



Curriculum Vitae

Kosterin S.O.

PERSONAL INFORMATION



Sergii O. Kosterin

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Account (profile) in scientific metric databases:

Scopus Author ID: 7006559632

<https://scholar.google.com.ua/citations?user=NTsYtpsAAAAJ&hl=uk>

Sex M | Data of Birth 25/08/1950 | Citizenship Ukraine

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| Research degree (degree, speciality) | 1988 – Doctor of Science in Biology (03.00.04 – biochemistry) 1976 – Candidate of Science in Biology (PhD) (03.00.04 – biochemistry)) |
| Title | 2015 p. – Academician of the National Academy of Sciences of Ukraine (molecular physiology, biochemistry) 2003 p. – Corresponding Member of the NAS of Ukraine (Biochemistry) 2001 p. – Professor (Biochemistry) 1999 p. – Senior Researcher (Biochemistry) |
| Current post | Deputy Director for Research and Head of the Department of the Institute of Biochemistry, O.V. Palladin NAS of Ukraine |
| Department | Department of Biophysics and Medical Informatics |
| Faculty/Institute | Taras Shevchenko National University of Kyiv |
| Part-time position | professor |

Academic disciplines, which have been taught:

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| Current year 2020/2021 | 1. Biophysics (3rd year of bachelor's degree), lectures 2. Methods of kinetic analysis in biology (4th year of bachelor's degree), lectures 3. Basics of the enzymes kinetic (4th year of bachelor's degree), lectures |
| Previous years | 1. Biophysics of membrane transport (2nd year of master's degree), lectures, practical classes 2. Electrobiophysics (4th year of bachelor's degree), lectures, practical classes |

RESEARCH AND TEACHING EXPERIENCE

| Period | Stage (description) |
|------------------------|--|
| (From 1998 to present) | Position - Deputy Director of Research Institute of Biochemistry. OV Palladin National Academy of Sciences of Ukraine, 9 Leontovycha Street, 01601, Kyiv 30, Ukraine, web page: http://www.biochemistry.org.ua/index.php/uk/ Area of work or sector Science |
| (From 1988 to present) | Position - Head of the Scientific Department of the Institute Institute of Biochemistry. OV Palladin National Academy of Sciences of Ukraine, 9 Leontovycha Street, 01601, Kyiv 30, Ukraine, web page: http://www.biochemistry.org.ua/index.php/uk/ Area of work or sector Science |

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| (1973 to 1988) | Position - from graduate student to senior researcher at the Institute |
| | OV Palladin Institute of Biochemistry of the National Academy of Sciences of Ukraine, 9 Leontovycha St., 01601, Kyiv 30, Ukraine, web page: http://www.biochemistry.org.ua/index.php/uk/ |
| | Area of work or sector Science |
| (From 1993 to present) | Position - Professor of Biophysics, Taras Shevchenko University of Kiev (part-time) |
| (From 1998 to present) | Position - Head of the scientific seminar "Actual problems of modern biochemistry" at the Institute of Biochemistry |
| | OV Palladin of the National Academy of Sciences of Ukraine |
| | Area of work or sector Science |

EDUCATION AND INTERNSHIP

| Period | Stage (description) |
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| (1968-1973) | Kyiv State University named after T.G. Shevchenko Qualification "Biologist-biophysicist, teacher of biology and chemistry" |
| (1990, 1992) | McMaster University, Hamilton, Lane Ontario, Canada, Professor on invitation |

PERSONAL COMPETENCIES

| Name | Level (description) |
|--------------------------------------|---|
| Native language | Ukrainian |
| Foreign language 1 | English (B2/C1) |
| Foreign language 2 | Russian (fluent) |
| Communication competence | Scientific reports at universities and research institutions Ukraine, Canada, Great Britain, the USA, Poland, Bulgaria, Russia, Estonia, Georgia, Uzbekistan, Kazakhstan and other countries Repeatedly delivered plenary and oral presentations to numerous national speakers and international scientific symposia. Scientific reports and lectures for students National universities in Kyiv, Lviv, Chernivtsi, Odesa, Kharkiv, Donetsk, Ivano-Frankivsk, Dnipropetrovsk, Lutsk |
| Organisational/management competence | Supervised the research work of the departments of biochemical kinetics and muscle biochemistry of the Institute of Biochemistry. OV Palladin of the National Academy of Sciences of Ukraine (1988 - 2018) |
| Computer competencies | Information processing: Professional user of MS Office programs, Origin (OriginLab) Creating content (programs, sites): built the site: https://cutt.ly/lnzuR6a |
| Other computer skills | User of Adobe Photoshop software, Adobe ImageReady for image editing, Power Point. |
| Areas of professional interests | Biochemistry, Biophysics, Biophysical Chemistry, Molecular Physiology, Mathematical Biology; Enzymatic Kinetics; Biological Thermodynamics; Intracellular Calcium Homeostasis; Calcium Pumps, Exchangers and Uniporters; Thermomechanokinetics and Thermodynamics of muscles |

ADDITIONAL INFORMATION

| Name | (titles of publications, presentations, projects, conferences, seminars, distinctions, membership in Academies, professional and scientific associations etc) |
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| Publications | <ol style="list-style-type: none"> 1. Kosterin, S., Tsybalyuk, O., Holden, O. Multiparameter analysis of mechanokinetics of the contractile response of smooth muscles // Series on Biomechanics. - 2021. - 35(1). - pp. 14–30 2. Karakhim, S.O., Zhuk, P.F., Kosterin, S.O. Kinetics simulation of transmembrane transport of ions and molecules through a semipermeable membrane //Journal of Bioenergetics and Biomembranes. – 2020. 52(1). pp. 47–60 3. Veklich, T.O., Shkrabak, O.A., Rodik, R.V., Kal'chenko, V.I., Kosterin, S.O. Calix[4]arenes C-107 and C-90 are embedded in the lipid bilayer of plasma membranes and change their structure//Nanosistemi, Nanomateriali, Nanotehnologii. - 2020. - 18(3). pp. 465–471 4. Danylovyh, Yu.V., Danylovyh, H.V., Yesypenko, O.A., Kal'chenko, V.I., Kosterin, S.O. Chalcone calix[4]arenes are supramolecular compounds, which modulate the electron-transport chain of smooth muscle mitochondria// Nanosistemi, Nanomateriali. Nanotehnologii. – 2020. - 18(3). pp. 459–464 5. Veklich, T.O., Labyntseva, R.D., Shkrabak, O.A., ...Kalchenko, V.I., Kosterin, S.O. Inhibition of Na⁺,K⁺-ATPase and activation of myosin atpase by calix[4]arene c-107 cause stimulation of isolated smooth muscle contractile activity // Ukrainian Biochemical Journal. 2020. - 92(1), pp. 21–30 6. Shlykov, S.G., Sylenko, A.V., Babich, L.G., ...Kal'chenko, V.I., Kosterin, S.O. Calix[4]arene chalcone amides as effectors of mitochondria membrane polarization//Nanosistemi, Nanomateriali, Nanotehnologii, 2020. - 18(3). pp. 473–485 7. Paliienko, K.O., Veklich, T.O., Shatursky, O.Y., ...Borisova, T.A., Kosterin, S.O. Membrane action of polyhexamethylene guanidine hydrochloride revealed on smooth muscle cells, nerve tissue and rat blood platelets: A biocide driven pore-formation in phospholipid bilayers // Toxicology in Vitro. – 2019. – 60. pp. 389–399 8. Kosterin, S.O., Karakhim, S.O., Zhuk, P.F. Consideration of the contribution of chemical (Non-enzymatic) conversion of substrate in the general mechanism of enzyme reaction //Ukrainian Biochemical Journal. – 2019. - 91(4). pp. 78–87 9. Danylovyh, H.V., Danylovyh, Y.V., Bohach, T.V., Hurska, V.T., Kosterin, S.O. Sources and regulation of nitric oxide synthesis in uterus smooth muscle cells// Ukrainian Biochemical Journal. – 2019. - 91(4). pp. 33–40 10. Shlykov, S.G., Kushnarova-Vakal, A.M., Sylenko, A.V., ...Kalchenko, V.I., Kosterin, S.O. Calix[4]arene chalcone amides effects on myometrium mitochondria // Ukrainian Biochemical Journal. – 2019.- 91(3). – pp.46–55 11. Danylovyh, H.V., Danylovyh, Y.V., Gulina, M.O., Bohach, T.V., Kosterin, S.O. 12. NO-synthase activity in mitochondria of uterus smooth muscle: Identification and biochemical properties// General Physiology and Biophysics. – 2019. – 38. -, pp. 39–50 <p>In total - more than 300 publications</p> |
| Presentations | <p>Repeatedly given lectures and reports at universities and research institutions Ukraine, Canada, Great Britain, the USA, Poland, Bulgaria, Russia, Estonia, Georgia, Uzbekistan, Kazakhstan and other countries. He spoke at the Institutes of the National Academy of Sciences of Ukraine, c</p> <p>National universities mm. Kyiv, Lviv, Chernivtsi, Odessa, Kharkiv, Donetsk, Ivano-Frankivsk, Dnipropetrovsk, Lutsk. He has repeatedly spoken in plenary and oral reports at numerous domestic and international scientific symposia</p> |
| Projects | <p>2019-2021 grant for research project "Ion and membrane mechanisms of calcium homeostasis and contractility regulation at different gestation stages" funded by the Department of Targeted Training of National Academy of Science of Ukraine (#7B-2018)</p> <p>From 1988 to the present (2018) has managed a large number of Projects of the National Academy of Sciences of Ukraine, grants NAS of Ukraine and MES of Ukraine</p> |
| Research Symposia | <p>From 1988 to the present (2021) participated in domestic and international professional conferences, symposia, congresses on urgent problems of biochemistry and biophysics (in particular, muscle biochemistry and biophysics, enzymatic catalysis, membrane transport).</p> <p>In total of 130 abstracts at national and international scientific conferences</p> |

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| <p>Membership</p> | <p>Ukrainian Biochemical Society. Vice President. Ukrainian Biophysical Society. Member of the Presidium. Chairman (since 1998) of the specialized scientific council of the Institute of Biochemistry. OV Palladin of the National Academy of Sciences of Ukraine. Member of the specialized scientific council of the NSC "Institute of Biology and Medicine" of the Kyiv National Taras Shevchenko University. Member of the Standing Commission of the National Academy of Sciences of Ukraine to evaluate the effectiveness of scientific activities institutions (PC NASU). Member of the Board of the State Fund for Basic Research of Ukraine. Deputy Chairman of the Section of the Scientific and Technical Council of the Ministry of Education and Science of Ukraine on the formation and fulfillment of the state order for scientific and technical products by priority direction of development of science and technology "Life Sciences, new technologies of prevention and treatment of the most common diseases". Member of the Public Council for Scientific and Technical, Innovative Activities and intellectual property at the Ministry of Education and Science of Ukraine. Member of the editorial boards of scientific journals: Deputy Editor-in-Chief and scientific editor of "The Ukr. Biochem. J. ». Member of the editorial board of the journal. "Biol. Stud. "</p> |
| <p>Citations</p> | <p>Scopus: 483 citations, h-index: 10</p> |

SUPPLEMENTS

| Name | Link |
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| <p>OV Palladin Institute of Biochemistry of the National Academy of Sciences of Ukraine</p> | <p>http://www.biochemistry.org.ua/index.php/uk/2014-10-07-11-56-36/2014-10-07-10-45-48/department-of-muscle-biochemistry</p> |