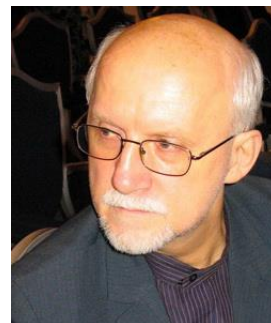


CURRICULUM VITAE



Personal details

Name: Vladimir Matveev
Date of birth: Aug 08 1949
Place of birth: Russian Federation, The Republic of Dagestan
Marital State: divorced (no children)
Health: Excellent
Office Address: Lab of Cell Physiology, Institute of Cytology, Russian Academy of Sciences.
194064, St. Petersburg, Tikhoretsky Ave 4, Russia.
Mobile: +7 921-379-7354.
Emails: vladimir.matveev@gmail.com, vladimir.matveev@outlook.com
Personal web page: <http://vladimirmatveev.ru>

Sex:	Male
National:	Russian

EDUCATION AND QUALIFICATION

Sept. 1956--July 1963 Junior and senior school. Makhachkala City, Dagestan. Main subject: Physics, Chemistry, Biology, History and Geography.

Sept. 1963--July 1968 Dagestan Polytechnic College. Main subject: electronics.

Sept. 1968--July 1973 Leningrad State University, Faculty of Biology and Soil Sciences, Department of Human and Animal Physiology, Lab of Cell Physiology. The Lab was founded by the famous Russian cytologist, D.N. Nasonov (1895-1957) Nasonov's Scientific School (not only in the University) developed "protoplasmic" physiology (see "Protoreaction of Protoplasm" below for details). I was follower of this approach too. In my student coursework and thesis work, I had my original hypothesis about the role of contractile proteins in the functioning of the various structures of the cell (myosin forms complexes with other proteins and uses its ATPase as a source of energy for work performance for various functions of the cell).

Sept. 1973--May 1989 Institute of Marine Biology (Russian Academy of Sciences, Vladivostok), Lab of Biophysics. Main Subject: influence of some chemicals on actomyosin stability. 1982 – PhD Thesis Defense in the University ("Effect of some chemicals on actomyosin stability in connection with nonspecific reaction of muscle cells"). During this period, *I discovered a new type of protein-protein interactions*, however, has published the results much later (see "Evidence of a new type of protein-protein interaction..." for details).

May 1989—Feb. 1997 Sechenov Institute of Evolutionary Physiology and Biochemistry (Russian Academy of Sciences, St. Petersburg), Lab of Functional Biochemistry of Muscles. Main Subject: the role of hydrophobic interactions in blocking effect of verapamil on slow Ca²⁺-channels in heart muscle. I discovered that not only verapamil (and related agents) blocking effect is frequency (of muscle contraction) dependent (it is well known effect) but of general anesthetics too. This fact led me to believe that in the channels at excitation *temporary* hydrophobic domains are forming. Reflections on these findings have led me to creation of the hypothesis "Native Aggregation" (see "Native aggregation as a cause of origin of temporary cellular structures..." below for details).

Feb 1997—Now Institute of Cytology (Russian Academy of Sciences, St. Petersburg), Lab of Cell Physiology. The Institute and the Lab was founded by D.N. Nasonov in 1957. Some later the Leader of the Institute and the Lab was outstanding Nasonov's pupil, A.S. Troshin (1912-1985, his main paper is the book "[Problems of Cell Permeability](#)"). Main Subject: water and ion balance at apoptosis, protein-water-ions complex as a physical basis of cell reactions. My project on the new type of protein-protein interaction was not supported by Russian Academy of Sciences (1998). However, I managed to publish my main results (2000) in order to preserve my priority. In 2008 I published (as the editor) [Russian edition](#) of the Gilbert Ling's book "[Life at the Cell and Below-Cell Level: The Hidden History of a Fundamental Revolution in Biology](#)" (the Nasonov's Scientific School is the historical precursor of the Ling's ideas, developed independently). Now I continue to develop my hypothesis on the role of native aggregation in cell function. In 2014-2018 *I developed a new approach to the problem of the origin of life—the protocell as a thermodynamic phase.*

Principle publications:

Matveev, V.V. (2017) Comparison of fundamental physical properties of the model cells (protocells) and the living cells reveals the need in protophysiology, *International Journal of Astrobiology*, 16(1), pp.97–104. doi: 10.1017/S1473550415000476

URL: http://journals.cambridge.org/abstract_S1473550415000476

Full text in Russian: <http://www.bioparadigma.spb.ru/files/Matveev-2016-Protophysiology.Rus.pdf>

Jaeken L. and Matveev V.V. Coherent Behavior and the Bound State of Water and K⁺ Imply Another Model of Bioenergetics: Negative Entropy Instead of High-energy Bonds. *The Open Biochemistry Journal*, 2012, 6, 139-159. *Download link:* <http://www.bioparadigma.spb.ru/files/Jaeken-Matveev-2012-Coherent.Behavior.pdf>

Prokhorenko D.V. and Matveev V.V. The significance of non-ergodic property of statistical mechanics systems for understanding resting state of a living cell. *British Journal of Mathematics & Computer Science*. 2011; 1(2):46-86. *Download link:* <http://www.bioparadigma.spb.ru/files/Prokhorenko-2011-The.Significance.of.Non-ergodic.Property.pdf>

Matveev V.V. Native aggregation as a cause of origin of temporary cellular structures needed for all forms of cellular activity, signaling and transformations. *Theoretical Biology and Medical Modelling*. 2010, 7:19. *Download link:* <http://www.bioparadigma.spb.ru/files/Matveev-2010-Native.aggregation.pdf>

Matveev V.V. Protoreaction of protoplasm. *Cell Mol Biol (Noisy-le-grand)*. 2005; 51(8):715-723. *Download link:* <http://www.bioparadigma.spb.ru/files/Matveev-2005-Protoreaction.of.protoplasm.pdf>

Matveev V.V, and Wheatley D.N. "Fathers" and "sons" of theories in cell physiology: the membrane theory. *Cell Mol Biol (Noisy-le-grand)*. 2005; 51(8):797-801. *Download link:* <http://www.bioparadigma.spb.ru/files/Matveev-Wheatley-2005-'Fathers'.and.'sons'.pdf>

Matveev V.V. Evidence of a new type of protein-protein interaction: desensitized actomyosin blocks Ca²⁺-sensitivity of the natural one. A possible model for an intracellular signalling system related to actin filaments. *Physiol Chem Phys Med NMR*. 2000; 32(2):167-178. *Download link:* <http://www.bioparadigma.spb.ru/files/Matveev-2000-New.Type.of.Protein-Protein.Interaction.pdf>

Unpublished manuscript

Matveev V.V. Main principles of Ling's physical theory of the living cell. (Unpublished.) *Download link:* <http://www.bioparadigma.spb.ru/files/Main.principles.of.Ling's.physical.theory.of.the.living.cell.pdf>

My video publications

https://www.youtube.com/playlist?list=PL6HuFOy64TugGmWLI33mMU_O-f9niQp8c

Selected publications from the past

Matveev VV. [Denaturation time of actomyosin exposed to different chemicals]. Tsitologiya. 1975 Nov; 17(11):1278-82. Russian.

Matveev VV, Suzdal'skaia IP. [Effect of methanol, ethanol, propanol, chloral hydrate, and potassium chloride on the stability of rabbit skeletal muscle actomyosin]. Tsitologiya. 1980 Jun; 22(6):676-83. Russian.

Matveev VV. [Enhanced stability of isolated muscles and actomyosin due to the action of anesthetics in subnarcotic concentrations]. Tsitologiya. 1987 Feb; 29(2):197-201. Russian.

Nesterov VP, Matveev VV, Demina IN, Logosha SA. [Effect of verapamil and anesthetics on the level of sodium and potassium ions in frog muscles. Role of hydrophobic interactions]. Biofizika. 1996 Jan-Feb; 41(1):110-5. Russian.

Demina IN, Matveev VV, Nesterov VP. [Hydrophobic interactions as the basis of the inotropic effect of verapamil]. Tsitologiya. 1997; 39(8):719-26. Russian.

Nesterov VP, Korotkov SM, Matveev VV, Demina IN. [Effect of ethanol and polyethylene glycol-400 on frequency dependence of the inotropic effect of verapamil on the frog myocardium]. Ross Fiziol Zh Im I M Sechenova. 1998 Jan-Feb; 84(1-2):111-4. Russian.

My hobby is to make videos using pics.

My youtube: <http://www.youtube.com/VladimirMatveev>

Special offers:

- People of the history of the living cell <http://www.youtube.com/watch?v=NmyNctExK4c>
- The battle of theories in cell physiology <http://www.youtube.com/watch?v=cuvoGbD5h3g>

Gerald Pollack's presentations related to Ling's ideas (*not my video*):

- Water, Energy and Life <http://www.youtube.com/watch?v=kd614bK3WZc>
- Adsorbed water <http://www.youtube.com/watch?v=vJNftS2nNLo>

For good mood (*me video again*) <http://www.youtube.com/watch?v=6QAmNPQNVQk>

个人资料

产品名称: 弗拉基米尔 Matveev 性别: 男

出生日期: 1949年8月8日 国家: 俄罗斯

出生地: 俄罗斯联邦, 达吉斯坦共和国

婚姻状况: 离异 (无子女)

健康状况: 极佳

办公地址: 细胞生理学, 细胞学研究所, 俄罗斯科学院的实验室。

194064, 圣彼得堡, Tikhoretsky 大道 4, 俄罗斯。

手机: +7921-379-7354。

电子邮件: vladimir.matveev@gmail.com, vladimir.matveev@outlook.com

个人网页: <http://vladimirmatveev.ru>

教育与资格

1956年9月 - 1963年7月初中和高中学校。马哈奇卡拉市, 达吉斯坦。主干学科: 物理, 化学, 生物, 历史和地理。

1963年9月 - 1968年7月达吉斯坦职业技术学院。主干学科: 电子产品。

1968年9月 - 1973年7月列宁格勒州立大学的生物学与土壤科学系，人文系和动物生理学，细胞生理学实验室。该实验室是由俄罗斯著名的细胞学家，DN Nasonov（1895年至1957年），在那个时候他的学生和追随者在那里工作成立。Nasonov的科学学校（不仅在大学）开发的“原浆”生理学（参见“Protoreaction 原生质”的说明）。我是这种方法的追随者了。在我的学生的课程和论文工作，我有我对收缩蛋白的细胞的各种结构（肌凝蛋白形成复合物与其它蛋白的功能中的角色原画设定，并使用ATP酶作为能源的工作绩效的源泉细胞的各种功能）。

1973年9月 - 1989年5月学院海洋生物学（俄罗斯科学院，符拉迪沃斯托克），中国科学院生物物理实验室。主干学科：对肌动球蛋白稳定性的一些化学物质的影响。1982年 - 在大学的博士论文答辩（“对肌动球蛋白稳定性的某些化学物质作用于肌肉细胞的非特异性反应连接”）。在此期间，我发现了一种新型的蛋白质 - 蛋白质相互作用，然而，已经公布的结果要晚得多（参见“一种新型蛋白质 - 蛋白质相互作用的证据.....”的说明）。

1989年5月，二月1997进化生理学与生物化学研究所谢切诺夫（俄罗斯科学院圣彼得堡），肌肉的功能生物化学实验室。主干学科：疏水相互作用的阻断心脏肌肉维拉帕米对慢钙-channels 效果的作用。我发现，不仅维拉帕米（和相关药物）的阻断作用是频率（肌肉收缩）依赖性（这是众所周知的效果），但也有一般麻醉药的作用。这一事实使我相信，在通道兴奋是短暂性的在疏水区域形成。这些调查结果思考促使我创作的假说“负聚合”（快速的细胞结构的形成下面的详细说明）。

1997年2月 - 现在，研究所细胞学（俄罗斯科学院圣彼得堡），细胞生理学实验室。研究所和实验室用的DN Nasonov在1957年以后的一些研究所和实验室的负责人是优秀的Nasonov的学生创办，截至Troshin（1912年至1985年，他的主要贡献集中于“细胞通透性的问题”一书中）。在此期间我的主要学科：水和离子平衡在细胞凋亡，蛋白质，水，离子配合物作为电池反应的物理基础。虽然没有获得俄罗斯科学院（1998）支持我的新型蛋白质 - 蛋白质相互作用的项目。不过，我设法，以保持我的首要任务发布我的主要研究成果（2000年）。2008年，我出版了（作为编辑）俄罗斯版本：吉尔伯特·宁的书“生命的细胞及以下细胞水平有基本革命生物学秘史”（在Nasonov的科学学校是凌的思想的历史前兆自主开发）。现在我继续发展我的假设原生聚集在细胞功能中的作用。

我的爱好是用图片视频制作。

我的YouTube：<http://www.youtube.com/VladimirMatveev>

特别优惠：

- 活细胞的历史 <http://www.youtube.com/watch?v=NmyNctExK4c> 的人
- 理论在细胞生理战斗 <http://www.youtube.com/watch?v=cuvoGbD5h3g>

Gearald 波拉克的演讲与灵的思想（不是我的视频）：

- 水，能源和生命 <http://www.youtube.com/watch?v=kd614bK3WZc>
- 吸附水 <http://www.youtube.com/watch?v=vJNftS2nNLo>

好心情（我的视频再次） <http://www.youtube.com/watch?v=6QAmNPQNVQk>