Lazarenko Liudmyla Mykolaivna

Ph.D., D.S.,
National Academy of Sciences of Ukraine

Date of birth – 12.02.1963
Place of birth – Vinnitsa's region of Ukraine
Location – Kyiv, Ukraine
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EDUCATION
1980-1985 Taras Shevchenko National University of Kyiv, master in biology- immunology

RESEARCH INTERESTS – Immunology, Microbiology, Virology and Biotechnology

SCIENTIFIC DEGREES AND ACADEMIC TITLE
Ph.D. in microbiology and immunology (1992)
D.S. in immunology (2006)
Senior research fellow in microbiology (2003)

CARRIER AND EXPERIENCE

Work Experience
1985-present Zabolotny Institute of Microbiology and Virology, National Academy of Sciences of Ukraine, Senior Research Fellow
2008-2012 National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute", Prof.
2014- present ESC "Institute of Biology and Medicine" of Taras Shevchenko National University of Kyiv

Main milestones of work

2006 - present	Determination of probiotic properties of lacto- and bifidobacteria in experimental models of infectious diseases caused by staphylococci, streptococci, *Candida albicans*, viruses, etc., as well as metabolic syndrome. Development of probiotics with antibacterial, immunomodulatory, antiviral and anti-inflammatory properties based on probiotic strains of lacto- and bifidobacteria and their various compositions. Determining the role of herpes simplex viruses types 1 and 2 in the pathogenesis of precancerous and tumor diseases of the anogental area associated with human papillomaviruses. Establishment of immunomodulatory and anti-inflammatory properties of cord blood cells in experimental herpetic meningoencephalitis and metabolic syndrome. Elucidation of cardioprotective properties of gold nanoparticles in an experimental model of cardiopathology in rats.
1992-2006	Determination of the physiological role of interferon and other cytokines in the pathogenesis of precancerous and tumor diseases of the anogental area induced by human papillomaviruses and their associations with other sexually transmitted pathogens (*Chlamydia* sp., *Ureaplasma* sp., *Mycoplasma* sp., etc.). Development of the methodical recommendations to increase the efficiency of diagnosis and prognosis of papillomavirus-induced precancerous and tumor diseases of the of the anogental area, as well as comprehensive personalized treatment of patients of this category. Establishment of mechanisms of immunopathogenesis in infectious-inflammatory diseases of the bronchopulmonary system in patients of different ages,

	as well as thymic hyperplasia in newborns. Development of the methodical recommendations to increase the effectiveness of diagnosis, treatment and prevention of thymus hyperplasia syndrome in young children
1991-1997	Defining of the mechanisms of immunopathogenesis in infectious and inflammatory diseases of the genitourinary system induced by *Chlamydia* sp., *Ureaplasma* sp., *Mycoplasma* sp. etc.; development of the scientifically substantiated approaches to complex personalized treatment of patients of this category with the use of immunomodulatory drugs (interferon drugs, interferon inducers, etc.).
1985-1991	Finding out the effects of bacteria of the genus *Staphylococcus* spp. and their antigenic substances on interferonogenesis and corrective action of interferon in staphylococcal infection. Establishment of the multifactorial immunomodulatory action of interferon drugs and their inducers in experimental staphylococcal infection by studying their effect on the functional activity of phagocytic system cells and T-lymphocytes with suppressor activity. Development of recommendations for the use of interferon drugs for the treatment of patients with purulent infection and sepsis.

THE HIGHEST SCIENTIFIC ACHIEVEMENTS:

Awards and prizes

2018 Diploma of the Supreme Council of Ukraine
2011 Palladin award of the National Academy of Sciences of Ukraine
2010 Bogomolets award of the National Academy of Sciences of Ukraine
2005 State award of Ukraine in Science and Technology
2003 Mechnikov award of the National Academy of Sciences of Ukraine
2001 Zabolotny award of the National Academy of Sciences of Ukraine
1998 For young scientists award of the National Academy of Sciences of Ukraine

Publications:

132 articles (including 50 articles in journals from the Scopus scientometric database), 4 books, 2 Methodical recommendations, 14 patents, 2 Information sheets, as well as 6 Technical conditions of Ukraine.

List of selected publications:

1. ***Lazarenko L.,*** *Babenko L., Shynkarenko-Sichel L., Pidgorskyi V., Mokrozub V., Voronkova O., Spivak M.* Antagonistic action of lactobacilli and bifidobacteria in relation to *Staphylococcus aureus* and their influence on the immune response in cases of intravaginal staphylococcosis in mice. Probiotics & Antimicrob. Prot., 2012, 84 (3): 78–89.
2. *Mykola Ya. Spivak, Rostyslav V. Bubnov, Ilya M. Yemets,* ***Liudmyla M. Lazarenko****, Natalia O. Tymoshok and Zoia R. Ulberg* Gold nanoparticles – the theranostic challenge for PPPM: nanocardiology application. EPMA J, 2013, **4**:18 doi:10.1186/1878-5085-4-18.
3. ***Lazarenko LM,*** *Nikitina OE, Nikitin EV, Demchenko OM, Kovtonyuk GV, Ganova LO, Bubnov RV, Shevchuk VO, Nastradina NM, Bila VV, Spivak MY.* Development of biomarker panel to predict, prevent and create treatments tailored to the persons with human papillomavirus-induced cervical precancerous lesions. EPMA J. 2014 Jan 6;5(1):1. doi: 10.1186/1878-5085-5-1.
4. *Savcheniuk OA, Virchenko OV, Falalyeyeva TM, Beregova TV, Babenko LP,* ***Lazarenko LM****, Demchenko OM, Bubnov RV, Spivak MY.* The efficacy of probiotics for monosodium glutamate-induced obesity: dietology concerns and opportunities for prevention. EPMA J. 2014,5(1):2. doi: 10.1186/1878-5085-5-2.
5. *Viktoria V. Mokrozub,* ***Liudmyla M. Lazarenko****, Liubov M. Sichel, Lidia P. Babenko, Petro M. Lytvyn, Olga M. Demchenko, Yulia O. Melnichenko, Nadiya V. Boyko,Bruno Biavati, Diana DiGioia, Rostyslav V. Bubnov and Mykola Ya Spivak* The role of beneficial bacteria wall elasticity in regulating innate immune response. EPMA J., 2015, **6**:13 doi:10.1186/s13167-015-0035-1.
6. *Rostyslav V. Bubnov, Mykola Ya Spivak,* ***Liudmyla M. Lazarenko****, Alojz Bomba and Nadiya V. Boyko* Probiotics and immunity: provisional role for personalized diets and disease prevention. EPMA J., 2015, **6**:14 doi:10.1186/s13167-015-0036-0.
7. *Bubnov R.V., Babenko L.P.,* ***Lazarenko L.M.****, Mokrozub V.V., Demchenko O.A., Nechypurenko*

O.V., Spivak M.Y. Comparative study of probiotic effects of *Lactobacillus* and *Bifidobacteria* strains on cholesterol levels, liver morphology and the gut microbiota in obese mice. EPMA J., 2017, 8(4): 357–376. doi: 10.1007/s13167-017-0117-3.

8. *Rostyslav V. Bubnov, Lidiia P. Babenko,* ***Liudmyla M. Lazarenko****, Victoria V. Mokrozub, Mykola Ya. Spivak* Specific properties of probiotic strains: relevance and benefits for the host. EPMA J., 2018, 9(2): 205–223.

9. *Rostyslav Bubnov, Lidiia Babenko,* ***Liudmyla Lazarenko****, Maryna Kryvtsova, Oleksandr Shcherbakov, Nadiya Zholobak, Olga Golubnitschaja, Mykola Spivak.* Can tailored nanoceria act as a prebiotic? Report on improved lipid profile and gut microbiota in obese mice. EPMA J., 2019. ISSN. 1878-5077 https://doi.org/10.1007/s13167-019-00190-1.

10. *Bubnov R.V., Babenko L.P.,* ***Lazarenko L.M.,*** *Mokrozub V.V., Spivak M.Y.* Specific properties of probiotic strains: relevance and benefits for the host. EPMA J., 2018, 9(2): 205-223. doi: 10.1007/s13167-018-0132-z.

11. ***Lazarenko L.M.,*** *Babenko L.P., Gichka S.G., Sakhno L.O., Demchenko O.M., Bubnov R.V., Sichel L.M., ·Spivak M.Ya.* Assessment of the Safety of *Lactobacillus casei* IMV B-7280 Probiotic Strain on a Mouse Model. Probiotics & Antimicrob. Prot, 2021;1-14. doi: 10.1007/s12602-021-09789-1.

List of selected monographs (in Russian):

1. *Spivak M. Ya.,* ***Lazarenko L.N.,*** *Michailenko L.N.* Interferon and mononuclear phagocytes system, Kyiv: Fitosociacenter, 2002, 164 p.

2. ***Lazarenko L.N.,*** *Spivak T. Ya., Michailenko L.N., Syhpih G.T., Lacatosh V.P.* Papillomaviruses infection and interferon system, Kyiv: Fitosociacenter, 2008, 288 p.