, мікології та гельмінтології, в яких розглядаються основні біологічні властивості відповідних збудників та захворювання, які вони викликають. Значна частина підручника присвячена розгляду питань імунології (неспецифічна резистентність організму, вчення про антигени, імунна система організму, імунна відповідь, реакції імунітету, алергія та інші види імунних реакцій, імунодіагностика та імунокорекція, імунопрофілактика та імунотерапія). Містить розділи з клінічної та санітарної мікробіології, розглядаються питання екології мікроорганізмів, нормальної мікрофлори тіла людини та впливу мікроорганізмів на плід. Окремі розділи присвячені мікрофлорі ротової порожнини та мікробіологічним дослідженням у фармації.

Підручник призначений для студентів медичних ВНЗ і університетів, відповідних кафедр ВНЗ підвищення кваліфікації лікарів, інтернів та мікробіологів усіх спеціальностей.

Навчальне видання

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Підписано до друку 01.10.19. Формат 84×108/16. Папір крейдований.
Гарнітура Муриад. Друк офсетний. Ум. друк. арк. 78,12. № 1957.

ПП “Нова Книга”
21029, м. Вінниця, вул. М. Ващука, 20
Свідоцтво про внесення суб’єкта видавничої справи
до Державного реєстру видавців, виготівників
і розповсюджувачів видавничої продукції
ДК № 2646 від 11.10.2006 р.
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