

**9. Списък на цитатите, участващи в конкурса, които не са представени по други
конкурси за заемане на академични длъжности и придобиване на научни
степени
на гл.ас. д-р Людмила Велкова**

1. Dolashka-Angelova, P., Beck, A., Dolashki, A., Beltramini, M., Salvato, B., Hristova, R., **Velkova, L.**, Voelter, W. Carbohydrate moieties of molluscan *Rapana venosa* hemocyanin. *Micron* 35 (1-2), 2004, 101-104. [Линк](#)

Цитирана се в:

1. H. Decker "Copper Proteins with Dinuclear Active Sites." Encyclopedia of Inorganic Chemistry 2." Aufl. (Hrsg. R. B. King), Wiley, New York, 1159–1173, **2006**.
2. J. Markl. "Evolution of Molluscan Hemocyanin Structures." *BBA* 1834 (9), 1840-1852, **2013**.
2. Dolashka-Angelova, P., Stefanova, T., Livaniou, E., **Velkova, L.**, Klimentzou, P., Stevanovic, S., Salvato, B., Neychev, H., Voelter, W. Immunological potential of *Helix vulgaris* and *Rapana venosa* hemocyanins. *Immunological Investigations* 37 (8), 2008, 822-840. [Линк](#)

Цитирана се в:

1. S. A. Zunino, C. E. Morales, M. Del Campo, M. I. Becker. 'Exceptional Immunological and Anticancer Properties of a New Hemocyanin from Fissurella Latimarginata (FLH).“ *Journal of Immunotherapy* 33 (8), 891-891, **2010**.
2. S. Arancibia, M. Del Campo, E. Nova, F. Salazar, M. I. Becker. "Enhanced structural stability of Concholepas hemocyanin increases its immunogenicity and maintains its non-specific immunostimulatory effects." *Eur. J. Immunology* 42 (3), 688-99, **2012**.
3. S. Arancibia, F. Salazar and M. I. Becker. "Hemocyanins in the Immunotherapy of Superficial." *Bladder Cancer From Basic Science to Robotic Surgery* 221-243, **2012**.
4. A.E. Scheil, S. Hilsman, R. Triebkorn, H.-R. Köhler. "Shell colour polymorphism, injuries and immune defense in three helicid snail species, *Cepaea hortensis*, *Theba pisana* and *Cornu aspersum maximum*." *Results in Immunol.* 3, 73–78, **2013**.
5. N.T. Zanjani, F. Sairi, G. Marshall, M. Saksena, P. Valtchev, V. G. Gomes, A. L. Cunningham, Dehghani, F. "Formulation of Abalone Hemocyanin with High Antiviral Activity and Stability." *Europ. J. of Pharmac. Sciences* 53, 77-85, 2014.
6. S. Arancibia, C. Espinoza, F. Salazar, M. Del Campo, R. Tampe, Ta-Y. Zhong, P. De Ioannes, B. Molledo, J. Ferreira, Ed. C. Lavelle, A. Manubens, A.E. De Ioannes, M. I. Becker. "A Novel Immunomodulatory Hemocyanin from the Limpet Fissurella latimarginata Promotes Potent Anti-Tumor Activity in Melanoma." *Plos One* 9 (1), 87240, **2014**.
7. C.J. Coates, J. Nairn. "Diverse immune functions of hemocyanins" *Dev Comp Immunol.* 45, 43–55, **2014**.
8. J.W. Chen, Q.H. Wu, D.C. Rowley, A.M. Al-Kareef, H. Wang. "Anticancer agent-based marine natural products and related compounds." *Journal of Asian natural products research* 17 (2), 199-216, **2015**.
9. S.B. Natarajan, Y.S. Kim, J.W. Hwang, P.J. Park "Immunomodulatory properties of shellfish derivatives associated with human health." *RSC Advances*, 6 (31), 26163-26177, **2016**.
10. J. Altaf, M.H. Rasool, S. Akhtar, M. Manzoor, T. Younas, B. Ansari, G. Ahmad, F. Jabeen, M. Ali, R. Munir. "Comparative evaluation of antibacterial activity of foot muscle extracts from genus *Physa* and genus *Ceciloides* (Mollusca: Gastropoda)". *Pak J Pharm Sci.* 31, 1555-1563, **2018**.

11. R. Ishwarya, B. Vaseeharan, R. Jayakumar, V. Ramasubramanian, M. Govindarajan, N.S. Alharbi, J.M. Khaled, M.N. Al-anbr, G. Benelli. "Bio-mining drugs from the sea: High antibiofilm properties of haemocyanin purified from the haemolymph of flower crab *Portunus pelagicus* (L.) (Decapoda: Portunidae)." *Aquaculture* 489, 130-140, **2018**.
 12. H.K. Kang, H.H. Lee, C.H. Seo, Y. Park "Antimicrobial and Immunomodulatory Properties and Applications of Marine-Derived Proteins and Peptides." *Marine Drugs* 17 (6), pii: E350, **2019**.
3. Dolashki, A., Abrashev, R., Stevanovic, S., Stefanova, L., Ali, S., **Velkova, L.**, Hristova, R., Angelova, M., Voelter, W., Devreese, B., Van Beeumen, J., Dolashka-Angelova, P. Biochemical properties of Cu/Zn-superoxide dismutase from fungal strain *Aspergillus niger*
26. *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy* 71 (3), 2008, 975-983. [Линк](#)

Цитира се в:

1. Y. Bao, L. Li, F. Xu, G. Zhang. "Intracellular copper/zinc superoxide dismutase from bay scallop *Argopecten irradians*: Its gene structure, mrna expression and recombinant protein." *Fish and Shellfish Immunol.* 27 (2), 210-220, **2009**.
2. F. Yan, G. Yan, S. Lv, N. Shen, Y. Mu, T. Chen, P. Gong, Y. Xu, L. Lv, J. Liu, J. Shen, G. Luo. A novel 65-mer peptide imitates the synergism of superoxide dismutase and glutathione peroxidase. *Intern. J. of Biochem. and Cell Biology* 43 (12), 1802-1811, **2011**.
3. J. Liu, Y.-Y. Gao, X.-Z. Jiang, R.-Y. Mao, B.-Y. Tian, C.-R. Ke, S.-G. Wu, J.-Z. Huang. "Effects on docosahexaenoic acid biosynthesis and expression of superoxide dismutase in *Schizochytrium* at low temperature." *Pharmac. Biotechn.* 17 (1), 50-55, **2010**.
4. S. Silva, S. Martins, A. Karmali, E. Rosa. "Production, purification and characterisation of polysaccharides from *Pleurotus ostreatus* with antitumour activity." *J. of the Science of Food and Agricult.* 92 (9), 1826-1832, **2012**.
5. F. Spinozzi, P. Mariani, I. Mičetić, C. Ferrero, D. Pontoni, M. Beltramini "Quaternary Structure Heterogeneity of Oligomeric Proteins: A SAXS and SANS Study of the Dissociation Products of Octopus vulgaris Hemocyanin." *PLOS ONE* 7 (11), e49644, **2012**.
6. N. Umasuthan, S. D. N. K. Bathige, K. S. Revathy, Y. Lee, I. Whang, C. Y. Choi, H.-C Park, J. Lee. "A manganese superoxide dismutase (MnSOD) from *Ruditapes philippinarum*: Comparative structural- and expressional-analysis with copper/zinc superoxide dismutase (Cu/ZnSOD) and biochemical analysis of its antioxidant activities." *Fish & Shellfish Immunology* 33 (4), 753-765, **2012**.
7. Hornyák, K. Marosi, L. Kiss, P. Gróf, and Z. Lacza. "Increased stability of S-nitrosothiol solutions via pH modulations." *Free Radical Research*, 46 (2), 214-25, **2012**.
8. X. Gao, C. He, H. Liu, H. Li, D. Zhu, S. Cai, Y. Xia, Y. Wang, Z. Yu. "Intracellular Cu/Zn superoxide dismutase (Cu/Zn-SOD) from hard clam *Meretrix meretrix*: its cDNA cloning, mRNA expression and enzyme activity." *Mol. Biol. Rep.* 39, 12, 10713-10722, **2012**.
9. N. Umasuthan, S.D. Bathige, W.S. Thulasitha, W. Qiang, B.S. Lim, J. Lee. "Characterization of rock bream (*Oplegnathus fasciatus*) cytosolic Cu/Zn superoxide dismutase in terms of molecular structure, genomic arrangement, stress-induced mRNA expression and antioxidant function." *Comparative Biochemistry and Physiology B: Biochemistry and Molecular Biology* 176, 18-33, **2014**.
10. M. Montibus, L. Pinson-Gadais et al. "Coupling of transcriptional response to oxidative stress and secondary metabolism regulation in filamentous fungi." *Journal Critical Reviews in Microbiology* 41(3), 295-308, **2015**.

11. N.C.N. Perera, G.I. Godahewa, S. Lee, et al. "Manganese-superoxide dismutase (MnSOD), a role player in seahorse (*Hippocampus abdominalis*) antioxidant defense system and adaptive immune system." *Fish and Shellfish Immunology* 68, 435-442, **2017**.
 12. N.C.N. Perera, G.I. Godahewa, B.-H. Nam, J.Y. Park, J. Lee "Two metalloenzymes from rockfish (*Sebastes schlegelii*): Deciphering their potential involvement in redox homeostasis against oxidative stress." *Fish & Shellfish Immunology* 80, 31-45, **2018**.
 13. D.M.K.P. Sirisena, N.C.N. Perera, G.I. Godahewa, H. Kwon, H. Yang, B.H. Nam, J. Lee. "A manganese superoxide dismutase (MnSOD) from red lip mullet, *Liza haematocheila*: Evaluation of molecular structure, immune response, and antioxidant function." *Fish Shellfish Immunol.* 84, 73-82, **2019**.
 14. X. Wang, Q. Song, Z. Wang, Y. Xie, D. Zhang, K. Yea, F. Han „Characterizations of intracellular copper/zinc superoxide dismutase from yellow drum (*Nibea albiflora*, Richardson 1846) and its gene expressions under the ammonia/nitrite stress.“ *Aquatic Toxicology* Available online 214, 105254, **2019**.
4. Dolashki, A., **Velkova, L.**, Atanasov, B., Voelter, W., Stevanovic, S., Schwarz, H., Di Muro, P., Dolashka-Angelova, P. Reversibility and “pH-T phase diagrams” of *Rapana venosa* hemocyanin and its structural subunits. *Biochimica et Biophysica Acta - Proteins and Proteomics* 1784 (11), 2008, 1617-1624. [Линк](#)

Цитира се в:

1. K. Idakieva, F. Meersman, C. Gielens. "Reversible heat inactivation of copper sites precedes thermal unfolding of molluscan (*Rapana thomasiana*) hemocyanin." *Biochim. et Biophys. Acta - Proteins and Proteomics* 1824 (5), 731-738, **2012**.
 2. S. Schenk, J. Schmidt, U. Hoeger, H. Decker. "Lipoprotein-induced phenoloxidase-activity in tarantula hemocyanin." *Biochim Biophys Acta.* 1854 (8), 939-949, **2015**.
5. **Velkova L.**, Todorov D., Dimitrov I., Shishkov S., van Beeumen J., Dolashka-Angelova P. *Rapana venosa* hemocyanin with antiviral activity. *Biotechnology & Biotechnological Equipment* 23 (1), 606-610, 2009.

Цитира се в:

1. L. Nikolaeva-Glomb, S. Philipov, A.S. Galabov. The Antienteroviral Effect of Oxoglucine and Phenotypic Characterization of the Oxoglucine Resistant Mutant of Cocksackievirus B1. *Antiviral Research*, **2010**.
 2. D.J. Harvey. Analysis of carbohydrates and glycoconjugates by matrix-assisted laser desorption/ionization mass spectrometry: An update for 2009–2010. *Mass spectrometry reviews* 34 (3), 268-422, **2015**.
 3. K. Benkendorff, D. Rudd, B.D. Nongmaithem, L. Liu, F. Young, V. Edwards, C. Avila, C. Abbott. Are the traditional medical uses of Muricidae molluscs substantiated by their pharmacological properties and bioactive compounds? *Marine drugs* 13 (8), 5237-5275, **2015**.
 4. H. Song, H.Y. Wang, T. Zhang. Comprehensive and quantitative proteomic analysis of metamorphosis-related proteins in the veined rapa whelk, *Rapana venosa*. *Int. J. Mol. Sci.* 17 (6), 924, **2016**.
6. **Velkova L.**, Dolashka-Angelova P., Dolashki A., Voelter W., Atanasov B. Thermodynamic Analysis and Molecular Modeling of *Rapana Venosa* Hemocyanin-

Functional Unit RVH2-e. *Biotechnology & Biotechnological Equipment* 23 (1), 601-605, 2009.

Цумура се 6:

1. A. Varshney, B. Ahmad, G. Rabbani, V. Kumar, S. Yadav. Acid-induced unfolding of didecameric keyhole limpet hemocyanin: detection and characterizations of decameric and tetrameric intermediate states. *Amino Acids*, 39 (3), 899–910, **2010**.
2. T. Ullah, T. Sultana, L. Khan, K. Feroz, Q.A. Ahmad, S. Hussain. "Histopathological alteration in Gill, Kidney and Liver of Cirrhinus mrigala, Catla catla, Hypophthalmichthys molitrix and Labeo rohita due to sub-lethal exposure of textile industries effluents in Faisalabad, Pakistan." *J of Entomology and Zoology Studies* 5 (2), 54-62, **2017**.
7. Dolashka-Angelova, P., Lieb, B., **Velkova, L.**, Heilen, N., Sandra, K., Nikolaeva-Glomb, L., Galabov, A. S., Van Beeumen, J., Stevanovic, S., Voelter, W., Devreese, B. Identification of glycosylated sites in Rapana hemocyanin by mass spectrometry and gene sequence, and their antiviral effect. *Bioconjugate Chemistry* 20 (7), 2009, 1315-1322 [Линк](#)

Цумура се 6:

1. A. Carlier, R., Michel, J.-P. Cadoret, A. Lejeune, N. Dufourmantel. "Production of high mannose glycosylated proteins stored in the plastid of microalgae." Patent WO2012089342A1, **2012**.
2. C.J. Coates, J. Nairn; "Diverse immune functions of hemocyanins." *Developm. and Compar. Immun.* 45, 43-55, **2014**.
3. V.T. Dang, K. Benkendorff, T. Green, P. Speck. "Marine snails and slugs: a great place to look for antiviral drugs." *J. of Virology* 89 (16), 8114-8118, **2015**.
4. J. Zhuang, C.J. Coates, H. Zhu, P. Zhu, Z. Wu, L. Xie. „Identification of candidate antimicrobial peptides derived from abalone hemocyanin.“ *Dev Comp Immunol.* 49, 96-102, **2015**.
5. J. Wu, A.L. Cunningham, F. Dehghani, R.J. Diefenbach. "Comparison of Haliotis rubra hemocyanin isoforms 1 and 2." *Gene Reports* 4, 123-130, **2016**.
6. N.T. Zanjani, M. Miranda-Saksena, P. Valtchev, R.J. Diefenbach, L. Hueston, E. Diefenbach, F. Sairi, V.G. Gomes, A.L. Cunningham, F. Dehghani. "Abalone hemocyanin blocks the entry of herpes simplex virus 1 into cells: A potential new antiviral strategy." *Antim. Agents and Chemoth.* 60, 2, 1003-1012, **2016**.
7. A.R. de Toledo-Piza, C.A. Figueiredo, M.I. de Oliveira, G. Negri, G. Namiyama, M. Tonelotto, K. de Senna Villar, H.K. Rofatto, R.Z. Mendonça. "The antiviral effect of mollusk mucus on measles virus." *Antiviral Research* 134, 172-181, **2016**.
8. V.A. Toptikov, V.M. Totsky, T.G. Aliksieieva, O.O. Kovtun "Population genetic structure of veined rapa whelk communities in the northwestern Black Sea." *Cytology and Genetics* 51 (4), 253-262, **2017**.
9. Z. Zhang, F. Wang, C. Chen, Z. Zheng, J. Aweya, Y. Zhang. "Glycosylation of hemocyanin in Litopenaeus vannamei is an antibacterial response feature." *Immunology Letters* 192, 42-47, **2017**.
10. C.J. Coates, H. Decker. "Immunological properties of oxygen-transport proteins: hemoglobin, hemocyanin and hemerythrin." *Cellular and Molecular Life Sciences* 74 (2), 293–317, **2017**.
11. N.T. Zanjani, M.M. Saksena, F. Dehghani, A.L. Cunningham. "From Ocean to Bedside: the Therapeutic Potential of Molluscan Hemocyanins." *Curr Med Chem.* 25 (20), 2292-2303, **2018**.

12. Z. Zhang, R. Li, J.J. Aweya, F. Wang, M. Zhong, Y. Zhang. "Identification and characterization of glycosylation sites on Litopenaeus vannamei hemocyanin." *FEBS Lett.* 593 (8), 820-830, **2019**.
 13. T. Yao, M.M. Zhao, J. He, T. Han, W. Peng, H. Zhang, J.Y. Wang, J.Z. Jiang. "Gene expression and phenoloxidase activities of hemocyanin isoforms in response to pathogen infections in abalone *Haliotis diversicolor*." *Int J Biol Macromol.* 129, 538-551, **2019**.
 14. B.M. Khan, Y. Liu. "Marine Mollusks: Food with Benefits." *Comprehensive Reviews in Food Science and Food Safety* 18, **2019**.
8. Dolashka, P., **Velkova, L.**, Shishkov, S., Kostova, K., Dimitrov, I., Dolashki, A., Atanasov, B., Devreese, B., Voelter, W., Van Beeumen, J. Glycan structures and antiviral effect of the structural subunit RvH2 of Rapana hemocyanin. *Carbohydrate Research* 345 (16), 2010, 2361-2367 [Линк](#)

Цитира се в:

1. Q. Ashton Acton, Book "Metalloproteins: Advances in Research and Application." A Scholarly Editions, Atlanta, Georgia 4, **2011**.
2. J-P. Cadoret, A. Carlier, N. Dufourmantel, A. Lejeune, R. Michel. "Production of high mannose glycosylated proteins stored in the plastid of microalgae." WO 2012089342 A1, 05.07.**2012**.
3. Z. Xiao-Yu, L. Xiao-Min, Z. Yue-Ling, L. Qun-Shan, Z. Wen-Hui, L. Jing- Sheng, "Screening and identification of Bacillus to inhibit quorum sensing." *Acta hydrobiol. Sinica* 37 (6), 1059-1065, **2013**.
4. X-Y. Zhang, X-M. Lin, Y-L. Zhang, Q-S. Lu, W-H. Zou and J-S. Lun. "Comparative analysis of hemolytic activity of hemocyanin isomers binding to different bacteria in shrimp Litopenaeus vannamei." *Acta Hydrobiol. Sinica* 37 (6), 1079-1084, **2013**.
5. C.J. Coates, J. Nairn. "Diverse immune functions of hemocyanins." *Developm. and Compar. Immun.* 45, 43–55, **2014**.
6. V. Sereanu, M. Mihai, I. Meghea. "Shell Morphology Of Rapana Thomasiana Sampled From The Romanian Black Sea Coast." 14th SGEM Geo Conference on Water Resources. Forest, Marine And Ocean Ecosystems, 2 (SGEM2014) *Conference Proceedings*, Book 3, Vol. 2, 531-538, **2014**.
7. D.J. Harvey. "Analysis of carbohydrates and glycoconjugates by matrix-assisted laser desorption/ionization mass spectrometry: An update for 2009–2010". *Mass Spectrom Rev.* 34 (3), 268-422, **2015**.
8. V.T. Dang, K. Benkendorff, T. Green, P. Speck. "Marine Snails and Slugs: a Great Place To Look for Antiviral Drug." *J. of Virology* 89 (16), 8114-8118, **2015**.
9. J. Zhuang, C.J. Coates, H. Zhu, P. Zhu, Z. Wu, L. Xie. "Identification of candidate antimicrobial peptides derived from abalone hemocyanin." *Developmental and Comparative Immunology* 49, 96-102, **2015**.
10. B. Eckmair, C. Jin, D. Abed-Nava. K. Paschinger. "Multi-step fractionation and mass spectrometry reveals zwitterionic and anionic modifications of the N-and O-glycans of a marine snail." *Molecular & Cellular*, 15 (2), 573-97, **2016**.
11. J. Wu, A.L. Cunningham, F. Dehghani, R.J. Diefenbach. "Comparison of Haliotis rubra hemocyanin isoforms 1 and 2." *Gene Reports* 4, 123-130, **2016**.
12. H. Song, H.-Y. Wang and T. Zhang. "Comprehensive and Quantitative Proteomic Analysis of Metamorphosis-Related Proteins in the Veined Rapa Whelk, Rapana venosa Intern." *Int. J. of Molec. Sciences* 17 (6), 924, **2016**.

13. T.Y. Zhong, S. Arancibia, R. Born, R. Tampe, J. Villar, M. Del Campo, A. Manubens, M.I. Becker. "Hemocyanins Stimulate Innate Immunity by Inducing Different Temporal Patterns of Proinflammatory Cytokine Expression in Macrophages." *The Journal of Immunology* 196 (11), 4650-4662, **2016**.
 14. R. Bayer. "Drug, bio-affecting and body treating compositions extract, body fluid, or cellular material of undetermined constitution derived from animal is active ingredient derived from arthropod (e.g., insect, spider, crustacea, etc.) Patent, IPC8 Class: AA61K35612FI, Publication date: 2016-05-26, **2016**.
 15. R. Bayer. "Methods of treatment viral diseases." (Orono, ME, US) Patent, Application Number: 14/ 948338 Publication Date: 05/26/**2016**.
 16. D.J. Harvey "Analysis of carbohydrates and glycoconjugates by matrix-assisted laser desorption / ionization mass spectrometry: An update for 2011–2012." *Mass spectrometry reviews* 36 (3), 255–422, **2017**.
 17. Z. Zhang, F. Wang, C. Chen, Z. Zheng, J.J. Aweya, Y. Zhang. "Glycosylation of hemocyanin in *Litopenaeus vannamei* is an antibacterial response feature." *Immunology Letters* 192, 42-47, **2017**.
 18. V.A. Toptikov, V.M. Totsky, T.G. Aliksieieva, O.O. Kovtun "Population genetic structure of veined rapa whelk communities in the northwestern Black Sea." *Cytology and Genetics* 51 (4), 253-262, **2017**.
 19. F. Luo, R. Xing, X. Wang, Q. Peng, P. Li. "Proximate composition, amino acid and fatty acid profiles of marine snail *Rapana venosa* meat, visceral mass and operculum." *J Sci Food Agric.* 97 (15), 5361-5368, **2017**.
 20. Sahin, T., Yilmaz, S. and Ergun, S. A. "Potential Substitute to Fish Meal: The Veined Rapa Whelk, *Rapana Venosa*. Review Article". *International Journal of Oceanography & Aquaculture* 2 (3), **2018**.
 21. N.T. Zanjani, M.M. Saksena, F. Dehghani, A.L. Cunningham "From Ocean to Bedside: the Therapeutic Potential of Molluscan Hemocyanins." *Curr Med Chem.* 25 (20), 2292-2303, **2018**.
 22. T. Sahin, S. Yilmaz, S.A. Ergun. "Potential Substitute to Fish Meal: The Veined Rapa Whelk, *Rapana Venosa*." *International Journal of Oceanography & Aquaculture* 2 (3), **2018**.
 23. M., Palacios, Tampe, R., Del Campo, M., Zhong, T.-Y., López, M. N., Salazar-Onfray, F., Becker, M. I. "Antitumor activity and carrier properties of novel hemocyanins coupled to a mimotope of GD2 ganglioside." *European Journal of Medicinal Chemistry* 150, 74-86, **2018**.
 24. I. D., Grice, Mariottini, G. L. "Glycans with Antiviral Activity from Marine Organisms". Chapter, *Marine Organisms as Model Systems in Biology and Medicine* 439-475, **2018**.
 25. B.M. Khan, Y. Liu. "Marine Mollusks: Food with Benefits." *Comprehensive Reviews in Food Science and Food Safety* 18, **2019**.
 26. T. Yao, M.M. Zhao, J. He, T. Han, W. Peng, H. Zhang, J.Y. Wang, J.Z. Jiang. "Gene expression and phenoloxidase activities of hemocyanin isoforms in response to pathogen infections in abalone *Haliotis diversicolor*. " *Int J Biol Macromol.* 129, 538-551, **2019**.
9. **Velkova, L.**, Dimitrov, I., Schwarz, H., Stevanovic, S., Voelter, W., Salvato, B., Dolashka-Angelova, P. Structure of hemocyanin from garden snail *Helix lucorum*. *Comparative Biochemistry and Physiology - B Biochemistry and Molecular Biology* 157 (1), 2010, 16-25.

Lumupa ce e:

1. Q. Ashton Acton. Book "Metalloproteins: Advances in Research and Application": Edition: A Scholarly Editions, Atlanta, Georgia, 4, **2011**.

2. S. Arancibia, F. Salazar and M. I. Becker. "Hemocyanins in the Immunotherapy of Superficial Bladder Cancer." *Bladder Cancer –From Basic Science to Robotic Surgery*. Chapter 11, 221-243, **2012**. A.E. Canda, Ed., InTech, Croatia, Rijeka. www.intechopen.com
3. D.M. Whitacre. "Reviews of Environmental Contamination and Toxicology." *Reviews of Env. Cont. Toxic.* 225, 136, **2013**.
4. J. Markl. "Evolution of Molluscan Hemocyanin Structures." *BBA* 1834 (9), 1840-1852, **2013**.
5. Y. Raynova, L. Doumanova, K. N. Idakieva. "Phenoloxidase Activity of *Helix aspersa* Maxima (Garden Snail, Gastropod) Hemocyanin." *The Protein Journal* 32, 609-618, **2013**.
6. K. Świderek and P. Paneth. "Binding isotope effects". *Chem. Rev.* 113 (10), 7851–7879, **2013**.
7. D.V. Nica, D-M. Bordean, A. B. Boroza, I. Gergen, M. Bura, I. Banatean-Dunea. "Use of Land Snails (Pulmonata) for Monitoring Copper Pollution in Terrestrial Ecosystems". *Reviews of Environ. Contamin. and Toxic.* 225, 95-137, **2013**.
8. A.E. Scheil, S. Hilsmann, R. Triebkorn, H.-R. Köhler. "Shell colour polymorphism, injuries and immune defense in three helioid snail species, *Cepaea hortensis*, *Theba pisana* and *Cornu aspersum maximum*." *Results in Immun.* 3, 73–78, **2013**.
9. H. Stewart, H.E. Westlake, L.R. Page. "Rhogocytes in gastropod larvae: developmental transformation from protonephridial terminal cells." *Invertebrate Biology* 133, 42-68, **2014**.
10. R. Bayer. "Drug, bio-affecting and body treating compositions extract, body fluid, or cellular material of undetermined constitution derived from animal is active ingredient derived from arthropod (e.g., insect, spider, crustacea, etc.)." Patent IPC8 Class: AA61K35612FI, Publication date: 2016-05-26, **2016**.
11. R. Bayer. "Methods of treatment viral diseases." (Orono, ME,US) US 2016/0143958 A1, **2016**.
12. S. Todinova, Y. Raynova, K. Idakieva. "Calorimetric Study of *Helix aspersa* Maxima Hemocyanin Isoforms." *Journal of Analytical Methods in Chemistry* 2018 (4), 1-8, 2018, **2018**.
13. G.G. Schäfer, V. Pedrini-Martha, R. Schnegg, R. Dallinger, D.J. Jackson, B. Lieb. "Hemocyanin genes as indicators of habitat shifts in Panpulmonata?" *Mol Phylogenet Evol.* 130, 99-103, **2019**.
14. T. Yao, M.M. Zhao, J. He, T. Han, W. Peng, H. Zhang, J-Y. Wang, J-Z. Jiang. "Gene expression and phenoloxidase activities of hemocyanin isoforms in response to pathogen infections in abalone *Haliotis diversicolor*." *International Journal of Biological Macromolecules* 129, 538-551, **2019**.

10. **Velkova, L.**, Dolashka, P., Dolashki, A., Voelter, W., Atanasov, B. Structural analysis and molecular modeling of the RvH2-e functional unit of *Rapana venosa* hemocyanin. *Biochimica et Biophysica Acta - Proteins and Proteomics* 1804 (12), 2010, 2177-2182, [Линк](#)

Цитира се в:

1. K. Idakieva, F. Meersman, C. Gielens. "Reversible heat inactivation of copper sites precedes thermal unfolding of molluscan (*Rapana thomasiana*) hemocyanin." *BBA* 1824, 731–738, **2012**.
2. J. Markl. "Evolution of Molluscan Hemocyanin Structures." *BBA* 1834 (9), 1840-1852, **2013**.
11. Dolashka, P., Moshtanska, V., Dolashki, A., **Velkova, L.**, Rao, G.S., Angelova, M., Betzel, C., Voelter, W., Atanasov, B. Structural analysis and molecular modelling of the Cu/Zn-SOD from fungal strain *Humicola lutea* 103. *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy* 83 (1), 2011, 67-73. [Линк](#)

Цитира се в:

1. H. Korekane, A. Korekane, Y. Yamaguchi, M. Kato, Y. Iyamoto, A. Matsumoto, T. Hasegawa, K. Suzuki, N. Taniguchi, T. Ookawara. "N-Glycosylation profiling of recombinant mouse extracellular superoxide dismutase produced in Chinese hamster ovary cells." *Glycoconj. J.* 28 (3-4), 183-196, **2011**.
2. Y. Ran, Li. Yin, Z. Zhifang, S. Guifang, P. Shenyuan. "Construction of Plant Expression Vector of Cu/Zn-SOD Gene and Its Expression in Tobacco." *Biotechnol. Bulletin* 11, 78-82, **2012**.
3. L.-X. Jiao, C.-W. Hua, X.-X. Xu, J.-J. Wang, R.-X. Zhao. "Cloning and bioinformatics analysis of Fe-SOD gene in *alicyclobacillus acidoterrestris*." *Modern Food Science and Technology* 31 (3), 43-49, **2015**.
4. G. Leoni, A. De Poli, M. Mardirossian, S. Gambato, F. Florian, P. Venier, D. N Wilson, A. Tossi ID, A. Pallavicini and M. Gerdol. "Myticalins: A Novel Multigenic Family of Linear, Cationic Antimicrobial Peptides from Marine Mussels (*Mytilus* spp.)." *Myticalins: Marine Drugs — Open Access Journal* 15, 8, **2017**.
5. T. Sahin, S. Yilmaz, S.A. Ergun. "A Potential Substitute to Fish Meal: The Veined Rapa Whelk, *Rapana Venosa*." *Internat. Journal of Oceanography & Aquaculture* 2 (3), **2018**.
12. Dolashka, P., **Velkova**, L., Iliev, I., Beck, A., Dolashki, A., Yossifova, L., Toshkova, R., Voelter, W., Zacharieva, S. Antitumor activity of glycosylated molluscan hemocyanins via Guerin ascites tumor. Immunological Investigations, Journal Immunological Investigations 40 (2), 2011, 130-149. [Линк](#)

Цитира се в:

1. X.-Y. Zhang, X.-M. Lin, Y.-L. Zhang, Q.-S. Lu, W.-H. Zou and J.-S. Lun. "Comparative analysis of hemolytic activity of hemocyanin isomers binding to different bacteria in shrimp *Litopenaeus vannamei*." *Acta Hydrobiol. Sinica* 37 (6), 1079-1084, **2013**.
2. J. Stoyloff, S. Ivanov. "Affinity and carbohydrate-dependent adhesion of guerin tumor cell subpopulations on solid-phase immobilized glycoproteins of the extracellular matrix." *Comptes rendus de l'Académie bulgare des sciences: sciences mathématiques et naturelles* 67 (2), 223-230, **2014**.
3. N.T. Zanjani, F. Sairi, G. Marshall, M.M. Saksena, P. Valtchev, V.G Gomes, A.L. Cunningham, F. Dehghani, "Formulation of Abalone Hemocyanin with High Antiviral Activity and Stability." *European J. of Pharmac. Sciences* 12 (53), 77-85, **2014**.
4. C.J. Coates, J. Nairn. "Diverse immune functions of hemocyanins." *Developm. and Compar. Immun.* 45, 43–55, **2014**.
5. R.C. Bayer. "Lobster hemolymph as a utility for treatment of mammalian tissue lesions." Patent US 2014/0348877 A9, **2014**.
6. X. Lu, H. Lu, L. Guo, Z. Zhang, X. Zhao, M. Zhong, S. Li, Y. Zhang. "Cloning and characterization of a novel hemocyanin variant LvHMCV4 from shrimp *Litopenaeus vannamei*." *Fish and Shellfish Immun.* 46, 2, 398-405, **2015**.
7. R. Bayer. "Methods of treatment viral diseases" (Orono, ME, US) Application Number: 14/948338 Publication Date: 05/26/2016. United States Patent Application 20160143958, **2016**.
8. R.C. Bayer. "Lobster hemolymph as a utility for treatment of mammalian tissue lesions." Patent App/Pub Number: US20170042946A1, Pub. Date: Feb. 16, **2017**.
9. Z. Zhang, F. Wang, C. Chen, Z. Zheng, J.J. Awaya, Y. Zhang. "Glycosylation of hemocyanin in *Litopenaeus vannamei* is an antibacterial response feature." *Immunology Letters* 192, 42-47, **2017**.

10. A. Parmakelis, P. Kotsakiozi, C.K. Kontos, P.G. Adamopoulos, A. Scorilas. . "The transcriptome of a "sleeping" invader: de novo assembly and annotation of the transcriptome of aestivating *Cornu aspersum*." *BMC Genomics* 18 (1), 491, **2017**.
11. J. Altaf, M.H. Rasool, S. Akhtar, M. Manzoor, T. Younas, B. Ansari, G. Ahmad, F. Jabeen, M. Ali, R. Munir. "Comparative evaluation of antibacterial activity of foot muscle extracts from genus *Physa* and genus *Ceciloides* (Mollusca: Gastropoda)." *Pak J Pharm Sci.* 31, 1555-1563, **2018**.
12. R. Ishwarya, B. Vaseeharan, R. Jayakumar, V. Ramasubramanian, M. Govindarajan, N.S. Alharbi, J.M. Khaled, M.N. Al-anbr, G. Benelli. "Bio-mining drugs from the sea: High antibiofilm properties of haemocyanin purified from the haemolymph of flower crab *Portunus pelagicus* (L.) (Decapoda: Portunidae)." *Aquaculture* 489, 130-140, **2018**.
13. **Velkova, L.**, Dolashka, P., Lieb, B., Voelter, W., Dolashki, A., Van Beeumen, J., Devreese, B. Glycan structures of the structural subunit (HtH1) of *Haliotis tuberculata* hemocyanin. *Glycoconjugate Journal* 28 (6), 2011, 385-395. [Линк](#)

Цитира се в:

1. Y. Fujii, N. Dohmae, K.Takio, S.M.A. Kawsar, R. Matsumoto, I. Hasan , Y. Koide, R.A. Kanaly, H. Yasumitsu, Y. Ogawa, S. Sugawara, M. Hosono, K. Nitta, J. Hamako, T. Matsui, Y. Ozeki. "A Lectin from the Mussel *Mytilus galloprovincialis* Has a Highly Novel Primary Structure and Induces Glycan-mediated Cytotoxicity of Globotriaosylceramide-Expressing Lymphoma Cells." *JBC* 287 (53), 44772-44783, **2012**.
2. B. Schiller, A. Hykollari, S. Yan, K. Paschinger, I. B. H. Wilson. "Complicated N-linked glycans in simple organisms." *Biological Chemistry* 393 (8), 661-67, **2012**.
3. S. Kurz, J. Chunsheng, A. Hykollari, D. Gregorich, B. Giomarelli, R.Vasta, I.B.H. Wilson, K. P. Gerardo. "Haemocytes and plasma of the eastern oyster (*Crassostrea virginica*) display a diverse repertoire of sulphated and blood group A-modified N-glycans Glycobiology and Extracellular Matrices." *J. Biol. Chem.* 288 (34), 24410-28, **2013**.
4. M.I. Becker, S. Arancibia, F. Salazar, M.D. Campo, A. De Ioannes. "Mollusk Hemocyanins as Natural Immunostimulants in Biomedical Applications. Immune Response Activation." *Immune Response Activation*. Chapter 2, 45-72, **2014**.
5. E.I. Solomon, D.E. Heppner, E.M. Johnston, Ginsbach, J.W., Cirera, J., Qayyum, M., Emmons, M.T.K., Kjaergaard, C.H. Hadt, R.G. Li Tian. "Copper Active Sites in Biology." *Chem. Rev.* 114, 3659–3853, **2014**.
6. D.J. Harvey, "Analysis of carbohydrates and glycoconjugates by matrix-assisted laser desorption/ ionization mass spectrometry: An update for 2011–2012." *Mass Spec Rev* 34, 268–422, **2015**.
7. J. Zhuang, C.J. Coates, H. Zhu, P. Zhu, Z. Wu, L. Xie. "Identification of candidate antimicrobial peptides derived from abalone hemocyanin." *Dev. Comp. Immunol.* 49 (1), 96-102, **2015**.
8. C. Gatsogiannis, O .Hofnagel, J. Markl, S. Raunser. "Structure of Mega-Hemocyanin Reveals Protein Origami in Snails." *Structure.* 23 (1), 93-103, **2015**.
9. J .Wu, A.L. Cunninghama, F. Dehghani, R.J. Diefenbach. "Comparison of *Haliotis rubra* hemocyanin isoforms 1 and 2." *Gene Reports* 4, 123-130, **2016**.
10. T-Y. Zhong, S. Arancibia, R. Born, R. Tampe, J. Villar, M. Del Campo, A. Manubens, M.I. Becker. "Hemocyanins Stimulate Innate Immunity by Inducing Different Temporal Patterns of Proinflammatory Cytokine Expression in Macrophages." *J. Immunol.* 196 (11), 4650-62, **2016**.
11. N.T. Zanjani, M. Miranda-Saksena, P. Valtchev, R.J. Diefenbach, L. Hueston, E. Diefenbach, F. Sairi, V.G. Gomes, A.L. Cunningham, F. Dehghani. "Abalone hemocyanin

blocks the entry of herpes simplex virus 1 into cells: A potential new antiviral strategy." *Antimicrob Agents Chemother.* 60, 2, 1003-1012, **2016**.

12. Z. Zhang, F. Wang, C. Chen, Z. Zheng, J. Aweya, Y. Zhang. "Glycosylation of hemocyanin in *Litopenaeus vannamei* is an antibacterial response feature." *Immunology Letters* 192, 42-47, **2017**.
13. S. Schulze, E. Urzica, M.J.M.F. Reijnders, H. van de Geest, S. Warris, L.V. Bakker. "Identification of methylated GnTI-dependent N-glycans in *Botryococcus brauni*." *New Phytol.* 215 (4), 1361-1369, **2017**.
14. D.J. Harvey. "Analysis of carbohydrates and glycoconjugates by matrix-assisted laser desorption/ionization mass spectrometry: An update for 2011–2012." *Mass Spectrom Rev.* 36 (3), 255-422, **2017**.
15. N.T. Zanjani, M.M. Saksena, F. Dehghani, A.L. Cunningham. "From Ocean to Bedside: the Therapeutic Potential of Molluscan Hemocyanins." *Curr Med Chem.* 25 (20), 2292-2303, **2018**.
16. Z. Zhang, R. Li, J.J. Aweya, F. Wang, M. Zhong, Y. Zhang. "Identification and characterization of glycosylation sites on *Litopenaeus vannamei* hemocyanin." *FEBS Lett.* 593 (8), 820-830, **2019**.

14. Kostadinova, E., Dolashka, P., **Velkova, L.**, Dolashki, A., Stevanovic, S., Voelter, W.. Positions of the glycans in molluscan hemocyanin, determined by fluorescence spectroscopy. *Journal of Fluorescence* 23 (4), 2013, 753-760. [Линк](#)

Цитира се в:

1. C.J. Coates, J. Nairn. "Diverse immune functions of hemocyanins." *Dev Comp Immunol.* 45, 43–55, **2014**.
2. Z. Du, J. Jing. "Research Progress on Molecular Structure and Biological Functions of Hemocyanin." *Bioprocess.* 5 (3), 30-37, **2015**.

15. **Velkova, L.**, Dolashki, A., Dolashka, P. Analysis of a glycopeptide from structural subunit (β C-HIH) of *Helix lucorum* hemocyanin by mass spectrometry. *Peptides, Proceedings of the 33-rd EPS* 288-289, 2014.

Цитира се в:

1. M. Palacios, R. Tampe, M. Del Campo, T.Y. Zhong, M.N. López, F. Salazar-Onfray, M.I. Becker. "Antitumor activity and carrier properties of novel hemocyanins coupled to a mimotope of GD2 ganglioside." *Eur J Med Chem.* 150, 74-86, **2018**.

16. Dolashka, P., Dolashki, A., **Velkova, L.**, Stevanovic, S., Molin, L., Traldi, P., Velikova, R., Voelter, W. Bioactive compounds isolated from garden snails. *J. BioSci. Biotechnol.* 2015, 147-155. [Линк](#)

Цитира се в:

1. V. Schneider, F.-K. Lücke, M. Birringer. "In vitro-Untersuchung einer möglichen fungistatischen Wirkung des Sekrets der Weinbergschnecke (*Helix pomatia*, *Helix aspersa*) auf *Botrytis cinerea*". *Gesunde Pflanzen* 68 (2), 89–97, **2016**.
2. P. Kumar, S. Kumar, S. K. Nayak. "Bioactivity of intertidal blood clam *Cardita antiquata* (Lam.) from north west coast of India at with special reference to feeding behavior." *The Bioscan* 12 (1), 149-153, **2017**.
3. M. Maciąg, K. Maciąg. "Trendy i rozwiązania technologiczne – odpowiedź na potrzeby współczesnego społeczeństwa." Tom 1, Redakcja: Lublin, A. Pacia, M. Nabrdalik, A.

- Dolhańczuk-Śródka „Pilotażowe badania sensoryczne autorskich receptur preparatów kosmetycznych z zawartością śluzu ślimaka.“ 7-16, **2017**.
4. M. Matusiewicz, I. Kosieradzka, T. Niemiec, M. Grodzik, H. Antushevich, B. Strojny, M. Gołębiowska. "In Vitro Influence of Extracts from Snail *Helix aspersa* Müller on the Colon Cancer Cell Line Caco-2." *Int J Mol Sci.* 19 (4), 1064, **2018**.
 5. G. Cilia, F. Fratini. "Antimicrobial properties of terrestrial snail and slug mucus." *Developmental and Comparative Immunology* 86, 47-51, **2018**.
17. Dolashka, P., Dolashki, A., Van Beeumen, J., Floetenmeyer, M., **Velkova, L.**, Stevanovic, S., Voelter, W. Antimicrobial activity of molluscan hemocyanins from *Helix* and *Rapana* snails. *Current Pharm. Biotechnol* 17 (3), 2016, 263-270. [Линк](#)

Цитують:

1. K. Suwannatrai, A. Suwannatrai, P. Tabsripair, J.U. Welb, S. Tangkawattana, C. Cantacessi, J. Mulvenna, S. Tesana, A. Loukas, J. Sotillo. "Differential Protein Expression in the Hemolymph of *Bithynia siamensis* goniomphalos Infected with *Opisthorchis viverrini*." *PLoS Neglected Tropical Diseases* 10 (11), 1-20, **2016**.
2. M. Velayutham, S.K. Kamanuri, K. Saravanan, A. Munusamy. "Cation metals specific hemocyanin exhibits differential antibacterial property in mud crab *Scylla serrata*." *Biologia* 71, 2, 176-183, **2016**.
3. B. Dubief, F.L. Nunes, O. Basuyaux, C. Paillard. "Immune priming and portal of entry effectors improve response to vibrio infection in a resistant population of the European abalone." *Fish Shellfish Immunol.* 60, 255–264, **2017**.
4. L. Lagos, J.I. Tandberg, M.I. Becker, H.C Winther-Larsen. "Immunomodulatory properties of *Concholepas concholepas* hemocyanin against francisellosis in a zebrafish model." *Fish Shellfish Immunol.* 67, 571-574, **2017**.
5. F. Luo, R. Xing, X. Wang, Q. Peng, P. Li. "Proximate composition, amino acid and fatty acid profiles of marine snail *Rapana venosa* meat, visceral mass and operculum." *Journal of the Science of Food and Agriculture* 97 (15), 2017.
6. C.J. Coates, H. Decker. "Immunological properties of oxygen-transport proteins: hemoglobin, hemocyanin and hemerythrin." *Cell. Mol. Life Sci.* 74, 2, 293-317, **2017**.
7. G. Cilia, F. Fratini. "Antimicrobial properties of terrestrial snail and slug mucus." *J. of Complementary and Integrative Medicine* 15 (3), 20170168, **2018**.
8. Y. López, V. Cepas, S.M. Soto. "The Marine Ecosystem as a Source of Antibiotics." Chapter 1, Chapter 1, 3-48, *Grand Challenges in Marine Biotechnology*, Springer International Publishing AG, part of Springer Nature, P.H. Rampelotto, A. Trincone (eds.), **2018**.
9. N.T. Zanjani, M.M. Saksena, F. Dehghani, A.L. Cunningham. "From Ocean to Bedside: the Therapeutic Potential of Molluscan Hemocyanins." *Curr Med Chem.* 25 (20), 2292-2303, **2018**.
10. T. Sahin, S. Yilmaz, S.A. Ergun. "A Potential Substitute to Fish Meal: The Veined Rapa Whelk, *Rapana Venosa*." *International Journal of Oceanography & Aquaculture* 2 (3), **2018**.
11. P.H. Rampelotto, A. Trincone. "Grand Challenges in Biology and Biotechnology. Reviews exhaustively recent advances in marine biotechnology and identifies challenges in realizing its potential." Series Ed.: Rampelotto, Pabulo H., 2367-1017, **2018**.
12. B. Houyvet, B. Zanuttini, E. Corre, G. Le Corguillé, J. Henry, C. Zatylny-Gaudin. "Design of antimicrobial peptides from a cuttlefish database." *Amino Acids* 50 (11), 1573-1582, **2018**.
13. C.J. Coates, J. Talbot. "Hemocyanin-derived phenoloxidase reaction products display anti-infective properties." *Dev Comp Immunol.* 86, 47-51, **2018**.

14. Z. Zhang, R. Li, J.J. Aweya, F. Wang, M. Zhong. "Identification and characterization of glycosylation sites on *Litopenaeus vannamei* hemocyanin." *FEBS Letter* 593 (8), 820-830, **2019**.
18. **Velkova, L.**, Dolashka, P., Van Beeumen, J., Devreese, B. N-glycan structures of b-HIH subunit of *Helix lucorum* hemocyanin. *Carbohydrate Research* 449, 2017, 1-10.

Цитирана се в:

1. M. Palacios, R. Tampe, M. Del Campo, T.Y. Zhong, M.N. López, F. Salazar-Onfray, M.I. Becker. "Antitumor activity and carrier properties of novel hemocyanins coupled to a mimotope of GD2 ganglioside." *Eur J Med Chem.* 150, 74-86, **2018**.
2. Z. Zhang, R. Li, J.J. Aweya, F. Wang, M. Zhong, Y. Zhang. "Identification and characterization of glycosylation sites on *Litopenaeus vannamei* hemocyanin." *FEBS Letter* 593 (8), 820-830, **2019**.
3. J.M. Jiménez, M. Salazar, S. Arancibia, J. Villar, F. Salazar, G.D. Brown, Ed C. Lavelle, L. Martínez-Pomares, J. Ortiz-Quintero, S. Lavandero, A. Manubens, M.I. Becker. "TLR4, but Neither Dectin-1 nor Dectin-2, Participates in the Mollusk Hemocyanin-Induced Proinflammatory Effects in Antigen-Presenting Cells From Mammals." *Front. Immunol.* 10,1136, **2019**.

КРАТКИ СЪОБЩЕНИЯ

- 1A. **Velkova, L.**, Nikolaeva-Glomb, L., Mukova, L., Dolashki, A., Dolashka, P., Galabov, A. Antiviral Effect of Molluscan Haemocyanines. *Antiviral Research* 90 (2), 2011, A47-A48.

Цитирана се в:

1. C.J. Coates, J. Nairn. "Diverse immune functions of hemocyanins." *Dev Comp Immunol.* 45, 43–55, **2014**.
2. T. Yao, M.-M. Zhao, J. He. T. Han, W. Peng, H. Zhang, J-Y. Wang, J.-Z. Jiang. "Gene expression and phenoloxidase activities of hemocyanin isoforms in response to pathogen infections in abalone *Haliotis diversicolor*." *Int J Biol Macromol.* 129, 538-551, **2019**.
<https://www.sciencedirect.com/science/article/pii/S0141813018364043>

Общо: 152 цитата