

CURRICULUM VITAE

1. Family name: VAKULA

First name: Volodimir

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3. Personal profiles in scientometric databases:

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<https://www.scopus.com/authid/detail.uri?authorId=6603005855>

4. Education:

O.M. Gorky Kharkiv State University, 1975-1980, chemistry, Д-І No. 322828, 08.06.1980

5. Degree: Candidate of Chemical Sciences, organic chemistry, 12.05.1989, O.M.

Gorky Kharkiv State University, XM № 020781, 30.08.1989

6. Academic Status: there is not

7. Professional work experience

1980-2023 State Institution "V. Danilevsky Institute for endocrine pathology problems National Academy of Medical sciences of Ukraine"

1991-2023 - Senior research fellow

From 01.11. 2022 - until now, senior researcher of the Department of Organic and Bioorganic Chemistry of the State Scientific Institution "Institute for Single Crystals" of National Academy of Sciences of Ukraine

8. Research interests

- synthesis and investigation of the chemical structure and properties of sulphur- and nitrogen- containing heterocycles;
- search for biologically active compounds with antidiabetic, antioxidant, anti-inflammatory and antibacterial properties;
- drug design

9. Published scientific works:

1. The development of the combined pharmaceutical composition with pleiotropic activity based on original spermomodulating substance / S.P. Kustova, M.O. Boiko, **V.M. Vakula**, T.V. Matvieieva, M.Y. Kudria, N.Y. Seliukova // Problems of Endocrine Pathology. - 2019, 3, 106-112. DOI 10.21856/j-PEP.2019.3.14 / Q4

2. Study of the influence of 6-(4'-iodophenyl)-2,3-dihydro[2,1-b]thiazole at thyroid function male white rats with experimental autoimmune thyroiditis / N.G. Malova, L.A. Sirotenko, I.V. Komarova, E.S. Anikeeva, A.V. Spiridonov, A.N. Sova, **V.N. Vakula**, F. G. Yaremenko // Problems of Endocrine Pathology. 2016, 3, 43-49. DOI 10.21856/j-PEP.2016.3.05 / Q4

3. . Influence of the rigidity of the steroid core in the structure of chiral dopants on the temperature dependence of cholesteric short pitch / N. Shkolnikova, F. Yaremenko, Zh. Sheshenko, **V. Vakula**, L. Kutulya, N. Pivnenko, A. Roshal // Displays. 2015, 36, 34–40. DOI 10.1016/j.displa.2014.10.008 / Q2

4. Synthesis of methotrexate-betulononic acid hybrids and evaluation of their effect on artificial and Caco-2 cell membranes / O.M. Semenenko, V.V. Lipson, A.O. Sadchenko, O.V. Vashchenko, N.A. Kasian, L.V. Sviechnikova, L.M. Lisetski, M.L. Babak, **V.M. Vakula**, O.V. Borysov, Y.V. Holota, S.O. Zozulya, P.O. Borysko, O.V. Mazepa // Steroids. – 2023. doi.org/10.1016/j.steroids.2023.109332

5. Low molecular weight supramolecular allobetulin-based gelators: Synthesis and molecular dynamics study / V.V. Lipson, O. A. Zhikol, S. V. Shishkina, A. N. Semenenko, K. V. Kulyk, P. V. Mateychenko, V. I. Musatov, A. V. Mazepa, **V. N. Vakula**, A. V. Kyrychenko, A. V. Borisov // SynOpen. – 2023. doi.org/10.13039/50110000474

6. Discovery of Novel N-Acylhydrazone Derivatives as Potent Inhibitors of Sirtuin-1 / V.V. Lipson, F.G. Yaremenko, **V.M. Vakula**, S.V. Kovalenko, A.V. Kyrychenko, S.M. Desenko, P.O. Borysko, S.O. Zozulya // SynOpen., 2024, 8, 100-108. (DOI: 10.1055/s-0043-1763747)

7. Bisindolylmethanes and Relative Compounds: Synthesis, Green Chemistry, Drug Discovery and Environmental Pollution Control / V. Lipson, M. Shirobokova, **V. Vakula** // ChemSelect. 2024, 9, e202401220. (doi.org/10.1002/slct.202401220)

10. Other significant scientific achievements:

1. Pat. 104093 UA, Int.Cl. (2015.01) A61K 31/00, A61P 1/16 (2006.01), G01N 33/49 (2006.01). The use of cis-1,2,2-trimethyl-cyclopentane-1,3-dicarboxylic acid 3-(4,5-dihydrothiazol-2-yl)amide for the correction of disorders of the functional state of the liver in male rats [Text] / M.Ya. Kudria, N.V. Melnykivska, N.V. Ustenko, I.A. Palagina, O.S. Lalymenko, T.O. Pavlenko, A.L. Degtyareva, A.D. Ivashchenko, S.P. Kustova, M.O. Boiko, V.V. Petrovska, T.V. Matvieieva, L.E. Nikishina, F.G. Yaremenko, **V.M. Vakula**, I.M. Svidlo (UA); the applicant and patent owner of the State University "V.Ya.Danylevsky Institute for Endocrine Pathology Problems National Academy of Medical Sciences of Ukraine" (UA).- No. u201506901 ; appl. 13.07.15 ; publ. 12.01.16, bul. No. 1/2016.

<https://base.uipv.org/searchINV/search.php?action=search>

2. Pat. 115904 UA, Int.Cl. C07D 279/04 (2006.01), A61K 31/54 (2006.01), A61P 3/10 (2006.01). The use of 5-acetyl-4-hydroxy-2H-1,3-thiazan-2,6(3H)-dione for the correction of functional and metabolic disorders in type 2 diabetes mellitus against the background of obesity [Text] / Yu.I. Karachentsev, I.M. Svidlo, O.I. Hladkykh, **V.M. Vakula**, N.S. Krasova, Z.A. Leshchenko, F.G. Yaremenko, V.V. Poltorak (UA) ; the applicant and patent owner of the State University "V.Ya.Danylevsky Institute for Endocrine Pathology Problems National Academy of Medical Sciences of Ukraine" (UA) - No. u201612934 ; appl. 19.12.2016 ; publ. 25.04.2017, bul. No. 8/2017.

<https://base.uipv.org/searchINV/search.php?action=search>

3. Pat. 121892 UA, Int.Cl. A61K 31/15 (2006.01), C07D 309/36 (2006.01), C07C 251/72 (2006.01). Application of acylhydrazone derivatives as modulators of sirtuin 1 activity [Text] / F.G. Yaremenko, **V.M. Vakula**, I.M. Svidlo, V.V. Borodina, S.O. Zozulya, P.O. Borysko, A.V. Hrynyukova (UA); applicants State Institution "V.Ya.Danylevsky Institute for Endocrine Pathology Problems National Academy of Medical Sciences of Ukraine", Taras Shevchenko Kyiv National University (UA). - No. a201711523 ; appl. 24.11.2017 ; publ. 10.08.20, bul. № 15/2020.

<https://base.uipv.org/searchINV/search.php?action=search>

4. Pat. 121946 UA, Int.Cl. A61K 31/54 (2006.01), A61P 3/10 (2006.01), C07D 231/10 (2006.01), C07D 243/12 (2006.01), C07D 279/04 (2006.01). 5-[2-(1,3-Dimethyl-1H-pyrazol-4-yl)-2,3-dihydro-1H-1,5-benzodiazepin-4-yl]-4-hydroxy-2H-1,3-thiazine-2,6(3H)-di-one, which exhibits complex antidiabetic activity against the background of obesity, and the method of its preparation (options) [Text] / Yu.I. Karachentsev, S.O. Zozulya, F.G. Yaremenko, I.M. Svidlo, P.O. Borysko, O.I. Hladkykh, A.V. Hrynyukova, **V.M. Vakula**, N.S. Krasova, T.V. Tyzhnenko, Zh.A. Leshchenko, V.V. Lipson, V.V. Poltorak (UA) ; applicants State Institution "V.Ya.Danylevsky Institute for Endocrine Pathology Problems National Academy of Medical Sciences of Ukraine", Taras Shevchenko Kyiv National University (UA). - No. a201905275; appl. 17.05.2019; publ. 10.08.20, bul. № 15/2020. <https://base.uipv.org/searchINV/search.php?action=search>