

**PROF. ALEXANDR ALEXEYEVICH SPASOV**

M. SC. MEDICINE (VOLGOGRAD STATE MEDICAL INSTITUTE, VOLGOGRAD, RUSSIA),  
PH.D. IN PHARMACOLOGY (VOLGOGRAD STATE MEDICAL INSTITUTE, VOLGOGRAD, RUSSIA),  
DR. SCI. MED. IN PHARMACOLOGY (VOLGOGRAD STATE MEDICAL INSTITUTE, VOLGOGRAD, RUSSIA)

## 1. CURRICULUM VITAE

**NAME:** ALEXANDER ALEXEYEVICH SPASOV

**BORN:** SEPTEMBER 23, 1945, BAKU, REPUBLIC OF AZERBAIJAN

**CITIZENSHIP / NATIONALITY:** RUSSIAN FEDERATION / RUSSIAN

**PLACE OF WORK:**

STATE-FUNDED EDUCATIONAL ESTABLISHMENT OF HIGER PROFESSIONAL EDUCATION UNDER THE MINISTRY OF HEALTH OF THE RUSSIAN FEDERATION, VOLGOGRAD STATE MEDICAL UNIVERSITY, 1, PAVSHIKH BORTSOV SQ., VOLGOGRAD, 400131, RUSSIA

**CURRENT POSITIONS:**

ACADEMICIAN OF THE RUSSIAN ACADEMY OF SCIENCES, RECTOR'S ADVISOR OF THE VOLGOGRAD STATE MEDICAL UNIVERSITY, HEAD OF PHARMACOLOGY DEPARTMENT, DOCTOR OF MEDICAL SCIENCES, PROFESSOR

**WEB LINKS:**

Russian Science Citation Index Author ID: 79154

Scopus Author ID: 7005209788

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**HOME ADDRESS:**

6, Kommunisticheskaya St., Volgograd, 400130, Russia

**Tel:** +79023612930 (H/P in Russia)

**EDUCATION**

**ADDRESS AND CURRENT NAME OF THE UNIVERSITY**

6/1970

**Degree in Medicine**, Faculty of General Medicine, General Physician, Volgograd Medical Institute, (Russia), Volgograd

(Russian: *Волгоградский Медицинский Институт, Волгоград – Volgogradskiy Meditsinskiy Institut*)

Volgograd State Medical Institute

1, PAVSHIKH BORTSOV SQ., VOLGOGRAD, 400131, RUSSIAN FEDERATION

1975

Postgraduate Study (PhD), **Ph.D. degree in Medicine** (*candidate of medical sciences* – name of the academic degree as used in Russia), «Biochemical aspects of selected vasoactive substances»

(Russian: *Волгоградский Медицинский Институт, Волгоград – Volgogradskiy Meditsinskiy Institut*)

Volgograd State Medical Institute

1, PAVSHIKH BORTSOV SQ., VOLGOGRAD, 400131, RUSSIAN FEDERATION

1984

Dr.Sci. Med. Degree in Pharmacology (*doctor of medical sciences* – name of the academic degree as used in Russia) «Imidazo(1,2- $\alpha$ ) benzimidazoles, a new class of cardiotropic medications»

(Russian: *Волгоградский Медицинский Институт, Волгоград – Volgogradskiy Meditsinskiy Institut*)

Volgograd State Medical Institute

1, PAVSHIKH BORTSOV SQ., VOLGOGRAD, 400131, RUSSIAN FEDERATION

12/2011

Full member of the Russian Academy of Medical Sciences

2013

Academician of the Russian Academy of Sciences

**PROFESSIONAL BACKGROUND**

**ADDRESS**

12/1980	Senior Research Fellow (Biochemistry), Volgograd Medical Institute, (Russia), Volgograd  (Russian: <i>Волгоградский Медицинский Институт, Волгоград – Volgogradskiy Meditsinskiy Institut</i> )	Volgograd State Medical Institute  1, PAVSHIKH BORTSOV SQ., VOLGOGRAD, 400131, RUSSIAN FEDERATION
07/1985	Associate professor, Department of Pharmacology, Volgograd Medical Institute, (Russia), Volgograd  (Russian: <i>Волгоградский Медицинский Институт, Волгоград – Volgogradskiy Meditsinskiy Institut</i> )	Volgograd State Medical Institute  1, PAVSHIKH BORTSOV SQ., VOLGOGRAD, 400131, RUSSIAN FEDERATION
05/87	Professor, Department of Pharmacology, Volgograd Medical Institute, (Russia), Volgograd  (Russian: <i>Волгоградский Медицинский Институт, Волгоград – Volgogradskiy Meditsinskiy Institut</i> )	Volgograd State Medical Institute  1, PAVSHIKH BORTSOV SQ., VOLGOGRAD, 400131, RUSSIAN FEDERATION

#### RESEARCH INTERESTS

<b>Neuropsychopharmacology</b>	<i>(neurobiological basis of medicine that affects the psychological/mental/cognitive/neurological behavior of the brain)</i>
<b>Drug toxicology</b>	
<b>Magnesium research</b>	<i>(pathological conditions associated with magnesium deficiency)</i>
<b>Stereopharmacology</b>	<i>(the importance of chirality in drug action)</i>
<b>Experimental pharmacology</b>	<p><i>(the study of condensed benzimidazole derivatives as useful molecules for new drugs; the direct search and study of the pharmacological effects of novel biologically active natural substances and their synthetical derivatives (purines, pyrimidines, benzimidazoles, neuroactive amino acids, magnesium salts, etc.)</i></p> <p><i>Preclinical studies of kappa-opioid receptor agonist activity on the imidazo benzimidazole derivative</i></p> <p><i>The direct search, design and study of the pharmacological effects of substances that are considered a potential treatment for metabolic disorders which can occur in a wide variety of general medical conditions</i></p> <p><i>The direct search and study of novel antiplatelet agents for the thrombosis prevention</i></p> <p><i>The direct search and study of novel glucokinase activators for the treatment of streptozotocin+nicotinamide induced diabetes mellitus</i></p> <p><i>The direct search and study of novel inhibitors and breakers of Advanced Glycation Endproducts (AGEs) for the prevention of long-term complications in diabetes mellitus</i></p>

#### AWARDS

02/2011	<b>The Russian Federation Government Prize 2010</b> for Achievements in Science and Technology for "The Research and Industrial Development of Know-How Biocatalysis Technology of L-Aspartic Acid and Innovative Medical Products on the Basis of its Salts", The Government of Russian Federation, Moscow, Executive order No. 285-r of February 25, 2011, "On Awarding Government Prizes for Achievements in Science and Technology in 2010".	<b>The Government of Russian Federation,</b> Moscow, Russian Federation
9/10/2012	<b>The Volgograd Region Government Prize 2012</b> for Achievements in Science and Technology in nomination "The development and application of new teaching methods in education, publication of high-quality books and	<b>Administration of the Volgograd Region,</b> Volgograd, Russian Federation

implementation of new teaching aids": 1<sup>st</sup> Prize for Monograph "PHARMACOLOGY OF DRUG STEREOISOMERS" (Eds.: A.A. Spasov, A.A. Ozerov, I.N. Iezhitsa and P.M. Vasiliev). Executive order of the Head of Administration of the Volgograd region № 1091 of November 9, 2012.

14/08/2013 **The Russian Federation Presidential Certificate of Honour** for many years of dedicated service and significant contributions to supporting social activities **The Government of the Russian Federation**, Moscow, Russian Federation

## MEMBERSHIPS

Russian Pharmacology Society	Board Member
Dissertation Committee of the Volgograd State Medical University	Deputy chairman
RUSSIAN ACADEMY OF SCIENCES	(full membership from 2013 till present)
ACADEMIC JOURNALS:	Member of the Editorial Board
«Clinical and Experimental Pharmacology»	
«Bulletin of the Volgograd State Medical University »	
«Volgograd Science and Medicine Journal»	
«Bioethics»	

## RESEARCH PROJECTS (COMPLETED AND ON-GOING) OVER THE PERIOD OF THE LAST 5 YEARS

TITLE	SOURCE	TOTAL FUNDS	ROLE (PRINCIPLE/CO-RESEARCHER)	YEARS, DURATION
<b>RUSSIAN FEDERATION</b>				
1. The study of reproductive function in male rats with experimentally-induced Mg deficiency	Government Contract of the Russian Federation	300 000.00 <i>Russian Roubles</i>	Project leader	2014 – completed
2. The study of the pharmacological effects of novel biphenyl derivatives	Government Contract of the Russian Federation	900 000.00 <i>Russian Roubles</i>	Project leader	2014 – completed
3. The study of Mg deficiency in pathogenesis of cardiovascular disease and methods of its correction	The Russian Federation President's PhD Scholarship	900 000.00 <i>Russian Roubles</i>	Project leader	2014 – completed
4. Developing a system of target-oriented discovery of biologically active compounds that affect the pathogenetically important links of carbohydrate metabolism disorder in type 2 diabetes mellitus, using the technology of in silico modeling and medicinal chemistry	Russian Science Foundation	52 805 000.00 <i>Russian Roubles</i>	Project leader	2014-2017 completed

- (Volgograd State Medical University, Russian Federation).
5. Preclinical studies of an antithrombotic drug with a combined mechanism of action-the P2Y12 receptor antagonist and the thromboxane A2 synthesis inhibitor, based on the 9-dihydro-phenacyl-dihydroimidazobenzimidazole derivative
 

	Government Contract of the Russian Federation	<i>44 000 000.00 Russian Roubles</i>	Project leader	2017 – 2019 completed
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  6. Preclinical studies of an anti-migraine drug that improves cerebral blood flow with a 5-HT2 antagonistic effect, a derivative of 2-methoxyphenyl-imidazobenzimidazole
 

	Government Contract of the Russian Federation	<i>44 000 000.00 Russian Roubles</i>	Project leader	2017 – 2019 completed
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  7. Preclinical studies of a drug acting on collagen glycation end products (AGE) and their receptors (RAGE) for the prevention and treatment of diabetes mellitus complications
 

	Government Contract of the Russian Federation	<i>21200000 Russian Roubles</i>	Project leader	2017-2018 completed
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  8. Development of systemic multifunctional multi-target glycation end-product receptor inhibitors for the treatment of pathia in diabetes mellitus and Alzheimer's disease
 

	Government Contract of the Russian Federation -RFFI	<i>2100000 Russian Roubles</i>		2018-2020
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  9. Search and study of the pharmacological activity of new modified natural biologically active substances and their synthetic derivatives (purines, pyrimidines, benzimidazoles, neuroactive amino acids, magnesium salts, etc.)
 

	Government Contract of the Russian Federation № government registration AAAA-A18-118100690002-6	Initiative	Project leader	2018-2028 – on going
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  10. Medical chemistry in the creation of new generation drugs for the treatment of socially significant diseases
 

	Government Contract of the Russian Federation -RFFI	<i>30 000 000 Russian Roubles</i>	Project leader	2020-2023
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  11. Search for agents that break the crosslinks of glycated proteins, antiglycating and deglycating agents, RAGE blockers as potential agents for reducing extracellular matrix rigidity and associated pathological effects
 

	Company of «Liga dolgozhiteli»	<i>10 900 000 Russian Roubles</i>	Project leader	2021-2023 on going
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12. Synthesis and study of the effectiveness of bioisosteres of melatonin	Grant of Russian Federation 122080400007-6	5 000 000 <i>Russian Roubles</i>	Project leader	2022-2024 on going
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**POSTGRADUATE SUPERVISION (INCLUDES CO-SUPERVISION)**

STUDENT (NAME AND MATRIC NO.)	TITLE	LEVEL OF STUDY, COURSE CODE	SUPERVISORY STATUS (MAIN/CO-SUPERVISOR)	PROJECT STATUS (*COMPLETED, *ON-GOING)
1. Dudchenko G.P.	«The direct search and study of compounds showing anti-diabetic activity among new benzimidazole derivatives»	PhD dissertation	Scientific advisor	Leningrad – 1989, completed
2. Leschankina N.Yu.	The study of antiarrhythmic effects of ritmidazole	PhD dissertation	Scientific advisor	Kazan – 1996 completed
3. Chobanu N.T.	Pharmaceutical technology and biopharmaceutical study of mucoadhesive fenibut tablets	PhD dissertation	Scientific advisor	Kishinev – 1995 completed
4. Galenko-Yaroshevsky A.P.	«Imidazo [1,2-a] benzimidazole derivatives: a new class of local anaesthetics»	Doctoral dissertation	Scientific advisor	Krasnodar – 2009, completed
5. Khropova T.N.	The effects of imidazo benzimidazole derivatives with anioxidant and hemorheological activity on skin regeneration in reduced blood supply	PhD dissertation	Scientific advisor	Krasnodar – 2004 completed
6. Tegai A.V.	Skin protective properties of 2,3-dehydro imidazo[1,2- $\alpha$ ] benzimidazole derivatives with hypoglycemic activity in reduced blood flow	PhD dissertation	Scientific advisor	Krasnodar – 2004 completed
7. Prikhodko A.K.	Local anaesthetic effects of 1- and 9-diethylaminoethyl -2-aril imidazo [1,2- $\alpha$ ]benzimidazoles	PhD dissertation	Scientific advisor	Krasnodar – 2005 completed
8. Kuleshova S.A.	The effects of verapamil, foridon and ritmidazole on blood supply and parameters of ischemic brain metabolism	PhD dissertation	Scientific advisor	Pyatigorsk – 1993 completed
9. Solovieva N.V.	Comparison of pharmacological and toxicological activity of K, Mg aspartate stereoisomers	PhD dissertation	Scientific advisor	Pyatigorsk – 2004 completed
10. Speranskaya A.S.	Pharmacodynamic and pharmacokinetic	PhD dissertation	Scientific advisor	Pyatigorsk – 2004 completed

	properties of the N9-imidazo [1,2- $\alpha$ ]benzimidazole derivative that exhibits antiulcer activity			
11. Motov A.A.	An experimental study of pharmacological properties of hydrophilic bischofite-based ointments	PhD dissertation	Scientific advisor	Pyatigorsk – 2006 completed
12. Stukovina A. Yu.	The direct search and study of purine receptor antagonists for inhibition of platelet aggregation among condensed benzimidazole derivatives	PhD dissertation	Scientific advisor	Pyatigorsk – 2006 completed
13. Orlova A.A.	The study of pharmacological activity of antioxidants and antiradicals, such as hindered phenols, a class of benzimidazole derivatives	PhD dissertation	Scientific advisor	Pyatigorsk – 2007 completed
14. Agarkov D.Yu.	The study of anti-diabetic activity of a multicomponent dietary supplement that includes <i>Gymnema sylvestre</i> extract	PhD dissertation	Scientific advisor	Pyatigorsk – 2008 completed
15. Goryagin I.I.	The search and study of compounds with anti-serotonin 5-HT <sub>2</sub> activity among condensed imidazole derivatives	PhD dissertation	Scientific advisor	Pyatigorsk – 2008 completed
16. Kravchenko M.S.	Pharmacological activity of Mg salts of organic acids	PhD dissertation	Scientific advisor	Pyatigorsk – 2008 completed
17. Gretskeya I.B.	The direct search and study of novel antiarrhythmic compounds among nitrogen-containing heterocyclic derivatives	PhD dissertation	Scientific advisor	Rostov – 1987, completed
18. Panchenko T.I.	Antiarrhythmic effects of novel condensed benzimidazole derivatives exhibiting antioxidant activity	PhD dissertation	Scientific advisor	Rostov-on-the-Don – 1990 completed
19. Ponomarev V.V.	Local anaesthetic effects of imidazo[1,2- $\alpha$ ]benzimidazole derivatives	PhD dissertation	Scientific advisor	Rostov-on-the-Don – 1998 completed
20. Avakimyan A.A.	Local anaesthetic effects of $\beta$ -amino - $\gamma$ -hydroxybutanoic acid derivatives	PhD dissertation	Scientific advisor	Rostov-on-the-Don – 1999 completed
21. Dmitrenko G.D.	Local anaesthetic effects of 2-tert-butyl imidazole benzimidazole salts	PhD dissertation	Scientific advisor	Rostov-on-the-Don – 1999 completed
22. Rybakov B.V.	Local anaesthetic effects of condensed tricyclic benzimidazole systems	PhD dissertation	Scientific advisor	Rostov-on-the-Don – 1999 completed
23. Erokhina L.V.	Local anaesthetic effects	PhD	Scientific	Rostov-on-the-Don –

	of 1,2-disubstituted imidazo [1,2-a] benzimidazole	dissertation	advisor	2000 completed
24. Vasilieva S.V.	Local anaesthetic effects of N-amino methyl substituted 2-aril imidazo[1,2- a] benzimidazole	PhD dissertation	Scientific advisor	Rostov-on-the-Don – 2000 completed
25. Semakova S.A.	Pharmaceutical technology and biopharmaceutical study of efcobut and mefebut tablets	PhD dissertation	Scientific advisor	St. Petersburg – 1992 completed
26. Martynova L.A.	The use of polycatan in comprehensive treatment of acute and chronic nasal mucosa and paranasal sinus diseases	PhD dissertation	Scientific advisor	St. Petersburg – 1998 completed
27. Lobzov M.S.	The effectiveness of the combined use of electrostimulation and polycatan in comprehensive treatment of sensorineural hearing loss	PhD dissertation	Scientific advisor	St. Petersburg – 1998 completed
28. Timofeeva A.S.	Pharmacological properties of cyclic guanidine derivatives of Na <sup>+</sup> /H <sup>+</sup> exchange inhibitors	PhD dissertation	Scientific advisor	Volgograd – 2015 completed
29. Chernov A.V.	Antiarrhythmic effects of novel pyrazolo-(1,5-a)-benzimidazoles	PhD dissertation	Scientific advisor	Volgograd – 1990 completed
30. Bakumov P.A.	The direct search and study of antiulcer compounds among novel condensed benzimidazole derivatives	PhD dissertation	Scientific advisor	Volgograd – 1991 completed
31. Tsybanev A.V.	The search for compounds boosting recovery and performance after exercising among imidazo (1,2- a ) benzimidazoles exhibiting anti-oxidant activity	PhD dissertation	Scientific advisor	Volgograd – 1991 completed
32. Pankov N.B.	Comparative study of toxicity of vasoactive substances, a new class of GABA derivatives, in intact and hypertensive rats	PhD dissertation	Scientific advisor	Volgograd – 1992 completed
33. Likhodeeva V.A.	The effects of novel GABA analogues on recovery and performance	PhD dissertation	Scientific advisor	Volgograd – 1993 completed
34. Seredintseva N.V.	The search and study of novel hypotensive drugs among azacrown ether derivatives	PhD dissertation	Scientific advisor	Volgograd – 1993 completed

35. Shipov A.A.	Hepatoprotective properties of new condensed derivatives of benzimidazoles exhibiting anti-oxidant activity	PhD dissertation	Scientific advisor	Volgograd – 1994 completed
36. Kosolapov V.A.	Protective properties of anti-oxidant substances during and after hypoxia	PhD dissertation	Scientific advisor	Volgograd – 1995 completed
37. Sibiryakova T.B.	Pharmacological properties of novel calmodulin inhibitors, a new class of benzimidazole derivatives	PhD dissertation	Scientific advisor	Volgograd – 1995 completed
38. Smirnova L.A.	Pharmacodynamic and pharmacokinetic properties of bischofite mineral	PhD dissertation	Scientific advisor	Volgograd – 1995 completed
39. Turchaeva A.F.	The search and study of antiplatelet compounds among novel condensed benzimidazole derivatives	PhD dissertation	Scientific advisor	Volgograd – 1995 completed
40. Kirillov O.V.	Comparison of clinical and electrophysiological effects of ritmidazole, nocainamide, cordarone and verapamil for the treatment of supraventricular tachyarrhythmia	PhD dissertation	Scientific advisor	Volgograd – 1996 completed
41. Gavrilova E.S.	Pharmacotoxicity of diabenol, a novel hypoglycemic drug	PhD dissertation	Scientific advisor	Volgograd – 1997 completed
42. Ivakhnenko I.V.	The direct search and study of anti-platelet agents among novel heterocyclic compounds exhibiting anti-oxidant activity	PhD dissertation	Scientific advisor	Volgograd – 1997 completed
43. Shabasheva I.G.	Antiarrhythmic effects and pharmacokinetics of ritmidazole	PhD dissertation	Scientific advisor	Volgograd – 1997 completed
44. Kuame Konan	Intravenous blood irradiation therapy of chronic diffuse liver disease	PhD dissertation	Scientific advisor	Volgograd – 1998 completed
45. Gurova N.A.	Pharmacological effects of midazbenzimidazole derivative, a new antiarrhythmic compound	PhD dissertation	Scientific advisor	Volgograd – 1998 completed
46. Iezhitsa I.N.	Psycho- and neurotoxic effects of single-dose versus multiple-dose actoprotectors	PhD dissertation	Scientific advisor	Volgograd – 1998 completed
47. Mozgovoy P.V.	Improvement of reconstruction outcomes for chronically occluded arteries of the lower limbs	PhD dissertation	Scientific advisor	Volgograd – 1998 completed
48. Khamidova T.V.	The effects of novel nootropic agents and	PhD dissertation	Scientific advisor	Volgograd – 1999 completed



	actoprotectors on the reproductive function (an experimental study)			
49. Bogus S.K.	Local anaesthetic effects of 1- and 9-substituted 2-tert-butyl imidazo [1,2-a]benzimidazole	PhD dissertation	Scientific advisor	Volgograd – 2000 completed
50. Chernikov M.V.	The direct search and study of compounds with potent antihistamine activity among condensed benzimidazole derivatives	PhD dissertation	Scientific advisor	Volgograd – 2000 completed
51. Frolov D.V.	Prognosis of early reocclusion in patients with obliterating arterial disease of the lower limbs	PhD dissertation	Scientific advisor	Volgograd – 2000 completed
52. Mironova I.A.	Assessment, prognosis and correction of foreign students' learning and institutional outcomes in Russia	PhD dissertation	Scientific advisor	Volgograd – 2000 completed
53. Tregubova I.A.	The effects of antioxidant compounds on maternal and fetal hypoxia (an experimental study)	PhD dissertation	Scientific advisor	Volgograd – 2000 completed
54. Degtyarev A.N.	Mechanism of action and anti-platelet effects of new benzimidazole derivatives on the rheology of blood	PhD dissertation	Scientific advisor	Volgograd – 2001 completed
55. Guba T.I.	Professionalization of bilingual medical students	PhD dissertation	Scientific advisor	Volgograd – 2001 completed
56. Kuzubova E.A.	Gonadotropic effects of new actoprotectors	PhD dissertation	Scientific advisor	Volgograd – 2001 completed
57. Salaznikova O.A.	The effects of hypoglycemic agents on hemostasis and the rheology of blood	PhD dissertation	Scientific advisor	Volgograd – 2001 completed
58. Schava S.N.	Clinical and experimental rationale for the use of bischofite mineral in comprehensive treatment of skin inflammation	PhD dissertation	Scientific advisor	Volgograd – 2001 completed
59. Sidorov D.N.	Laser blood irradiation in the prevention of early reocclusion following terminal aortic and lower extremity arterial reconstruction	PhD dissertation	Scientific advisor	Volgograd – 2001 completed
60. Stepanov A.V.	Pharmacokinetic characteristics of imidazo benzimidazole derivatives exhibiting antiarrhythmic activity	PhD dissertation	Scientific advisor	Volgograd – 2001 completed
61. Kiabia S.T.	The direct search and study of 3 subtype serotonin receptor antagonists among condensed	PhD dissertation	Scientific advisor	Volgograd – 2003 completed

	benzimidazole derivatives				
62. Samokhina M.P.	Hemorheological properties of condensed imidazo benzimidazole derivatives exhibiting antioxidant effects	PhD dissertation	Scientific advisor	Volgograd – 2003 completed	
63. Arkova N.V.	The direct search and study of compounds that affect rheological properties of blood among new benzimidazole	PhD dissertation	Scientific advisor	Volgograd – 2004 completed	
64. Denisova T.D.	The effects of actoprotectors on the development of offspring postnatally	PhD dissertation	Scientific advisor	Volgograd – 2004 completed	
65. Lebedeva S.A.	Pharmacological study of Mg-containing bischofite mineral supplemented with iron, zinc and copper salts	PhD dissertation	Scientific advisor	Volgograd – 2004 completed	
66. Naumenko L.V.	The search and study of xanthine derivatives exhibiting hemorheological effects	PhD dissertation	Scientific advisor	Volgograd – 2006 completed	
67. Frolov M.V.	Prevention of late reocclusion in patients with obliterating atherosclerotic vascular disease of the lower extremities	PhD dissertation	Scientific advisor	Volgograd – 2007 completed	
68. Yakovlev D.S.	The search and study of 5-HT <sub>3</sub> -serotonin receptor antagonists among condensed and non-condensed benzimidazole and benzimidazoline derivatives	PhD dissertation	Scientific advisor	Volgograd – 2007 completed	
69. Kharitonova M.V.	Pharmacological activity of inorganic Mg salts	PhD dissertation	Scientific advisor	Volgograd – 2008 completed	
70. Sorokina E.V.	Anti-diabetic activity of <i>Gymnema sylvestre</i> dry extract	PhD dissertation	Scientific advisor	Volgograd – 2008 completed	
71. Iezhitsa I.N.	The design of magnesium –containing drugs based on bischofite mineral	Doctoral dissertation	Scientific advisor	Volgograd – 2008, completed	
72. Abakumov T.A.	The effectiveness of policatan in the treatment of periodontal disease	PhD dissertation	Scientific advisor	Volgograd – 2009 completed	
73. Vasiliev P.M.	A computer-based approach to identify highly potent chemical compounds	Doctoral dissertation	Scientific advisor	Volgograd – 2009, completed	
74. Voronkova M.P.	Anti-diabetic effects of gymnemic acids	Doctoral dissertation	Scientific advisor	Volgograd – 2009, completed	
75. Eliseeva N.V.	The search and study of new kappa-opioid receptor agonists among benzimidazole derivatives	PhD dissertation	Scientific advisor	Volgograd – 2010 completed	

76. Kuznetsova V.A.	The search and study of compounds with hemorheological activity among new methylxanthine derivatives	PhD dissertation	Scientific advisor	Volgograd – 2010 completed
77. Tibirkova E.V.	The direct search and study of antioxidants among noncondensed benzimidazole derivatives	PhD dissertation	Scientific advisor	Volgograd – 2010 completed
78. Likhodeeva V.A.	The use of drugs boosting performance in maladaptive athletes in response to exercise	Doctoral dissertation	Scientific advisor	Volgograd – 2011, completed
79. Cheplyaeva N.I.	Pharmacological properties of the combined use of diabenol, a hypoglycemic agent, and alpha lipoic acid	PhD dissertation	Scientific advisor	Volgograd – 2012 completed
80. Chepurnova M.V.	The study of the pharmacological properties of combined hypoglycemic compounds using diabenol	PhD dissertation	Scientific advisor	Volgograd – 2012 completed
81. Kolobrodova N.A.	The direct search and study of new 5-HT <sub>3</sub> receptor blockers among indole derivatives and benzimidazole	PhD dissertation	Scientific advisor	Volgograd – 2012 completed
82. Zheltova A.A.	Pharmacological treatment of endothelial dysfunction and myocardial ischemia in experimentally-induced Mg deficiency	PhD dissertation	Scientific advisor	Volgograd – 2012 completed
83. Kucheryavenko A.F.	Condensed benzimidazole derivatives: a new class of antiplatelet agents	Doctoral dissertation	Scientific advisor	Volgograd – 2012, completed
84. Bukatin M.V.	The effects of benzimidazole derivatives on the reproductive system of male rats	PhD dissertation	Scientific advisor	Volgograd – 2013 completed
85. Bukatina T.M.	The search and study of purine receptor antagonists among condensed indole derivatives	PhD dissertation	Scientific advisor	Volgograd – 2014 completed
86. Maltsev D.V.	The study of 5-HT <sub>2A</sub> – antagonists, a class of benzimidazole derivatives	PhD dissertation	Scientific advisor	Volgograd – 2014 completed
87. Raschenko A.I.	Pharmacokinetic characteristics of a novel analgesic, a benzimidazole derivative	PhD dissertation	Scientific advisor	Volgograd – 2014 completed
88. Shtareva D.M.	Analgesic effects of a condensed benzimidazole derivative	PhD dissertation	Scientific advisor	Volgograd – 2014 completed

89. Ostrovsky O.V.	Pharmacological correction of stress and neurochemical aspects of anti-stress effects	PhD dissertation	Scientific advisor	Volgograd –1987, completed
90. Ostrovsky O.V.	Pharmacological study of condensed benzimidazole derivatives for antioxidant activity	Doctoral dissertation	Scientific advisor	Volgograd – 1996, completed
91. Bugaeva L.I.	Toxicity of novel psychotropic actoprotectors and nootropics	Doctoral dissertation	Scientific advisor	Volgograd – 2001, completed
92. Dudchenko G.P.	Anti-diabetic activity of benzimidazole derivatives	Doctoral dissertation	Scientific advisor	Volgograd – 2001, completed
93. Ponomarev V.V.	The direct search and study of novel benzimidazole and imidazo [1,2- <i>a</i> ] benzimidazole derivatives showing potent local anaesthetic activity	Doctoral dissertation	Scientific advisor	Volgograd – 2001, completed
94. Smirnova L.A.	Pharmacokinetics of benzimidazole derivatives: a basis for design and development of novel drugs and optimal drug therapy strategies	Doctoral dissertation	Scientific advisor	Volgograd – 2004, completed
95. Kosolapov V.A.	Antioxidants: selection strategy and potential use	Doctoral dissertation	Scientific advisor	Volgograd – 2005, completed
96. Chernikov M.V.	Benzimidazole derivatives are biologically active substance receptor modulators	Doctoral dissertation	Scientific advisor	Volgograd – 2008, completed
97. Grechko O.Yu.	Condensed benzimidazoles: a new class of kappa-opioid receptor agonist	Doctoral dissertation	Scientific advisor	Volgograd – 2012, completed
98. Naumenko L.V.	Pharmacological correctors of hemorheological and microcirculatory disorders: ways of improving the search and study of the mechanism of action	Doctoral dissertation	Scientific advisor	Volgograd – 2012, completed
99. Gurova N.A.	Benzimidazole derivatives: a new class of cardioprotective drugs	Doctoral dissertation	Scientific advisor	Volgograd – 2015, completed
100. Litvinov R.A.	Pharmacotoxicological properties of a new kappa-opioid agonist - a benzimidazole derivative	PhD dissertation	Scientific advisor	Volgograd – 2016, completed
101. Muravyova V.Yu.	Cerebroprotective properties of new derivatives of cyclic	PhD dissertation	Scientific advisor	Volgograd – 2016, completed

	guanidines of Na <sup>+</sup> /H <sup>+</sup> inhibitors			
102. Yakovlev D.S.	Condensed azoles - a new class of ligands of serotonin receptors	Doctoral dissertation	Scientific advisor	Volgograd – 2016, completed
103. Ziganshin B.A.	Comparative pharmacological characteristics of P2-receptor-mediated responses of human blood vessels	PhD dissertation	Scientific advisor	Volgograd – 2016, completed
104. Lenskaya K.V.	Cyclic guanidines - a new class of hypoglycemic agents	Doctoral dissertation	Scientific advisor	Volgograd–2018, completed
105. Brigadirova A.A.	Pharmacological properties of novel biphenyl derivatives	PhD dissertation	Scientific advisor	Volgograd–2018, completed
106. Taran A.S.	Neuropsychotropic effects of novel diazepino[1,2-a]benzimidazole derivatives	PhD dissertation	Scientific advisor	Volgograd–2018, completed
107. Sirotenko V.S.	Antithromogenic properties of new tricyclic diazepino(1,2-a) benzimidazole derivatives	PhD dissertation	Scientific advisor	Volgograd–2018, completed
108. Kalitin K.Yu	Antiepileptic activity of new derivatives of parahalogen of benzimidazoles	PhD dissertation	Scientific advisor	Volgograd–2019, completed
109. Agatsarskaya I.V.	Pharmacological properties of 9-dimetil-2-(4-methoxyphenyl)imidazo-(1,2-a)benzimidazole preclinical study of specific	PhD dissertation	Scientific advisor	Volgograd–2019, completed
110. Miroshnikov M.V.	Anxiolytic activity of new derivatives of diazepino-[1,2- $\alpha$ ]-benzimidazole	PhD dissertation	Scientific advisor	Volgograd–2020, completed
111. Zakharyashcheva O. Y	Pharmacological properties of glucokinase activators - some derivatives of nitrogen-containing heterocyclic compounds	PhD dissertation	Scientific advisor	Volgograd–2020, completed
112. Gaidukova K. A.	Antithrombogenic activity of new benzimidazole derivatives having a shielded phenol substituent in the structure	PhD dissertation	Scientific advisor	Volgograd–2020, completed
113. Sultanova K.T.	Pharmacological and toxicological properties of a new migraine treatment	PhD dissertation	Scientific advisor	Volgograd–2021, completed
114. Klochkov V.G.	Pharmacological properties of new derivatives of 2-oxindole	PhD dissertation	Scientific advisor	Volgograd–2022, completed

115.Uskov G.M.	Anticoagulant properties of new condensed triazole derivatives	PhD dissertation	Scientific advisor	Volgograd–2022, completed
116.Skripka M.O.	Neuropsychotropic properties of new quinoxaline derivatives	PhD dissertation	Scientific advisor	Volgograd–2022, completed
117.Babkov D.A.	Target-based search for antidiabetic compounds and their pharmacological properties	Doctoral dissertation	Scientific consultant	Volgograd–2023, completed
118.Sirotenko V.S.	Antiplatelet and antithrombotic potential of new heterocyclic compounds	Doctoral dissertation	Scientific consultant	Volgograd–2024, completed
119.Maltsev D.V.	Anxiolytic properties of isosteres of benzodiazepine and benzimidazole scaffolds and their derivatives	Doctoral dissertation	Scientific consultant	Volgograd–2024, completed

## 2. LIST OF PUBLICATIONS

### FULL-TEXT ARTICLES IN REVIEWED JOURNALS (MEDLINE, SCOPUS, ISI WEB OF KNOWLEDGE)

#### SCOPUS *h*-index: 31

1. Iezhitsa I.N., **Spasov A.A.**, Kharitonova M.V., Kravchenko M.S. The effects of magnesium chloride on psychomotor activity, emotional status, and acute behavioural responses to clonidine, d-amphetamine, arecoline, nicotine, apomorphine, and L-5-hydroxytryptophan. *Nutritional Neuroscience* 2011 Jan;14(1):10-24.
2. **Spasov A.A.**, Kuzubova E.A., Bugaeva L.I., Rebrova D.N. The effects of benzimidazole derivative with hypoglycemic activity on the reproduction in females rats. *Eksp Klin Farmakol.* 2010 Oct;73(10):31-3. [In Russian].
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6. **Spasov A.A.**, Kosolapov V.A., Chepliaeva N.I. Comparative characteristics of antioxidant properties of hypoglycemic agents, such as diabenol and gliclazide. [Eksp Klin Farmakol.] 2011;74(11):14-6. [In Russian].
7. Anisimova V.A., Tolpygin I.E., **Spasov A.A.**, Serdiuk T.S., Sukhov A.G. The study of imidazo[1,2-a]benzimidazole derivatives. XXX. Synthesis and properties of (imidazo[1,2-a]benzimidazolyl-2)acetic acid derivatives]. *Biorg Khim.* 2011 Nov-Dec;37(6):836-43. [In Russian].
8. Agarwal R., Iezhitsa I., Agarwal P., **Spasov A.** Magnesium deficiency: Does it have a role in cataractogenesis? *Experimental Eye Research* 2012 Aug;101:82-89. doi: 10.1016/j.exer.2012.05.008. Epub 2012 Jun 2.
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10. **Spasov A.A.**, Kharitonova M.V., Iezhitsa I.N., Zheltova A.A., Tyurenkov I.N., Gurova N.A. Functional reserves of the heart in alimentary magnesium deficiency. *Kardiologiya.* 2012;52(10):39-44. *Bull Exp Biol Med.* 2012 May;153(1):54-6.
11. Bugaeva L.I., Denisova T.D., **Spasov A.A.** The effects of ladasten on antenatal and postnatal development. *Eksp Klin Farmakol.* 2012;75(4):23-5. [In Russian].
12. Zinoveva V.N., **Spasov A.A.** Mechanism of action of plant polyphenols exhibiting anti-cancer effects. I. Blockade of carcinogenesis initiation]. *Biomed Khim.* 2012 Mar-Apr;58(2):160-75. Review. [In Russian].
13. Kheyfets I.A., **Spasov A.A.**, Voronkova M.P., Dugina J.L., Epstein O.I. The study of hypoglycemic activity of Subetta and rosiglitazone on the model of streptozotocin-induced diabetes mellitus in rats.
14. Naumenko L.V., Kuznetsov V.A., **Spasov A.A.**, Muravyev A.V., Tikhomirova I.A., Khaliullin F.A., Anisimova V.A.

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15. Zinov'eva V.N., **Spasov A.A.** Mechanisms of anti-cancer effects of plant polyphenols. II. Suppression on tumor growth]. *Biomed Khim.* 2012 May-Jun;58(3):257-71. Review. [In Russian].
  16. Grechko O.Yu., **Spasov A.A.**, Vislobokov A.I., Ignatov Yu.D., Anisimova V.A. Elucidation of the mechanisms of membranotropic effects of RU-1203 on ionic channels of *Lymnaea stagnalis* neurons. *Bull Exp Biol Med.* 2012 Jul;153(3):301-4.
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  30. **Spasov A.A.**, Grechko O.Yu., Shtareva D.M., Anisimova V.A. Analgesic properties of RU-1205 morpholinoethylimidazobenzimidazole derivative. *Eksp Klin Farmakol.* 2013;76(9):15-8. [In Russian].
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  37. Yakovlev D.S., **Spasov A.A.**, Maltsev D.V., Anisimova V.A. The effects of 5-HT(2A) receptor antagonists on blood flow in the carotid vessels upon elevation of serotonin level. *Bull Exp Biol Med.* 2014 Jul;157(3):350-2. doi: 10.1007/s10517-014-2563-4. Epub 2014 Jul 30.
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#### INTERNATIONAL, NATIONAL AND REGIONAL SYMPOSIUM PARTICIPANT

1. Russian-Wide Conference with Spasov A.A. Participation dedicated to the 85<sup>th</sup> Anniversary of V.A. Kukhtin "Grand Challenges for Chemists and Pharmaceutists". Cheboksary, Russian Federation. April 3-4, 2014
2. 20<sup>th</sup> EuroQSAR Understanding Chemical-Biological Interactions, III International Scientific and Practical Conference "Academic Science: Challenges and achievements". St. Petersburg, Russian Federation. February 20-21, 2014
3. Symposium dedicated to the 75<sup>th</sup> Anniversary of Academician of the Russian Academy of Medical Sciences Yu. D. Ignatov "Recent Advances in pharmacological management of pain". St. Petersburg, Russian Federation. June 16, 2015
4. Russian Scientific Conference dedicated to the 150<sup>th</sup> Anniversary of N.P. Kravkov "Pharmacological treatment of emergency medical conditions". St. Petersburg, Russian Federation. June 29 –July 2, 2015
5. Scientific and Practical Conference with International Participataion "Disadaptation of various etiologies and ways of pharmacological treatment". Pyatigorsk, Russian Federation. November 2-3, 2015
6. ASCEPT-BPS joint scientific meeting "Tomorrow's medicines: pharmacology, patients and populations". [*The first joint meeting between the Australasian Society of Clinical and Experimental Pharmacologists and Toxicologists (ASCEPT) and the British Pharmacological Society (BPS) in association with the Hong Kong Pharmacology Society (HKPS) and the Asia Pacific Federation of Pharmacologists (APFP)*] University of Hong Kong, Hong Kong. May 19-21 2015
7. XX Mendeleev Congress on General and Applied Chemistry. Ekaterinburg, Russian Federation, September 26-30, 2016
8. 3rd Russian Conference on Medicinal Chemistry. September 28 – October 03, 2017. Kazan, Tatarstan, Russian Federation.
9. V Congress of pharmacologists of Russia "Scientific basis of search and development of new drugs", May 14-18, 2018. Yaroslavl, Russian Federation.
10. XXI Mendeleev Congress on General and Applied Chemistry. Saint Petersburg, 2019
11. 2<sup>nd</sup> Volga Pharma Summit. 13-14 September 2017. Volgograd, Russian Federation.
12. 3rd Russian Conference on Medicinal Chemistry. September 28 – October 03, 2017. Kazan, Tatarstan, Russian Federation.
13. V Congress of pharmacologists of Russia "Scientific basis of search and development of new drugs", May 14-18, 2018. Yaroslavl, Russian Federation.
14. 4th Russian Conference on Medicinal Chemistry with international participants MedChem Russia 2019.
15. International congress «Biotechnology: state of the art and perspectives» Russia ,Feb. 2019
16. XXI Mendeleev Congress on General and Applied Chemistry. Saint Petersburg, 2019. Satellite symposia: From empirical to predictive chemistry
17. V conference on Molecular or biological aspect of chemistry and pharmacology: MOBI-CHEMPHARMA2019, Sudak, Krim, Russia
18. 4th Russian Conference on Medicinal Chemistry with international participants Ekaterinburg, Russia, 10-14 June



2019

19. 24<sup>th</sup> Iranian and 3<sup>th</sup> International Congress of Physiology and Pharmacology (FAOPS Satellite Congress), 30 oct-01 nov 2019, Tehran, Iran
20. V International Conference Modern Synthetic Methodologies For Creating Drugs And Functional Materials (MOSM 2021) 16-20/11/2020 Yekaterinburg and Perm
21. Alzheimer's Association International Conference® (AAIC®) Satellite Symposium, May 12-13 2021, Online, Worldwide
22. 34th Scientific Meeting of Malaysian Society of Pharmacology & Physiology (MSPP2021) "Trailblazing the Translational Research". 15–17 July, 2021 • Virtual Meeting • Monash University Malaysia
23. Pharmacology 2021 | British Pharmacological Society. September 07-09 2021, Online, Worldwide, Oral Communications – Neuropharmacology
24. International Conference "The life path of drugs: a simple and complex task"Yaroslavl21-22.10.2021
25. International Conference MEDCHEM-RUSSIA Volgograd 16-19 May of 2022
26. Modern synthetic methodologies for the creation of drugs and functional materials (MOSM 2023) Ekaterinburg-Perm, September 10–16, 2023
27. 9th International Electronic Conference on Medicinal Chemistry 1.11.2023
28. 2nd Anatomy & Physiology Symposium 2023, Faculty of Medicine & Health Sciences UNIMAS 13th and 14th December 2023
29. 9th International Electronic Conference on Medicinal Chemistry/ 1-30.11.2023
30. XXIX symposium "Bioinformatics and computer-aided drug discovery" (Virtual) September 18-20, 2023
31. VI Congress of Russian Pharmacologists "Change of generations and preservation of traditions. New ideas - new drugs" 20-24.11.2023
32. XXIV Congress of the Physiological Society 11-15.09.2023
33. VI Congress of Russian Pharmacologists 20.11.2023-24.11.2023

#### WORKSHOPS AND ADVANCED SUBJECT TRAINING COURSES (ASTC)

1. All-Russian conference dedicated to the 90th anniversary of the birth of AMS of USSR Academician A.V. Waldman "Innovations in Pharmacology: From Theory to Practice". St. Petersburg, Russian Federation. October 27-28, 2014 (**organizing committee**)
2. Scientific and Practical Conference with International Participataion "Disadaptation of various etiologies and ways of pharmacological treatment". Pyatigorsk, Russian Federation. November 2-3, 2015 (**organizing committee**)
3. Recent advances in modern pharmacology. 22-24 October 2015, Ryazan, Russian Federation. (**session chair**)
4. Volga Pharma Summit. 14 September 2016. Volgograd, Russian Federation. (**organizing committee**)
5. XX Mendeleev Congress on General and Applied Chemistry. Ekaterinburg, Russian Federation, September 26-30, 2016
6. 2<sup>nd</sup> Volga Pharma Summit. 13-14 September 2017. Volgograd, Russian Federation. (**organizing committee**)
7. 3rd Russian Conference on Medicinal Chemistry. September 28 – October 03, 2017. Kazan, Tatarstan, Russian Federation. (**session chair**)
8. V Congress of pharmacologists of Russia "Scientific basis of search and development of new drugs", May 14-18, 2018. Yaroslavl, Russian Federation. (**organizing committee**)
9. 4th Russian Conference on Medicinal Chemistry with international participants MedChem Russia 2019. (**organizing committee, speaker**)
10. International congress «Biotechnology: state of the art and perspectives» Russia ,Feb. 2019
11. XXI Mendeleev Congress on General and Applied Chemistry. Saint Petersburg, 2019. Satellite symposia: From empirical to predictive chemistry (**speaker**)
12. V conference on Molecular or biological aspect of chemistry and pharmacology: MOBI-CHEMPHARMA2019, Sudak, Krim, Russia (**session chair, speaker**)
13. 4th Russian Conference on Medicinal Chemistry with international participants Ekaterinburg, Russia, 10-14 june 2019 (**speaker**)
14. V International Conference Modern Synthetic Methodologies For Creating Drugs And Functional Materials (MOSM 2021) 16-20/11/2020 Yekaterinburg and Perm (**speaker**)
15. V International Conference Modern Synthetic Methodologies For Creating Drugs And Functional Materials (MOSM 2021) 16-20/11/2020 Yekaterinburg and Perm (**speaker**)
16. International Conference "The life path of drugs: a simple and complex task"Yaroslavl21-22.10.2021(**speaker**)
17. International Conference MEDCHEM-RUSSIA Volgograd 16-19 May of 2022 (**organizing committee, speaker**)
18. VI Congress of Russian Pharmacologists 20 -24.11.2023 (**organizing committee, speaker**)