CURRICULUM VITAE

Vyacheslav V. SAMOSHIN

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Academic qualifications:

1994 Academic Title: ***Professor*** of Organic Chemistry;
from the State Committee of Russian Federation on Higher Education.

1992 Academic Title: ***Senior Research Scientist***;
from the Supreme Certifying Committee at the Council of Ministers of the USSR.

1991 ***Dr. Chem. Sci. (Doctor of Chemical Sciences)*** in Organic Chemistry;
from the Supreme Certifying Committee at the Council of Ministers of the USSR.
Thesis: "Conformational Effects in Cyclohexane Derivatives and Stereodesign of Cyclohexanocrown Ethers".

1982 ***Ph.D.*** in Organic Chemistry from Moscow State University.
Advisor: Prof. Nikolay S.Zefirov.
Thesis: "Conformations of *trans*-1,2- and 1,4-Disubstituted Cyclohexanes".

1974 Combined ***B.S.*** and ***M.S.*** degree in Chemistry.
Honorable Diploma from Moscow State University, Department of Chemistry.

Employment history:

1999-present *Professor* at **the Department of Chemistry, University of the Pacific**, Stockton, California.

1997-1999 *Visiting Professor* at **the Dept. of Chemistry, UOP,** Stockton, California.

1992-1997 *Professor and Head of the Organic Chemistry Department* at **Moscow State Academy of Fine Chemical Technology**, Moscow, Russia.

1993-1995 **International Science Foundation (G. Soros Foundation)**
Scientific Secretary (part time).

1974-1992 **Department of Chemistry, Lomonosov Moscow State University**

1988-92 Head of Research Group and Senior/Leading Scientist

1974-88 Junior Research Scientist, Senior Research Engineer, Research Scientist

Teaching Experience**:* ***supervised 10 Ph.D. Dissertations and 8 M.S. Theses

1997-present Chemistry Department, UOP (Professor):
graduate and undergraduate lectures and laboratories in Organic Chemistry, supervision of undergraduate and graduate research.

1992-1997 Moscow State Academy of Fine Chemical Technology (Professor):
lectures, seminars and laboratories in Organic Chemistry, supervision of graduate and undergraduate research, supervision of Organic Chemistry Department.

1990-1992 Dept. of Chemistry, Moscow State University and The Higher Chemical College of Russian Academy of Sciences: stereochemistry course, supervision of graduate research.

***Awards**:*
- Mendeleev Chemical Society Awards, 1979 and 1981;
- Lomonosov Conference at Moscow State University Award, 1988;
- Award of Moscow State University, 1981;
- Awards of the Department of Chemistry at MSU, 1978, 1979;
- honored with the title '*Honorary Professor*' by decision of the Academic Council of the Moscow State Academy of Fine Chemical Technology, Russia (2011);
- '*Graduate Advisor of the Year*' by decision of the Univ. of the Pacific Pharmaceutical and Chemical Sciences Graduate Program (November 17, 2011);
- Biography published in: Who's Who in the World, Who's Who in America, Who's Who in American Education, Who's Who in Science and Engineering.

Research Grants from:
Ministry of Higher Education of USSR - 1988-1995
Russian Foundation for Basic Research - 1994-1996
INTAS (European Community; Grant 94-1914) - 1995-1997
Eberhardt Research Fellowship, UOP – 2000, 2003, 2005
Scholarly and Artistic Activity Grant, UOP – 2006, 2007
NSF: for NMR spectrometer (co-investigator; PI - Dr.A.Franz) - 2008.
TEVA (co-investigator; PI - Drs.X.Guo, A.Franz) - 2009.
College of the Pacific Research Grant – 2013-2014.

Research Interests:
Molecular switches; Stereochemistry of organic compounds; Conformational analysis; Synthesis and studies of bioactive carbohydrate mimetics; Asymmetric synthesis.

Publications: **135 papers in chemical journals and books, 131 presentations, 5 patents**
List of selected publications and presentations is attached.

Professional Activity:
- *Member of*: - American Chemical Society, Russian Mendeleev Chem. Society;
-Expert Council of Russian Supreme Certifying Committee (1995-1997);
-Editorial Board of International *J.Phys.Org.Chemistry* (1995-1999);
-Ph.D./M.S. Committees at UOP Dept. of Chemistry (1999-present);

- Scientific Councils and permanent Ph.D. Committees in Moscow State Academy of Fine Chem. Technology and in Russian Academy of Sciences (1995-1997);
- Reviewer for NSF and PRF; - Reviewer for *J. Am. Chem. Soc., J. Org. Chem., Organic Letters, Tetrahedron, Tetrahedron Letters, Mendeleev Communications, SYNLETT*, *Bioorganic and Medicinal Chemistry, J. Undergrad. Chem. Research;*
- Organizer and Chair of the Organic Chemistry Section at Western Regional Meetings of the American Chemical Society (1998, 2000, 2004);
- Chair of the sessions at the 241st (March 2011) and 248th (August 2014) National Meetings of the American Chemical Society.

Dr. Vyacheslav V. SAMOSHIN

List of Selected Publications

Book Chapters:

Samoshin, V. V. Conformational effects in cyclohexane derivatives.
In: "Organic Chemistry in the Works of N. S. Zefirov", Gilem: Moscow, pp. 11-30, **2012**.

Samoshin, V. V. "Five-membered rings with three oxygen or sulfur atoms in 1,2,3-positions",
In: ***Comprehensive Heterocyclic Chemistry III****;* A.R. Katritzky, C.A. Ramsden, E.F.V. Scriven, and R.J.K. Taylor, Eds.; Elsevier: Oxford, Vol. 6, Chapter 5, pp. 145-190, **2008**.

Gross, P. H.; Franz, A. H.; Samoshin, V. V. "Synthetic approaches to small cluster oligosaccharide mimetics", in **"Recent Research Developments in Organic Chemistry"**, Vol. 8, pp. 255-280, **2004**.

Samoshin, V. V. "Introduction to Conformational Analysis", in **"Soros Encyclopedia for Teachers"**, Vol. 6, pp. 84-91; Moscow: Matis-Press, **2000**.

Recent Research and Review Articles in Peer-reviewed Journals (total 135 papers):

1. Zheng, Y.; Liu, X.; Samoshina, N. M.; Samoshin, V. V.; Franz, A. H.; Guo, X..
trans-2-Aminocyclohexanol-based amphiphiles as highly efficient helper lipids for gene delivery by lipoplexes. ***Biochimica et Biophysica Acta (BBA) - Biomembranes***, **2015**, ***1848*** **(12), 3113-3125**.

2. Penchala, S. C.; Miller, M. R.; Pal, A.; Dong, J.; Madadi, N.R.; Xie, J.; Joo, H.; Tsai, J.; Batoon, P.; Samoshin, V.; Franz, A.; Cox, T.; Miles, J.; Chan, W. K.; Park, M. S.; Alhamadsheh, M. M.
A biomimetic approach for enhancing the *in vivo* half-life of peptides.
Nature Chemical Biology, **2015**, ***11*****, 793–798.** DOI: 10.1038/nchembio.1907

3. Yaroslavov, A. A.; Sybachin, A.V.; Zaborova, O.V.; Migulin, V.A.; Samoshin, V. V.; Ballauff, M.; Kesselman, E.; Schmidt, J.; Talmon, Y.; Menger, F. M.
Capacious and Programmable Multi-Liposomal Carriers.
Nanoscale, **2015**, *7* **(5), 1635-1641**; DOI: 10.1039/C4NR06037G

4. Samoshin, V. V.; DiMassa, V. A.; Dotsenko, I. A.; Zheng, Y.; Batoon, P. Exploration of *trans*-2-(1,2,3-triazolyl)-cyclohexanol derivatives as possible pH-triggered molecular switches.
Journal of Undergraduate Chemistry Research, **2015**, ***14*** **(3), 73-77.**

5. *Samoshin, V. V.* Fliposomes: stimuli-triggered conformational flip of novel amphiphiles causes an instant cargo release from liposomes. ***BioMolecular Concepts*****,** ***5*** **(2), 131-142 (2014).**

6. *Dotsenko, I. A.; Zhao, Q.; Franz, A. H.; Batoon, P.; Samoshina, N. M.; Samoshin, V. V.*
Convenient synthesis of 1,3-dithiolane-2-thiones: cyclic trithiocarbonates as conformational locks.
ARKIVOC, (v), 16-41 (**2014**).

7. *Franz, A. H.; Watson, A.; Hackbush, S.; Samoshin, V. V.*

Reversal of diastereoselectivity – catalyst and solvent-effects on the stereochemical outcome in the acylation of several *trans*-1,2-substituted cyclohexanols.
Journal of Undergraduate Chemistry Research, *13* (2), 29-33 **(2014)**.

8. *Samoshin, A. V.; Veselov, I.S.; Chertkov, V.A.; Yaroslavov, A.A.; Grishina, G.V.; Samoshina, N.M.; Samoshin, V. V*. Fliposomes: new amphiphiles based on *trans*-3,4-bis(acyloxy)-piperidine able to perform a pH-triggered conformational flip and cause an instant cargo release from liposomes.
Tetrahedron Letters, *54* (41), 5600-5604 (**2013**).

9. *Samoshin, A. V.; Joo, H.; Korneichuk, A. Ya.; Veselov, I. S.; Grishina, G. V.; Samoshin, V. V.* *trans*-3-Hydroxy-4-morpholinopiperidine – the pH-triggered conformational switch with a double flip. ***Tetrahedron Letters***, *54* (8), 1020-1024 (**2013**).

10. *Liu, X.; Zheng, Y.; Samoshina, N. M.; Franz, A. H.; Guo, X.; Samoshin, V. V*. Fliposomes: pH-triggered conformational flip of new trans-2-aminocyclohexanol-based amphiphiles causes instant cargo release in liposomes. ***Journal of Liposome Research***, *22* (4), 319-328 (**2012**).

11. *Samoshin, A. V.; Visser, J.; Curtis, M.; Samoshin, V. V.; Franz, A. H.* The first example of amine-induced reversal of diastereoselectivity in acylation of some *trans*-2-substituted cyclohexanols. ***ARKIVOC***, (viii), 27-35 (**2012**).

12. *Zheng, Y.; Liu, X.; Samoshina, N. M.; Chertkov, V. A.; Franz, A. H.; Guo, X.; Samoshin, V. V.* Fliposomes: pH-controlled release from liposomes containing new *trans*-2-morpholinocyclohexanol-based amphiphiles that perform a conformational flip and trigger an instant cargo release upon acidification. ***Natural Product Communications***, *7* (3), 353-358 (**2012**).

13. *Samoshin, V. V*. Conformational control of cyclohexane products by external stimuli.
Review Journal of Chemistry**,** *1* (3), 250-274 **(2011).**

14. *Samoshina, N. M.; Liu, X.; Brazdova, B.; Franz, A. H.; Samoshin, V. V.; Guo, X.* Fliposomes: pH-sensitive liposomes containing a *trans*-2-morpholinocyclohexanol-based lipid that performs a conformational flip and triggers an instant cargo release in acidic medium.
Pharmaceutics, *3* (3), 379-405 **(2011).**

15. *Samoshin, A. V.; Veselov, I. S.; Huynh, L.; Shestakova, A. K.; Chertkov, V. A.; Grishina, G. V.; Samoshin, V. V. trans*-3,4-Diacetoxypiperidine as a model for novel pH-triggered conformational switches. ***Tetrahedron Letters***, *52* (41), 5375-5378 **(2011)**.

16. *Dotsenko, I. A.; Curtis, M.; Samoshina, N. M.; Samoshin, V. V.* Convenient synthesis of 5-aryl(alkyl)sulfanyl-1,10-phenanthrolines from 5,6-epoxy-5,6-dihydro-1,10-phenanthroline, and their activity towards fungal β-D-glycosidases.
Tetrahedron, *67* (39), 7470-7478 **(2011)**.

17. *Samoshin, A. V.; Huynh, L.; Tran, C.; Samoshin, V. V.* *trans*-3,4-Diacetoxypiperidine as a prototype of novel pH-triggered molecular switches.
Journal of Undergraduate Chemistry Research, *10* (2), 50-55 **(2011)**.

18. *Yaroslavov, A. A.; Efimova, A. A.; Sybachin, A.V.; Izumrudov, V.A.; Samoshin, V.V.; Potemkin, I.I.* Stability of complexes of anionic liposomes with cationic polymers in water-salt media.
Colloid Journal**,** *73* (1), 430-435 **(2011).**

19. *Davydov, D. A.; Romanyuk, A. V.; Rakhnyanskaya, A. A.; Semenyuk, P. I.; Orlov, V. N.; Samoshin, V. V.; Yaroslavov, A. A*. Adsorbtion of cationic polymer on a bilayer membrane containing anionic and cationic lipids. ***Colloid Journal,*** *73* (1), 33-38 **(2011)**.

20. *Brazdova, B.; Tan, N. S.; Samoshina, N. M.; Samoshin, V. V.* Novel easily accessible glucosidase inhibitors: 4-hydroxy-5-alkoxy-1,2-cyclohexanedicarboxylic acids.
Carbohydrate Research, *344* (3), 311-321 **(2009)**.

21. *Franz, A. H.; Gross, P. H.; Samoshin, V. V.* Syntheses of small cluster oligosaccharide mimetics. ***ARKIVOC***, (i), 232-308 **(2008)**.

22. *Brazdova, B.; Zhang, N.; Samoshin, V. V.; Guo, X. trans*-2-Aminocyclohexanol as a pH-sensitive conformational switch in lipid amphiphiles.

Chemical Communications, (39), 4774-4776 **(2008)**.

23. *Tan, N. S.; Brazdova, B.; Samoshina, N. M.; Samoshin, V. V.* Novel inhibitors for fungal glycosidases based on cyclohexane-1,2-dicarboxylic acids.
J. Undergrad. Chemistry Research, **6** (4), 186-192 (**2007**).

24. *Wong, Y.-S.; Brazdova, B.; Koo, S.; Samoshin, A. V.; Franz, A.H.; Samoshin, V. V.* *trans*-2-Alkylaminocyclohexanols as pH-triggered molecular switches.
J. Undergrad. Chemistry Research, **6** (2), 81-85 (**2007**).

25. *Samoshin, A. V.; Samoshin, V. V.*
Green photochemistry: sun-induced aromatic nucleophilic substitution of alkoxy groups by alkylamines.
J. Undergrad. Chemistry Research, **5** (2), 67-70 (**2006**).

26. *Samoshin, V. V.* Cyclohexane-based Conformationally Controlled Crowns and Podands.
Mini-Reviews in Organic Chemistry, **2** (3), 225-235 (**2005**).

27. *Samoshin, V.V.; Brazdova, B.; Chertkov, V.A.; Gremyachinsky, D.E.; Shestakova A.K.; Dobretsova, E.K.; Vatlina, L.P.; Yuan, J.; Schneider, H.-J.* *trans*-2-Aminocyclohexanols as pH-triggered molecular switches. ***ARKIVOC***, (iv), 129-141 (**2005**).

28. *Samoshina, N. M.; Samoshin, V. V.*
The Michaelis Constants Ratio for two substrates with a series of fungal (mould and yeast) β-galactosidases. ***Enzyme and Microbial Technology***, **36** (2-3), 239-251 (**2005**).

29. *Samoshin, V.V, Chertkov, V.A., Gremyachinsky, D.E., Dobretsova, E.K., Shestakova, A.K.; Vatlina, L.P.* *trans*-2-Aminocyclohexanols as pH-triggers for conformationally controlled crowns and podands. ***Tetrahedron Leters***, **45** (42), 7823-7826 (**2004**).

30. *Gremyachinskiy, D. E.; Samoshin, V. V.; Gross, P. H.* Total syntheses of aminomethyl-C-dideoxyglycopyranosides and their quinamides. ***Tetrahedron Lett.,*** **44** (35), 6587-6590 (**2003**).

31. *Phiasivongsa, P.; Samoshin, V.V.; Gross, P.H.* Henry condensation with 4,6-*O*-benzylidenated and non-protected D-glucose and L-fucose via DBU-catalysis. ***Tetrahedron Lett.,*** **44** (29), 5495-8 (**2003**).

32. *Franz, A. H.; Samoshin, V. V.; Myers, C.; Hunter, A. D.; Gross, P. H.* C-H-Deprotonation mediated by a remote *syn*-axial acetoxy group – an unprecedented double bond formation upon cyanation of the dimer from L-fucal, ***Carbohydrate Research,*** **338** (9), 851-854 (**2003**).

33. *Phiasivongsa, P.; Gallagher, J.; Chen, C.-N.; Jones, P. R.; Samoshin, V. V.; Gross, P. H.* Palladium-charcoal-catalyzed reduction of tri-*O*-acetyl-β-L-fucopyranosyl cyanide: a route to small cluster oligosaccharide mimetics (SCOMs). ***Organic Letters,*** **4** (26), 4587-4590 (**2002**).

34. *Franz, A.H.; YiQiu Wei; Samoshin, V.V.; Gross, P.H.* Mild synthesis of disaccharidic 2,3-eno-pyranosyl cyanides and 2-C-2-deoxy pyranosyl cyanides with $Hg(CN)_2$/$HgBr_2$/TMSCN. –
J. Org. Chem., 67 (22), 7662-7669 (**2002**).

35. *Samoshin, V. V.; Gremyachinskiy, D. E.; Smith, L. L.; Bliznets, I. V.; Gross, P. H.* Practical synthesis of bis-homoallylic alcohols from dialdehydes or their acetals. ***Tetrahedron Letters*****, 43** (36), 6329-6330 (**2002**).

36. *Gremyachinskiy, D. E.; Smith, L. L.; Gross, P. H.; Samoshin, V. V.* Facile synthesis of homoallylic alcohols from aldehyde acetals in water. ***Green Chemistry,*** **4** (4), 317-318 (**2002**).

37. *Watanabe, G. R.; Gremyachinskiy, D. E.; Gross, P. H.; Samoshin, V. V.* Homoallylic alcohols from aldehyde acetals by transallylation. ***J. Undergrad. Chem***. ***Res.,*** **1** (4), 163-167 (**2002**).

38. *Samoshin, V.V., Kudryavtsev, K.V.; Yartseva, I.V., Lutsenko, A.I., Zefirov, N.S.* Conformations of 2-alkyl(aryl)thio cyclohexanones. ***Russian J. Org. Chem.,*** **36**,1279 (**2000**).

39. *Samoshin, V.V.; Smoliakova, I.P.; Han, M.; Gross, P.H.* An unexpected allyl-transfer reaction under conditions of Lewis acid promoted cyclization of homoallylic alcohols with aldehydes. ***Mendeleev Commun***., 219, (**1999**).

40. *Samoshin, V.V.; Gremyachinsky, D.E.,; Gross, P.H.* Synthesis of bis(2-tetrahydropyranyl)-methanes – new potential precursors for cyclic polyethers. ***Mendeleev Commun***., 53 (**1999**).

41. *Franz, A.H.; Zhdankin, V.V.; Samoshin, V.V.; Minch, M.J.; Young, Jr., V.G.; Gross, P.H.* Structure and conformation of tri-O-acetyl-D-glucal dimer in solid state and in solution. ***Mendeleev Commun***., 45 (**1999**).

(total **132** papers)

List of Selected Recent Presentations (total: 131 presentations)

1. *Samoshin, V. V.* Conformationally triggered lipids and ligands.
Invited seminar in the Department of Chemistry, Moscow State University, Russia (July 2015).

2. *Zaborova, O.; Sybachin, A.; Samoshin, V.; Yaroslavov, A.*
Biocompatible pH-sensitive carriers based on anionic liposome-polycationic particle complexes.
Biopolymer Materials and Engineering, Slovenj Gradec, Slovenia (April 2015).

3. *DiMassa, V.; Dotsenko, I. A.; Samoshin, V. V.*
Trans-2-(1,2,3-triazolyl)-cyclohexanols as potential pH-triggered molecular switches.
National Conference for Undergraduate Research (NCUR),
Eastern Washington University, Spokane, WA (April, 2015).

4. *Samoshin, V. V.; Dotsenko, I. A*.
Design of ligands based on 5,6-dihydro-1,10-phenanthroline for catalysts with dual enantioselectivity; ORGN-122 (*oral report*).
248th National Meeting of the American Chemical Society, San Francisco, CA (August 2014).

5. *Samoshin, V. V.; Samoshina, N. M.; Liu, X.; Zheng, Y.; Franz, A. H.; Guo, X.*
Fliposomes: Stimuli-triggered conformational flip of novel amphiphiles causes an instant cargo release from liposomes; COLL-342 (*oral report*).
248th National Meeting of the American Chemical Society, San Francisco, CA (August 2014).

6. *Dotsenko, I. A.; Samoshin, V. V.*
New 5,6-dihydro-1,10-phenanthroline-based ligands with controlled axial chirality; ORGN-214 (*poster presentation*).
248th National Meeting of the American Chemical Society, San Francisco, CA (August 2014).

7. *Dotsenko, I. A.; Zhao, Q.; Samoshin, V. V.*
Stereoselective synthesis of conformationally constrained 5,6-dihydro-1,10-phenanthrolines with axial chirality; ORGN-215 (*poster presentation*).
248th National Meeting of the American Chemical Society, San Francisco, CA (August 2014).

8. *Liu, W.; Dotsenko, I. A.; Wang, S.; Xie, J.; Chan, W. K.; Samoshin, V. V.; Xue, L.*
Phenanthroline based metal complexes as G-quadruplex ligands; MEDI-192 (*poster presentation*).
248th National Meeting of the American Chemical Society, San Francisco, CA (August 2014).

9. *Samoshina, N. M.; Samoshin, A. V.; Dotsenko, I. A.; Franz, A. H.; Samoshin, V. V.*
Thio-β-D-glucosides: Synthesis and evaluation as glycosidase inhibitors and activators; CARB-57 (*poster presentation*).
248th National Meeting of the American Chemical Society, San Francisco, CA (August 2014).

10. *Dotsenko, I. A.; Samoshina, N. M.; Samoshin, V. V.*
5,6-Dihydro-1,10-phenanthrolines and 1,10-phenanthrolines as new inhibitors and activators of fungal glycosidases; ORGN-635 (*poster presentation*).
248th National Meeting of the American Chemical Society, San Francisco, CA (August 2014).

11. *Lu, Y.; Zhao, S.; Zheng, Y.; Samoshina, N. M.; Samoshin, V. V.; Guo, X.*
Doxorubicin-loaded liposomes with a pH-sensitive conformational switch for anticancer drug delivery (*poster presentation*). **2014 AAPS Annual Meeting, San Diego, CA (November 4-6, 2014).**

12. *Samoshin, V. V.; Samoshina, N. M.; Liu, X.; Zheng, Y.; Franz, A. H.; Guo, X.*

Fliposomes: pH-sensitive liposomes containing *trans*-2-aminocyclohexanol-based amphiphile that performs conformational flip and triggers an instant cargo release in acidic medium.
IV International Conference on Colloid Chemistry and Physicochemical Mechanics, Moscow, Russia (June-July 2013), N14 (*oral report*).

13. *Dotsenko, I. A.; Samoshin, V. V.* Convenient synthesis of 1,3-dithiolane-2-thiones.
245th National Meeting of the American Chemical Society, New Orleans, LA (April 2013).

14. *Samoshin, V. V.; Liu, X.; Zheng, Y.; Samoshina, N. M.; Franz, A. H.; Guo, X.* pH-Triggered conformational switches based on *trans*-2-aminocyclohexanol moiety and their application in liposomes.
***Invited seminar* at the Temple University School of Pharmacy, Philadelphia (April 13, 2012).**

15. *Samoshin, V. V.; Samoshina, N. M.; Liu, X.; Zheng, Y.; Guo, X.; Franz, A. H.; Brazdova, B.; Chertkov, V. A.; Grishina, G. V.*
Conformational switches based on *trans*-2-aminocyclohexanol and piperidine.
***Invited seminar* at the Moscow State Academy of Fine Chemical Technology, Russia (2012).**

16. *Samoshin, V. V.; Samoshina, N. M.; Liu, X.; Zheng, Y.; Guo, X.; Franz, A. H.; Brazdova, B.; Chertkov, V. A.; Grishina, G. V.*
Conformational switches based on *trans*-2-aminocyclohexanol and piperidine.
The All-Russian Conference on Advances in Synthesis and Complexation, Moscow, Russia (2012).

17. *Guo, X.; Samoshin, V.V.; Samoshina, N.M.; Liu, X.; Zheng, Y.; Franz, A.H.*
trans-2-Aminocyclohexanol-based lipids as pH-sensitive conformational switches in liposomes for drug delivery.
244th National Meeting of the American Chemical Society, Philadelphia, PA (2012),
Teva Pharmaceuticals Scholars Inaugural Grant Symposium.

18. *Samoshina, N. M.; Liu, X.; Zheng, Y.; Franz, A. H.; Guo, X; Samoshin, V. V.*
Efficient cellular delivery of methotrexate by liposomes containing novel amphiphiles with pH-triggerable conformations.
243rd National Meeting of the American Chemical Society, San Diego, CA (March 2012).

19. *Dotsenko, I. A.; Samoshin, V. V.*
Convenient synthesis of new 1,10-phenanthroline ligands and the dependence of their conformations on complexation.
243rd National Meeting of the American Chemical Society, San Diego, CA (March 2012).

20. *Zheng, Y.; Liu, X.; Samoshina, N. M.; Franz, A. H.; Guo, X., Samoshin, V. V.*
Novel amphiphiles for pH-sensitive liposomes with trans-2-aminocyclohexanol-based conformational switch and the simplified models thereof.
243rd National Meeting of the American Chemical Society, San Diego, CA (March 2012).

21. *Liu, X.; Zheng, Y.; Samoshina, N. M.; Franz, A. H.; Samoshin, V. V.; Guo, X.*
Luciferase gene transfection mediated by cationic liposomes comprising novel trans-2-aminocyclohexanol-based amphiphiles.
243rd National Meeting of the American Chemical Society, San Diego, CA (March 2012).

22. *Samoshin, V. V.; Zheng, Y.; Liu, X.; Samoshina, N. M.; Chertkov, V. A.; Franz, A. H.; Guo, X.*
pH-Triggered conformational switches based on *trans*-2-aminocyclohexanol moiety.
241st National Meeting of the American Chemical Society, Anaheim, CA (March 2011).

23. *Franz, A. H.; Samoshina, N. M.; Guo, X.; Samoshin, V. V.*
NMR investigation of phospholipid/PEG-ceramide-liposomes.
241st National Meeting of the American Chemical Society, Anaheim, CA (March 2011).

24. *Samoshina, N. M.; Liu, X.; Zheng, Y.; Franz, A. H.; Guo, X., Samoshin, V. V.*
pH-Sensitive liposomes with new trans-2-aminocyclohexanol-based amphiphiles as conformational switches for the liposome membrane.
241st National Meeting of the American Chemical Society, Anaheim, CA (March 2011).

25. *Franz, A. H.; Samoshina, N. M.; Guo, X.; Samoshin, V. V.*
NMR investigation of phospholipid/PEG-ceramide-liposomes.

International Symposium 'Nuclear Magnetic Resonance in Condensed Matter', St. Petersburg, Russia (June-July 2010).

26. *Guo, X.; Samoshina, N. M.; Chen, H.; Brazdova, B.; Franz, A. H.; Zhang, H.; Szoka, F. C.; Samoshin, V.V.* Design of biocompatible pH-sensitive liposomes for drug and gene delivery.
239th National Meeting of the American Chemical Society, San Francisco, March 2010, COLL-315.

27. *Samoshina, N. M.; Guo, X.; Brazdova, B.; Zheng, Y.; Liu, X.; Franz, A. H.; Samoshin, V. V.* *trans*-2-Aminocyclohexanol-based lipids as pH-sensitive conformational switches for the PEG-grafted liposomes.
239th National Meeting of the American Chemical Society, San Francisco, March 2010, MEDI-455.

28. *Guo, X.; Samoshina, N. M.; Samoshin, V. V.; Franz, A. H.*
Triggering stealth liposomes by pH-sensitive conformational switch of lipid tails.
Annual Meeting of the American Association of Pharmaceutical Scientists (November 8-12, 2009).

29. *Franz, A.; Gross, P. H.; Samoshin, V. V.*
Synthesis and characterization of small cluster oligosaccharide mimetics.
65th Southwest Regional Meeting of the American Chemical Society, El Paso, TX, Nov. 4-7, 2009.

30. *Samoshin, V. V.; Chertkov, V. V.; Guo, X.; Samoshina, N. M.; Brazdova, B.; Shestakova, A. K.; Franz, A. H.* Conformational switches based on *trans*-2-aminocyclohexanol (Invited report).
Russian Conference on Organic Chemistry, Moscow, Russia (October 25-30, 2009).

31. *Samoshin, V. V.* *trans*-2-Aminocyclohexanol as a pH-sensitive conformational switch in lipid amphiphiles. ***Invited Seminar in*** **Moscow State University, Russia (October 27, 2009).**

(total **131** presentations)